

**UAB Catalog**  
2004-2006

The UAB Undergraduate Catalog is published by the University of Alabama at Birmingham, 1530 3rd Avenue South, Birmingham, AL 35294-0001.

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**UAB Equal Opportunity Policy** information is on page 267. UAB provides equal opportunities in education and employment.

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Produced through UAB Office of Academic Programs and Policy.



## **2004-2006**

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This catalog contains information on UAB's academic programs offered in the following schools:

- Arts and Humanities
- Business
- Education
- Engineering
- Health Related Professions
- Natural Sciences and Mathematics
- Nursing
- Social and Behavioral Sciences

## **ACCREDITATION**

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UAB is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award degrees at the baccalaureate, master's, specialist's, and doctoral levels. Many academic programs have additional accreditation from organizations appropriate to the academic discipline.

Commission on Colleges  
Southern Association of Colleges and Schools  
1866 Southern Lane • Decatur, Georgia 30033  
Phone: (404) 679-4500 • Fax: (404) 679-4558

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## **FALL SEMESTER 2004**

Classes Begin.....	August 19, 2004
Last Day to Drop a Class .....	August 26, 2004
Last Day to Add a Class .....	August 27, 2004
First Payment of Tuition and Fees Due .....	August 30, 2004
Labor Day .....	September 6, 2004
Final Payment of Tuition and Fees Due.....	September 30, 2004
Last Day to Withdraw.....	October 20, 2004
Thanksgiving Holidays .....	November 25-26, 2004
Classes End .....	December 6, 2004
Final Examinations.....	December 9-15, 2004
Graduation.....	December 18, 2004

## **SPRING SEMESTER 2005**

Classes Begin .....	January 4, 2005
Last Day to Drop a Class .....	January 11, 2005
Last Day to Add a Class.....	January 12, 2005
First Payment of Tuition and Fees Due.....	January 13, 2005
Martin Luther King Holiday .....	January 17, 2005
Final Payment of Tuition and Fees Due .....	February 15, 2005
Last Day to Withdraw .....	March 8, 2005
Spring Break .....	March 27-April 2, 2005
Classes End.....	April 25, 2005
Final Examinations.....	April 28-May 4, 2005
Graduation .....	May 7, 2005

## **SUMMER TERM 2005 • 12-WEEK SESSION**

Classes Begin .....	May 9, 2005
Last Day to Drop a Class.....	May 16, 2005
Last Day to Add a Class .....	May 17, 2005
First Payment of Tuition and Fees Due .....	May 18, 2005
Memorial Day Holiday .....	May 30, 2005
Final Payment of Tuition and Fees Due.....	June 10, 2005
Last Day to Withdraw .....	June 20, 2005
Independence Day Holidays .....	July 3-4, 2005
Classes End .....	August 3, 2005
Final Examinations .....	August 4-10, 2005

**MAY SESSION**

Classes Begin .....	May 9, 2005
Last Day to Drop a Class.....	May 10, 2005
Last Day to Add a Class .....	May 11, 2005
First/Final Payment of Tuition and Fees Due.....	May 12, 2005
Last Day to Withdraw .....	May 18, 2005
Classes End .....	May 26, 2005
Final Examinations .....	May 27, 2005

**9 WEEK SESSION**

Classes Begin .....	June 1, 2005
Last Day to Drop a Class.....	June 8, 2005
Last Day to Add a Class .....	June 9, 2005
First Payment of Tuition and Fees Due .....	June 10, 2005
Independence Day Holidays .....	July 3-4, 2005
Last Day to Withdraw .....	July 12, 2005
Final Payment of Tuition and Fees Due .....	July 13, 2005
Classes End .....	August 3, 2005
Final Examinations.....	August 4-10, 2005

**“A” SESSION**

Classes Begin .....	June 1, 2005
Last Day to Drop a Class.....	June 2, 2005
Last Day to Add a Class .....	June 3, 2005
First/Final Payment of Tuition and Fees Due.....	June 10, 2005
Last Day to Withdraw.....	June 17, 2005
Classes End.....	July 1, 2005
Final Examinations.....	July 5, 2005

**“B” SESSION**

Classes Begin .....	July 6, 2005
Last Day to Drop a Class .....	July 7, 2005
Last Day to Add a Class.....	July 8, 2005
First/Final Payment of Tuition and Fees Due .....	July 13, 2005
Last Day to Withdraw .....	July 22, 2005
Classes End .....	August 3, 2005
Final Examinations .....	August 4, 2005

# GENERAL INFORMATION

In a brief period of time, The University of Alabama at Birmingham (UAB) has evolved from an academic extension center into an autonomous, comprehensive urban university and academic health center within the University of Alabama System. UAB has established wide-ranging programs in six liberal arts and professional schools and six health-professional schools, with graduate programs serving all major units. Annual UAB enrollment exceeds 16,000 students. Classes are offered seven days a week.

UAB is situated near downtown Birmingham and the historic Five Points South district. The campus stretches across 82 city blocks and occupies more than 100 primary buildings. UAB is the largest employer in the state, with an overall economic impact of nearly \$2.5 billion and with more than 16,000 employees, including faculty, staff, and support personnel.

## ROLE STATEMENT

UAB's undergraduate instructional programs are broad-based and designed to serve the needs of a diverse student body without sacrificing a strong general education foundation. Programs range from the liberal arts and sciences to professionally oriented studies, including business, education, engineering, and the health disciplines. UAB's baccalaureate offerings are shaped by its location in the state's largest metropolitan area, by its mandate to serve a large and heterogeneous constituency, by its responsibility to contribute to the economic and professional development of Birmingham and the state, and by its role of providing support to a nationally recognized academic health center.

At the graduate level, programs serve the career needs of educators and business leaders, as well as those involved in advancing the frontiers of the health sciences. Training for health professionals is available through programs at the baccalaureate, master's, doctoral, and professional degree levels.

UAB also has the primary responsibility for meeting the state's health professional needs. It offers a comprehensive range of programs which encompass both basic preparation and advanced graduate and specialty training in medicine, dentistry, optometry, nursing, the health related professions, and public health.

As one of the nation's leading research institutions, UAB emphasizes both basic and applied research. Although the majority of the university's research effort is in the biomedical sciences and related areas, all instructional programs are expected to participate in research activities. UAB's urban setting necessitates the development of research programs that are responsive to the city's economic, social, and cultural needs. Much of the research conducted at UAB is interdisciplinary in nature and is organized through centers that bring together experts in a number of related fields to concentrate on a particular problem or issue. UAB attracts more than \$460 million in research grants and contracts each year. UAB is the only Alabama university to earn top ranking in the Carnegie Foundation's Classifications of American Colleges and Universities, which are selected by the amount of federal funds awarded for research and the number of doctoral degrees conferred.

As the senior public doctoral-level institution in the state's major urban area, UAB is also committed to providing continuing education consistent with the quality and diversity of its other offerings. The university's faculty, staff, and students also serve as resources to the area through activities related to professional, economic, and cultural growth and development.

## CULTURAL OPPORTUNITIES

UAB's urban location offers students unique cultural opportunities. Located within walking distance of the campus is the Five Points South district, where ethnic-style restaurants, shops, art galleries, and music clubs are located. Not far from campus are the Birmingham Museum of Art, the Civil Rights Institute, the historic Alabama Theater, and the Birmingham-Jefferson Convention Complex. Other nearby sites include Sloss Furnace, a post-Civil War iron foundry which has been converted into a museum and informal music hall, and Oak Mountain Verizon Music Center, an outdoor facility that features music-industry headliners during the spring and summer concert season. Each spring the city of Birmingham hosts "City Stages," a three-day musical extravaganza staged in the heart of the city, featuring both national and local artists and performers.

UAB also has a flourishing arts program. As many as 30 major music events are produced each season at UAB, in addition to numerous theater productions and student and professional art exhibitions. The Alys Robinson Stephens Performing Arts Center is a state-of-the-art facility which houses a 1,330-seat concert hall, a 350-seat theater, and a 170-seat recital hall, a band room, electronic music laboratories, practice rooms, and rehearsal hall. The Center regularly schedules nationally and internationally known artists and orchestras and features faculty and student productions and concerts. The planned Stevie Wonder Center for Computing in the Arts—endowed by a Stevie Wonder benefit concert for the UAB Department of Music—will also be housed in the Alys Stephens Center.

## STUDENT LIFE

UAB offers a rich variety of student life activities through its many organizations, honor clubs, fraternities and sororities, and volunteer groups. The university houses more than 200 campus organizations, including 30 national honoraries, more than 100 professional clubs and interest groups, cheerleaders, the Golden Girls dance team, intramural and recreational sports, and an established student government organization. Interested students can also participate in producing any of three student publications: Kaleidoscope, Phoenix, and Aura.

Students meet to enjoy recreational activities, lectures, and films at the Hill University Center. The center also provides meeting space for organizations and dining options. Hill University Center houses the Student Life offices, the Undergraduate Admissions Office, the Office of Registration and Academic Records, the Graduate School, the Financial Aid office, the Office of Academic

Programs and Policy, the UAB Study Abroad Office, the Division of General Studies, the Blazer Bookstore, and the student publications office.

UAB's athletic program is a Division I member of the NCAA and a founding member of Conference USA. UAB athletes participate in 15 intercollegiate sports and have earned championships in baseball, men's basketball, men's tennis, women's tennis, women's basketball, and men's golf. In 1996, the UAB Blazers football team became a NCAA Division I-A team and was accepted into Conference USA. In addition, UAB offers a wide selection of both men's and women's intramural sports.

## THE UNIVERSITY OF ALABAMA SYSTEM

The University of Alabama was foreseen in the Constitutional Convention in Huntsville, Alabama Territory, on July 5, 1819. At the second session of the General Assembly, December 18, 1819, an act was passed establishing a seminary of learning "to be denominated the University of Alabama." The university opened for admission of students on April 18, 1831, in Tuscaloosa. All public buildings except the observatory were burned by federal cavalymen on April 4, 1865. Erection of new buildings began in January 1867 and classroom instruction resumed in April 1869.

During the first half of the twentieth century and in addition to its regular educational programs at the Tuscaloosa campus, the university began to offer additional educational opportunities to residents in urban communities throughout Alabama. Extension centers, offering both day and evening classes, were established in Birmingham, Huntsville, Montgomery, Mobile, Dothan, and Gadsden. The Birmingham and Huntsville centers evolved into new university campuses, which were established in addition to the Tuscaloosa campus.

In September 1966, all university operations in Birmingham were designated as the University of Alabama in Birmingham (UAB) by the University of Alabama Board of Trustees. This action established the University of Alabama in Birmingham as one of the three major campuses of the university. The University of Alabama in Huntsville had been initiated as a four-year school in 1964.

In June 1969, the campuses were given autonomy within the framework of the University of Alabama System, each having its own administrative structure with a president as the chief executive officer. A chancellor was appointed in June 1976 as chief administrative officer of the system. In 1984, the name of the University of Alabama in Birmingham was changed to the University of Alabama at Birmingham.

## SCHOOLS, DEGREES, AND MAJORS

This catalog contains information about programs in the Schools of Arts and Humanities, Business, Education, Engineering, Health Related Professions, Natural Sciences and Mathematics, Nursing, and Social and Behavioral Sciences. Information on the Graduate School and the Schools of Dentistry, Medicine, Optometry, and Public Health is available from the specific schools catalog.

Most UAB students are working toward a degree; however, some have other educational goals. Degrees are usually characterized by

the level (baccalaureate, master's, or doctoral) and the principal subject area (known as the "major") in which the student specializes.

Students pursuing undergraduate degrees with majors in the Schools of Arts and Humanities, Business, Education, Engineering, Health Related Professions, Natural Sciences and Mathematics, Nursing, or Social and Behavioral Sciences will find complete information in this catalog beginning on page 53.

## SCHOOL OF ARTS AND HUMANITIES

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### **Bachelor of Arts**

Art, Communication Studies, English, Foreign Languages, Music, Philosophy, Theatre

### **Bachelor of Fine Arts**

Art Studio

### **Master of Arts**

English, Art History<sup>1</sup>, Communication Management

## SCHOOL OF BUSINESS

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### **Bachelor of Science**

Accounting, Economics, Finance, Industrial Distribution, Information Systems, Management, Marketing

### **Master of Accounting**

### **Master of Business Administration**

### **Doctor of Philosophy**

Administration/Health Services

## SCHOOL OF EDUCATION

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### **Bachelor of Science**

Early Childhood Education, Elementary Education, Health Education, High School Education, Physical Education, Special Education

### **Master of Arts in Education**

Arts Education, Early Childhood Education, Educational Leadership, Elementary Education, Health Education, High School Education, Physical Education, Special Education

### **Master of Arts**

Counseling

### **Educational Specialist**

Educational Leadership, Education

### **Doctor of Education**

Educational Leadership<sup>1</sup>

### **Doctor of Philosophy**

Early Childhood Education, Educational Leadership<sup>1</sup>, Health Education Promotion<sup>1</sup>

## SCHOOL OF ENGINEERING

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### **Bachelor of Science**

Biomedical Engineering, Civil Engineering, Electrical Engineering, Materials Engineering, Mechanical Engineering

**Master of Science**

Biomedical Engineering, Civil Engineering, Electrical Engineering, Materials Engineering, Mechanical Engineering

**Doctor of Philosophy**

Biomedical Engineering, Civil Engineering<sup>5</sup>, Computer Engineering<sup>6</sup>, Electrical Engineering<sup>3</sup>, Environmental Health Engineering, Materials Engineering<sup>1</sup>, Mechanical Engineering<sup>3</sup>, Materials Science<sup>4</sup>

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**SCHOOL OF NATURAL SCIENCES AND MATHEMATICS**


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**Bachelor of Science**

Biology, Chemistry, Computer and Information Sciences, Mathematics, Natural Science, Physics

**Master of Science**

Biology, Chemistry, Computer and Information Sciences, Mathematics, Physics

**Doctor of Philosophy**

Applied Mathematics<sup>4</sup>, Biology, Chemistry, Computer and Information Sciences, Physics

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**SCHOOL OF SOCIAL AND BEHAVIORAL SCIENCES**


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**Bachelor of Arts**

Anthropology, Economics, History, International Studies, Political Science, Sociology

**Bachelor of Science**

Criminal Justice, Psychology

**Bachelor of Science in Social Work****Master of Arts**

Anthropology<sup>7</sup>, History, Sociology, Psychology

**Master of Public Administration****Master of Science in Criminal Justice****Master of Science in Forensic Science****Doctor of Philosophy**

Psychology, Medical Sociology

- (1) Jointly with the University of Alabama
- (2) Non-certification program
- (3) Cooperatively with the University of Alabama and the University of Alabama in Huntsville
- (4) Jointly with the University of Alabama and the University of Alabama in Huntsville
- (5) Jointly with the University of Alabama in Huntsville
- (6) Shared with the University of Alabama in Huntsville
- (7) Cooperatively with the University of Alabama

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**SCHOOLS OF ARTS AND HUMANITIES, NATURAL SCIENCES AND MATHEMATICS, AND SOCIAL AND BEHAVIORAL SCIENCES**


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**Bachelor of Arts**

African American Studies

**ADDITIONAL PROGRAMS**

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**UAB HONORS PROGRAM**


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For students who desire an advanced baccalaureate program, UAB provides an opportunity for independent research, close contact with faculty and community members, and innovative learning opportunities within an interdisciplinary context. For complete information on the Honors Program, as well as honors tracks in specific disciplines, see page 257 in this catalog.

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**INDIVIDUALLY DESIGNED MAJORS**


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Students whose educational objectives are not well served by any of the regular majors may propose an individually designed major. Such program proposals require approval of the appropriate dean. For procedures, see page 45.

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**ROTC**


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UAB has Army and Air Force ROTC (Reserve Officer Training Corps) units in which Birmingham-area college students may participate. For further information, see page 263.



# STUDENT LIFE ACTIVITIES AND ORGANIZATIONS



Student life at UAB offers many activities and organizations for students. Each individual will find something uniquely suited to his or her own tastes. Events range from relaxing at free movies or comedy shows to the rigors of rappelling down a cliff or hiking the Grand Canyon. Each academic term brings new events, new adventures, and opportunities to make new friends, learn, socialize, relax, and have a good time.

Funded in part by student service fees, special activities range from those found on most campuses to some unique to UAB. Many enhance students' academic experiences; others enrich their social life. Regardless of the activity, students are encouraged to get involved.

This section of the catalog contains an alphabetical list of many of the organizations and activities available to students. For a complete list, consult the student handbook, *Direction*, available at [www.students.uab.edu](http://www.students.uab.edu) or pick up a printed copy at the Information Desk in Hill University Center or call the Office of Student Life. (205) 934-4175.

## AMBASSADORS

These energetic, dedicated, and service-oriented students are the official hosts and hostesses for UAB. Ambassadors represent the University at most UAB functions and events including new student orientation, athletic events, The Alys Robinson Stephens Center functions, and much more. Ambassadors are selected during the spring semester and are awarded partial scholarships. For more information, contact the Office of Student Leadership, Room 440, Hill University Center. (205) 934-8020.

## ATHLETIC TEAM SUPPORT GROUPS

Blazer support groups include the UAB Golden Girls, Cheerleaders (co-ed and all girl), mascot, Blazer Band, and the UAB Marching Blazers. These groups perform at UAB basketball, volleyball and football games and at a variety of events in Birmingham. Each spring a committee composed of UAB staff, students, and professionals in the field selects members of each

group based on performance and interviews. For more information on cheerleaders, mascot, and Golden Girls, contact the Athletic Team Support Office, Room 132, Hill University Center. (205) 934-8224. For information on the Blazer Band and the UAB Marching Blazers, call the Department of Music, (205) 934-7375.

## BLACK STUDENT AWARENESS COMMITTEE

The Black Student Awareness Committee is a programming committee created to celebrate and commemorate the accomplishments of African Americans. The committee sponsors year-round activities such as Kwanzaa and Malcolm X and Martin Luther King Day Celebrations.

Other programs include Black History Month festivities, National Women's Month observance, and the annual Camille Armstrong Scholarship Greek Show. For more information, contact the Student Programs Office, Room 136, Hill University Center. (205) 934-8225.

## CAMPUS RECREATION

The UAB Campus Recreation Center, scheduled to open in 2005, will offer UAB students and a limited number of faculty, staff, and alumni access to a state-of-the-art exercise and recreational facility. The nearly 150,000-square-foot building will feature an indoor recreational pool with a lap pool, indoor basketball courts, racquetball courts, a multipurpose court, a climbing wall, cardiovascular fitness areas, weight-lifting areas, and a cushioned running track. In addition, a variety of exercise classes, such as yoga, Pilates, spinning, aerobics, and aquatic classes, and special programs, including fitness assessments, personal training, nutritional analysis and lifestyle education classes, will be offered.

The Office of Campus Recreation provides a variety of programs to meet the social and physical needs of the UAB community.

**Intramural Sports:** Team sports such as flag football, volleyball, basketball, soccer, and softball are offered in league format. Many individual and dual sports, including tennis, billiards, and golf, are offered throughout the year as one-day or self-paced tournaments.

**Outdoor Adventure:** The Trip Series offers outdoor excursions to some of the United States' most beautiful locations, from the southeast to the southwest, from the Carolinas to the Rockies, and from north Alabama to northwest Florida. An equipment rental program is available for students planning their own adventures.

**Blazerobics:** Blazerobic classes are offered to UAB students. A variety of classes, including step, high impact, beginner, and advanced classes is available.

For more information, come by the Office of Campus Recreation, Room 132, Hill University Center. (205) 934-8224.

## ENTERTAINMENT COMMITTEE

The UAB Entertainment Committee is made up of student volunteers who assist in choosing artists, securing contracts, hosting entertainers, running technical equipment, and promoting and producing campus shows. No experience is necessary to join this committee. For more information, contact the Office of Student Programs, Room 136, Hill University Center. (205) 934-8225.

## FRATERNITIES AND SORORITIES

Fraternities and sororities are represented in every facet of college life and are a driving force in campus activities, academic honors, special interest groups, and community service activities. Motivation to be more involved originates from the sisterhood and brotherhood felt within the organizations. There are sixteen Greek organizations on campus. Alpha Gamma Delta, Alpha Xi Delta, Alpha Omicron Pi, and Delta Gamma make up the Panhellenic Council, while the National Pan-Hellenic Council includes Alpha Kappa Alpha, Sigma Gamma Rho, Zeta Phi Beta, Alpha Phi Alpha, Kappa Alpha Psi, Phi Beta Sigma, and Omega Psi Phi. The Interfraternity Council members include Alpha Tau Omega, Delta Sigma Phi, Lambda Chi Alpha, Pi Kappa Phi, and Tau Kappa Epsilon. For more information, contact the Office of Student Leadership, Room 440, Hill University Center. (205) 934-8020.

## GENERAL/PROFESSIONAL INTEREST ORGANIZATIONS

UAB recognizes many organizations concerned with the academic and personal development of students. Organizations include groups with interests in religion, music, athletics, and cultural diversity. In addition, nearly every academic major is represented by a student organization. For more information, contact the Office of Student Leadership, Room 440, Hill University Center. (205) 934-8020.

## HOMECOMING COMMITTEE

One of the best aspects of attending a young university is the opportunity that exists to start traditions that can last a lifetime. The UAB Homecoming Committee is just one of those opportunities. The week of homecoming is filled with fun and spirited events that have included the Homecoming Parade, Fight Song Competition, and the Bonfire/Pep Rally. The planning committee begins meeting in the spring semester; however, new members are welcome up to the week of homecoming. For more information, contact the Student Programs Office, Room 136, Hill University Center. (205) 934-8225.

## HONOR SOCIETIES

UAB recognizes many national honor societies that acknowledge scholastic achievement, citizenship, and outstanding leadership among students. For more information, contact the Office of Student Leadership, Room 440, Hill University Center. (205) 934-8020.

## INTERCULTURE

Interculture is UAB's first university-wide multicultural programming committee. Resources are available to educate and encourage cross-cultural interaction among students of all races, nationalities, and ethnic origins. Heritage celebrations are held throughout the year. Past events have included Mardi Gras, Chinese New Year, Australia Day, and Cinco de Mayo. For more information, contact the Student Programs Office, Room 136, Hill University Center. (205) 934-8225.

## LEADERSHIP

The Office of Student Leadership houses the Leadership and Service Council. The Service Council offers creative opportunities to learn leadership skills for problem solving in student organizations and for personal improvement. Retreats, programs, and service learning are provided throughout the year to any UAB student. Each year, the program awards two Emerging Leaders Scholarships to students with strong potential for leadership. The program also hosts The LeaderShape Institute to learn about individual leadership style. The program brings nationally recognized speakers to campus to discuss issues facing students. For more information, contact the Office of Student Leadership, Room 440, Hill University Center. (205) 934-8020.

## LECTURE SERIES

The Lecture Series allows the UAB community to share in the most recent, informed perspectives on a wide range of significant issues. Thought provoking lecture topics range from current world concerns such as the environment to issues related to academe. Guest lecturers have included prominent political leaders, historical figures, and popular television and movie stars, including Ralph Nader, John Walsh, Jeff Corwin, Harrison Schmitt, and Michael Shermer. For more information, contact the Office of Student Programs, Room 136, Hill University Center. (205) 934-8225.

## MISS UAB SCHOLARSHIP PAGEANT

An official preliminary to the Miss Alabama Pageant, the Miss UAB Pageant offers young women the opportunity to further their educational goals through scholarship and personal growth. Planned and produced by UAB students, the Miss UAB Scholarship Pageant is held during the fall semester. For more information, prospective contestants and committee members should contact the Student Programs Office, Room 136, Hill University Center. (205) 934-8225.

## MUSIC ENSEMBLES

Students of all majors are invited to participate in instrumental or vocal music ensembles offered through the Department of Music. Each group performs on campus several times each year; some also perform for selected off-campus events. Some prior experience and brief auditions are required. Scholarships are available each year for students who perform with these groups. For more information, contact the Department of Music. (205) 934-7375.

## CHORAL GROUPS

### *Chamber Singers*

This advanced choral group is limited to sixteen singers selected by audition only. It performs a variety of choral music representing different periods and styles.

### *Concert Choir*

This choral group performs music representing a variety of periods and styles. Some music-reading ability is needed. The group is open to students, faculty, staff, and members of the community.

### *Gospel Choir*

This ensemble performs traditional and contemporary gospel choral music. It is open to all majors and community members. Students with significant skill in playing gospel, jazz and/or pop keyboard, rhythm guitar, bass guitar, saxophone, and drums are also encouraged to participate in the Gospel Choir.

## INSTRUMENTAL GROUPS

### *Blazer Band*

As part of the university band program, the Blazer Band provides support for UAB Blazer Basketball. It performs at all home and selected away games and for post-season events such as the annual Conference USA tournament.

### *Jazz Ensemble*

Instrumentalists can further their musical knowledge and creative skills by performing classic and contemporary jazz, swing, and rhythm and blues.

### *UAB Marching Blazers*

The UAB Marching Blazers is part of the university band program supporting UAB Blazer Football. The Marching Blazers performs with an up-tempo style for all home football games and selected away games and for area marching festivals and parades. Scholarships are available. For further information, contact the band office at (205) 975-BAND (975-2263).

### *Computer Music Ensemble*

The Computer Music Ensemble performs computer and other electronically generated music of various styles, including classical, pop, jazz, new age, and minimalist. This ensemble is open to students enrolled in the Music Technology program and/or other students skilled in music technology.

### *Percussion Ensemble*

This group performs original and arranged works of concert and marching percussion literature. The styles of music performed vary. The Percussion Ensemble is open to all majors.

### *Wind Ensemble*

As part of the university band program, the Wind Ensemble performs the finest concert band literature in campus concerts and selected special performances.

## SPRINGFEST

Springfest is an all-day celebration that includes a barbecue, music, and carnival rides. It is filled with fun, laughter, and relaxation for all persons associated with UAB and their families. The student committee assists with choosing the bands, arranging the carnival, and choosing the festival theme. For more information,

contact the Student Programs Office, Room 136, Hill University Center. (205) 934-8225.

## STUDENT PUBLICATIONS

There are three award-winning student-run and student-edited publications that serve the UAB student body. *Kaleidoscope*, the weekly student newspaper, has a circulation of 8,000 and a readership of more than 25,000. (For a view of the online version point your web browser to [www.uab.edu/kscope](http://www.uab.edu/kscope).) *Aura*, the literary/arts magazine, prints poetry, photography, short stories, and artwork submitted by students. *Phoenix*, the student life online magazine, features nonfiction stories of interest to UAB students. For more information, contact the Student Publications Office, Room 135, Hill University Center. (205) 934-3354.

## STUDENT TALENT SEARCH

The annual Talent Search allows students to showcase their talents and compete for cash prizes. Members of the Talent Search Committee develop the program, including staging auditions, scripting the show, and handling the promotion of the event. For more information, contact the Student Programs Office, Room 136, Hill University Center. (205) 934-8225.

## SUPER JAZZ/BIG BAND

This activity brings to campus the best of Birmingham's professional jazz musicians to perform big band music several times each year. For more information, contact the Department of Music. (205) 934-7375.

## THEATRE ACTIVITIES

Productions by the UAB Department of Theatre, presented in the Morris K. Sirote Theatre and the Odess Theatre in the Alys Robinson Stephens Center, are open to students of all majors. For further information, contact the Department of Theatre. (205) 934-3236.

## UAB TRAILBLAZERS

The UAB TrailBlazers is a student organization that assists the Office of Undergraduate Admissions by providing in-depth information about UAB to prospective students and their families. Chosen annually, TrailBlazers strive to ensure that first-year students know about the diverse academic, cultural, and extracurricular interests found within the UAB community. Forty highly motivated, energetic, and dedicated students are chosen to represent the Office of Undergraduate Admissions at high school visits, special on-campus recruitment events, and campus tours. For more information, contact the Office of Undergraduate Admissions, Room 260, Hill University Center. (205) 934-8142.

## UNDERGRADUATE STUDENT GOVERNMENT ASSOCIATION

The Undergraduate Student Government Association (USGA) provides programs and services for undergraduate students in the Schools of Arts and Humanities, Business, Education, Engineering,

Health Related Professions, Natural Sciences and Mathematics, and Social and Behavioral Sciences and the Division of General Studies. The USGA also represents student issues, concerns, and views to the administration. For more information, contact the Undergraduate Student Government Association Office, Room 440, Hill University Center. (205) 934-8020.

## **VOLUNTEER PROGRAM**

The Volunteer Program offers students an opportunity to make a difference for those in need in the Birmingham community. A volunteer fair is held twice a year in the Hill University Center to give students an opportunity to meet with local volunteer agencies. Students may be part of the Volunteer Committee, which helps organize volunteer programs and recruit other students. Alternative Spring Break and the Summer Service Weekend allow a group of students to travel and provide a service to a community chosen by the Volunteer Program Coordinator. The Volunteer Program also encourages students to participate in Into the Streets, an outreach day focused on the immediate community around UAB. For more information, contact the Office of Student Leadership, Room 440, Hill University Center. (205) 934-8020.

# STUDENT SERVICES AND FACILITIES

The following is an alphabetical list of selected facilities and services available to UAB students. For further information on these and other facilities and activities, contact the UAB Information Center (see "Information Center" below) or refer to the UAB student handbook, *Direction*, available in the Office of Student Publications, Suite 135, Hill University Center.

## ACADEMIC ADVISING

Academic advising is designed to assist students in identifying and achieving their educational and career goals. Specific guidance is given in selecting majors and choosing courses to satisfy degree requirements. Each student is assigned an academic advisor based on their choice of school and major.

SCHOOL/AREA/ADVISOR	TELEPHONE
<b>Arts and Humanities</b>	
Ms. Louise Cecil	934-2290
Ms. Janice Ford Freeman	934-2290
<b>Business</b>	
Ms. Kristen Craig	975-5810
Ms. Myra Elliott	934-8813
Ms. Wendy England	934-8813
Ms. Christie J. Manning	934-8813
<b>Education</b>	
Ms. Elaine Robinowich	934-7530
Mr. James Grimes	934-7530
<b>Engineering</b>	
Ms. Sarah Herndon	934-8410
Ms. Monica Cantwell	934-8410
<b>General Studies:</b>	
<i>Undeclared, GS Business, Pre-Nursing, Pre-Surgical Physician Assistant</i>	
Ms. Misty Altiparmak	934-6135
Ms. Cynthia Benion	934-6135
Ms. Lauren Hinson	934-6135
Ms. Sharon Jacobsen	934-6135
Mr. Kevin Jerrolds	934-6135
Ms. Jessica Smith	934-6135
Ms. Jennifer Wycoff	934-6135
<b>Pre-health Majors:</b>	
<i>Pre-medicine, Pre-dentistry, and Pre-optometry (See page 261)</i>	
Ms. Linda Luck	934-6135
<b>Health Related Professions</b>	
<i>Advisors for each program are listed with the curricula beginning on page 159.</i>	

## Natural Sciences and Mathematics

Ms. Kathy Angus	934-6025
Dr. Christie Borgford	934-8095
Mr. John Faulkner	934-2213
Ms. Amanda Horton	934-8308
Dr. Jeanne Hutchison	934-2154
Ms. Amy Rizvi	934-8308
Dr. Ed Wills	934-5347

## Nursing

Assigned advisor	975-7529
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## Social and Behavioral Sciences

Mr. Kip Hubbard	934-8689
Ms. Deborah Littleton	934-7126
Ms. Gina McGiboney <i>(Psychology Only)</i>	934-8409

## Pre-law (See page 246)

Mr. John Grimes	934-2069
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## BIRMINGHAM AREA CONSORTIUM FOR HIGHER EDUCATION (BACHE) LIBRARY COOPERATION

The Birmingham Area Consortium for Higher Education (BACHE) consists of UAB, Birmingham-Southern College, Miles College, the University of Montevallo, and Samford University. Students, faculty, and staff at BACHE institutions may access the resources of all member libraries by simply presenting their valid ID cards. It is best for students to discuss research projects first with the reference staff at UAB's library before using other member libraries. The rules and regulations of the lending library are in effect.

## BLAZER ARCADE

The Blazer Arcade features pool tables and vending machines. Visitors under 16 must be accompanied by a UAB student or employee with a valid ID. For more information, visit the Blazer Arcade, Room 111, Hill University Center, 1400 University Boulevard. Web site: <http://www.uab.edu/hucops>.

## BOOKSTORES

UAB operates two bookstores. The Blazer Bookstore is located on the first floor of the Hill University Center. This bookstore posts official lists of UAB courses and stocks the textbooks and all other items necessary for UAB coursework. The bookstore has entered into an agreement with Microsoft to offer name brand computer software at academic prices that are usually substantial-

ly below the normal retail price. The bookstore also carries study aids, reference materials, office and school supplies, a large assortment of medical reference books, medical instruments, lab coats, and UAB logo apparel and gifts. Contact the Blazer Bookstore at (205) 934-4686.8289. The Health Sciences Bookstore, located in the Blazer Bookstore, carries a large assortment of medical reference books, medical instruments, lab coats, school and office supplies, UAB logo apparel and gifts, and many other items. Contact the Health Sciences Bookstore at (205) 934-6937.

Visit the bookstore online by going to the UAB Homepage, selecting "Students.uab.edu", "Academics" or "Services" and then selecting "bookstore" to order merchandise online or review the bookstore hours and policies.

## CAREER SERVICES

UAB Career Services is a comprehensive career counseling resource center dedicated to empowering students as active participants in their own career development. Programs and services include individual career counseling and consultation, a library containing information on jobs, salaries and career paths, literature from employers, graduate school catalogs, workshops, and seminars.

Experimental education opportunities are available through Career Services to help students define their educational goals and prepare for their career by exploring the realities of the working world. Students may choose Cooperative Education (Co-op), internships, job shadowing, volunteering, and mentoring. The mentoring program pairs upper level students with alumni in a variety of professions.

Career Services provides employment assistance for students seeking part-time jobs while attending UAB. Graduating students and UAB alumni can receive assistance in their job searches through personal job search strategy consultations, job listings, resume referral, on-campus interviews, and job fairs. For information and career assistance, contact Career Services central office, Room 532, Hill University Center, (205) 934-4324. The School of Business Career Services Office, a branch office, is located in Room 303, Business-Engineering Complex, (205) 934-9202.

## COUNSELING AND WELLNESS

The UAB Counseling and Wellness Center assists in developing students' potential in physical, spiritual, psychosocial, emotional, and vocational areas. Free, confidential personal counseling is available to all currently registered UAB students. Referrals can be provided to other professionals for more specialized services. For more information, contact the Counseling and Wellness Center, Room 150, Holley-Mears Building, 924 19th Street South, (205) 934-5816.

Counseling services are also provided by the UAB Women's Center. For more information, see page 20.

## DISABILITY SUPPORT SERVICES

Disability Support Services (DSS), located in 516 Hill University Center, serves as the central campus resource for students with disabilities. The goal of DSS is to provide a physically and educationally accessible university environment by working with students, faculty, staff and community agencies to provide appropriate accommodations. DSS staff members work individually with students to determine appropriate accommodations that will enable all students to have access to UAB programs and services.

For more information, contact Disability Support Services at (205) 934-4205 (voice), 934-4248 (TTY) or [dss@uab.edu](mailto:dss@uab.edu).

## FOOD SERVICES

Blazer Dining Service, a partnership between UAB and ARA-MARK Managed Services, offers complete meals for breakfast, lunch, and dinner, with a wide variety of menu choices. Located in the Dragon's Lair on the first floor of the Hill University Center (HUC) are Dragon's Lair Café, Chick-Fil-A, Montague's Deli, and the Salad Garden. Freshens Yogurt and Java City Coffee are located adjacent to the main lobby in the HUC. Blazer Bucks, a prepaid debit meal card program with three options from which to choose, offers convenience and flexibility and can be used at all Blazer Dining locations. For more information about Blazer Dining and Blazer Bucks, call (205) 934-8045.

## HEALTH PLAN

A voluntary, comprehensive plan of accident and illness insurance is available to full- or part-time undergraduate students who meet eligibility requirements. The plan may be extended to cover the student's spouse and dependents for an additional premium. In addition to accident and illness insurance, an optional outpatient service plan is available for students. The Medical Center Student Health Service, located at 930 19th Street South, Room 221, provides outpatient service to participants under this plan. For further information concerning both the accident and illness insurance and the optional outpatient service plan, call the Medical Center Student Health Service at (205) 934-3580.

## INFORMATION CENTER

Information regarding programs, services, and activities at UAB is available at the UAB Information Center. Referrals to the appropriate department, office, or person may be made for more specific information. The Information Center is located on the first floor of the Hill University Center, 1400 University Boulevard. For additional information, call (205) 934-8000, or see the Web page at <http://www.uab.edu/hucops>.

## INTERNATIONAL SCHOLAR AND STUDENT SERVICES

International Scholar and Student Services is dedicated to providing quality services, programs, and activities that enhance cultural awareness, expand international educational and research opportunities, and provide global perspectives for students, faculty, and staff. International Scholar and Student Services serves as a collaborative community resource that facilitates, promotes, and strengthens international understanding.

Services include immigration and nonresident alien tax advising, orientation, seminars on legal issues, and cultural programs and activities. International Scholar and Student Services also operates the Smolian International House and the Samuel Ullman Museum. For additional information, call (205) 934-3328 or visit the Web page at <http://www.uab.edu/iss>.

## SMOLIAN INTERNATIONAL HOUSE

The Bertha and Joseph Smolian International House, 1600 10th Avenue South, offers services and activities for international students and scholars and their families. Known as the I-House, it provides a focal point for programs and activities designed to foster a free exchange of information and international understanding. The facility includes temporary lodging for foreign nationals, meeting space for groups with an international purpose, two kitchens, a library, a lounge with satellite television, and other amenities.

The I-House hosts a number of special annual events including a Fall Barbecue, International Festival, and Thanksgiving Dinner. Regularly scheduled programs include conversational English classes, Friendship Partners, the International Women's Group, and cultural evenings. For additional information or a schedule of activities, call (205) 934-1025.

## MERVYN H. STERNE LIBRARY

The Mervyn H. Sterne Library houses a collection of more than a million items selected to support current teaching and research at UAB. In addition to books and subscriptions to more than 2,500 periodicals, the collection consists of microforms and other print and non-print materials. The library provides access to the contents of over 10,000 journals and to the full text of 2,000 journals. Study areas and photocopying machines are located throughout the library. The main collection is housed at 917 South 13th Street. Named in memory of the late Birmingham philanthropist and civic leader Mervyn H. Sterne shortly after it opened in 1973, the facility provides a special collection area, seminar rooms, group study rooms, lockable study carrels, and seating for 1,100 users. The on-line catalog provides rapid access to the collection and to other major library collections in Alabama.

Reference services are provided by subject-specialist librarians. An information desk and a reference desk are staffed to assist patrons in identifying and locating materials and information. Reference services include the use of indexes and abstracts, computerized database searching, interlibrary loans, and government documents. The User Services Department, through its automated

circulation system, tracks materials continuously and can determine the location or status of a book. The Reserve Desk circulates high-use materials placed on reserve by instructors.

The Educational Technology Services Department (ETS) is the media center for Sterne Library. Located in the Education Building, ETS houses and circulates audiovisual equipment to classrooms. ETS also provides services to students and faculty using ETS viewing and computer classrooms. Viewing rooms, a listening room, and individual carrels are available for groups and individuals to listen to or view non-print media. ETS also houses the Student Computing Center, which includes 50 computers. Access to the computers is available to anyone with a UAB Blazer ID and password. Student assistants help with hardware problems and provide limited software assistance.

Through an inter-institutional borrowing agreement, UAB students and faculty may use library facilities at a number of other colleges and universities in the area. For additional information, inquire at the Information Desk or at the Circulation Desk in the lobby area. (205) 934-6364 (Reference Services), (205) 934-4338 (User Services), and (205) 934-2379 (Educational Technology Services). Library home page: <http://www.mhsl.uab.edu>.

## PARKING

All students who desire to park in UAB student parking facilities must purchase a permit from Parking and Transportation Services. These permits can be purchased by for the academic term or for the academic year. Location and fees vary according to lot. Contact Parking and Transportation Services, (205) 934-3513, for details, or go on-line at [www.parking.uab.edu](http://www.parking.uab.edu).

Both the university and the City of Birmingham issue citations in student lots to vehicles illegally parked or not displaying a proper permit. Students are responsible for paying all fines and fees imposed. If a student is a member of the parking system, any delinquent ticket payments will be added to his or her account in the Student Accounting Office. If a student is not a member of the parking system and accumulates three or more delinquent tickets, the student's vehicle may be immobilized or impounded at his or her expense.

Handicapped spaces are conveniently located throughout campus. A valid handicap permit must be displayed to park in a handicapped space.

For additional information and a campus parking map, contact UAB Parking and Transportation Services, 608 Eighth Street South. (205) 934-3513. E-mail: [park@its.uab.edu](mailto:park@its.uab.edu). Website: [www.parking.uab.edu](http://www.parking.uab.edu).

## PHYSICAL EDUCATION AND RECREATION FACILITIES

### INDOOR FACILITIES

The primary indoor recreation facility is the Wallace Physical Education Complex on 13th Street South between Sixth and Seventh Avenues. Included in the facility are two gymnasiums with three full-length basketball courts; four volleyball courts; six

racquetball/handball courts; two walleyball courts; a squash court; Cybex, Nautilus, Nitro, and Pacific fitness weight areas; a free-weight room and two cardio-fitness rooms with elliptical trainers, lifecycles, climbers, treadmills, and other fitness training equipment; an indoor track; an indoor heated swimming pool (25 yards) with a chairlift for the physically disabled; an exercise room; showers and dressing rooms at the gym and pool; and equipment for volleyball, badminton, table tennis, snorkeling, and racquetball. Racquetball/squash court must be reserved in advance. For further information, call (205) 934-5008.

## OUTDOOR FACILITIES

### ***Tennis Courts***

UAB provides 11 lighted tennis courts on campus at the 800 block of 11th Street South. These courts are available on a round-the-clock basis.

### ***Intramural and Recreation Fields***

#### ***West Campus Intramural Field***

This enclosed, lighted field is located at 11th Street and 9th Avenue South. This area is scheduled through the Office of Campus Recreation and is used primarily for intramural flag football, soccer, and softball. The intercollegiate soccer teams practice and play home matches here as well.

#### ***Dowdy Field***

This enclosed, lighted field is located at 11th Street South and University Boulevard. The field is scheduled through the Office of Campus Recreation and is used for intramural soccer, softball, and ultimate frisbee. The intercollegiate football team practices here as well.

#### ***Track Field***

Enclosed and lighted, this field covers the entire block of 12th Street and 6th Avenue South. This field primarily serves the Blazer football team practices, intramural flag football, ultimate frisbee practices, and physical education classes. It is surrounded by a quarter-mile, synthetic running track.

For more information on intramural sports or the use of these fields, call (205) 934-8224, or visit Room 132, Hill University Center.

## PLACEMENT TESTS

The Office of Academic Programs and Policy provides individual placement testing in English, mathematics, physics, and foreign languages. Group testing is also available at times and locations listed each term in the UAB Class Schedule. For further information, contact the Testing Office, Hill University Center, Room 470. (205) 934-5503.

## RETENTION PROGRAMS

UAB offers several opportunities for student to improve the quality of their undergraduate experience and be successful through graduation. The Office of Student Retention provides an array of programs and services, which includes a freshman success course (UNIV 105), student success seminars, and a retention program for minority scholars. The programs and services are designed to help students ease their transition to college, achieve their goals, and prepare for the next phases of their lives. Other assistance includes graduate/professional preparation and information about summer internships at UAB and other schools. For more information, contact the Office of Student Retention Programs, Room 524, Hill University Center. (205) 934-8804, Electronic mail studentretention@uab.edu, or read about our programs and services on the UAB website, www.uab.edu, and then click Students.uab.edu.

Other retention programs are provided by the Division of General Studies. These include learning communities, supplemental instruction, and University 101. Learning communities are designed to link courses in the freshman core curriculum to provide freshmen with a more cohesive first year learning experience and a greater sense of community within the university. Supplemental instruction provides help sessions to assist students enrolled in those courses that require instruction beyond the classroom schedule. The Division of General Studies coordinates the course, University 101: Freshman Experience Program, which is designed to facilitate the student's transition into the university and enhance the development of academic skills, specifically critical thinking skills. For more information, see page 261 or contact the Division of General Studies in Room 318 of Hill University Center. (205) 934-6135.

## STUDENT HOUSING AND RESIDENTIAL LIFE

Student Housing facilities include a traditional residence hall and four apartment-style residence halls. Student Housing is centrally located on campus and is within walking distance of all classroom buildings, libraries, and the Medical Center.

Student Housing is limited to students who are admitted to UAB and who are in good standing. "Good standing" means not on academic or disciplinary suspension. As an additional eligibility requirement, a student must be enrolled for eight semester hours as an undergraduate or five semester hours as a graduate each term. The summer term is treated under a separate contract. The student will be required to satisfy these eligibility standards throughout the term of their Student Housing Contract and to inform the Department of Student Housing and Residential Life of any changes in his/her status, which may affect his/her eligibility.

Residence Life Coordinators and Resident Assistants (RAs) serve as professional staff and student leaders within the residence halls. The Residential Life Program consists of recreational, educational, and social events based on the needs and interests of the residents. In addition to planning this program, trained staff members are available to answer questions or help residents with personal or academic problems.

Sophomore, junior, senior, graduate, and professional students are eligible for single-occupancy apartments. Only a very limited number of single occupancy apartments are allocated each semester due to the high demand for housing on campus. Freshmen must share an apartment with a roommate. Except for married students, only roommates of the same gender are permitted. Roommate requests must be mutual in order to be considered, and applications for Student Housing should be mailed at approximately the same time. Although every effort will be made to place applicants with the roommate of their choice, the Department of Student Housing and Residential Life cannot guarantee roommate requests and reserves the right to assign an applicant to any available space.

Current housing room fee rates are available from the Department of Student Housing and Residential Life. Rates include utilities and cable television in all residence halls and high speed internet connections (ResNet) in Denman, Camp, Rast, and Blount Halls. Telephone service is available under separate contract through UAB Communications.

Since housing at UAB is limited, students should apply as early as possible, particularly if on-campus housing is desired for the fall semester. Application should be made to the Department of Student Housing and Residential Life, 1604 9th Avenue South, Birmingham, AL 35294-1230. (205) 934-2092. Students are encouraged to apply for housing on line and browse the housing information found at [www.students.uab.edu](http://www.students.uab.edu). Student Housing information is located within the red "Services" tab at the top of the web page. A \$25 non-refundable application fee is due at the time the application for housing is submitted. Applicants will be assigned a space on a first come, first served basis. When an assignment is made, applicants will be mailed a contract agreement for their assigned space. Upon receipt of the contract, applicants will have two weeks to read, sign, and return the contract agreement with a refundable \$150 deposit.

## STUDENT SUCCESS SEMINARS

Student Success seminars help students learn how to take notes and test effectively, how to manage time and money, how to prepare for final exams, and much more. The seminars are designed to help enrich life and academic performance. Seminars are free and are offered on-campus and online. For more information or a seminar schedule, contact the Office of Student Retention Programs, Room 524, Hill University Center. (205) 934-8804, electronic mail [studentretention@uab.edu](mailto:studentretention@uab.edu), or the UAB website, [www.uab.edu](http://www.uab.edu), and then click [Students.uab.edu](http://Students.uab.edu).

## TRIO ACADEMIC SERVICES

Fully funded by the U.S. Department of Education, TRIO Academic Services (Student Support Services) offers assistance to UAB's degree-seeking undergraduate students who are either first generation college students (neither parent has a bachelor's degree), are low-income, or have a disability. The program seeks to increase eligible students' chances of graduating from UAB in four years. Students are accepted and participate in the program from their entrance to UAB as freshmen or sophomore until graduation.

Intensive services are provided during the freshman and sophomore years; fewer services are provided during the junior and senior years. Services offered include free tutoring from freshman courses through senior courses, workshops to improve study skills, computerized basic skills assistance, computer training and usage, counseling and referral, graduate and professional school admission assistance, and educational and cultural activities. Students also receive a UAB-funded incentive stipend that increases yearly, culminating in \$1,000 to participants who enter the project as freshmen and graduate in four years. Students are required to be full time and complete a minimum of 27 semester hours with at least a 2.0 grade point average each year. Required developmental courses are counted in these 27 semester hours. Students must maintain eligibility for financial aid if needed and participate fully in needed program services.

Priority acceptance is given to conditionally admitted freshmen who are attending UAB for the first time during fall semester. Limited space is available for freshmen and sophomores who are already attending UAB. Applications for the program are accepted from April 1 through July 1 of each year. For additional information, contact TRIO Academic Services, Suite 540, Hill University Center. (205) 934-2729.

## UAB TESTING

The UAB Testing Office provides testing services for UAB students, prospective students, and the community at large. The following tests and/or services are available:

- Admissions examinations for undergraduate and graduate programs
- American College Testing Program (ACT)
- Scholastic Aptitude Test (SAT)
- Medical College Admission Test (MCAT)
- Miller Analogies Test (MAT) (acceptable to some graduate programs)
- College Level Examination Program (CLEP)—General and Subject Examinations (see page 40)
- Correspondence examination monitoring
- Professional licensing/certification/registration examinations
- Registration and general information for Test of English as a Foreign Language (TOEFL)

For further information on any of the above, contact the UAB Testing Office, Room 470, Hill University Center, 1400 University Boulevard. (205) 934-3704.

## UAB TICKET OFFICE

The UAB Ticket Office is your source for acquiring the best seats to your favorite campus events, including performances at the Alys Stephens Center and UAB Blazers Football and Basketball. It also serves as the point-of-purchase for events sponsored by the Department of Student Life and other UAB organizations and off-campus agencies. In addition, the UAB Ticket Office offers discounted tickets for Carmike and Regal Cinemas and Rave Motion Pictures and to most major theme parks across the southeast, including Six Flags Over Georgia and Universal Studios Florida.

First-class postage stamps are also available for purchase (UAB internal requisitions are accepted). For additional information, contact the UAB Ticket Office, located inside the Blazer Bookstore, Room 150, Hill University Center. (205) 934-8001. Visit our website at [Students.uab.edu](http://Students.uab.edu) (click on Services and then Ticket Offices on the left sidebar.)

## VETERANS AFFAIRS

UAB Veterans Affairs assists veterans, reservists, guardsmen, and dependents of disabled or deceased veterans. It serves as a liaison between the student and local and federal agencies, including the State Department of Education, Department of Defense, and the Department of Veterans Affairs. UAB Veterans Affairs assists students in applying for education benefits, securing tutorial assistance, and obtaining veterans work-study positions. For further information, contact UAB Veterans Affairs, Room 524, Hill University Center. (205) 934-8115 or read about our programs and services on the UAB website, [www.uab.edu](http://www.uab.edu), and then click [Students.uab.edu](http://Students.uab.edu).

## WOMEN'S CENTER

The Women's Center offers personal (non-academic) counseling services to currently enrolled UAB students. The services are confidential, are provided by a Licensed Professional Counselor, and are free of charge to all UAB students. In addition to counseling, the center provides educational programs on sexual assault, sexual harassment, eating disorders, and other mental health issues that affect women. The Women's Center supports and encourages women seeking a balanced and meaningful life. For further information, contact the Women's Center, Room 150, Holley Mears Building. (205) 934-6946.

## COOPERATIVE EDUCATION

Cooperative Education, or "Co-op," is a unique partnership among employers, students, and the university that combines classroom studies with professional work experience.

Co-ops are paid positions in which students work for a minimum of two semesters on either the alternating or parallel work schedule\*. Co-op positions must be directly related to students' major. Co-op is not a credit-bearing program.

### Co-op Work Options

Employers and students may choose from two Co-op scheduling alternatives.

#### Alternating vs. Parallel

The "Alternating Plan" allows a student to rotate between a semester of full-time work and full-time classes. Students in these positions normally work 40 hours per week (35 is the minimum required and some employers may request overtime). Classes may be taken while working if the student's work schedule permits.

The "Parallel Plan" permits students to attend classes and work simultaneously. Students usually work between 15 and 30 hours a

week while carrying a minimum of 6 semester credit hours per academic term.

### Co-op Eligibility Requirements

In order to apply for a Co-op placement, a student must:

- 1.) Be admitted to UAB as a regular, degree-seeking student.
- 2.) Have completed at least 24 UAB semester hours toward a degree in progress at The University of Alabama at Birmingham with a minimum UAB GPA of 2.5 (2.3 for engineering majors).

For a student who has transferred to UAB from another college or university, he/she must have completed at least twelve (12) UAB semester hours at UAB with a minimum UAB GPA of 2.5 (2.3 for engineering majors).

2a.) In addition to the general requirements, the School of Engineering requires:

- Completion of PH221, General Physics I and
- Completion of MA125, Calculus I

2b.) In addition to the general requirements, the School of Business requires:

- Completion of at least one term in the School of Business
- At least 15 semester hours carried in School of Business courses with a GPA of at least 2.5.

2c.) In addition to the general requirements, Computer Science majors must meet the following requirements:

- Completion of CS 201, CS 250, and CS 302 with a C or higher
- Overall 2.0 GPA in Computer Science courses

3.) Be currently enrolled in at least one UAB course for credit at the time he/she applies for Co-op or have completed at least one UAB course for credit during the academic term immediately preceding the semester during which he/she applies.

4.) Have at least one academic year remaining before completing degree requirements.

5.) Be a U.S. citizen, permanent resident, or a non-immigrant with work authorization. (For more information, please contact the Office of International Scholar and Student Services (205) 934-3329.)

6.) Be at least 18 years of age or older to participate

# ADMISSION

UAB welcomes applications from all individuals whose preparations and abilities give them a reasonable chance of success in its programs. The Office of Undergraduate Admission recognizes both the university's commitment to excellence and its role as an urban institution. Applicants are considered regardless of race, color, religion, sex, sexual orientation, national origin, disability unrelated to program performance, disabled veteran status, or Vietnam-era veteran status. (See Equal Opportunity Policy in Non-Academic Policies, page 267.)

## ADMISSION TO UNDERGRADUATE PROGRAMS

Admission to UAB as an undergraduate is either as a degree student (seeking a baccalaureate degree) or as a non-degree student (not seeking a degree). Applications for admission to undergraduate programs in the Schools of Arts and Humanities, Business, Education, Engineering, Natural Sciences and Mathematics, and Social and Behavioral Sciences, as well as applications for pre-nursing or other pre-health baccalaureate programs, are handled by the Office of Undergraduate Admission, Suite 260, Hill University Center, 1530 3rd Avenue South, Birmingham, Alabama 35294-1150. (205) 934-8221. This office is responsible for receiving and processing applications and for determining admissibility of students.

All applicants must offer acceptable evidence of ability and intent to meet the academic standards of UAB. To be considered official, all academic documents required for admission must be mailed to UAB directly from the high schools, colleges, and universities attended.

Persons desiring to enroll for credit courses should apply for admission well in advance of the expected date of registration. There are two application deadlines each term for incoming students, depending on the student's status. In each case the application, fee, and all supporting official academic documents must be complete and received in the Office of Undergraduate Admission by 5 p.m. on the respective deadline date.

Deadline #1 applies to 1) any applicant planning to enter UAB as a beginning freshman student, who has been out of high school for less than three years, and who has either no previous college work or less than 24 semester (or 36 quarter) hours of transferable college-level work; 2) any student submitting a GED score in lieu of having graduated from high school, regardless of age; 3) Early Admission, Dual Enrollment, or Concurrent Enrollment applicants; and 4) international students.

Deadline #2 applies to any applicant who plans to enter UAB as 1) a beginning freshman who has been out of high school for more than three years; 2) a transfer student with more than 24 semester (or 36 quarter) hours of transferable college-level work; 3) a former UAB student; and 4) any non-degree seeking student, including transient, temporary, and post-baccalaureate students.

## Term of Initial Enrollment

Enrollment	Deadline #1	Deadline #2
Fall 2004	March 1, 2004	May 1, 2004
Spring 2005	November 1, 2004	November 1, 2004
Summer 2005	April 15, 2005	April 15, 2005
Fall 2005	March 1, 2005	May 1, 2005
Spring 2006	November 1, 2005	November 1, 2005
Summer 2006	April 1, 2006	April 15, 2006

## PROSPECTIVE STUDENTS

Campus tours are available to prospective students Monday through Friday at 11:00 a.m. and 2:00 p.m. (except on holidays). Students considering UAB are encouraged to take a tour. The walking tours are led by the UAB TrailBlazers, the official student representatives of the Office of Undergraduate Admission. An admission counselor will conduct a 30-minute information session as part of the campus visit. For more information, call the Office of Undergraduate Admission at (205) 934-9098.

Applications for admission and pre-admission counseling may be obtained from the Office of Undergraduate Admission Mondays through Thursdays from 8 a.m. to 6 p.m. and Fridays from 8 a.m. to 5 p.m. or online at [students.uab.edu/apply](http://students.uab.edu/apply).

## ADMISSION AS A DEGREE STUDENT

Admission criteria vary, depending on the applicant's educational background.

1. A high school graduate with no college course work must meet the following admission criteria: (1) submit an official transcript (one from a certified institution, such as a public or private school, a home-school accrediting agency, or a church-affiliated school) of high school work; (2) have at least a 2.00 (C) grade point average in high school academic subjects in grades 9-12; and (3) high school graduation was within three years of the date for which entry to UAB is sought, must have a minimum composite score of 20 on the ACT Assessment or a combined SAT score of 950 (if high school graduation was three or more years prior to the date for which entry to UAB is sought, the ACT Assessment or SAT is not required).

In order to be well prepared for the rigors of college-level work, high school students planning to apply for admission to UAB are strongly urged to pursue either the advanced academic diploma or to complete the high school academic courses listed below:

English	4 years
Mathematics	3 years
Algebra I and II	2 years
Geometry, Trigonometry,	
Calculus or Analysis Science	1 year

Science	3 years
<i>(At least 2 years of science study which includes laboratories)</i>	
Social Studies	4 years

Also recommended are two years of a foreign language and one year of computer applications.

2. An applicant who has not graduated from high school and has no college work must be at least 19 years of age and have a score of at least 520 on the General Education Development (GED) test.
3. An applicant with 24 or more college semester hours attempted must have a minimum grade point average of 2.0 in all such work.
4. An applicant who has earned college credits, but fewer than 24 semester hours attempted, must have a 2.0 grade point average in all college work attempted and also satisfy the criteria of (1).
5. Applicants from outside the United States must have the academic, linguistic, and financial resources to complete their educational objectives successfully at UAB (see requirements for international students listed below).

## CONDITIONAL ADMISSION

A high school graduate with no college work, who does not meet minimum criteria for admission as a degree student, may be offered conditional admission based on a combination of test scores and high school grade point average. A student with fewer than 24 hours of college-level work with a minimum of 2.0 also may be considered for conditional admission based on the same criteria. A person with no college work, who is at least 19 years of age, and who has a standard GED score of at least 450 may be offered conditional admission.

All freshmen admitted conditionally are required to participate in New Student Orientation and confer with an academic advisor prior to registering for their first term at UAB. In addition, conditionally admitted students must limit the first-term course load to a maximum of 14 semester hours, which must include UNIV 101. Students admitted conditionally will be required to confer with an academic advisor in General Studies for at least two consecutive terms.

It is strongly recommended that all conditionally admitted students complete the Core Curriculum requirements for written composition and basic mathematics within four regular terms of admission.

A student may be admitted conditionally only once.

## ADMISSION AS AN INTERNATIONAL STUDENT

Applicants from outside the United States must have the academic, linguistic, and financial resources to complete their educational objectives successfully at UAB.

International students have the same academic requirements for admission as students who are citizens of the United States. Each applicant is required to have a minimum composite score of 20 on the ACT Assessment or a combined SAT score of 950. (ACT or SAT score is not required of an applicant who has attempted more

than 24 semester hours of college work or who graduated from high school more than three years ago.) In addition, for each applicant whose native language is not English, a TOEFL score of at least 500 on the written examination or a score of 173 on the computer-based version is required.

To meet the requirements of the F-1 visa, international students must be full-time students. Full-time students are defined as those earning a minimum of 12 semester hours of credit each term for two consecutive semesters.

Applicants who have completed secondary school abroad under a grading system different from the U.S. system must request a document-by-document evaluation which includes a grade point average (GPA) computation. Applicants who have attended a college or university outside the United States must request a course-by-course evaluation and translation of work completed at each institution. Applicants who have earned fewer than 24 semester hours at a postsecondary institution will also need to submit a document-by-document evaluation of secondary school work. Evaluations must be sent directly from the agency to the UAB Office of Undergraduate Admission. Applicants must request evaluations from one of the following agencies: 1) Josef Silney & Associates, 7101 SW 102 Avenue, Miami, FL 33173, (305) 273-1616, [www.jsilney.com](http://www.jsilney.com), or e-mail: [info@jsilney.com](mailto:info@jsilney.com) or 2) World Education Services, P. O. Box 5087, New York, NY 10274-5087, (212) 966-6311, [www.wes.org](http://www.wes.org), or e-mail: [info@wes.org](mailto:info@wes.org).

Immigration requirements include a letter verifying support from the student's financial sponsor, an original bank statement confirming a balance sufficient to cover the first year's tuition, fees, and living expenses, and a clearance form if transferring from another school within the United States.

All international students are required to register with the UAB Student Health Service and to carry a health and accident insurance policy approved by the UAB Student Health Service.

## NEW STUDENT ORIENTATION

Orientation sessions are offered several times prior to the beginning of each term for all incoming new students. Designed to assist students in making a smooth transition to UAB, orientation sessions include fun-filled activities and informative programs about services available to students. Additionally, new students meet with faculty and academic advisors and register for classes. Attendance at New Student Orientation is mandatory for all new degree-seeking students prior to their first term of enrollment. For more information, contact the Office of Orientation, Room 531, Hill University Center, 1400 University Boulevard, Birmingham, Alabama 35294-1150. (205) 975-7999 or e-mail [orient@uab.edu](mailto:orient@uab.edu).

## ADMISSION APPEAL PROCEDURE

Applicants denied admission to the undergraduate program who believe they have extenuating circumstances that could justify a different decision may appeal for further consideration. The appeals procedure is as follows:

1. Applicants must complete a *Supplemental Admission Application*. Any academic or personal information that would help the com-

mittee to make a fair and informed decision should be provided. A *Supplemental Admission Application* may be obtained by contacting the Office of Undergraduate Admission.

2. Applicants who are not submitting an ACT or SAT score or transfer students who have not earned college credit for math must arrange to take the mathematics placement test at UAB.
3. The deadline for a student to submit a *Supplemental Admission Application*, supporting documentation, and placement test scores if required will be one week after the application deadline for any given term. All application material should be submitted to the Director of Undergraduate Admission.
4. Students who are admitted through this procedure will be advised through the Division of General Studies.
5. Freshmen who graduated from high school within the last three years and who have not attempted coursework at another college or university who are admitted through this procedure must adhere to all policies and procedures of conditional admission.
6. Freshmen who graduated from high school more than three years ago who have not attempted coursework at another college or university as well as transfer students who are admitted through this procedure must adhere to all policies and procedures of probation status.
7. The committee will communicate its decision through the Office of Undergraduate Admission.

## DELAYED ENROLLMENT

Admission as a degree-seeking student is valid for one academic year (three consecutive terms). A student who is admitted as a degree-seeking student but who does not register and enroll for course work for a period of three consecutive terms must reapply for admission to the university. If accepted following the reapplication, the student is subject to the policies of the catalog current at that time.

## ADMISSION AS A NON-DEGREE STUDENT

Students who do not wish to earn a degree may apply for admission as non-degree students depending on the intent of enrollment as stated on the application for admission. The following restrictions apply to non-degree students:

1. They are not eligible for financial aid or for priority registration.
2. If a course has reached maximum enrollment, they may be dropped in favor of degree students.
3. They may not participate in intercollegiate sports.

Students may be admitted as non-degree seeking in one of three categories: Post-baccalaureate, Temporary, or Transient. See details about each category below.

## POST-BACCALAUREATE STUDENTS (PB)

Persons with a baccalaureate degree who wish to meet prerequisites for advanced programs or to satisfy requirements for professional certification will be admitted as Post-Baccalaureate students. In some cases, there will be requirements for admission into the program of study.

Academic Requirements: Approval of appropriate academic unit and academic documents may be required.

## TEMPORARY STUDENTS (TE)

Persons seeking personal enrichment or career enhancement may be admitted as Temporary students. Temporary students can attempt a total of 12 semester hours with a maximum of 4 semester hours per term. Registration beyond 12 semester hours requires approval of an advisor in the Division of General Studies.

Academic Requirements: Applicants in this category must be at least 25 years of age and either be a high school graduate or have scored a 52 or better on the GED. Students must provide a letter of good standing if they have attended any college or university within the last year.

## TRANSIENT STUDENTS (TR)

Persons who want to transfer credit earned at UAB back to another institution where they are enrolled as a full-time student may be admitted as Transient students.

Academic Requirements: Applicants for Transient status must submit a letter of good standing from the home institution. Enrollment as a Transient student is typically for one term, with a maximum of two consecutive semesters. If Transient enrollment is not in consecutive terms, a letter of good standing will be required for each term of enrollment at UAB. If a Transient is not enrolled for three or more consecutive terms, the student must reapply.

## CHANGE FROM NON-DEGREE TO DEGREE STATUS

A student may apply for a “change of status” from a non-degree classification to degree-seeking by completing the appropriate form in the Office of Undergraduate Admission. In order for a change of status to be approved, the individual must meet all admission criteria for a degree-seeking student. See page 21 for criteria and required documents.

## FORMER UAB STUDENTS

Former students who have not been enrolled in undergraduate courses at UAB for two or more years or who have attended other colleges since their enrollment at UAB must apply for readmission but will not be required to submit another application fee. Former students are subject to the same conditions as newly-admitted students. (International students must see the international admissions advisor regardless of time away from UAB.)

Former UAB students who are returning to continue their programs of study should consult with their academic advisor or department chair to determine whether curriculum or degree requirements have changed since their last enrollment.

## ELIGIBILITY OF COLLEGE CREDITS FOR TRANSFER

The eligibility of credit for transfer to UAB depends both on the subject matter of the credit and on the accreditation status of the institution that awarded the credit.

Technical or vocational credits, whether earned at UAB or at any other institution of higher education, are not eligible for transfer and may not, therefore, be used to satisfy degree requirements. The exception to this rule is when the transfer of certain courses applicable to specific professional degree programs is approved in advance by the appropriate department. The accepted courses will be posted only while the student is in the degree program approving the credit. If the student changes programs, the courses will be removed.

Credits in academic subjects are usually eligible for transfer to UAB if they were awarded by an institution of higher education that has been accredited by one of the regional agencies recognized by the American Council on Education.

If an institution is not yet accredited, but has acquired candidate status from a regional accrediting agency, then academic credits from the institution are eligible for transfer to UAB. Academic credit earned at Alabama Community Colleges during the initial organization of the Alabama College System (1965-1967) will be acceptable for transfer to UAB.

College courses completed at unaccredited non-candidate institutions do not normally transfer to UAB. However, applicants with credits in this category may contact Academic Programs and Policy, Hill University Center, 1530 3rd Avenue S, Birmingham, Alabama 35294, (205) 934-5503, for information on the "Credit by Portfolio" option.

The official determination of acceptability of courses from other institutions is the responsibility of the Office of the Provost. Students having credits from institutions outside the United States should contact the international admissions advisor prior to transfer to receive information on the transfer of international credits.

Credits awarded by other institutions for Advanced Placement (AP), International Baccalaureate (IB), and the College Level Examination Program (CLEP) must be reevaluated to determine if credit will be awarded at UAB. Students wishing to submit such credits should send an official AP, IB, or CLEP transcript directly to the Office of Academic Programs and Policy, Room 470, Hill University Center. (205) 934-5503.

## LIMITATIONS OF TRANSFERRED CREDIT

One half of the degree requirements may be transferred from a two-year college provided the courses are numbered as freshman- (100) and sophomore-level (200) courses. In addition, credit earned while a student is on suspension from UAB or another institution, is not eligible for transfer.

## ACCEPTANCE OF TRANSFER CREDITS TOWARD A DEGREE

College-level coursework transferred from a regionally accredited institution will be shown on the UAB transcript; however, applicability of the course toward a degree is determined by the student's major department.

## ALABAMA ARTICULATION PROGRAM (STARS)

In Fall 1998 the State of Alabama began to implement a

statewide articulation program based on transfer requirements approved by the Alabama Articulation and General Studies Committee (AGSC). The Statewide Articulation Reporting System (STARS) is accessible as an internet-based advising system that allows unlimited access to AGSC-approved transfer requirements. The system is available to students, counselors, administrators, and faculty across the state and may be accessed at <http://stars.troyst.edu>. STARS is the central source for statewide articulation and transfer information. Additionally it provides links to the institutional web pages of participating colleges and universities. If you have questions about STARS, contact the AGSC/STARS Coordination Site, 101 Adams Administration Building, Troy, AL 36082. Toll free in Alabama: 1-800-551-9716 ext. 3690.

## DECLARATION OF SCHOOL AND MAJOR

On the Application for Admission, applicants are asked to indicate an intended major field of study. Those applicants who are undecided about a specific major but know their general field of interest may ask to be admitted as undeclared within the appropriate school. Those applicants who do not have a general field of interest may request admission to the Division of General Studies. International students must declare a major. See page 37 for policies regarding the declaration of a major.

## ADMISSION TO SPECIFIC SCHOOLS OR PROGRAMS

Admission to the university as an undergraduate student may not be the final step required to gain admission to the desired school or academic program. For the undergraduate programs listed below, significant additional steps are required:

- School of Arts and Humanities (music)
- School of Business
- School of Education (Teacher Education Program)
- School of Engineering
- School of Health Related Professions
- School of Natural Sciences and Mathematics (computer science major)
- School of Nursing
- School of Social and Behavioral Sciences (social work major)

Further information on the additional steps required is given in the section of this catalog devoted to the particular school.

## EARLY ADMISSION, CONCURRENT ENROLLMENT, AND DUAL ENROLLMENT/DUAL CREDIT

UAB welcomes applications from exceptional students prior to their graduation from high school when evidence can be presented that enrollment at UAB would enhance the student's educational experience beyond that available in high school. There are three options for high school students who wish to be considered for admission to UAB prior to high school graduation.

## EARLY ADMISSION

A student applies for early admission when the intention is to leave high school after completing the junior year and begin full-time study as a degree student at UAB.

## CONCURRENT ENROLLMENT

A student applies for concurrent enrollment in order to take courses as a non-degree student at UAB while concurrently enrolled as a junior or senior in high school. (Younger students will be considered for concurrent enrollment in exceptional circumstances.) Students earning college credit under the concurrent enrollment option may not apply credit earned at UAB toward the completion of the high school diploma.

## DUAL ENROLLMENT/DUAL CREDIT

The dual enrollment/dual credit option is available only to those students whose high schools have a formal dual enrollment/dual credit agreement with UAB. A high school junior or senior may apply for dual enrollment/dual credit in order to take courses as a non-degree student at UAB while still completing high school and apply credit earned at UAB both toward college requirements and toward the high school diploma.

## REQUIREMENTS

Requirements for any of these options include a minimum grade point average of 3.0 and a score of at least 25 on the ACT or 1140 on the SAT. A letter of support from a parent or guardian, and a letter of approval from the high school principal are required. A one-page personal essay and a personal interview are required for early admission.

Individual courses taken by dual enrollment/dual credit must be pre-approved by the student's high school and the appropriate UAB department and school. Prior to each term of enrollment under the dual enrollment/dual credit option, the student must submit a letter from the high school identifying the pre-approved course(s) to be taken for dual credit.

## EARLY MEDICAL SCHOOL ACCEPTANCE PROGRAM (EMSAP)

The Early Medical School Acceptance Program (EMSAP) offers the assurance that academically superior high school seniors will enter the UAB School of Medicine after completing undergraduate studies at UAB. Through EMSAP, students can complete an excellent undergraduate program and reserve their place in a world-renowned medical school.

To be considered for admission to EMSAP, students must have the following:

- four years of English,
- four years of mathematics,
- at least one year each of chemistry or physics and biology,
- a grade point average of at least 3.5 (on a 4.0 scale) in academic subjects, and
- an ACT composite score of at least 30 or an SAT score of at least 1,320.

Selected candidates who meet the academic criteria are interviewed by members of a joint committee of the School of Medicine and a UAB undergraduate program. In making its final selections, the committee considers demonstrated leadership qualities and motivation for the study of medicine in addition to academic credentials. For further information, contact the Office of Undergraduate Admission. (205) 934-4076.

## IMMUNIZATION POLICY

In response to outbreaks of rubella (red measles) on college campuses throughout the United States and in accordance with the American College Health Association's recommendation that students be immunized against certain diseases, UAB has established an immunization policy. For a summary of the UAB Immunization Policy, which applies to UAB students see Non-Academic Policies, page 267.

## EQUAL OPPORTUNITY POLICY

The University of Alabama at Birmingham administers its educational programs and activities, including admission, without regard to race, color, religion, sex, sexual orientation, age, national origin, disability unrelated to job performance, or Vietnam-era or disabled veteran status. The full text of this policy can be found in Non-Academic Policies, page 267.

Office of Undergraduate Admission  
1530 3rd Avenue South  
Hill University Center 260  
Birmingham, AL 35294-1150  
Phone: (205) 934-8221  
Toll Free: (800) 421-8743  
TTY: (205) 934-4076 (hearing impaired only)  
Fax: (205) 975-7114  
E-mail: UndergradAdmit@uab.edu  
WWW: Students.uab.edu  
On-line Application: Students.uab.edu/apply



# FINANCIAL INFORMATION

## TUITION PAYMENT OPTIONS

When you register for classes, you make a commitment to pay tuition and fees. But UAB gives you flexibility on when to pay and how to pay.

### WHEN TO PAY

Fifty percent of your total charges must be paid by the first payment deadline. The balance is due approximately six weeks into the semester. See the printed version of the UAB Class Schedule each semester for specific deadlines.

### MONTHLY PAYMENT PLAN

Now there's a way to pay your tuition and fees in convenient monthly installments. UAB has partnered with Academic Management Services (AMS), which offers eight-month and 10 month tuition payment plans. With these plans, you and your family can spread out the cost of college. They also make it easy to set up a budget and figure out how much you need to save to cover your anticipated educational costs. To learn more, call an AMS consultant at 1-800-635-0120 or visit AMS online.

### HOW TO PAY

- To pay in person, visit the Cashier's Office at 322 Hill University Center.
- To pay by mail, send a check for your tuition and fee payment to:  
UAB STUDENT ACCOUNTING SERVICES  
HUC 322  
1530 3RD AVE S  
BIRMINGHAM AL 35294-1150
- To pay by phone, call UAB ACCESS at (205) 975-9600 or toll-free at 1-888-988-2567. Be sure to have your credit card ready.
- To pay by Web, click the "ACCESS" link in the blue sidebar. The ACCESS system provides a secure connection for credit card payments.
- If you are using one of the AMS monthly tuition payment plans, please contact AMS for further information on how to pay.

### STUDENT RESPONSIBILITY

It is the student's responsibility to remit payment by the deadline. Consult the current term UAB Class Schedule for specific deadlines and penalties.

Students who fail to pay by the published deadline are subject to substantial late payment and reinstatement fees. Students with delinquent accounts will not be allowed to register at UAB, and

transcript requests will not be honored until all accounts are paid in full.

## WITHDRAWAL FROM COURSES

### REQUIRED PROCEDURES

Withdrawal from courses can only be accomplished using official procedures. The official withdrawal form must be completed by the student, signed by the instructor if necessary, and must be returned to the Office of Registration and Academic Records. This office will date/time stamp the form and return a copy along with a computerized receipt. These documents should be carefully retained by the student. The date printed on the receipt is the official date of withdrawal.

In extraordinary circumstances, if it is impossible for the student to obtain an official withdrawal form, the student may mail a withdrawal letter to the Office of Registration and Academic Records. The official date of withdrawal will be the date the letter is received in this office.

Failure to attend class does not constitute a formal drop or withdrawal. For financial aid purposes, the date of last class attendance will be the official date of withdrawal unless otherwise documented. See the university policy for withdrawal from courses for more information.

### ADJUSTMENT OF CHARGES

On the academic calendar for each term, there is a date designated "last day to withdraw from classes without paying full tuition." The student's residency status on that day determines the tuition rate incurred for that term. If a student officially withdraws from all courses prior to 5:00 p.m. on that date, all course related tuition and fees will be canceled. However, other fees previously assessed for services provided, fees assessed based on registration commitments and the fee for withdrawal (\$20.00) will remain due and payable by the published deadline. (Consult the current term UAB Class Schedule for specific fees.) If a student withdraws after that date, total tuition and fees are due and no refunds can be made (except in cases where a licensed physician certifies that the student is incapable of continuing with the course because of a serious medical condition which arose after the above date).

Students withdrawn for disciplinary reasons or for nonpayment of fees are ineligible for refunds or cancellation of charges due.

## TUITION AND FEES

### STUDENT SERVICE FEE

The Board of Trustees of the University of Alabama System authorizes the University of Alabama at Birmingham to charge a student service fee to every student who enrolls. The purpose of this fee is to assist in financing out-of-class programs and/or services.

es. These include, but are not limited to, University-wide cultural activities, concerts, theatrical productions, film series, recreational activities, intercollegiate athletics, intramural sports, student identification cards, and various types of other student-related services and social activities.

Auditors pay the same fees as do credit students. Certain other fees (such as student health, dental health, hospitalization, or liability insurance) may be required for students in a health-related or graduate program; please refer to the fee section of your school bulletin.

## FEES PAID BY OTHER THAN YOU OR YOUR FAMILY

If your fees are paid by the government or your employer, you should visit the Cashier's Office in the Student Accounting Services, Room 322, Hill University Center prior to the first day of class.

## BASIC CHARGES\* per semester credit hour

	In-State Students**	Out-of-State Students
<b>For courses taken in schools other than Health Related Professions, Nursing, or Public Health:</b>		
UNDERGRADUATE	\$ 128.00	\$ 320.00
GRADUATE	\$ 162.00	\$ 405.00
<b>For courses taken in the School of Health Related Professions:</b>		
UNDERGRADUATE	\$ 155.00	\$ 388.00
GRADUATE	\$ 213.00	\$ 533.00
<b>For courses taken in the School of Nursing:</b>		
UNDERGRADUATE	\$ 142.00	\$ 355.00
GRADUATE	\$ 197.00	\$ 493.00
<b>For courses taken in the School of Public Health:</b>		
UNDERGRADUATE	\$ 132.00	\$ 330.00
GRADUATE	\$ 169.00	\$ 423.00

\* Tuition and fees are subject to change by the Board of Trustees at the beginning of any term.

\*\* For definition of "In-State" Students, see page 268.

## OTHER FEES

	Semester Charge	Per Credit Charge
<b>Student Service Fee</b> (all students)	\$ 37.00 plus	\$ 8.00
<b>Building Fee</b> (A&H, BUS, EDU, EGR, GEN, GRD, GS, NSM, PRH, SBS, UNC, HRP)	\$ 32.00 plus	\$ 3.00
<b>Building Fee</b> (DEN, JHS, MED, MSU, NUR, OPT, PUH)	\$ 32.00	
<b>Learning Resources Fee:</b> A&H, NSM, SBS, GS		\$ 7.00

BUS, EGR, PUH, EDU	\$ 11.00
NUR, HRP	\$ 9.00
DEN, GRD, JHS, MED, MSU, OPT, PRV	\$ 2.00

### Recreational Center Fee (all students): FALL

12 hours or more	\$ 72.00
Less than 12 hours	\$ 48.00

### Recreational Center Fee (all students): SUMMER

12 hours or more	\$ 60.00
Less than 12 hours	\$ 40.00

### Laboratory Fee

A&H, BUS, EDU, NUR	\$ 35.00
EGR	\$ 65.00
NSM	\$ 75.00
PUH	\$ 53.00
HRP	\$ 40.00
SBS	\$ 45.00

### Music Fee

group classes	\$ 35.00
private classes	\$ 50.00

### Online Fee (Internet Courses):

A&H, EDU, HRP, NSM, PUH, SBS	\$ 75.00
BUS	\$ 150.00
EGR	\$ 325.00
NUR	\$ 100.00

## FINANCIAL AID FOR STUDENTS

Students may apply for financial aid if they need assistance in paying for the cost of attendance. Students applying for financial aid are considered for all programs for which they are eligible. Assistance generally takes the form of a combination of grant, loan, and employment. The amount of the award is based on the financial need of the student, taking into consideration the student's total expenses and the family's financial circumstances. A nationally recognized method of analysis approved by the federal government is used to determine the family's financial circumstances.

## APPLYING FOR FINANCIAL AID

Since some aid programs have limited funding, students are encouraged to apply by April 1 for financial aid for the following fall to ensure they receive aid from all programs for which they are eligible. Completed applications should be submitted 45 days prior to the beginning of the term in order to receive aid in time to meet the tuition and fees payment deadline. Students must reapply for financial aid each academic year.

Since procedures and rules are subject to change, students interested in applying for financial aid can request information and obtain the necessary forms from the Office of Student Financial Aid located in Room 317, Hill University Center, 1400 University Boulevard, Birmingham, Alabama 35294-1150. (205) 934-8223.

Mailing address: 1530 3rd Avenue South, HUC 317, Birmingham, AL 35294-1150. The Free Application for Federal Student Aid (FAFSA) and the institutional forms are available on the Web at [students.uab.edu/financialaid](http://students.uab.edu/financialaid).

## FINANCIAL AID PROGRAMS

### FEDERAL PELL GRANTS

The federal government has allocated funds that currently provide grants up to \$4,050 per year for eligible students. All undergraduate students needing financial assistance should apply.

### FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

Federal Supplemental Educational Opportunity Grants provide assistance for undergraduate students who demonstrate financial need. The maximum annual grant at UAB is \$2,000.

### FEDERAL COLLEGE WORK-STUDY PROGRAM

Eligible undergraduate and graduate students may work part time and earn money to help pay their educational expenses while attending school. On-campus and off-campus jobs are available in areas related to the student's educational interests.

### FEDERAL PERKINS LOAN

Perkins Loans are available to undergraduate and graduate students on a long-term, low-interest basis and are repayable in monthly installments. The total amount available for a student's undergraduate study is \$20,000; the total amount of loans made to a graduate student for all years, including any loans received as an undergraduate, may not exceed \$40,000. The interest rate is five percent, and repayment of principal and interest begins nine months after graduation or withdrawal from school.

### FEDERAL DIRECT STAFFORD/FORD LOAN

The Federal Direct Stafford Loan is a need-based loan with a variable interest rate. Repayment begins six months after the student's enrollment level drops below half time. Annual loan limits are \$2,625 for freshmen, \$3,500 for sophomores, \$5,500 for juniors and seniors, and \$8,500 for graduate students. The aggregate limits are \$23,000 for dependent undergraduates and \$46,000 for independent undergraduates. The aggregate loan balance for graduate students is \$138,500.

### FEDERAL DIRECT UNSUBSIDIZED STAFFORD/FORD LOAN

This is a non-need-based loan with a variable interest rate. Interest must be paid while the student is in school or must be capitalized as agreed upon by the borrower and lender. Repayment of the principal and any capitalized interest begins when the student's enrollment status drops below half time. The maximum annual loan amount is the Federal Direct Stafford Loan annual limit minus the student's amount of eligibility for a Federal Direct Stafford Loan.

### ADDITIONAL FEDERAL DIRECT UNSUBSIDIZED STAFFORD/FORD LOAN

Independent students or dependent students whose parents cannot borrow under the Federal Direct PLUS Program may borrow \$4,000 as freshmen and sophomores, \$5,000 as juniors and seniors, and \$10,000 as graduate students.

### FEDERAL DIRECT PARENT LOAN FOR UNDERGRADUATE STUDENTS

This is a non-need-based loan with a variable interest rate. Repayment of principal and interest begins immediately after the loan has been disbursed. Annual loan limits are the cost of living minus other aid.

### SCHOLARSHIPS AND MERIT AWARDS

New freshmen are automatically considered for all university-wide academic scholarships once they are accepted to UAB. Merit scholarships are awarded on a first come-first-served, funds-available basis to eligible entering freshmen. Students who wish to be considered for merit scholarships should postmark the undergraduate application and all supporting credentials (official transcript and official ACT and/or SAT scores) as early as possible after the completion of the junior year and no later than November 1 of the senior year. Admission applications completed after November 1 of the senior year will be considered on a funds-available basis only.

Transfer students are automatically considered for all university-wide academic scholarships once they are accepted to UAB. Since scholarships are awarded on a first come-first served basis, application for admission should be completed as early as possible. Scholarship applications are available in the Financial Aid Office in late fall for currently enrolled UAB students. The application deadline is February 1. Scholarships are awarded in the spring and go into effect the following academic year.

Along with scholarships offered by the university, many individual schools and departments award their own scholarships. Students should check with the school of their major for scholarships for which they may be eligible.

The following is a brief description of scholarships that are awarded based on academic merit, financial need, or talent. Further information on these and other scholarship funds is available from the Office of Student Financial Aid.

**Academic Affairs Scholarship:** This one-year award is reserved for a currently enrolled UAB student with a declared major.

**Academic Excellence Award:** This renewable award, valued at \$8,000 per year, is reserved for entering freshmen and is based on academic achievement.

**AmSouth Academic Scholarship:** This renewable award valued at \$12,500 per year is reserved for entering freshmen. Selection is based on outstanding academic achievement.

**Birmingham News-Clarence B. Hanson, Jr. Scholarship:** This renewable award is reserved for entering freshmen who are residents of the Birmingham Metropolitan Statistical Area. The award is based on financial need and academic achievement.

**Birmingham Racing Commission Scholarship:** This renewable award is reserved for entering freshmen and is based on academic achievement.

**Blazing Scholar Award:** This renewable award, valued at \$2,000 per year, is reserved for entering freshmen.

**Martha Corbin Scholarship:** This renewable award is reserved for entering freshmen who are residents of Alabama. Selection is based on academic achievement.

**Distinguished Alumni Scholarship:** A non-renewable award for a full-time UAB student. This scholarship requires a GPA of 3.5 or better. Applicants must have declared a major.

**Jack Edwards/Alabama Power Foundation:** This renewable award is reserved for a current UAB student who is a resident of Alabama. It is based on academic achievement.

**Goodfellow Scholarship:** This renewable award is reserved for entering freshmen from the Birmingham Metropolitan Area. Selection is based on academics, leadership qualities, and financial need.

**Green and Gold Scholarship:** This renewable award, valued at \$3,500 per year, is reserved for entering freshmen and is based on academic achievement.

**S. Richardson Hill Scholarship:** This renewable award, valued at \$2,000 per year, is reserved for entering freshmen. Selection is based on academic achievement.

**HOPE (Helping Other People Excel) Scholarship:** This renewable scholarship, based on financial need, is reserved for entering freshmen.

**Charles W. Ireland Presidential Honors Scholarship:** This renewable award, valued at \$10,000 per year, is reserved for entering freshmen. Selection is based on leadership potential and character.

**Crawford T. and Virginia Johnson Scholarship:** This renewable award is reserved for currently enrolled UAB students from the Birmingham Metropolitan Area.

**Nelson and Charleen Kemp Foundation Scholarship:** This one-year scholarship is reserved for graduates of Winfield High School.

**Jane Knight Lowe Scholarship:** These renewable awards are reserved for entering freshmen who are graduates from one of the public or private secondary schools located in Madison County, Alabama. These merit-based awards pay tuition and required fees and a \$1,000 book award each year.

**License to Learn Scholarship:** This renewable award is reserved for a junior-college transfer student or a current UAB student. This award is based on both merit and need.

**McCallum Presidential Scholarship:** This renewable award, valued at \$10,000 per year, is reserved for entering freshmen who demonstrate outstanding academic qualifications.

**Minority Presidential Scholarship:** This renewable award is available to African American students who are entering freshmen. Scholarships pay required tuition and fees each year with summer stipends of \$1,000. Selection is based on academic achievement, strong ACT or SAT score, leadership potential, and extracurricular activities.

**Dottie Monro Presidential Minority Scholarship:** This renewable scholarship, valued at \$2,500 per year, is for African American students who are entering freshmen.

**W. Sanders Murrell Alumni Legacy Scholarship:** This renewable award, valued at \$1,000 per year, is reserved for entering freshmen who are children of UAB alumni. Applications available at [www.alumni.uab.edu].

**Phi Theta Kappa Scholarship:** This renewable award, valued at \$4,000 per year, is reserved for junior-college transfer students who are members of Phi Theta Kappa. The award is based on academic achievement and leadership.

**Virginia and Anna Praytor Scholarship:** This scholarship is awarded on an annual basis to entering freshmen or currently enrolled UAB students who are graduates of Birmingham City high schools.

**Provost's Award:** This renewable award provides \$2,000 per year for entering freshmen who have been designated National Merit Finalists and list UAB as their first-choice institution. These awards are given in addition to any regular academic scholarships National Merit Finalists may receive at UAB.

**George G. Seibels, Jr. Scholarship:** This annual award is reserved for entering freshmen. The award is based on leadership potential and interest in civic affairs and public service.

**UAB Deans' Scholarship:** \$1,000 annual scholarships are awarded for one or two years to junior-college transfer students and UAB students. The award is based on academic achievement, outstanding leadership, or demonstrated talent.

**UAB Faculty Women's Club Scholarship:** Scholarships are awarded to women over 25 years of age returning to complete an undergraduate degree. An essay is required.

**UAB Honors Scholarship:** Two-year scholarships valued at \$1,500 per year are available to junior-college transfer students. High academic achievement is required.

**UAB Leadership Council:** Scholarships are awarded to current UAB students from the Birmingham Metropolitan Area. Apply during sophomore year. The scholarship will be awarded after completion of 60 semester hours.

**UAB Non-Resident Scholarship:** These renewable awards are reserved for entering freshmen who are not residents of Alabama. The value of these merit-based awards ranges in value from \$4,500 to \$6,000 per year.

**UAB Transfer Scholarship:** This renewable award, valued at \$1,000 per year, is reserved for junior-college transfer students.

**Samuel Ullman Scholarship:** This scholarship is awarded on an annual basis to entering freshmen and currently enrolled UAB students.

**University Scholars Award:** These renewable awards are reserved for entering freshmen. The merit-based awards pay in-state tuition and required fees and a \$1,000 book award each year.

**Joseph F. Volker Scholarship:** This scholarship is awarded on an annual basis to sophomores, juniors, seniors, and graduate students. Applicants must have a 3.5 or higher GPA and must have shown leadership abilities.

**Nellie Whitworth Flaherty and Lula McCord Whitworth Scholarship:** This award is reserved for a deserving female student. Preference will be given to those students who have been or are in the work force and are returning to school to complete their educations on either a part-time or full-time basis.

The following are program-related scholarships. Please contact the department or individual listed for more information on the application process.

### **School of Arts and Humanities**

**Alliance Française of Birmingham Scholarships:** One or two merit-based scholarships awarded to incoming or continuing students majoring in French. For more information, contact the Department of Foreign Languages and Literatures at (205) 934-4651.

**Ruby Lloyd Apsey Scholarships:** These scholarships are awarded annually and are renewable for promising students majoring in theatre. For further information, contact the Department of Theatre at (205) 934-3236.

**Art Department Senior Scholarship:** This scholarship is awarded each spring to a rising senior concentrating in studio art chosen by vote of the Department of Art and Art History faculty. For more information, contact the Department of Art and Art History at (205) 934-4941.

**Edward H. Atchison Scholarships:** These renewable scholarships are reserved for students in the visual and performing arts or in programs in music or art education. For information, contact the Department of Art and Art History at (205) 934-4941, the Department of Music at (205) 934-7375, or the Department of Theatre at (205) 934-3236.

**Band Scholarships:** Students are required to participate in various ensembles as determined by the director(s). Open to students of all disciplines. For further information, contact the Department of Music at (205) 934-7375.

**Choral Scholarships:** Students are required to participate in various ensembles as determined by the director(s). Open to students of all disciplines. For further information, contact the Department of Music at (205) 934-7375.

**Dr. Avie Overbach Cohen Spanish and Pre-Medicine Scholarship:** Awarded to an incoming, transfer, or continuing student majoring in Spanish and Pre-Medicine. Primarily based on merit although financial need may be considered. For more information, contact the Department of Foreign Languages and Literatures at (205) 934-4651.

**John Dillon Scholarship:** This scholarship is awarded annually to a student concentrating in studio art and doing significant work in printmaking. For further information, contact the Department of Art and Art History at (205) 934-4941.

**Edith B. Frohock Memorial Scholarship:** This scholarship is awarded annually to a junior concentrating in studio art. For further information, contact the Department of Art and Art History at (205) 934-4941.

**Gloria Goldstein Howton Scholarship:** This annual award is reserved for students enrolled in the Department of English and interested in pursuing a career in creative writing. For information, contact the Department of English at (205) 934-5293.

**Incoming Freshman Art Scholarships:** Scholarships awarded annually to new high school graduates planning to major in art. Application requires portfolio. For more information, contact the Department of Art and Art History at (205) 934-4941.

**Myrtle Jones Steele Piano Scholarships:** Two awards per year of \$750 for music majors in piano performance. For further information, contact the Department of Music at (205) 934-7375.

**David Lloyd Memorial Scholarships:** These scholarships are awarded annually and are renewable for outstanding students majoring in theatre. For information, contact the Department of Theatre at (205) 934-3236.

**James Darrell McAnnally Piano Scholarship:** One award per year of \$750 for a music major in piano performance. For further information, contact the Department of Music at (205) 934-7375.

**Chris McNair Scholarship:** This scholarship is awarded annually to a student majoring in art. For further information, contact the Department of Art and Art History at (205) 934-4941.

**Kathryn Cramer Morgan Scholarship:** This scholarship is reserved for a junior or senior student who is outstanding in public speaking. For more information, contact the Department of Communication Studies at (205) 934-3877.

**Music Technology Scholarships:** Five awards per year of \$500 for music majors in the Music Technology Program. For fur-

ther information, contact the Department of Music at (205) 934-7375.

**The Phillips Scholarship in English:** This annual award is reserved for junior English majors with a GPA of 3.0 or better. Applications reviewed each spring for coming year. For information, contact the Department of English at (205) 934-5293.

**John Schnorrenberg Scholarship:** This scholarship is awarded annually to an undergraduate concentrating in art history. For further information, contact the Department of Art and Art History at (205) 934-4941.

**Spanish Scholarship:** One merit-based scholarship awarded to an incoming, transfer, or continuing student majoring in Spanish. For more information, contact the Department of Foreign Languages and Literatures at (205) 934-4651.

**Byron St. Dizier Scholarship:** This scholarship is reserved for a junior or senior student in print or broadcast journalism. For more information, contact the Department of Communication Studies at (205) 934-3877.

**Alys Robinson Stephens Scholarship:** One award per year of \$1,000 for a music major in any instrument or voice. For further information, contact the Department of Music at (205) 934-7375.

**Ellen Shizuko Takahashi Scholarship:** This scholarship is awarded annually to a student concentrating in studio art and doing significant work in painting. For further information, contact the Department of Art and Art History at (205) 934-4941.

**Grace Lindsley Waits Scholarship:** This annual award is reserved for junior English majors with a GPA of 3.0 or better. Applications reviewed each spring for coming year. For information, contact the Department of English at (205) 934-5293.

**Weaver/Harvey Scholarship:** This scholarship is awarded annually to a student concentrating in studio art and doing significant work in graphic design. For further information, contact the Department of Art and Art History at (205) 934-4941.

**UAB Music Scholarships:** Two awards per year of \$500 for music majors in any instrument or voice. For further information, contact the Department of Music at (205) 934-7375.

**John W. Wittig Scholarship:** This scholarship is reserved for a junior or senior student in public relations. For more information, contact the Department of Communication Studies at (205) 934-3877.

**Stevie Wonder Music Scholarships:** Three awards per year of \$500 for music majors in the Music Technology Program. For further information, contact the Department of Music at (205) 934-7375.

## **School of Business**

**Accenture Scholarships in Information Systems:** Scholarships valued at a minimum of \$1,500 and a maximum of \$3,000 will be awarded to Information Systems students. Applicants must have a junior or senior level status, be a U.S. citizen or permanent resident, must earn or maintain a minimum 3.2 GPA in major field of study and 3.0 GPA overall, demonstrate excellent leadership, communication, and interpersonal skills, must be active in campus organizations and/or hold a job while in school to qualify and take 24-30 semester hours per academic year. It is preferred that the student has already completed IS 304. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Accenture Outstanding Student Award:** A variable gift will be awarded to a junior or senior studying any major within the School of Business, School of Natural Sciences and Mathematics,

or the School of Engineering. The applicant must have a 3.0 overall GPA and a 3.2 major GPA. He/she must also be active in campus organizations or hold a job; leadership, communication and interpersonal skills are taken into consideration. For information, contact the School of Business at (205) 934-8812.

**AMA/UAB Scholarship in Business:** A \$500 scholarship will be awarded annually, provided the funds are available, to a full-time student enrolled in Industrial Distribution or Marketing within the School of Business. Applicants must have a 2.5 or higher cumulative GPA and demonstrate solid academic promise. For information, contact the School of Business at (205) 985-5810. Deadline: varies

**American Society of Women Accountants:** A scholarship valued at \$500 is awarded to a senior in accounting with at least a 3.0 GPA overall and in accounting. The recipient must have completed 60 hours of coursework and have completed AC 300. Need is considered. ASWA application, two letters of recommendation, transcripts, and a short essay are required. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**American Women's Society of CPAs:** \$500 is awarded to a senior in Accounting with a 3.5 GPA overall who has completed AC 300. Applicants must answer essay questions along with the application. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Barfield, Murphy, Shank & Smith Scholarship in Accounting:** A \$1,000 scholarship is awarded to a senior in Accounting who has an interest in public accounting. GPA is important. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Becker/Conviser CPA Review Scholarship:** Free Becker/Conviser CPA Review Course valued at \$1,400 is awarded to a graduating senior planning a career in public accounting. GPA is important. The Accounting Scholarship Committee must receive a letter of interest by February 1. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812.

**Bernard S. Steiner Jr. Endowed Memorial Scholarship:** \$2,500 is awarded to an undergraduate student with a 3.0 GPA in all coursework completed, attends full time, is classified as a junior or senior and demonstrates financial need. Preference will be given to students majoring in Accounting who have completed AC 300. Recipients are eligible to reapply for the scholarship in subsequent years as long as they maintain a 3.0 GPA. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Birmingham Chapter of the Alabama Society of CPAs Scholarship:** Two scholarships valued at \$1,000 each will be awarded to accounting majors entering their senior years. Recipient must have earned and maintain 3.0 GPA in all coursework. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812.

**Birmingham Chapter of the IMA Scholarship:** \$2,000 is awarded to a full time student who has completed AC 300 and maintains an overall 3.0 and Accounting 3.25 GPA. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Birmingham Chapter of the Institute of Internal Auditors:** One or two scholarships valued at \$1,000 are awarded to accounting majors with an interest in internal auditing. GPA is important, and it is preferred that the student has completed AC 413. For information, contact the School of Business at (205) 934-8870 or

(205) 934-8812. Deadline: February 1.

**Carolina Handling/Raymond Corp Scholarship:** A minimum of \$2,000 is awarded for one academic year. Recipients may re-apply in following years but one individual recipient is limited to four years. Awarded to an entering freshman, transfer, or currently enrolled student pursuing a career in the materials industry, having prior experience in materials handling, majoring in Industrial Distribution and available for summer practicum with scholarship sponsor. Current UAB ID students should be involved in extracurricular activities on campus and in the community. Recipient must complete a minimum of 24 hours during the academic year and maintain a 3.0 GPA overall. A committee will choose the recipient and personal interviews are required. For information, contact the School of Business at (205) 975-5810 or (205) 934-8812. Deadline: February 1.

**Colonial Properties Trust Scholarship:** An annual scholarship in the form of a rent-free, one-bedroom apartment for a full-time student in the School of Business for an entire calendar year is awarded to a student with a major in Finance. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Culver Scholarship in Economics:** An annual scholarship of \$1,000 will be awarded to a student currently enrolled or admitted as an economics major in either the School of Business or the School of Social and Behavioral Sciences. Applicants must have a 3.0 overall GPA and demonstrate financial need. Applicants should also demonstrate leadership and be active in student activities. For information, contact (205) 934-8812. Deadline: February 1.

**David E. Mackle Sr. Endowed Memorial Scholarship in Accounting:** Must be an entering freshman with an interest in a major in Accounting or a currently enrolled accounting major. Student should demonstrate solid academic promise or achievement. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Deloitte & Touche Recruiting Scholarship in Accounting:** Applicants must be entering freshmen who plan to pursue a degree in Accounting. Applicants should demonstrate academic excellence, complete a UAB School of Business Scholarship Application, include a current resume and write a letter stating why the applicant wants to pursue a career in Accounting. The scholarship is renewable for four years as long as the recipient maintains an overall 3.25 GPA as well as a 3.25 GPA in Accounting at the end of each academic year. The \$2,000 annual scholarship award will be applied toward the recipient's tuition and fees. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Earle Baker Memorial Scholarship:** One scholarship of \$1,500 will be awarded to a student majoring in accounting and entering his/her senior year. Recipient must have earned and maintained a 3.0 GPA in all coursework and preferably completed AC 300. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Economagic Scholarship in Economics:** An annual scholarship for \$500 will be awarded to a currently enrolled or admitted student majoring in Economics in the School of Business or the School of Social and Behavioral Sciences. Applicants must have a 3.0 or higher overall GPA. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Edmonds Scholarship:** One \$1,000 scholarship will be awarded to a student majoring in accounting with at least a 3.0 GPA showing financial need. For information, contact the School

of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Educational Foundation for Women in Accounting Scholarship:** One scholarship valued up to \$4,000 is awarded to a woman re-entering, preferably as freshman. Need is the most important criteria, but applicants must display commitment, and GPA is considered. Reference letters and a statement of goals are required. For information, contact the School of Business at (205) 934-8870. Deadline: February 1.

**Education Foundation of ASCPA Scholarship:** \$1,000 is awarded to a full-time student who has completed AC 300, has a minimum 3.0 accounting and overall GPA. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**El Paso Corporation Accounting Scholarship:** \$1,500 is awarded to a minority accounting undergraduate, graduate, or equivalent student. Recipient must have and maintain a 3.0 GPA and have a year of coursework remaining. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Ernst and Young/John L. Rhoads Scholarship in Accounting:** Two scholarships of \$1,200 will be awarded to either undergraduate accounting majors entering their senior year or accounting equivalent students. The recipients must have a minimum of 3.25 accounting GPA and minimum 3.0 overall GPA. Must be involved in professional and other activities, have an interest in public accounting and preferably have completed AC 300. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Ernst and Young Recruiting Scholarship in Accounting:** \$2,500 scholarship for an entering freshman or transfer student pursuing a degree in Accounting. Must have a 3.0 GPA. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Faculty Scholarships in Management:** Two scholarships, one valued at \$1,000 and the other valued at \$500, are awarded annually to management majors. The recipients must have at least a 3.25 GPA and have taken between 60-90 hours of coursework. Previous recipients are not eligible to reapply. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Federation of Schools of Accountancy:** A plaque is awarded to a fifth-year student in accounting. GPA is important. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812.

**Fetherston Scholarship in Finance:** One scholarship is awarded for \$250 to a currently enrolled or admitted finance major. The recipient must have at least a 3.0 GPA on all completed coursework, have a proven record of community service. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Financial Executives Institute, Birmingham Chapter Scholarship:** \$250 will be awarded to an accounting student entering his/her senior year in the UAB School of Business. Recipients must have and maintain a 3.0 GPA. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Roy S. Fogas Memorial Scholarship:** At least one scholarship valued at \$1,000 is awarded annually to a currently enrolled UAB School of Business student entering his/her junior or senior year. Selection is based on academic promise, leadership potential and

financial need. Awards are renewable so long as the recipient maintains a minimum overall GPA of 2.5 and an average 3.0 in his or her major. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**A. G. Gaston Endowed Memorial Scholarship:** One scholarship is awarded to an African American student enrolling as a freshman or currently enrolled in the UAB School of Business. Recipients are eligible to re-apply in following years with total awards limited to no more than four years. Financial need and superior academic achievement are considered. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**GE Industrial Distribution Endowed Scholarship:** \$2,500 is awarded to an entering freshman who designates Industrial Distribution as their major. High school GPA, ACT or SAT scores, participation in extra-curricular activities, financial need, and career goals will be considered. Currently enrolled ID students with good academic standing, commitment to completing degree requirements in ID, participation in extracurricular activities and community service will also be considered for the scholarship. Recipients may re-apply in following years but will be limited to four academic years. For information, contact the School of Business at (205) 975-5810 or (205) 934-8812. Deadline: February 1.

**Harvey C. Smith Scholarship in Marketing presented by the AMA, BI Chapter:** A \$500 scholarship is awarded to a junior or senior level student with a designated major in Marketing. Recipient must have a 3.2 overall GPA and leadership and membership in the UAB chapter of AMA is considered.

**IMA, South Birmingham Chapter:** A CMA review course is awarded to an accounting student entering his/her senior year by the fall semester. Must have an accounting major and overall 3.0 GPA. Need is important, and it is preferred that students have completed AC 300. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Jackson Endowed Scholarship in Industrial Distribution:** \$1,500 is awarded to a transfer or currently enrolled student majoring in Industrial Distribution. The recipient must complete a minimum of 24 hours during the academic year and maintain a 3.0 GPA. The recipient must show active participation in extracurricular and/or community service activities. For information, contact the School of Business at (205) 975-5810 or (205) 934-8812. Deadline: February 1.

**J. Stan Mackin Scholarship in Finance:** An annual scholarship for a variable amount will be awarded to a finance major within the School of Business. The recipient must have a 2.5 or higher overall GPA and must demonstrate financial need. He/she must also be involved in student activities, show leadership potential and display excellent interpersonal and social skills. For information, contact the School of Business at (205) 934-8812.

**Katherine L. McCarl Maisel Memorial Scholarship:** A scholarship will be awarded to a senior student majoring in Accounting or Information Systems (with an interest in auditing or computer auditing). Applicants must have a 3.0 GPA in any completed coursework and demonstrate strong leadership skills and human management skills. It is preferred that accounting majors have completed AC 300, and all applicants must be courageous and positive in their attitude toward life. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Legacy Scholarship:** One scholarship of a variable amount is awarded to a student in the School of Business with at least a 2.5 GPA who participates in student activities pertaining to the School of Business. For information, contact the School of Business at (205) 934-8812.

**Louis Paul Kassouf Endowed Scholarship:** Two scholarships valued from \$2,000 to \$2,250 each will be awarded to entering seniors in accounting. Recipients must earn a minimum of 27 semester hours in the academic year, have completed AC 300 and have demonstrated professional awareness and involvement. Recipients must have a minimum overall and accounting 3.0 GPA. Need is considered if there are equally deserving students. For information, contact the School of Business at (205) 934-8870. Deadline: February 1.

**Management/Marketing Faculty Scholarship:** \$500 is awarded annually to a student majoring in either Management or Marketing. The recipient must have at least a 3.25 GPA overall and have taken between 60-90 semester hours of coursework. Previous recipients are not eligible to reapply. For information, contact the School of Business at (205) 934-8812.

**Marshall Endowed Scholarship:** A full-ride scholarship for four years will be awarded to an entering freshman or graduate student with the intent to pursue a degree from the UAB School of Business. Applicants must earn 27 hours and maintain a minimum 3.0 GPA. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**MBA Alumni Association Graduate Support Fund:** Two \$500 scholarships will be awarded to a student pursuing an MBA with at least a 3.5 GPA. For information, contact the School of Business at (205) 934-8812.

**NABA Accounting Alumni Scholarship:** \$500 is awarded to a NABA member based academic merit and activity in the organization. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**NAHAD Industrial Distribution Scholarship:** \$1,000 is awarded annually to a second-semester sophomore or junior with a declared major in Industrial Distribution. The recipient must have a 2.5 overall GPA and a minimum 3.0 average in Industrial Distribution that must be maintained during the term of the scholarship. For information, contact the School of Business at (205) 975-5810.

**M. Gene Newport Business Scholarship Endowment:** \$1,000 will be awarded to a regular, full-time entering freshman or transfer student in the School of Business for one academic year and is renewable for up to three consecutive years. The recipient must complete a minimum of 27 hours in one academic year and maintain a 3.0 GPA. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Ollie S. Powers Endowed Scholarship in Accounting:** A scholarship will be awarded to an accounting major in the School of Business who demonstrates solid academic promise or achievement. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**OSRAM Sylvania Scholarship:** \$1,500 is awarded to an entering freshman or currently enrolled student designating a major in Industrial Distribution. High school GPA, ACT, or SAT scores, participation in extracurricular activities and career goals will be considered. Currently enrolled ID students must maintain a 3.0 GPA, be committed to the degree requirements of the ID program and participate in community service. For information, contact the School of Business at (205) 975-5810. Deadline: February 1.

**Outstanding Accounting Student:** A plaque is awarded to the most outstanding undergraduate accounting student. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Paper Industry Labor Management Endowed Scholarship (SPILMC):** One award of a variable amount is awarded to an undergraduate student with a 3.0 GPA. Preference will be given to Human Resource Management majors and students who have worked in the paper industry or who have a parent or guardian who has worked in a primary mill within the paper industry. For information, contact the School of Business at 934-8812. Deadline: February 1.

**Pearce, Bevell, Leesburg & Moore Scholarship:** One scholarship valued at \$1,100 will be awarded to either an undergraduate accounting major entering his/her senior year or an accounting equivalent major. Recipient must have a minimum 3.25 accounting GPA and have completed Accounting 300. Need is considered if there are equally deserving students. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Pizitz Endowed Scholarship:** \$2,500 for four years is awarded to at least one entering freshman that intends to pursue a degree in the UAB School of Business, earns at least 27 hours per academic year and maintains a 3.0 GPA. Selection is based on grades, ACT or SAT scores, extra curricular activities and career goals. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Powers Scholarship in Marketing:** One annual scholarship is awarded for \$500 to a currently enrolled or admitted marketing major. Applicants must show academic promise, have a 3.0 GPA in all coursework and be active in student activities. Previous recipients are not eligible to reapply. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**PricewaterhouseCoopers Scholarship:** Two scholarships valued at \$1,000 each will be awarded to accounting majors entering their senior year. Recipients must have and maintain a 3.0 GPA. It is preferred that the student have completed AC 300. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**PricewaterhouseCoopers Recruiting Scholarship:** One scholarship valued at \$2,500 will be awarded to an entering freshman that has demonstrated academic excellence with a GPA of at least a 3.0 and will pursue a degree in accounting. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Regions Bank Endowed Scholarship in Business:** A scholarship will be awarded to a student currently enrolled as a finance major in the School of Business. Selection is based upon academic promise, leadership potential, merit and high moral character. The applicant must have and maintain a 3.0 GPA. Recipients are eligible to reapply in subsequent years as long as they continue to meet the requirements. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Rime Endowed Scholarship:** \$2,500 for four years is awarded to an entering freshman who intends to pursue a degree in the UAB School of Business and earns at least 27 hours per academic year and maintains a 3.0 GPA. Selection is based on grades, ACT or SAT scores, extracurricular activities and career goals. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Roberta M. and John L. Rhoads Accounting Scholarship:** Three or four scholarships valued at \$1,500 each will be awarded to entering seniors in accounting. Recipients must have at least a 3.25 accounting GPA and a minimum 3.0 overall GPA. Need, extracurricular, civic, and professional activities, completion of AC 300 and AC 310 will be considered. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Shank Scholarship in Business:** At least one \$1,000 scholarship is awarded to a student in the UAB School of Business with a minimum 3.0 GPA. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**UAB Accounting Alumni Scholarships:** Scholarships valued at \$500 each will be awarded to accounting undergraduate, graduate or equivalent students. Recipients must have and maintain a 3.0 GPA. For information, contact the School of Business at (205) 934-8870 or (205) 934-8812. Deadline: February 1.

**Van Matre Endowed Scholarship:** \$1,000 is awarded to at least one entering freshman or transferring junior-college student who intends to pursue a degree in the UAB School of Business. The recipient is preferred to be from a rural area and have good character. They must earn at least 27 hours per academic year and maintain a 3.0 GPA. Recipients are chosen on academic promise and need. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

**Vanzandt Financial Scholar Award:** 250 is awarded to a student majoring in Finance. Applicants must have completed 12 hours in-residence, have a minimum 3.0 GPA on all completed coursework, have a proven record of community services, and submit a 200-250 word essay on how he/she plans to use a college education to further benefit his/her community. For information, contact the School of Business at (205) 934-8812.

**Victoria A. & Ralph A. Johnson Endowed Scholarship:** \$1,000 will be awarded to a student pursuing a degree within the School of Business or in the Department of Communication Studies. Applicants must have a 3.0 overall GPA and preference is given to applicants that are first generation college students over 22 years of age and who are current or previous union members or are a spouse or child of a current union member. The student must also demonstrate a commitment to education and evidence of previous success or project completion. For information, contact the School of Business at (205) 934-8812.

**Young Men's Business Club Endowed Scholarship:** At least one scholarship valued at \$2,000 is awarded annually to a currently enrolled UAB student in the School of Business who will be entering their junior or senior year. Selection is based on high academic standing, financial need, and community service. For information, contact the School of Business at (205) 934-8812. Deadline: February 1.

## **School of Education**

**Virginia Horns-Marsh Scholarship:** This annual award of \$2,000 is for a doctoral student in Early Childhood Education. The award is based on merit, character, and potential for success. For information, contact the School of Education at (205) 934-7598. Deadline: March 1.

**Roberta and Delbert Long Scholarship:** The amount varies on this scholarship awarded to a student enrolled in the School of Education. For information, contact the School of Education at (205) 934-7598. Deadline: March 1.

**Artie Manning Scholarship:** This \$2,000 scholarship is for a student with financial need with a physical or learning disability or a student who plans to teach such children. Applicants must be accepted into the Teacher Education Program. For information, contact the School of Education at (205) 934-7598. Deadline: March 1.

**Kathryn Cramer Morgan Scholarship:** A full graduate assistantship is available. For information, contact the School of Education at (205) 934-7598. Deadline: March 1.

**School of Education Alumni Scholarship:** A \$500 award is available for the grandson/daughter of an educator with a minimum 3.25 GPA. Applicant must have completed 30 hours in the Teacher Education Program or degree program in Education and show financial need. For information, contact the School of Education at (205) 934-7598.

**Joyce Sibley Fund:** Funds are available to assist a student enrolled in the Teacher Education Program with the purchase of a computer. For information, contact the School of Education at (205) 934-7598. Deadline: March 1.

**Ruth M. Strong Scholarships:** Up to \$1,000 is reserved for a student in the undergraduate Teacher Education Program. Preference is given to a qualified African American student with a 3.0 GPA who shows financial need. For information, contact the School of Education at (205) 934-7598. Deadline: March 1.

**Jack Tribble Scholarship:** Up to \$7,500 (individual amounts vary) is available to students with financial need majoring in physical education. For information, contact the School of Education at (205) 934-7598. Deadline: March 1.

**Cobb Loan/Scholarship:** Up to \$8,000 is reserved for an incoming freshman from an urban high school who intends to teach in an urban setting following graduation from the Teacher Education Program at UAB. This loan will be considered forgiven and canceled if recipient teaches in an urban setting for two years following graduation. Award renewable for four years with satisfactory academic progress in the School of Education. For information, contact the School of Education at (205) 934-7598.

**Student Alabama Education Association (SAEA) Scholarship:** A \$500 award is available for students currently enrolled in Teacher Education Program at UAB. Must have a 2.75 GPA, and preference is given to students involved in the SAEA program. For information, contact the School of Education (205) 934-7598. Deadline: March 1.

**Stewart-Snipes Scholarship:** Ten awards up to \$2,500 each reserved for incoming freshman from an accredited high school in the Jefferson County school system and have been admitted into the University and have identified education as an area of interest. Qualifying students must have earned a 3.0 GPA in high school and a minimum 22 on the ACT or 1030 on the SAT. Award is renewable with satisfactory academic progress. For information please contact the School of Education (205) 934-7598. Deadline: February 1.

## **School of Engineering**

**Alabama Power Foundation Scholarship:** This scholarship in the amount of \$3,500 is for full-time undergraduate study for entering freshmen in engineering, and it may be renewable. It is based on high academic achievement. For information, contact the School of Engineering at (205) 975-5627.

**American Cast Iron Pipe Company Engineering Scholarship:** This \$3,000 scholarship is reserved for engineering

students enrolled in civil, electrical, mechanical, or materials engineering who have high academic achievement. For information, call (205) 975-5627.

**B E & K Scholarship:** This \$14,000 scholarship is given annually to entering freshmen majoring in engineering. The scholarship pays \$3,500 per year and is based on high academic achievement.

**El Paso Energy Engineering Scholarship:** This scholarship in the amount of \$1,500 is designated for a student who is a rising junior or senior majoring in civil, electrical, mechanical, or materials engineering. The student must be a member of an underrepresented group and have financial need. For information, contact the School of Engineering at (205) 975-5627.

**Francis J. Dupuis Engineering Scholarship:** Up to 10 scholarships are awarded annually, valued at \$16,000 each and paying \$4,000 per year. These scholarships are designated for full-time undergraduate study in engineering for entering freshmen.

**Industrial Scholars Program:** These awards are for entering freshmen or transfer students majoring in engineering. The Program includes a combination of scholarships and internships. For information, contact the School of Engineering at (205) 975-5627.

**Jay Goldman Engineering Scholarship:** This scholarship is for entering freshmen or transfer students enrolled in the School of Engineering. Recipients will be chosen on the basis of academic achievement and leadership. The amount of the award varies. For information, contact the School of Engineering at (205) 975-5627. Deadline: February 1.

**Lane-Bishop-York-Delahay, Inc. Civil Engineering Scholarship:** This renewable award is reserved for rising sophomores majoring in civil engineering. For information, contact the Department of Civil Engineering at (205) 934-8430.

**The Hack Sain Scholarship in Civil and Environmental Engineering:** This scholarship in the amount of \$2,500 annually and is renewable. These awards are reserved for rising sophomores majoring in civil engineering. For information, contact the School of Engineering at (205) 975-5627.

**Vulcan Materials Engineering Scholarship:** This scholarship in the amount of \$3,500 is for full-time undergraduate study for entering freshmen in engineering, and it may be renewable. It is based on high academic achievement. For information, contact the School of Engineering at (205) 975-5627.

### **School of Natural Sciences and Mathematics**

**Accenture Scholarship:** Two scholarships are awarded annually to upper-level Computer and Information Sciences majors with a minimum GPA of 3.2 in major. For more information, contact the Department of Computer and Information Sciences at (205) 934-2213.

**Alabama Space Grant Undergraduate Scholarships:** UAB is a participant in the Alabama Space Grant Consortium and awards six undergraduate scholarships annually of \$1,000/student. The undergraduate scholarships will be renewable following competitive review each year with an individual limit of two years. Undergraduate students in any academic discipline that is likely to improve the understanding, assessment, development, and utilization of space are encouraged to apply. For more information, contact Dr. Yogesh Vohra, UAB Campus Director, Department of Physics at (205) 934-6662.

**GATSOL-Baumann Scholarship:** This scholarship is awarded to a student enrolled or admitted to the School of Natural Sciences and Mathematics. For information, contact the Office of the Dean at (205) 934-5102.

**George F. Brockman IV Scholarship:** This scholarship is reserved for a student currently enrolled in the School of Natural Sciences and Mathematics. For information, contact the UAB Office of Student Financial Aid. (205) 934-8223.

**Chemistry Scholars Fellowship:** This scholarship is reserved for a qualified entering freshman majoring in chemistry. The fellowship will provide a stipend of \$1,600 for the first year and \$3,200 for each of the remaining three academic years for a total value of \$11,200. For information, contact Dr. David Graves, Chemistry Department, at (205) 975-5381.

**Joseph M. Fontana Scholarship:** This scholarship is reserved for a computer-science major and pays up to \$4,000 annually. For information, contact the Department of Computer and Information Sciences at (205) 934-2213.

**NSM Physics Faculty Scholarship:** This renewable, \$1,500/yr scholarship is designed for Physics majors demonstrating exceptional promise for contributing to the development of science. For information, contact Dr. Thomas Nordlund, Physics Department, at (205) 934-0340.

**SOLEN Industrial Chemistry Scholarship:** This renewable scholarship is awarded annually to an upper-level chemistry major interested in pursuing a career in industrial chemistry. For more information, contact the Department of Chemistry at (205) 934-8276.

**UAB Mathematics Fast Track Scholarships:** These awards are reserved for qualified students interested in obtaining both a B.S. and M.S. degree in mathematics in four to five years. The award pays up to \$9,000 per year and is renewable. For information, contact the Mathematics Undergraduate Program Director at (205) 934-2154.

**Travis B. Wood Memorial Mathematics Scholarship:** One scholarship is awarded annually to a Mathematics major with preference given to an older student returning to school. The award pays up to \$1,000 per year. For more information, contact the Department of Mathematics at (205) 934-2154.

# PROGRESS TOWARD A DEGREE

## RESPONSIBILITIES

The student is responsible for selecting and registering for courses necessary for reasonable progress toward the degree sought. The minimum requirement for reasonable academic progress is that the student must pass a minimum of 24 semester hours of coursework in an academic year. Academic advisors are available to help students plan their programs (see page 15).

The Office of Registration and Academic Records is responsible for registration, recording and reporting grades, maintaining current and permanent records on all students, enforcing rules on academic warning; probation and suspension, certifying students for graduation, and issuing transcripts. The office is located in Room 207, Hill University Center, 1400 University Boulevard, Birmingham, Alabama 35294-1150. (205) 934-8222.

Students must notify the Office of Registration and Academic Records of address changes so that notices and other materials are sent to the current address.

## TERMS AND COURSE OFFERINGS

There are three academic terms during a calendar year: fall semester, spring semester, and summer term. The fall and spring semesters each consist of approximately 15 weeks of classes, followed by one week of final examinations. The summer term consists of five sessions, each with its own time and format. The five summer term sessions are as follows: a twelve-week session that runs throughout the summer term; the intensive May session, consisting of the first three weeks of the summer semester; a nine-week session, beginning after the May session ends and running until the end of the summer semester; and the summer A and summer B sessions, which are both four and a half weeks long and run back-to-back concurrently with the nine-week session.

The courses to be offered during a particular term are listed in the UAB Class Schedule, published two times per year. Summer/Fall class schedules are available to students in early March; spring semester schedules are available in late October. Early registration in April allows students to enroll in fall semester classes on a priority basis.

## COURSE ENROLLMENT COURSE NUMBERING SYSTEM

<b>Course Numbers</b>	<b>Primarily for:</b>
000– 099	developmental courses
100– 199	freshmen
200– 299	sophomores
300– 399	juniors
400– 499	seniors
500– 599	graduate level I
600– 699	graduate level I
700– 799	graduate level II

Courses numbered 500 and above are for graduate students.

Under certain circumstances undergraduate students may be permitted to enroll in these courses.

## CLASSIFICATION OF STUDENTS

Students are classified as sophomores when they have earned 30 semester hours of credit, juniors when they have earned 60 semester hours of credit, and seniors when they have earned 90 semester hours of credit.

## DECLARATION OF A MAJOR

Degree students must declare a major within their first 60 semester hours of course work before registering for additional courses. Students enrolling at UAB for the first time and who already have earned 60 semester hours will have a maximum of two terms within which to declare a major. Conditions for acceptance of a student into a major vary by department and school.

Majors should be declared or changed using the official form available from the Office of Registration and Academic Records. Some majors are subject to additional admission requirements and enrollment limitations.

## CREDIT HOURS AND LOADS

The unit of credit at UAB is the semester hour. Course descriptions indicate the number of semester hours that may be earned for a particular course. A standard course load for a full-time student is 15 semester hours of course work in a semester. At least 12 semester hours of course work are required for full-time status. Registration for more than 18 semester hours in a term or more than three semester hours in the May Session requires approval by the dean or the dean's representative of the school in which the student is majoring.

## MANDATORY MEASLES IMMUNIZATION

All UAB students must have written proof of immunization against rubeola (red measles) in order to register for classes. See page 267 for more information on UAB's official immunization policy.

## REGISTRATION

A student wishing to attend any of the three academic terms must register for that specific term. A student is eligible to register if he/she has been admitted to UAB, the student's financial records in the Student Accounting Office are clear, and the student is in good academic standing. An early registration period for fall semester will occur every spring immediately before registration for summer term.

A degree student who has not registered for course work over a period of 24 months must reapply for admission to resume study as a degree student. If accepted, the student is subject to the policies of the catalog current at that time.

## PREREQUISITES FOR A COURSE

It is the student's responsibility to ensure that prerequisites for a course are met before registering for the course. Advisors are available to help with this determination. Prior to the end of the designated drop period, the instructor has the prerogative to drop from the course a student who does not meet the prerequisites.

## FIRST CLASS ATTENDANCE

An instructor has the prerogative to drop a student from a course if the student is absent without prior notification from the first class of a term. Such action is at the discretion of the instructor, and absence from the first class does not automatically drop the student from the course. If a student wishes to drop or withdraw from the course, the student must follow official drop or withdrawal procedures. A student who misses the first class of a term is responsible for determining his/her status in the class.

## PARTICIPATION IN UNIVERSITY-RELATED ACTIVITIES

Part of the value of a good undergraduate education is the opportunity to participate in a variety of university-sponsored activities, as long as these activities do not jeopardize students academically. Students who expect to miss class because of university-related activities are encouraged to discuss the anticipated absence with the instructor, preferably during the first week of classes. Policies concerning class attendance and the availability of make-up opportunities for any class requirements are set by the individual course instructor. However, faculty are encouraged to make reasonable allowances for students who miss class due to participation in official university-sponsored activities. Examples of such activities include participation in state, regional, and national meetings where the student is a delegate or presenter, and participation in music performances and athletic events.

## ADD/DROP PROCEDURES

In the case of fall and spring semesters and the 9 and 12 week sessions in the summer term, the last day to drop a class without paying full tuition is the eighth calendar day of the term; the last day to add a class is the ninth calendar day of the term. It is the student's responsibility to initiate add/drop procedures. Dates to drop and add for May session, A Session and B session are published in the UAB Class Schedule for summer term. Registration during late registration (the add period) for any class requires the signature of the instructor unless the class has not met for the first time and there are seats available. The official add/drop form must be used, and there is a fee for each change-of-course form used during late registration. The add/drop form may be obtained in the Office of Registration and Academic Records.

A student beginning the registration process during the late registration period will be assessed a late registration fee.

## WITHDRAWING FROM COURSES

To avoid academic penalty, a student must withdraw from a course by the withdrawal deadline shown in the academic calendar and the UAB Class Schedule and receive a grade of W (withdrawn). The withdrawal period ends at approximately 60% of the

academic term. After this deadline, the student must receive a grade in the course.

Students are not considered officially withdrawn from a single course or their entire registration until they have completed a withdrawal form and submitted it to the Office of Registration and Academic Records or until they have written a letter to that office requesting that they be withdrawn. **It is the student's responsibility to initiate the withdrawal process.** *Failure to attend class does not constitute a formal drop or withdrawal, either academically or financially.* Provided the withdrawal would not violate any academic or financial rules, the request will be honored. The date the change-of-course form or the letter is received in the Office of Registration and Academic Records will be regarded as the official date of withdrawal. It is important that students keep the official validation of all course changes as evidence of the transaction. If a student withdraws by mail, a withdrawal validation will be mailed to the student's address of record. Withdrawal is not complete until the student receives the validation notice. If the withdrawal validation is not received, the student is responsible for contacting the Office of Registration and Academic Records before the deadline to withdraw. As shown in the academic calendar (page 5), if the official date of withdrawal is after the last day to withdraw without paying, **no tuition or fees will be refunded.**

## AUDITING COURSES

As an alternative to full participation in a course, students may audit the course. Auditors do not receive grades and do not usually participate in the examinations; however, instructors have the option of establishing requirements for a satisfactory audit.

Audit is similar to regular enrollment. Students choosing this option must be admitted to UAB; enroll in the course by completing a UAB registration form, indicating "AU" in the column labeled "Sem. Hrs."; obtain the signature of the instructor; and pay the same tuition and fees as regular enrollees. Provided the instructor's requirements are met, the course will appear on the transcript with the notation "AU" and zero semester hours credit. If the requirements are not met, a "W" will be entered on the transcript.

Course registration, withdrawal, and drop policies apply to audited courses. In instances of over-enrollment, preference is given to students taking courses for credit, and auditing students may be dropped.

A student is not permitted to change from audit to credit or credit to audit at any time.

## COURSES TAKEN ON A PASS/FAIL BASIS

A degree student who is in good standing may opt to register for a course on a pass/fail basis. The course must be one for which the student is eligible to register and cannot be among those used to satisfy core, major, or minor requirements. A student must declare the intention to take a course on a pass/fail basis by notifying the instructor at the first class meeting. It is recommended that students consult their academic advisors prior to taking any course as pass/fail.

Grades awarded for a pass/fail course are "P" (pass) or "F" (fail). A grade of "P" carries full credit for the course, but the course is not counted in calculating the grade point average. At most,

twelve semester hours taken on a pass/fail basis may be used to satisfy degree requirements (not including courses for which “P” or “F” is the only grade awarded).

## UNDERGRADUATE STUDENTS IN GRADUATE COURSES

With the approval of their advisor, the undergraduate program director or department chair, the instructor, and the graduate program director, UAB undergraduate students may be allowed to register for a graduate course. Credits earned by undergraduate students may be applied to either an undergraduate degree or a graduate degree, but not both. If the student is subsequently admitted to the Graduate School, use of this credit toward a graduate degree requires the approval of the graduate program director and the Graduate School dean. (The Graduate School does not give credit for any grade below a “C”.) Credits that have been used toward the baccalaureate degree cannot be used a second time toward a graduate degree.

## COURSE COMPLETION

### FINAL EXAMINATIONS

The final examination for each course is scheduled for a period during finals week. This cannot be changed without the approval of the appropriate dean.

### GRADING POLICIES AND PRACTICES

#### **Grade Report**

Final grades of all students are recorded and posted to their transcripts. In determining these final grades, the faculty may consider grades received in daily recitations, written work, laboratory work, tests, and final examinations. Grade reports are available online and upon request.

#### **Grades Assigned by the Faculty**

- A (superior achievement)
- B (above average)
- C (average)
- D (minimally adequate)
- F (failing)
- I (incomplete) A temporary notation to be awarded only if in the instructor’s judgment, the student should be allowed additional time to complete the course. A grade of “I” that is not changed by the instructor by the end of the next regular semester automatically converts to an “F”.
- P (passing) Applicable only to a course taken on a pass/fail basis.

#### **Notations Assigned by the Office of Registration and Academic Records**

- W (withdrawn) A notation assigned by the Office of Registration and Academic Records reflecting an administrative action initiated by the student in accordance with regulations governing withdrawal from courses. “W” (withdrawn) may not be assigned by the instructor. The student

must complete and submit a Course Withdrawal Form to the Office of Registration and Academic Records prior to the date specified in the current UAB Class Schedule for the particular academic term.

- N (no grade submitted) A temporary notation made by the Office of Registration and Academic Records if no grade (A, B, C, D, F, I, or P) is assigned the student by the course instructor. This notation is used only when the Office of Registration and Academic Records is unable to obtain a grade from the instructor prior to the issuing of grade reports or when the course is designed to extend beyond a single term. It remains the instructor’s responsibility to assign a permanent grade. If the instructor has not submitted a grade by the end of the following term, the “N” (no grade submitted) is changed automatically to an “F” (failing) by the Office of Registration and Academic Records. The notation “N” cannot be extended.

### COURSE REPEAT POLICY

Any course at taken UAB may be repeated at UAB. If a course is repeated once, the second grade awarded replaces the first in computing the UAB grade point average. When a course is repeated more than once, all grades for the course—excluding the first grade—will be employed in computation of the UAB grade point average. However, official records maintained by UAB will list each course in which a student has enrolled and earned a grade. The same procedure for calculating grade point average also applies for a course taken at another institution and repeated at that institution prior to its transference to UAB. Within UAB, academic departments and schools may have additional provisions regarding repeat courses and the calculation of grade point average. **It is the student’s responsibility to notify the Office of Registration and Academic Records of a repeated grade, since recognition of a repeated grade is not automatic.**

To replace a grade in a UAB course that was offered as part of a sequence under the quarter calendar and is now offered as a sequence in the semester system, the following rules apply:

- For a three-course sequence in the previous system (generally three semester hours each), which is now a two-course sequence in the semester system (generally four semester hours each):  
**Rule:** A grade earned in the first course of the semester sequence will replace a grade earned in the first course in the quarter sequence. A grade earned in the second course of the semester sequence will replace the third grade in the quarter sequence. Grades earned in both semester courses will replace the three grades earned in the quarter sequence.
- For a four-course sequence in the previous system (generally three semester hours each), which is now a three-course sequence in the semester system (generally four semester hours each):  
**Rule:** A grade earned in the first course of the semester sequence will replace a grade earned in the first course in the quarter sequence. A grade earned in the second course of the semester sequence will replace the third grade in the quarter sequence. A grade earned in the third course of the semester sequence will replace a grade earned in the fourth course in the quarter sequence. Grades earned in all three semester courses will replace grades earned in all four courses taught in the quarter sequence.

## COURSES TAKEN AS A TRANSIENT STUDENT

To take a course at another institution while concurrently enrolled at UAB, a student must submit a "Transient Student Request Form" with the rationale for the request to the UAB Office of Registration and Academic Records prior to enrolling in the course. The request must be approved by the student's academic advisor, the chair of the UAB department that would offer the course at UAB, and the chair of the department where the student is completing major/degree requirements. If the course from the host institution (defined as the institution where a student has temporary or transient status) has not been articulated at UAB, the Office of Academic Programs and Policy must be notified of the transfer equivalency. The form must indicate the courses the student has been approved to take.

To take a course(s) at another institution while not concurrently enrolled in UAB, a student may receive transient permission for one term only. If the student does not receive permission for transient status or if he/she enrolls for more than one term, the student must reapply for admission to UAB prior to continued enrollment at UAB. Forms must be approved in the same manner as for concurrent enrollment as described above.

Most institutions require a "letter of good standing" (defined as having a UAB grade point average of 2.0 or higher) from the home institution (defined as the institution where the student is enrolled as a degree-seeking student) to admit someone as a transient student. A student should obtain this verification from the Office of Registration and Academic Records when the Transient Student Request Form is submitted. The certifying letter should be submitted along with a copy of the request form as required by the host school.

Grades earned at UAB may not be replaced with grades earned in courses taken at other institutions. The UAB repeat policy applies only to courses repeated at UAB. Courses taken at other institutions without prior approval and a completed Transient Student Request Form on file may not be approved for credit at UAB.

## COOPERATIVE EXCHANGE PROGRAMS

UAB, Birmingham-Southern College, Miles College, the University of Montevallo, and Samford University have established the Birmingham Area Consortium for Higher Education (BACHE) to expand educational opportunities for their students. UAB students may also enroll in courses at the University of Alabama and the University of Alabama in Huntsville through the University of Alabama System Cooperative Exchange Program. Any full-time, degree-seeking UAB student who is in good academic standing may, with written permission from his/her academic advisor and dean, and at no additional charge, take a course at another cooperative exchange institution if it is not offered at UAB and it is deemed to be beneficial to the student's overall educational program. All courses eligible to be taken through the cooperative exchange programs must be articulated by UAB prior to the student's registration. Credit for work completed under the cooperative programs will be posted on the student's record as UAB credit.

The cooperative program course hours may be counted in the 12 hours needed for full-time; however, students cannot use an audit of a UAB course to count for full-time status. If, after being accepted into a cooperative exchange program, a student drops a

UAB course that causes his/her status to fall below full-time, the student will not be allowed to continue in the cooperative program. Students usually may take only one course per term at a cooperative institution, but under special circumstances permission may be granted to take more. All academic regulations of UAB must be observed; in addition, students are expected to observe the academic regulations of the cooperating institutions.

Students must register for a cooperative exchange program course during UAB's registration period regardless of when the host institution's term begins. Further information on registration procedures and other matters may be obtained from the Office of Registration and Academic Records.

## ALTERNATIVE CREDIT OPPORTUNITIES

In some instances academic credit may be awarded for work done in a format other than a college course. Credits earned in this way are recorded on the transcript with a grade of P. Such credits may not be used in repeating a course and may not be awarded for work equivalent to a course that is a prerequisite to a course already taken for credit. No more than 45 semester hours of alternative credit may be applied toward a degree. For more information on the following opportunities for alternative credit, testing schedules, fees and study guide information contact the Office of Academic Programs and Policy, Room 470, Hill University Center. See web-site at [www.uab.edu/testing](http://www.uab.edu/testing) or call (205) 937-5503.

Opportunities for earning credit outside the normal course format include:

1. Advanced Placement (AP)—The amount of credit awarded and the examination score required are stated in the current policy.
2. College Level Examination Program (CLEP)—The CLEP General Examination must be taken before 15 semester hours of college work have been completed. The subject-area examinations are assigned credit as listed in the UAB CLEP Policy statement.
3. International Baccalaureate Credit (IB)—Academic credit may be awarded for scores of five or higher on IB higher-level examinations. No credit is awarded for subsidiary-level examinations.
4. Credit by Examination (CBE)—A degree-seeking student may petition to obtain credit for a course by taking an examination; however, not all programs will accept CBE. It is the student's responsibility to verify the applicability of CBE courses for major/minor requirements. The relevant department must agree to create and grade the examination. If a student takes CBE in a course that he/she has already taken for credit, the grade for CBE will not replace the grade for the previous course. The fee for CBE is based on the current rate of tuition according to your level (undergraduate/graduate) and residency status. The fee for CBE is the full rate of tuition per hour or credit requested.
5. Credit by Portfolio (CBP)—A degree-seeking student may petition to receive credit for a course on the basis of a portfolio of information documenting knowledge of the course material. The chair of the appropriate department and dean of the school make the final decision on acceptability of the materials for credit. The fee for CBP is based on the current rate of tuition according to your level (undergraduate/graduate) and residency status. The fee for CBP is the full rate of tuition per hour at credit requested.

6. Noncollegiate Courses—Credit may be awarded for noncollegiate courses in accordance with American Council on Education recommendations and approval of the appropriate department chair and dean.
7. Credit for Military Experiences—UAB evaluates military service and educational experiences completed by active-duty military service and Coast Guard personnel. UAB is an institutional member of Servicemembers' Opportunity Colleges.
8. Dantes Subject Standardized Tests (DSST)—The DSST, prepared by the Chauncey Group, is a nationally recognized credit-by-examination program that awards college credit for courses taken by examination. DSST Examinations are scheduled individually, by appointment.

## TRANSFER CREDITS

As stated in the section on admissions (page 23), the academic unit responsible for the program of study makes the evaluation of eligible credits earned at other institutions. Posting of such credits on the student's transcript does not constitute acceptance of the credits toward the fulfillment of specific degree requirements.

## CUMULATIVE CREDITS AND GRADE POINT AVERAGE

The official determination of "credit hours earned," "credit hours attempted," and "grade point average" can only be made by the Office of Registration and Academic Records. The following sections indicate how these quantities are calculated. Transfer work and courses taken at UAB are treated on the same basis. Developmental courses are not included in calculations of credit hours earned, credit hours attempted, or grade point average.

### **Credit Hours Earned**

The student's "credit hours earned" are increased by:

1. earning a passing grade (D or better) in a course for which the student was registered for credit,
2. obtaining the "Pass" grade in a course taken on a pass/fail basis, or
3. obtaining the "Pass" grade for alternative credit. See "Course Repeat Policy," page 39.

### **Credit Hours Attempted**

The student's "credit hours attempted" are increased by:

1. receiving an A, B, C, D, or F in a course for which the student was registered for credit, or
2. receiving the "Fail" grade in a course taken on a pass/fail basis. See "Course Repeat Policy," page 39.

### **Grade Points**

Four quality grade points are awarded for each semester hour for which the student received an A grade; three quality grade points are awarded for each semester hour in which a B is obtained; two quality grade points are awarded for each semester hour in which a C is obtained; and one quality grade point is

awarded for each semester hour in which a D is obtained. No quality grade points are awarded for an F.

## **Grade Point Average**

The grade point average is determined by taking the grade points obtained and dividing by the credit hours attempted (not credit hours earned). The UAB grade point average is determined using only work attempted at UAB. The higher education grade point average is determined by calculating all college work attempted.

## THE NEW START OPTION

The New Start Option serves the student who previously accumulated a poor academic record, but who has demonstrated the ability to succeed in college-level work at UAB. The option enables the student to void all work prior to that point, beginning anew with work from that point forward. To be eligible, a person must be a degree-seeking undergraduate student or eligible for degree-seeking status under the New Start option at UAB. The policy does not apply to college graduates or to admission policies in the Schools of Nursing or Health Related Professions.

To apply for the New Start Option, the student must obtain the written approval of an academic advisor. The application must be filed prior to graduation and must specify a date, called the New Start date, prior to which all grades and notations are voided. The application will not be considered until the student's transcript contains at least 24 semester hours of course work applicable to a degree (i.e. hours earned, but not necessarily to a particular major) at UAB, posted after the New Start date. In addition, the GPA on all work taken after the requested New Start date, as well as the UAB GPA, must be at least 2.0.

Policies governing the New Start Option are as follows:

1. Upon approval of the application, all grades (including passing grades) and notations listed on the transcript prior to the New Start date are placed in a separate listing on the transcript and are voided for purposes of satisfying UAB degree requirements and computing GPA. The transcript carries the notation "Approved for New Start (date); work prior to this date is not calculated in GPA or applied toward a degree."
2. All work completed after the New Start date is counted toward completion of a degree, in accordance with policies of the catalog in effect at the New Start date. The repeated course policy applies only to courses taken after the New Start date.
3. A course completed before the New Start date, and which is a prerequisite for a course to be taken later, must be taken again even if successfully completed before the New Start date, unless explicit exception is made by the chair of the department in which the course is taught.
4. The student may employ alternative credit to replace some voided courses taken prior to the New Start date.
5. A student may not use the New Start Option to graduate with honors.
6. The New Start Option may be granted only once during the student's academic career at UAB and is irrevocable.

## ACADEMIC HONORS

UAB compiles and publishes an honor roll at the close of each regular term. Only UAB work is considered. To be eligible for the Presidential Honors List, students must be registered for and complete at least 12 semester hours of credit and have a 4.0 grade point average for the term. Students who register for and complete at least 12 semester hours of credit and who attain a grade point average of at least 3.6 are included in the Dean's List for the term. Superior scholastic achievement may be further recognized by election to membership in appropriate national honorary societies. For the requirements for graduation with honors, see page 46.

## ACADEMIC WARNING, PROBATION, AND SUSPENSION

### **Academic Warning**

A first-term freshman (a student with no previous college credit, except through dual enrollment) will be placed on academic warning if a 2.00 grade point average is not earned during the first term of enrollment. The freshman must meet with his/her academic advisor before the next registration period. If the second term's UAB grade point average is not 2.00 or higher, then the freshman will be placed on academic probation.

### **Academic Probation**

A student (other than a first-term freshman) will be placed on academic probation if his/her UAB grade point average falls below 2.00 and will be required to meet with his/her academic advisor before the next registration period. At this meeting, the student and advisor will agree on a plan of action that will best help the student with his/her academic progress (e.g., courses to take or repeat, supplemental instruction, reduced credit hour load, basic skills seminars, etc.). The plan must be submitted to the Office of the Associate Provost for Undergraduate Programs and will be monitored by the student's academic advisor throughout the probationary period. The student will have a maximum of 24 semester hours to achieve a UAB grade point average of 2.00 or better to clear academic probation.

### **Academic Suspension**

If a student does not clear probation (achieve a UAB grade point average of 2.00 or better by the completion of 24 additional semester hours), the student will be placed on first suspension for one term. When returning from first suspension, the student must meet with his/her academic advisor to be reinstated prior to registering for classes. The student will be reinstated on academic probation and must achieve a 2.00 or higher grade point average each term until the UAB grade point average is at least 2.00. The student must achieve a UAB grade point average of at least 2.00 to have the academic probation removed.

After first suspension, a student will be placed on second suspension when both the term grade point average and the UAB grade point average are less than 2.00. Second suspension is for twelve months.

Students wishing to return to UAB after a second suspension must apply to the Office of Undergraduate Admissions for readmission. The deadline for a student to submit a letter of appeal for readmission will be eight weeks prior to the date of intended

enrollment. By this deadline, an applicant must have submitted any attending documentation to support the appeal.

If readmitted to UAB after a second suspension, the student will be admitted under probation and must achieve a 2.00 or higher GPA each term until the UAB GPA is at least 2.00. If both the term GPA and the UAB GPA fall below 2.00, the student will be placed on suspension for twelve months.

Students may not transfer to UAB work earned at another institution while on suspension from UAB.

Note that individual schools may have probation and/or suspension rules in addition to the above.

All notations of academic warning, probation, or suspension are a permanent part of a student's transcript.

## TRANSCRIPTS

Upon written request by the student, the Office of Registration and Academic Records will send an official transcript directly to the recipient designated by the student. Official transcripts will not be issued to the student; however, an unofficial transcript may be issued to the student. There is a \$5.00 charge for each transcript. Transcript requests will be honored only for students whose financial accounts with UAB are clear, including payment of charges for the current term.

## SCHOOL, MAJOR, OR ADDRESS CHANGES

Changes or corrections to a student's name, address, telephone number, school, or major should be made through the Office of Registration and Academic Records, Room 207, Hill University Center, 1400 University Boulevard, Birmingham, Alabama 35294-1150. Appropriate forms are available in the second-floor lobby.

## CONDUCT AND GRIEVANCES

### STUDENT CONDUCT

The university expects mature and honorable behavior from every student and reserves the right to take appropriate disciplinary action when such behavior is not forthcoming.

### **Academic Conduct**

All UAB students are expected to be familiar with the UAB Academic Honor Code as well as any honor codes that are specific to their schools or disciplines. The code represents a commitment to integrity in the academic community and a respect for an individual's educational endeavors:

**I have read and, by choosing to become a member of the UAB academic community, accept the UAB Academic Honor Code. I understand that violation of this code will result in penalties as severe as expulsion from the university. I promise and confirm that I will not, at any time and under any circumstances, involve myself with abetting, cheating, plagiarism, fabrication, or misrepresentation while enrolled as a student at the University of Alabama at Birmingham.**

## **The UAB Academic Honor Code**

The University of Alabama at Birmingham expects all members of its academic community to function according to the highest ethical and professional standards. Students, faculty, and the administration of the institution must be involved to ensure this quality of academic conduct. Academic misconduct undermines the purpose of education. Such behavior is a serious violation of the trust that must exist among faculty and students for a university to nurture intellectual growth and development. Academic misconduct can generally be defined as all acts of dishonesty in an academic or related matter. Academic dishonesty includes, but is not limited to, the following categories of behavior:

**ABETTING** is helping another student commit an act of academic dishonesty. Allowing someone to copy your quiz answers or use your work as their own are examples of abetting.

**CHEATING** is the unauthorized use or attempted use of unauthorized materials, information, study aids, the work of others, or computer-related information.

**PLAGIARISM** means claiming as your own the ideas, words, data, computer programs, creative compositions, artwork, etc., done by someone else. Examples include improper citation of referenced works, the use of commercially available scholarly papers, failure to cite sources, or copying another person's ideas.

**FABRICATION** means presenting falsified data, citations, or quotations as genuine.

**MISREPRESENTATION** is falsification, alteration, or the misstatement of the contents of documents, academic work, or other materials related to academic matters, including work substantially done for one class as work done for another without receiving prior approval from the instructor.

Violations of the UAB Academic Honor Code are punishable by a range of penalties, from receiving a failing grade on an assignment to an F in the course to dismissal. Any course grade of F for academic misconduct supersedes any other grade or notation for that class. Withdrawal from a course while a possible violation of the Academic Honor Code is under review will not preclude the assignment of a course grade that appropriately reflects the student's performance prior to withdrawal if the violation is substantiated.

### **Procedure for Suspected Violation**

In the event of a suspected violation of the Academic Honor Code, UAB follows this procedure:

1. Upon reaching the conclusion that academic dishonesty may have occurred and that action is warranted, the instructor should inform the student of the charge as soon as possible. The student has the right to hear the instructor's reasons for making the charge, to inspect all relevant evidence in the instructor's possession, and to respond to the charge. Based on the student's response and all the evidence, the instructor will determine if a penalty is appropriate. If a penalty is deemed appropriate, the instructor will inform the student of the action to be taken. If the student is not in agreement with the findings or the penalty, the instructor will provide the student with a written statement of the action taken and the basis for it. A copy of this letter will be sent to the chair of the department.

2. Within two weeks of this notification of a judgment of academic dishonesty, the student may appeal the instructor's decision by letter to the chair of the department or his/her designated representative. The chair, acting expeditiously, should take testimony from the student, the instructor, and all appropriate witnesses and make a decision. If the chair reverses the finding of academic misconduct, the instructor must reexamine the work in question and assign credit without prejudice. In the event that the chair is the instructor in the course, the dean will replace the chair in the appeal process.
3. In cases where a grade of F is assigned in the course and the student has utilized the appeal process described above (in section 2), the student has two weeks to appeal the decision by letter to the dean of the school responsible for the course. The dean should acknowledge receipt of the student's appeal and inform the student of the course of action within 10 working days of the date the appeal is received in the dean's office. At the dean's discretion, an advisory panel may be appointed to study the appeal and make a recommendation to the dean. However, it is the responsibility and prerogative of the dean alone to make, in a timely manner, the final decision. The decision of the dean is final.
4. In cases where the final decision concerning an academic misconduct charge is an F for the course, a letter to this effect will be sent to the Office of the Associate Provost for Undergraduate Programs and be kept on file. The course repeat policy will not apply to course grades resulting from instances of academic misconduct. In these cases, the grades of F received will be computed in the UAB grade point average.

A student who has received the grade of F for two instances of academic misconduct will be expelled from the university. Under certain circumstances, a student may be expelled on the first offense. The student will be duly informed of the pending expulsion and will be provided the opportunity to be heard. The student has two weeks after notification to request in writing a hearing with the Associate Provost for Undergraduate Programs. Students expelled from UAB for academic misconduct will have that noted on their transcripts.

In addition, students should consult the policies of the school/program in which they are enrolled to determine school/program guidelines and penalties regarding academic misconduct and suspension for academic misconduct. Schools that suspend a student on the first offense may post this offense on the student's UAB academic record.

A student suspended from a UAB school for academic misconduct will have a hold placed on his/her registration and will not be permitted to enroll in another UAB school without that school's permission. Some UAB programs have policies preventing enrollment of students with past academic misconduct offenses.

### **Non-academic Conduct**

The university is a community of scholars and learners; therefore, all participants are expected to maintain conduct which (1) facilitates the institution's pursuit of its educational objectives, (2) exhibits a regard for the rights of other members of the academic community, and (3) provides safety to property and persons. Through appropriate due process procedures, disciplinary action

will be taken in response to conduct that violates these principles. A more detailed description of non-academic misconduct can be found in the student handbook, *Direction*, available from the judicial officer, Room 101, Hill University Center. It is the student's responsibility to be fully aware of the policies and procedures described in *Direction*. The Vice President for Student Affairs has the responsibility for coordinating policies and procedures regarding students' non-academic misconduct.

## STUDENT GRIEVANCES

### ***Academic Matters***

Judgments on academic matters are most appropriately made by individuals with expertise in the particular academic discipline involved. For this reason, complaints by students on academic matters are the responsibility of the department and school involved. Normally, such complaints can be resolved quickly through discussion with the faculty directly involved. In rare situations where such resolution does not occur, the student should contact the chair of the appropriate academic department to file a formal grievance. The student's grievance should be submitted in writing and accompanied by any appropriate documentation. Grievances should be submitted at the earliest possible time. Consideration will not be given to any grievance submitted later than the end of the term immediately following the term in which the matter in question arose. The department should acknowledge the date the grievance is received and provide notice to the student of when an answer may be expected. It is the responsibility of the department chair to provide an answer to the student within 10 working days. If the matter cannot be settled within the department, the student has 10 working days from the day the department's response is received to appeal to the dean of the school in which the department is located. The dean should acknowledge receipt of the student's appeal and inform the student of the course of action within 10 working days of the date the appeal is received in the dean's office. At the dean's discretion, an advisory panel may be appointed to study the disagreement and make a recommendation to the dean. However, it is the responsibility and prerogative of the dean alone to make, in a timely manner, a decision on any academic disputes which have not been resolved at lower levels, and the decision of the dean is final.

### ***Non-academic Matters***

When complaints on non-academic matters cannot be settled by the persons directly involved, a written complaint should be forwarded to the appropriate office. If the administrative officer is unsuccessful in resolving the complaint, it may then be forwarded in writing to the Provost or a designee for further consideration.

For specific information concerning the procedures and processes for non-academic complaints and grievances, contact the Judicial Officer, Room 101, Hill University Center, 1400 University Boulevard, Birmingham, Alabama 35294-1150.

## OWNERSHIP OF INTELLECTUAL PROPERTY RIGHTS

UAB has a detailed policy regarding the ownership of intellectual property rights. See page 275.

## DRUG-FREE CAMPUS POLICY FOR STUDENTS

Unlawful possession, use, manufacture, distribution, or dispensing of illicit drugs, controlled substances, or alcoholic beverages by any UAB student on UAB property or as part of any UAB-sponsored or UAB-sanctioned activity is prohibited. The full text of this policy can be found on page 270.

## ELECTRONIC DATA PROCESSING SECURITY POLICY

UAB relies heavily on its electronic data processing systems and computers to meet its operational, financial, and informational requirements. For details of this policy, see page 275.

## UAB STUDENT RECORDS POLICY

All students currently or previously enrolled at the University of Alabama at Birmingham have certain rights in relation to their educational records. No information from records, files, or other data directly related to a student, other than the directory information defined in this catalog, shall be disclosed to individuals or agencies outside the university without the written consent of the student. Directory information consists of the student's name, local and permanent address, telephone number, major field of study, schedule of classes, dates of attendance, and degrees awarded. Upon written request, this information will also be withheld from outside agencies. See page 276, for the official UAB Student Records Policy.

## SEXUAL HARASSMENT POLICY

UAB is committed to providing an environment free of discrimination, including sexual harassment. The full text of this policy can be found on page 274.

# COMPLETION OF A DEGREE

## REQUIREMENTS

### BACCALAUREATE DEGREES

Requirements for the baccalaureate degree at UAB include at least 120 semester hours of appropriately distributed courses, a UAB GPA of 2.00, a 2.00 GPA on all college work attempted (higher education grade point average), and satisfaction of the Core Curriculum, major, minor, and residency requirements, along with all other criteria specified by the school or department governing the major.

Students are subject to the catalog policies in effect at the time of their most recent admission as a degree student, with the following exceptions. Seven years after the date of their first enrollment as a degree student, policies of the catalog currently in effect become applicable. The student who is not enrolled at UAB for 12 consecutive months must meet the requirements of the catalog in effect at the time of re-enrollment. For courses required for the major or minor, the administering department(s) may establish written policies for the re-certification of courses taken more than seven years previously.

#### **Total Credits and Averages**

The minimum total credit hours required for a baccalaureate degree is 120 semester hours. The student must have a higher education grade point average of at least 2.00 (C) in all credit hours attempted at all institutions attended (including UAB) and an average of at least 2.00 (C) in all credit hours attempted at UAB. See pages 41 for definitions of credit hours earned, credit hours attempted, and grade point average.

#### **Residency**

At least 25 percent of the total semester hours required for graduation, including at least 21 of the last 30, must be taken at UAB. Courses taken as alternative credit or as a non-degree student (excluding post-baccalaureate students) may not be used to satisfy the residency requirement. A minimum of nine semester hours required for the major (at or above the 400 level) must be completed at UAB. Individual departments may have additional requirements.

#### **Distribution of Credits**

In addition to the overall requirements mentioned above, there are important requirements for the distribution of credits.

All programs of study leading to the baccalaureate degree have as an essential component a common Core Curriculum. Students majoring in the Schools of Business, Education, Engineering, Nursing, and Health Related Professions satisfy Core Curriculum requirements in addition to specific school requirements and requirements in their chosen major. In the Schools of Arts and Humanities, Natural Sciences and Mathematics, and Social and Behavioral Sciences, students meet (1) Core Curriculum requirements, (2) school-wide arts and sciences requirements, (3) requirements for a major specialization, and (4) any requirements

for a minor specialization or concentration, if required. The Core Curriculum is described fully beginning on page 49.

#### **Major**

The available majors are shown in the list beginning on page 8. Requirements for these majors vary and can be found in the sections of this catalog on the specific academic unit responsible for the major. A minimum C average in the major is required for graduation. Furthermore, the academic unit responsible for the major may require the student to repeat, or otherwise compensate for, any course required for the major in which a grade below C was earned.

Majors must be declared or changed using the official form available from the Office of Registration and Academic Records. Some majors are subject to additional admission requirements and enrollment limitations.

Students who wish to double major must maintain an affiliation with one school and graduate under that school's core curriculum and major requirements. In addition, the student must complete the requirements for the second major including all prerequisites. It is important for students to maintain contact with advisors of both majors so that requirements are completed for both majors.

#### **Minor**

The availability of minors is indicated in the sections of this catalog on the various schools. The course requirements for the minor are specified in the catalog section for the department offering the minor. The department offering the minor may require the student to repeat, or otherwise compensate for, any course required for the minor in which a grade below C was earned. Whether a minor is required for a particular major is specified in the catalog section for the school in which the major resides.

#### **Individually Designed Majors and Minors**

Students with specific career goals or with unique intellectual objectives may propose majors and minors designed to meet their individual academic needs. The Individually Designed Major requires a minimum of 40 semester hours in the major, of which at least 20 semester hours must be in courses numbered at or above 300 and approved for use towards a major, with a minimum of a C average. In addition, students must prepare a rationale for a nonstandard major-level course of study, complete Core Curriculum requirements, and complete any additional requirements set by the school in which the degree will be awarded. The Individually Designed Minor requires completion of 21 semester hours, of which nine semester hours must be in courses numbered at or above 300, with a minimum of a C average. The Individually Designed Major or Minor must be reviewed and approved by the departments involved, by the dean of the school in which the degree will be awarded, and by the Office of Academic Programs and Policy. For advising on program development and approval procedures, consult the Office of Academic Programs and Policy. (205) 934-5503.

## **Limitations on Some Types of Credit**

For some types of credit, there are limitations on the amount that can be applied toward the minimum hours required for a baccalaureate degree (usually 120 semester hours).

1. For credits transferred from a two-year college, the limit is no more than one-half the number required for a baccalaureate degree, provided that the work is freshman (100) or sophomore (200) level.
2. For alternative work, including Advanced Placement, College Level Examination Program, credit by examination, evaluation of non-collegiate-sponsored courses, credit for armed services courses, International Baccalaureate credit, and credit by portfolio, the limit is no more than 45 semester hours.

## **Medical, Dental, or Optometry Students**

A student may enter a dental, medical, or optometry school prior to the completion of requirements for an undergraduate degree. In this instance, UAB awards the Bachelor of Science degree with a major in natural science upon the successful completion of the first year of study at an accredited professional school, provided: (1) the degree is applied for and approval is obtained from the dean of the School of Natural Sciences and Mathematics while the applicant is still in the preprofessional program; and (2) a minimum of 90 semester hours, including all requirements for graduation other than those related to the major and minor (e.g. Core Curriculum, school-wide requirements), are completed in courses approved for UAB undergraduate degrees.

## **Second Bachelor's Degree**

A student may earn a second bachelor's degree by completing in residence, with an average of C or better, at least 30 semester hours of work over and above the work done for the first degree, including a new major. Work done for the second degree must include any necessary prerequisites for the new major and all major requirements. The first degree, whether earned at UAB or another regionally accredited institution, must be based on at least 120 semester hours of fully accredited work. No minor is required for the second degree. A student interested in earning a second degree is required to have the program of study approved by the school in advance.

## **Bachelor's Degree with Honors**

Students who complete their degree requirements with a higher education grade point average between 3.50 and 3.69 will receive their degrees cum laude. Those with higher education grade point averages between 3.70 and 3.89 receive degrees designated magna cum laude. Students with higher education grade point averages of 3.90 or above will receive degrees designated summa cum laude. The higher education grade point average used in conferring academic honors at graduation includes work at UAB as well as all other higher education work attempted.

## **PROCEDURES FOR APPLYING FOR A DEGREE**

Students are advised to file an official application for degree at least two terms prior to completing work for a baccalaureate degree. This will allow time for the application to be processed

and completion of degree requirements to be verified. The absolute deadline to apply for degree is the tenth day of the term in which the student plans to graduate. Application forms are available in the Office of Registration and Academic Records.

## **GRADUATION**

Official UAB graduation ceremonies are held in May for graduates of the preceding spring semester and in December for graduates of the preceding summer term and fall semester. Graduates are listed in the commencement program. Students who have completed the requirements for baccalaureate degrees are urged to attend.

Although degrees are officially conferred in May and December, students receive their diplomas approximately four weeks after the end of the regular term in which they complete their degree requirements.

## **EXCEPTIONS**

All students are responsible for adhering to UAB's academic policies, as published in the UAB Undergraduate Catalog and the current UAB Class Schedule. The Provost may make exceptions to policies. Exceptions will only be made in extraordinary circumstances. Only in cases of serious illness, which precludes a student from attending classes, or a call to active military service, can a student qualify under this policy for either administrative or academic withdrawal from courses from that semester. In such instances, students requesting an exception to policy must provide the cause-specific documentation in order for the request to be considered.

Requests for exceptions to academic policies should be submitted in writing along with supporting documentation noted above to the:

Office of Academic Programs and Policy  
470 Hill University Center  
University of Alabama at Birmingham 35294-1150  
Attention: Exceptions to Academic Policy

Requests are evaluated only from written documentation and not through appointments or telephone calls. (Please note that grievances of an academic nature are addressed through the Academic Grievance Policy.) Requests for exceptions must be submitted at the earliest possible time. Consideration will not be given to any request submitted later than the term immediately following the term for which the exception is being requested.

A full reduction in tuition and associated fees will be made for appropriately documented serious illnesses or military service activation, which preclude a student from continuing his/her studies at UAB. For students receiving refunds, such refunds will first be applied to any outstanding obligations and to any scholarship, grant, or loan the student has received for that term. A student who is receiving any form of Federal Title IV Financial Aid will be liable for any unearned funds received as determined by the Federal Return of Funds Policy (check with Student Accounting Office for details.)

Failure to adhere to the published drop and withdrawal deadlines (as outlines in the UAB Catalog and the UAB Class Schedule) does not qualify under this policy as an Exception to Academic

Policy. It is the student's responsibility to be aware of and adhere to the drop and withdrawal policies. If a student cannot continue in a course, for reasons that are outside of the strict criteria indicated in this policy, then the student through the UAB Registrar should exercise the drop or withdrawal options.



# THE CORE CURRICULUM

## PHILOSOPHY

The University of Alabama at Birmingham is committed to the discovery, dissemination, and application of knowledge; our fundamental mission is to enrich the intellectual, cultural, social and economic lives of our students, our community, our state and our world. The Core Curriculum serves two essential purposes as we strive to achieve these goals. First, courses offered within the Core provide students with the necessary skills and abilities to enable them to succeed in their major course of study during their undergraduate years. The Core thus provides an intellectual foundation for the focused and detailed academic work that students are expected to perform in their majors. Second, courses offered within the Core provide a wide exposure to ideas, perspectives, issues, and knowledge that lie beyond the narrow parameters of any individual major. This broad intellectual experience enables students to gain perspective on the complexity, the diversity, and the beauty of the world we all inhabit. Taken together, these two emphases of the UAB Core Curriculum enable our graduates to become productive, flexible, and discerning citizens of an increasingly interdependent world.

## RECOMMENDATIONS FOR ADVISING

The Core Curriculum represents a strong foundation for a well-rounded education. While all UAB students must meet Core Curriculum requirements for graduation, each school or major may recommend or require students to meet the Core through specific courses appropriate to a student's program of study. In addition to the Core Curriculum requirements, each school has other requirements for students who graduate with a major in that school. Because of these variations, students should keep in close contact with their academic advisor. Academic advisors assist students in selecting appropriate coursework to meet particular goals, including those courses appropriate to the Core Curriculum. Advisors can help students considering several majors, as well as those who are undecided about a major, to choose courses that will apply to as many areas as possible.

## ALABAMA GENERAL STUDIES CURRICULUM

The Alabama Articulation and General Studies Committee (AGSC) was created in March 1994 by the State Legislature through ACT 94-202. The AGSC was charged to develop no later than September 1, 1998, a statewide freshman- and sophomore-level general studies curriculum to be taken at all public colleges and universities, and develop and adopt by September 1, 1999, a statewide articulation agreement for the freshman and sophomore years for the transfer of credit among all public institutions of higher education in Alabama. The AGSC adopted a 64 semester hour curriculum consisting of written composition (Area I), humanities and fine arts (Area II), natural sciences and mathematics (Area III), history, social, and behavioral sciences (Area IV), and freshman- and sophomore-level pre-professional, major, and elective courses.

The AGSC required the implementation of Areas I through IV for first-time entering freshmen beginning Fall 1998. Articulation agreements are available for all academic programs.

UAB's Core Curriculum consists of Areas I through IV of the state's curriculum. Through statewide articulation agreements, some schools have specific course requirements in Areas I through IV.

## CORE CURRICULUM REQUIREMENTS

The Core Curriculum consists of four areas, and all students must fulfill requirements in each area. Specific school requirements for each area are listed below the description of the Core. See the appropriate section in this catalog for specific major requirements in each area.

### AREA I. WRITTEN COMPOSITION (6 HOURS)

Effective written communication skills are essential in a literate society. Requirements include six semester hours in written composition. UAB students must complete EH 101 and EH 102 with the grade of C or better.

### AREA II. HUMANITIES AND FINE ARTS (12 HOURS)

Study in the humanities addresses the ability to deal with questions of values, ethics, or aesthetics as they are represented in literature, philosophy, religion, and the arts, and is fundamental to general education. Requirements include at least 12 semester hours in humanities with a minimum of three semester hours in literature, three semester hours in the fine arts, and the remaining hours from the humanities and/or fine arts. In addition to literature, disciplines in the humanities include, but are not limited to, philosophy, religious studies, speech, foreign languages, art, music, theatre, and dance. As part of the common Core Curriculum, students must complete a six-semester hour sequence either in literature (Area II) or in history (Area IV).

The following courses satisfy Area II of the Core Curriculum:

- AAS 200.** *Introduction to African American Studies*—3 hours.
- ARH 101.** *The Art Experience\**—3 hours.
- ARH 203.** *Ancient and Medieval Art\**—3 hours.
- ARH 204.** *Renaissance through Modern Art\**—3 hours.
- ARH 206.** *Survey of Asian Art\**—3 hours.
- CHI 101.** *Introductory Chinese*—3 hours.
- CHI 102.** *Introductory Chinese*—3 hours.
- CM 101.** *Public Speaking*—3 hours.
- CM 105.** *Introduction to Human Communication*—3 hours.
- EH 216.** *Introduction to Literature*—3 hours.
- EH 217.** *World Literature*—3 hours.
- EH 218.** *World Literature*—3 hours.
- EH 221.** *British and Irish Literature*—3 hours
- EH 222.** *British and Irish Literature*—3 hours.

**EH 223.** *American Literature*—3 hours.  
**EH 224.** *American Literature*—3 hours.  
**FR 101.** *Introductory French*—4 hours.  
**FR 102.** *Introductory French*—4 hours.  
**FR 201.** *Intermediate French I*—3 hours.  
**FR 202.** *Intermediate French II*—3 hours.  
**GN 101.** *Introductory German*—4 hours.  
**GN 102.** *Introductory German*—4 hours.  
**GN 201.** *Intermediate German I*—3 hours.  
**GN 202.** *Intermediate German II*—3 hours.  
**GN 204.** *Readings in German Literature*—3 hours.  
**ITL 101.** *Introductory Italian*—3 hours.  
**ITL 102.** *Introductory Italian*—3 hours.  
**JPA 101.** *Introductory Japanese*—3 hours.  
**JPA 102.** *Introductory Japanese*—3 hours.  
**LA 101.** *Introductory Latin*—3 hours.  
**LA 102.** *Introductory Latin*—3 hours.  
**MU 120.** *Music Appreciation\**—3 hours.  
**PHL 100.** *Introduction to Philosophy*—3 hours.  
**PHL 115.** *Contemporary Moral Issues*—3 hours.  
**PHL 116.** *Bioethics*—3 hours.  
**PHL 120.** *Practical Reasoning*—3 hours.  
**PHL 125.** *Introduction to Ethics*—3 hours.  
**PHL 203.** *Philosophy of Religion*—3 hours.  
**SPA 101.** *Introductory Spanish*—4 hours.  
**SPA 102.** *Introductory Spanish*—4 hours.  
**SPA 201.** *Intermediate Spanish I*—3 hours.  
**SPA 202.** *Intermediate Spanish II*—3 hours.  
**THR 100.** *Introduction to the Theatre\**—3 hours.  
**THR 105.** *Introduction to Dance\**—3 hours.  
**THR 200.** *Plays on Film\**—3 hours.

\* These courses may be counted toward the fine arts requirement in Area II.

Additional courses may have been approved since the publication of this catalog. For a complete list of courses, students should consult their advisor. Courses that fulfill Area II are also designated in the current UAB Class Schedule.

## AREA III. NATURAL SCIENCES AND MATHEMATICS (11 HOURS)

Study in the natural sciences and mathematics emphasizes the scientific method and applies quantitative or inductive reasoning. Requirements include at least 11 semester hours with at least three semester hours in mathematics at the precalculus algebra level or higher and at least eight semester hours in the natural sciences. All courses in the natural sciences must include laboratory experiences. Disciplines in the natural sciences include, but are not limited to, astronomy, biology, chemistry, geology, and physics.

The following courses satisfy Area III of the Core Curriculum:

**AST 101 and 111.** *Astronomy of the Universe and Laboratory*—4 hours.  
**AST 102 and 112.** *Astronomy of Stellar Systems and Laboratory*—4 hours.

**AST 103 and 113.** *Astronomy of the Solar System and Laboratory*—4 hours.  
**AST 105 and 115.** *Extraterrestrial Life and Laboratory*—4 hours.  
**BY 101 and 102.** *Topics in Contemporary Biology and Laboratory*—4 hours.  
**BY 111 and 112.** *Extended Topics in Contemporary Biology and Laboratory*—4 hours.  
**BY 123.** *Introductory Biology*—4 hours.  
**BY 124.** *Introductory Biology*—4 hours.  
**CH 105 and 106.** *Introductory Chemistry I and Laboratory*—4 hours.  
**CH 107 and 108.** *Introductory Chemistry II and Laboratory*—4 hours.  
**CH 115 and 116.** *General Chemistry I and Laboratory*—4 hours.  
**CH 117 and 118.** *General Chemistry II and Laboratory*—4 hours.  
**ENV 108 and 109.** *Human Population and the Earth's Environment and Laboratory*—4 hours.  
**ES 101 and 102.** *Physical Geology and Laboratory*—4 hours.  
**ES 103 and 104.** *History of the Earth and Laboratory*—4 hours.  
**MA 105.** *Precalculus Algebra*—3 hours.  
**MA 106.** *Precalculus Trigonometry*—3 hours.  
**MA 107.** *Trigonometry*—4 hours.  
**MA 109.** *Survey of Calculus*—3 hours.  
**MA 110.** *Finite Mathematics*—3 hours.  
**MA 125.** *Calculus I*—4 hours.  
**MA 126.** *Calculus II*—4 hours.  
**MA 227.** *Calculus III*—4 hours.  
**MA 252.** *Introduction to Differential Equations*—3 hours.  
**MA 260.** *Introduction to Linear Algebra*—3 hours.  
**PH 201.** *College Physics I and Laboratory*—4 hours.  
**PH 202.** *College Physics II and Laboratory*—4 hours.  
**PH 221.** *General Physics I and Laboratory*—4 hours.  
**PH 222.** *General Physics II and Laboratory*—4 hours.  
**PHS 101.** *Physical Science*—4 hours.

Additional courses may have been approved since the publication of this catalog. For a complete list of courses, students should consult their advisor. Courses that fulfill Area III are also designated in the current UAB Class Schedule.

## AREA IV. HISTORY, SOCIAL, AND BEHAVIORAL SCIENCES (12 HOURS)

Study in history and the social and behavioral sciences deals primarily with the study of human behavior, social and political structures, and economics. Requirements include 12 semester hours with at least a three-semester hour course in history and at least six semester hours from among other disciplines in the social and behavioral sciences. Disciplines include, but are not limited to, anthropology, economics, geography, political science, psychology, and sociology. As part of the common Core Curriculum, students must complete a six-semester hour sequence either in literature (Area II) or in history (Area IV).

The following courses satisfy Area IV of the Core Curriculum:

**ANTH 101.** *Introductory Cultural Anthropology*—3 hours.

- ANTH 106.** *Introductory Archaeology*—3 hours.  
**ANTH 120.** *Language and Culture*—3 hours.  
**EC 210.** *Principles of Microeconomics*—3 hours  
**EC 211.** *Principles of Macroeconomics*—3 hours  
**GEO 121.** *World Regional Geography*—3 hours.  
**HY 101.** *Western Civilization I*—3 hours.  
**HY 102.** *Western Civilization II*—3 hours  
**HY 104.** *World History to 1600*—3 hours.  
**HY 105.** *World History, 1600 to present*—3 hours.  
**HY 120.** *The United States to 1877*—3 hours.  
**HY 121.** *The United States Since 1877*—3 hours.  
**ITS 101.** *Introduction to International Studies*—3 hours.  
**ITS 205.** *International Environmental Issues*—3 hours.  
**PSC 101.** *Introduction to American Government*—3 hours.  
**PSC 102.** *Introduction to Comparative Politics*—3 hours.  
**PSC 221.** *American State and Local Government*—3 hours.  
**PY 101.** *Introduction to Psychology*—3 hours.  
**PY 212.** *Developmental Psychology*—3 hours.  
**SOC 100.** *Introduction to Sociology*—3 hours.  
**SOC 245.** *Contemporary Social Problems*—3 hours.  
**WS 100.** *Introduction to Women's Studies*—3 hours.

Additional courses may have been approved since the publication of this catalog. For a complete list of courses, students should consult their advisor. Courses that fulfill Area IV are also designated in the current UAB Class Schedule.

## SPECIFIC CORE CURRICULUM REQUIREMENTS FOR THE SCHOOL OF BUSINESS

Students planning to complete a bachelor's degree in the School of Business must complete the following specified courses or sequences within the Core Curriculum:

- Area II:** a six-semester hour sequence in literature and CM 101, Public Speaking  
**Area III:** calculus/business calculus;  
**Area IV:** a course in microeconomics, a course in macroeconomics, and one course selected from general psychology, introduction to sociology, or introduction to anthropology.

## SPECIFIC CORE CURRICULUM REQUIREMENTS FOR THE SCHOOL OF EDUCATION

Students planning to complete a bachelor's degree in the School of Education must complete the following specified courses or sequences within the Core Curriculum:

- Area II:** a three-semester hour course in public speaking;  
**Area IV:** introduction to psychology.

## SPECIFIC CORE CURRICULUM REQUIREMENTS FOR THE SCHOOL OF ENGINEERING

The Core Curriculum in the School of Engineering is 36 semester hours, consisting of six semester hours in Area I, nine semester

hours in Area II, 12 semester hours in Area III, and nine semester hours in Area IV. Students planning to complete a bachelor's degree in the School of Engineering must complete the following specified courses or sequences within the Core Curriculum:

- Area III:** Calculus I and a sequence in calculus-based physics;  
**Areas II and IV:** six semester hours in one discipline.

## SPECIFIC CORE CURRICULUM REQUIREMENTS FOR THE SCHOOL OF NURSING

See page 211 for Core requirements in the School of Nursing.

## SATISFYING CORE CURRICULUM REQUIREMENTS WITH ALTERNATIVE CREDIT

Students may satisfy certain goals of the Core Curriculum by presenting credit earned through the following: Advanced Placement (AP), International Baccalaureate (IB), College Level Examination Program (CLEP), and Credit by Examination (CBE). Students with AP, IB, or CLEP credit must have official documents sent to the Office of Academic Programs and Policy, Hill University Center, Room 470, (205) 934-5503, for evaluation and acceptance before credit can be posted on the UAB transcript. For more information, see page 40 of this catalog.

## WHO IS REQUIRED TO FULFILL THE CORE REQUIREMENTS?

1. First time college freshmen who have no credit for college work (excepting credit earned while still enrolled in high school);
2. Those returning UAB students or transfer students who are enrolling as a degree student after an absence from college of more than 12 months;
3. Students who enrolled for the first time in any institution of higher education in Fall 1998 or later and who subsequently transferred to the University of Alabama at Birmingham.

Any student with a valid articulation contract from an Alabama two-year school will be able to enroll under the terms of the contract. Contracts prior to Fall 1998 must have been submitted to UAB's Office of Admission according to the procedures in place at the time.

Since Fall Term 2000, all undergraduate students entering UAB have been subject to the 1998 Core Curriculum requirements.

## SCHOOL-WIDE REQUIREMENTS

In addition to fulfilling UAB's Core Curriculum as described above, students with majors in many schools must satisfy school-wide requirements. Please consult the appropriate school section of this catalog for these specific requirements



## The School of Arts and Humanities

offers Bachelor of Arts degree programs with majors in African

American studies, art (with concentrations in art education, art history, and art studio), communication studies (with concentrations in communication management and mass communication), English (also with concentra-

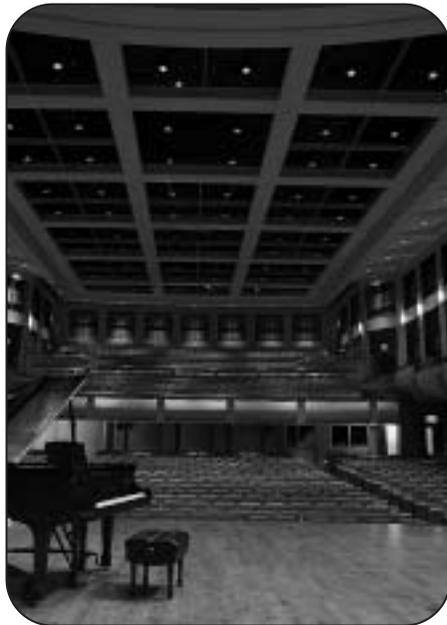
tions in creative writing, linguistics, and professional writing), foreign languages (with concentrations in French and Spanish), music (with concentrations in music education and music technology), philosophy, and theatre (also with concentrations in performance and design/technology). The Bachelor of Fine Arts degree is offered in studio art. Minors may be taken in the following fields: African American studies, American studies, art history, art studio, communication management, creative writing, English, French, German, linguistics, mass communication, music, music technology, philosophy (including philosophy and law), science studies, Spanish, theatre, and writing.

Available through the school are performing programs of the Department of Music, including the Chamber Singers, Clarinet Choir, Computer Music Ensemble, Concert Choir, Gospel Choir, Guitar Ensemble, Jazz Ensemble, Percussion Ensemble and Steel Drum Band, UAB Opera, and University Bands (Blazer Band, UAB Marching Blazers, and the Wind Symphony), and Women's Chorale, as well as performances by the Department of Theatre.

Programs of graduate study leading to the degree of Master of Arts are available in the Department of Communication Studies (Communication Management) and in the Department of English. A program of graduate study leading to the degree of Master of Arts in art history is offered jointly by the Departments of Art of UAB and the University of Alabama.

## SCHOOL-WIDE REQUIREMENTS FOR GRADUATION

In addition to fulfilling UAB's Core Curriculum (see page 49), students with majors in the School of Arts and Humanities must satisfy the requirements of two of the following three tracks, for a maximum of six semester hours.



### A. Foreign Language/Foreign Culture (3 hours)

*Students satisfy this track by either:*

1. Completing a foreign language course at or above the 102 level, or
2. Completing a course which either considers social, economic, or political issues from a comparative and specifically international perspective or explores a single large region of the world (outside of the United States and Canada) from a holistic perspective.

A student may not use the same course to satisfy this requirement and the Humanities (Area II) requirement or Social Science (Area IV) requirement.

All foreign language courses numbered 102 and above may be used to fulfill this track except for the following:

- 190, 290, 390 (study abroad courses)
- 333 (internship)
- 399, 499 (independent study)
- all 400-level and above courses.

*In addition, the following courses may be used to fulfill this track:*

- ANTH 101** Introductory Cultural Anthropology
- ANTH 106** Introductory Archaeology
- ANTH 120** Language and Culture
- ANTH 241** Peoples of the World: Caribbean
- ANTH 243** Peoples of the World: Southeast Asia
- ANTH 244** Peoples of the World: Africa
- ANTH 245** Peoples of the World: Middle East
- ANTH 247** Peoples of the World: Oceania
- ANTH 248** Peoples of the World: Latin America
- ANTH 249** Peoples of the World: Greece and Eastern Mediterranean
- ARH 203** Survey History of Ancient and Medieval Art
- ARH 205** African, Native American and Oceanic Art
- ARH 206** Survey of Asian Art
- HY 245** Introduction to Latin American History
- HY 247** Colonial Latin America
- HY 248** Modern Latin America
- HY 257** The Celtic Fringe: Ireland, Scotland, Wales
- HY 258** Britain and the Third World
- HY 263** History of Russia to the Twentieth Century
- HY 265** History of the Soviet Union, 1917-1991
- JS 115** Comparative Criminal Justice Systems
- PSC 102** Introduction to Comparative Politics
- PSC 103** Introduction to International Relations
- PSC 250** African Politics
- PSC 251** European Political Systems
- PSC 252** Latin/South American Political Systems
- PSC 253** Asian Political Systems

- PSC 254** East European Political Systems
- PSC 262** Global Policy Issues
- PY 213** Cross-Cultural Perspectives on Child Development
- PY 319** Psychopathology and Culture
- SOC 200** Social Change
- SOC 325** Sociology of Russia

**B. Critical Reasoning/Philosophy (3 hours)**

*Students satisfy this track by either:*

1. Completing a course that provides training in critical reasoning and analysis about the ethical dimensions of society, or
2. Completing a course that provides an understanding of fundamental philosophical questions and issues, including those associated with the disciplines that comprise the arts and sciences.

A student may not use the same course to satisfy this requirement and the Humanities (Area II) requirement.

All philosophy courses may be used to fulfill this track except for the following:

- PHL 120, 220, 320** (logic courses)
- PHL 290, 291, 292** (special topics)
- all philosophy courses numbered **400** and above.

*In addition, the following courses may be used to fulfill this track:*

- CM 103** Professional Conduct and Communication Ethics
- PSC 104** Introduction to Political Theory

**C. Computer Science/Technology (0-4 hours)**

*Students satisfy this track by either:*

1. Completing a minimum of a two semester hour course dealing with a computer language or application of computers,
2. Completing a minimum of three semester hours of coursework dealing with the relationship of machines and people in modern industrial society and/or the interplay of technological change and societal development from ancient to modern times, or
3. Successfully completing a computer technologies competency examination, where permissible.

*The following courses fulfill this track:*

- ARS 103 Introduction to Computer Graphics/ Drawing and Layout
- BY 245 Fundamentals of Scientific Investigation
- CS 101 Computing Fundamentals
- CS 201 Introduction to Object-Oriented Programming
- HY 125 Technology and Society
- MA 263 Elementary Microcomputer Programming and Numerical Analysis
- MU 115 Computer Music !

For the most up-to-date list of courses that satisfy each track, students should consult their advisors. Courses that fulfill each track are also designated in the current UAB Class Schedule.

**RESTRICTIONS ON APPLICABLE CREDIT**

No more than 12 semester hours in courses taken principally to gain experience, or which involve technology to a large degree, will be counted toward elective credit in the School of Arts and Humanities. In addition, no more than four semester hours in physical education activity courses will be counted toward elective credit in the school. Students should consult the department in which they are majoring for advice on choosing electives that contribute to a liberal education or career objectives.

When a course is normally offered at UAB, that course may not be taken for credit at another institution (including cooperative institutions) while a student is simultaneously enrolled at UAB without approval by the dean.

**FRESHMAN HONORS SEMINAR (HUM)**

The following course is open to all students and is intended to provide an interdisciplinary honors experience to freshman students.

**Course Description**

**120. Introductory Humanities Seminar**—Special topics to introduce students to the study of the humanities. 3 hours.

**AFRICAN AMERICAN STUDIES**

**INTERDISCIPLINARY PROGRAM**

- Director:** Adeniyi Coker, Jr. (*Theatre*)
- Faculty:** Corley (*Urban Affairs*), Davis (*History*), Fouad (*Medicine*), Hodari (*African American Studies*), Ross (*Education*), Hall (*Theatre*), Huntley (*History*), Martin-Ogunsola (*Foreign Languages*), Mangum (*Government*), Millard (*History*), Morgan (*Justice Sciences*), Smith (*English*), Turner (*Music*), Wharton (*English*), J. Wood (*English*)

African American studies is an interdisciplinary program sponsored jointly by the Schools of Arts and Humanities, Natural Sciences and Mathematics, and Social and Behavioral Sciences. The program integrates the humanities, social and behavioral sciences, and health-related fields. It is designed to provide a comprehensive understanding of the cultural values and experiences that connect people of African descent, beginning in Africa and extending to the Caribbean, North and South America, Asia, and Europe.

**MAJOR**

The major in African American Studies consists of 39 hours, including 27 hours in core courses and 12 hours selected from one of two concentrations, cultural/aesthetic or social/behavioral. No grade below C may be counted as credit toward the major in African American studies.

The B.A. Major in African American Studies  
Requirements for a Major: **39 Semester Hours**

**THE CORE COURSES:  
REQUIRED OF ALL STUDENTS IN THE MAJOR**

- AAS 200:** Introduction to African American Studies .....3 hours

*Elect 6 Hours from the following:*

- AAS/HY 223:** African American History to the Civil War
- AAS/HY 224:** African American History since the Civil War
- AAS/HY 304:** The Civil Rights Movement.....6 hours
- AAS 320:** The African Identity and Personality....3 hours
- AAS 330:** African Aesthetics and  
Traditional Religion .....3 hours

*Elect 9 Hours from the following:*

- AAS/EH 365:** African American Literature I, 1746-1954
- AAS/EH 366:** African American Literature II, 1954-Present
- AAS/EH 422:** African Literature
- AAS/EH 423:** African Women's Literature
- AAS/EH 445:** Special Topics in African American Studies
- AAS/EH 446:** African American Autobiography
- AAS/EH 447:** African American Dramatic Tradition
- AAS/EH 448:** African American Poetry Tradition
- AAS/EH 466:** The Slave Narrative and Its Literary  
Expression
- AAS/EH 467:** Black Women Writers
- AAS/EH 468:** The Harlem Renaissance .....9 hours
- AAS 420:** Public Health and Medical Issues  
in African Communities .....3 hours
- AAS 490:** Directed/Independent Study .....3 hours

*Elect 9 Hours From Courses Below:*

- AS 202:** Studies in American Culture
- AAS 250:** Topics in African American Studies
- AAS 300:** African American Music
- AAS 310:** Black Image: Screen and Television
- AAS 340:** Medieval African Technology: Foundation of  
Modern Inventions
- AAS 400:** Seminar in African American Studies
- ANTH 241:** Peoples of the World: Caribbean
- ANTH 244:** Peoples of the World: Africa
- ARH 405:** African Art
- EH 365:** African American Literature, 1746 – 1954
- EH 366:** African American Literature, 1954-Present
- EH 422:** African Literature
- EH 423:** African Women's Literature
- EH 445:** Special Topics in African American Literature
- EH 446:** African American Autobiography
- EH 447:** African American Dramatic Tradition
- EH 448:** African American Poetry Tradition
- EH 466:** The Slave Narrative and Its Literary  
Expression
- EH 467:** Black Women Writers
- EH 468:** The Harlem Renaissance
- JS 442:** Race, Crime, and Justice
- MU 165:** Jazz Styles: History and Appreciation

- MU 365:** The Evolution of Jazz
- PSC 220:** Minority Politics
- PY 413:** Psychology of the African American Child
- SOC 250:** Race and Ethnic Relations
- SOC 350:** Social Structure of Black America
- THR 300:** Exploring the African American Creative  
Experience
- UA 420:** Political Economy of Race  
in Birmingham .....9 hours
- TOTAL.....39 HOURS**

## MINOR

The minor in African American Studies requires 18 semester hours selected from the major core, including AAS 200. No grade below C may be counted as credit toward the minor in African American Studies.

### Course Descriptions

#### *African American Studies (AAS)*

#### **200. Introduction to African American Studies—**

Development of African states during early, colonial, and contemporary periods. Survey of mainland Africa and its expressions in the diaspora—particularly African American culture. Majors and minors in African American Studies should complete this course before enrolling in any higher level AAS course. *Prerequisites:* EH 101 and 102. 3 hours.

**250. Topics in African American Studies—**Specific topic in African American Studies. *Prerequisite:* AAS 200. 3 hours.

**300. African American Music—**Survey, history, and appreciation of African music and its presence in the United States from its earliest forms in spirituals, blues, and jazz to contemporary forms of be-bop and rap. 3 hours.

**310. Black Image: Screen and Television—**Race relations and definition of the image of the African in America through cinema and television. 3 hours.

**320. The African Identity and Personality—**African identity and definition of blackness. 3 hours.

**330. African Aesthetics and Traditional Religion—**African cosmology, qualities of African spirituality, and the African aesthetic. 3 hours.

**340. Medieval African Technology: Foundation of Modern Inventions—**Case study approach emphasizing development, evolution, and impact of primitive African technology on contemporary architecture, engineering, and medicine. 3 hours.

**400. Seminar in African American Studies—**Specific topic in African American studies. *Prerequisites:* AAS 200 and 9 hours in AAS numbered 300 or above. 3 hours.

**420. Medical and Public Health Issues in African American Communities—**Critical health issues affecting the African American community including HIV, AIDS, cancer, heart disease/hypertension, malaria. 3 hours.

**490. Directed Study—***Prerequisites:* AAS 200 and 12 hours in AAS numbered 300 or above. 3 hours.

## AMERICAN STUDIES

### INTERDISCIPLINARY PROGRAM

**Director:** A. J. Millard (*History*)

**Executive Committee:** McConnell (*History*),  
McPherson (*Art*), McWilliams (*History*), Wharton (*English*),  
Wilson (*Sociology*)

The American Studies Program offers, through the School of Arts and Humanities and the School of Social and Behavioral Sciences, an interdisciplinary minor that examines various aspects of United States society and culture. Students are introduced to a wide range of different “texts” from American art, literature, music, history, science and technology, political science and sociology, and popular culture. These “texts” may include movies, slides, audio recordings, material artifacts, folkways, and food ways, as well as traditional written material. Students learn how to “read” and interrelate these texts in order to acquire a more complete and multifaceted understanding of American life and history. The minor in American studies thus provides a broad background in liberal arts and social sciences while developing skills of interdisciplinary thinking useful in a variety of careers. An American studies minor complements and counterbalances more narrowly focused majors; at the same time, it enhances majors that are either national or international in scope.

### MINOR REQUIREMENTS

The minor in American Studies has the following requirements: 21 semester hours, including the sophomore-level courses AS 201 and AS 202; 12 semester hours of approved electives drawn from the following four major areas: art and music, English and philosophy, social and behavioral sciences, and history; and a final senior seminar, AS 401. Approved electives can be selected from nearly every discipline in arts and humanities and social and behavioral sciences, provided the major focus is the United States. See the Director of the American Studies Program for a list of approved courses. No grade below C may be counted toward the minor.

#### **Course Descriptions**

##### *American Studies (AS)*

**201-202. Studies in American Culture**—Team-taught, interdisciplinary study of American society and culture through selected readings from American literature and history, as well as other “texts” from art, music, industrial and technological developments, and folk and popular culture. Specific topics vary with instructors; materials for study include cultural experiences and expressions of diverse groups within American society, including Native Americans, African Americans, immigrants, and women. 3 hours.

**401. Senior Seminar in American Studies**—Topics of national and regional interest from any discipline but sufficiently broad to allow focus on specific intellectual problems using analytical skills and interdisciplinary methods learned in Core Curriculum courses, required elective courses, and chosen major. Should be taken during senior year. *Prerequisites:* AS 201, AS 202, and 12 hours of approved AS electives or permission of instructor. 3 hours.

## SCIENCE STUDIES

### INTERDISCIPLINARY MINOR

**Director:** Harold Kincaid (*Philosophy*)

**Executive Committee:** Price (*Philosophy*)

The Science Studies Program is an interdisciplinary minor that allows students to study the basic methodological, historical, and philosophical issues in their major discipline. A specific set of relevant courses (listed below) from various departments is designated for each major discipline. Students pursuing this minor can thus gain a better understanding of their major discipline—its history, the scientific method as it is employed in that area, and useful methods and tools from other disciplines.

### MINOR REQUIREMENTS

The minor in science studies requires 18 semester hours, at least 12 of which must be at the 200 level or above. No more than six semester hours can be taken within a student’s major department, and those hours cannot be applied toward the hours required for the major. Courses for the minor must come from the set specified for the student’s major unless approved by the director of the program (some special seminars will count). Students can choose any combination of courses from those designated for their major, but all students are strongly encouraged to take PHL 270, The Scientific Enterprise.

*Listed below are the courses from which the student selects to make the minor appropriate for his or her major:*

<b>Pre-medicine:</b>	PHL 115, 270, 470; SOC 280, 283, 456, 480; any statistics course approved by the director.
<b>Anthropology:</b>	ANTH 407, 415, 423, 430, 450, 451, 452; HY 300; SOC 407; LING 221; PHL 270, 470.
<b>Biology:</b>	PHL 270, 470; SOC 280, 283, 456, 480; any statistics course approved by the director.
<b>Chemistry:</b>	CH 373, 470; PHL 270, 470; one additional course approved by the director.
<b>Computer Science:</b>	CS 250, 350; PHL 220, 270, 320, 372, 375, 470; LING 451, 466. Courses for computer science students with an interest in artificial intelligence/cognitive psychology: CS 250, 350, 462, 466; PHL 270, 320, 372, 375, 470; PY 363, 380; LING 451; ANTH 423.
<b>Economics:</b>	EC 408, 409, 420, 425; SOC 407; PHL 230, 270, 470.
<b>History:</b>	HY 300; SOC 300, 407; ANTH 407; PHL 270, 342, 470; EC 409.
<b>Justice Sciences:</b>	JS 300, 410; HY 300; SOC 300, 407; EC 409, 420, 425; LING 252; PHL 270, 335, 470.
<b>Linguistics:</b>	LING 221, 356, 360, 451; PHL 220, 270, 320, 350, 375, 470; CS 250, 350.
<b>Mathematics:</b>	MA 305-6, 415; PHL 220, 270, 305, 308, 320, 470.

<b>Philosophy:</b>	PHL 270, 470; CH 373, 470; HY 427; any methods/statistics course approved by the director.
<b>Physics:</b>	PH 351, 352; CH 470; HY 427; PHL 270, 470.
<b>Political Science:</b>	PSC 320, 321; HY 300; EC 409, 420, 425; SOC 300, 407; PHL 230, 232, 233, 270, 470.
<b>Psychology:</b>	PY 214, 315, 402; PHL 270, 372, 375, 470; LING 451, LING/CS 466; any statistics course approved by the director. Psychology majors with an interest in cognitive science/artificial intelligence can also take any of the courses listed above under the artificial intelligence/cognitive psychology concentration for computer science majors.
<b>Sociology:</b>	SOC 300, 310, 407; HY 300; EC 408, 409, 420, 425; ANTH 450; PHL 270, 470.

## INTERNATIONAL STUDIES

### INTERDISCIPLINARY PROGRAM

For a complete description of the interdisciplinary International Studies Program, sponsored jointly by the School of Arts and Humanities and the School of Social and Behavioral Sciences, see page 224 of this catalog.

## DEPARTMENT OF ART AND ART HISTORY

**Chair:** Gary Chapman

**Faculty:** J. Alexander, Baulos, Brouwer, Buck, Cracco, Crull, Cummings, Dallow, Dillon (*Emeritus*), Kluge, McIver, McPherson, Rieger, Schnorrenberg (*Emeritus*), Wright.

Curricula of the programs within the Department of Art and Art History provide students with an educated perspective and appreciation of the visual arts. The study of art introduces students to a range of intellectual, cultural, and aesthetic experiences. Students experience the arts through critical appreciation and historical understanding, as well as through practice. The objective of the curricula offered by the Department of Art and Art History is to give students a comprehensive understanding of the visual arts, including art making processes and art history. The visual arts are important culturally, and extensive knowledge of them gives students a broader perspective from which to advocate and articulate their concerns about the arts.

The Department of Art and Art History offers elective courses and a Bachelor of Arts degree in Art with concentrations in three areas, (1) Art Studio (2) Art History (3) Art Education, or a Bachelor of Fine Arts degree with a major in art studio and a minor in art history. Art is an approved area of concentration for the Master of Arts in Education degree, and a Master of Arts degree in art history is offered jointly with the University of Alabama.

## B.A. MAJOR

The B.A. degree is offered for students who seek a liberal arts education with a specific emphasis in art studio, art history or art education. Admission to the university assures the student of participation in the curriculum leading to the B.A. degree. No additional review process is required to seek the B.A. degree in art.

**Emphasis in art studio:** 48 semester hours, including ARS 100, 101, 102, 103, and 200; one course from ARS 210, 240, 250, or 270; one course from ARS 220 or 230; one additional 200-level ARS course; three ARS 300-level courses in two subjects; one course from ARH 203, 204, 206; one course from ARH 460, 464, 467, 469, 480, or 490 (490 must be approved); one ARH elective; at least one ARS 400-level course and one additional ARS elective. **A student majoring in art studio should see a departmental advisor before registering each term.**

**Emphasis in art history:** 42-46 semester hours, including 33-36 semester hours in art history, six to nine semester hours in art studio, and four semester hours in a foreign language. Required in art history: ARH 203, 204, and either 205 or 206; one course from each of the following groups: ARH 205 or 206 not taken to fulfill previous requirement, 405, 470, 473, 474, 475, and 476; ARH 304, 319, 407, 416, and 419; ARH 421, 422, 424, 431, and 435; ARH 350, 430, 440, and 441; ARH 460, 464, 467, 469, and 480. At least nine semester hours of work must be at the 400 level. Required in art studio: two courses from ARS 100, 101, 102, or 103. Electives: three courses in ARH and one additional course in ARH or ARS. Required in foreign language: completion of FR 102, GN 102, or CHI 102 or equivalent placement.

Students emphasizing art history are encouraged to fulfill the French, German, or Chinese foreign language requirement early in their college career. HY 101 and 102 and EH 221 and 222 are recommended in the freshman and sophomore years. Students who are interested in a career in the conservation of works of art should take at least three terms of chemistry. A student majoring in art history should see a departmental advisor before registering each term.

**Emphasis in art education:** For the N-12 certificate in art, students must take 51 semester hours in art, including 12 semester hours in 300- and 400-level courses. Requirements are ARS 100, 101, 102, 103, 200, and ARS 220 or 230; four additional 200-level and three 300-level ARS courses from a certificate-approved list available from the Department of Art and Art History or the School of Education; two from ARH 203, 204, 205, 206; one of ARH 460, 464, or 467; and an elective in ARH.

## B.F.A. MAJOR

The B.F.A. degree is offered for students who seek undergraduate professional education in drawing, painting, printmaking, sculpture, ceramic sculpture, photography, and graphic design. Students who intend to pursue professional careers in art or plan to pursue graduate study culminating in the M.F.A. degree are strongly encouraged to seek admission to the B.F.A. program. Admission to the university does not guarantee admission to the B.F.A. program. Students accepted to the B.F.A. program and who cannot complete all the requirements of that degree may choose to accept the B.A. degree in art studio as an alternative degree option.

Admission to the B.F.A. program requires a portfolio review of the student's work submitted to the B.F.A. Committee of the

Department of Art and Art History. Portfolios are reviewed twice a year, in the Fall and Spring semesters, following announced deadlines for application to the program. Students may not apply for portfolio review until they have completed at least 15 semester hours of art studio, with a minimum of six of those semester hours at UAB, and all of the foundation art studio requirements [see below]. Transfer students should consult the B.F.A. program director to verify their qualifications. To qualify to receive the B.F.A. degree, a minimum of 33 semester hours of studio art classes must be completed at UAB, with a minimum of 18 semester hours of studio art work completed at UAB after acceptance to the program. Students are required to meet with the director of the B.F.A. program upon their acceptance and select a member of the studio faculty to serve as their primary advisor. In the case of graphic design, students are also required to meet with the graphic design advisor.

The B.F.A. program requires the completion of 128 semester hours, including 72 hours in art studio and 18 hours in art history. Students must also comply with the Core Curriculum requirements of the School of Arts and Humanities applicable to the B.F.A. degree. In Area II students should consider taking both ARH 203 and 204 which are applicable to the Art History component. In addition, courses in the required areas of Foreign Culture and Computer Sciences may be addressed by courses which are also applicable to the B.F.A. requirement. **Once admitted to the B.F.A. program, no studio art course with a grade of C or lower may be applied to the degree requirements.**

The required 72 semester hours in art studio are distributed as follows: 15 semester hours of foundation studio courses including ARS 100, 101, 102, 103, and 200; 12 semester hours of beginning studio courses at the ARS 200 level with at least three hours in a three-dimensional area; 18 semester hours of intermediate studio courses at the ARS 300 level with exposure to three different areas; 12 semester hours of advanced studio courses at the ARS 400 level; and nine semester hours of studio electives at any ARS level. In addition, each B.F.A. candidate is required to take ARS 489 and ARS 491, with certain exceptions for graphic design; see graphic design advisor.

The required 18 semester hours in art history are distributed as follows: six semester hours from ARH 203, ARH 204, or ARH 206; six semester hours from 400 level Western or Non-Western (antiquity – 18th century) selection from relevant catalog offerings, three semester hours from contemporary 400 level offerings: ARH 464 or ARH 480, and three semester hours from 19th and 20th Century offerings: ARH, 440, 441, 450, 460, 467.

As a culmination of the B.F.A. degree requirements, candidates are required to mount an exhibition of their work in drawing, painting, printmaking, sculpture, ceramic sculpture, and/or photography. Graphic design students may select either an exhibition or a formal presentation and portfolio review under the direction of the graphic design advisor. The B.F.A. exhibition should be mounted in the semester prior to graduation and only after all academic requirements for graduation have been successfully completed. This exhibition may take place at any venue approved by the student's advisor and the Director of the B.F.A. program and may be either a one-person or a group exhibition with other B.F.A. candidates. ARS 491, B.F.A. Exhibition, provides each candidate with a three semester hour course dedicated solely to the production of work for this exhibition requirement.

## SUGGESTED CORE CURRICULUM FULFILLMENT

In all major options, the entering first-year, full-time student should take one or two of ARH 203 and 204 in partial satisfaction of Area II of the Core Curriculum and two or three of ARS 100, 101, 102, 103, and 200. ARS 103 will satisfy one area of the Arts and Sciences requirement.

### B.A. MINOR

**Art Studio:** 24 semester hours, including ARS 100, 101, 102, and 103; ARH 204; nine additional ARS semester hours, including at least one 300-level course; and three additional semester hours from ARH 460, 464, or 467.

**Art History:** 18 semester hours, including ARH 204; one course from ARH 203, 205, and 206; and four elective ARH courses, including three at the 300 level or higher.

### B.A. MAJOR AND MINOR BOTH IN DEPARTMENT OF ART AND ART HISTORY

The basic requirements of both art studio and art history programs must be met and must include one of ARH 460, 464, 467, 469, or 480. The major concentration in art studio and minor concentration in art history require 39 semester hours of ARS courses and 18 semester hours of ARH courses. The major concentration in art history and minor concentration in art studio requires 33-37 semester hours of ARH courses and foreign language courses and 18 semester hours of ARS courses. Students should consult a departmental advisor.

## HONORS IN STUDIO ART

### PURPOSE

The Studio Art Honors Program is designed for outstanding students majoring in Art. Through mentored work of various kinds culminating in an individually developed creative or research Honors Project, students will develop skills in preparation for graduate school or a professional career in the visual arts.

### ELIGIBILITY

Acceptance into the Studio Art Honors Program requires the student to:

- Be a Studio Art major;
- Have earned a 3.5 GPA in Art courses attempted;
- Have earned a 3.0 GPA overall;
- Have completed ARS 100, 101, 102, 103, 200 and another ARS 200-level course;
- Have completed 60 hours toward the BA degree; and
- Have completed at least two ARS 300 level studio courses in one area.

### REQUIREMENTS

- Submission of a portfolio to the BFA program with samples of work;
- Acceptance of portfolio by a departmental faculty committee with confirmed acknowledgement from the Department of Art and Art History;

- Completion of required courses for the Studio Art major;
- Arrangement with a faculty mentor/advisor for a creative or research Honors Project;
- Registration for ARS 489—Professional Artist Seminar;
- Registration for ARS 491—B.F.A. Exhibition (course requirements include an exhibition proposal, an artist statement, and a public exhibition); and
- Acceptance of the completed Honors Project by the Art faculty (creative project includes a web site, a slide portfolio, and a CD representation of final work presented.)

### BENEFITS

In addition to the educational benefits of working on mentored, individually designed projects, honors majors will graduate “With Honors in Studio Art.”

### CONTACT

For more information and/or admission to the Studio Art Honors Program, please contact: Gary Chapman, Chair, Department of Art and Art History, 113 Humanities Building, (205) 934-4941, [painter@uab.edu].

### ACADEMIC REGULATIONS

Courses taken for major or minor credit or as prerequisites for major or minor courses must be completed with a grade of C or better. A student must maintain a B average in art studio courses to be eligible to continue in the B.F.A. program. A student may take no more than three studio courses in one term; two courses are the recommended limit.

### ADVANCED PLACEMENT

The department will consider awarding credit for advanced placement (AP) courses. Students whose work as creative artists or whose study of art history may qualify them for credit by portfolio or by examination should consult the Department of Art and Art History first and then the academic advisor.

### TRANSFER STUDENTS

Art courses in which a grade of D was earned at another institution cannot be applied toward requirements for a major or minor in art history or art studio at UAB. Hours in art courses in excess of those accepted for major or minor credit at UAB may be applied as electives toward the 120-semester-hour minimum necessary to satisfy graduation requirements.

A student must take the following at UAB: 12 semester hours of ARH for the B.A. in art history major and 12 semester hours of ARS for the B.A. in art studio major; six semester hours of ARH for the art history minor and six semester hours of ARS for the art studio minor. These requirements also apply to the B.A. major and minor when both are in the Department of Art and Art History. A student in the B.F.A. program must take at least 24 semester hours of ARS and six semester hours of ARH at UAB.

## Course Descriptions

### Art Studio (ARS)

**100. Introduction to Drawing**—Various media, methods, subject matter, and vocabulary emphasizing contour, gesture, composition, and value using pencil, charcoal, conté crayon, and ink. 3 hours.

**101. Introductory Two-Dimensional Design**—Formal elements such as line, shape, value, color, concepts of space, and composition emphasized. 3 hours.

**102. Introductory Three-Dimensional Design**—Basic foundation level exploration of mass, form, volume, and space in the creation of three-dimensional objects. Emphasis on an understanding of the theories, concepts, materials, techniques, and vocabulary used in the discipline. Instruction to the safe and proper use of various power tools. 3 hours.

**103. Introduction to Computer Graphics/Drawing and Layout**—Concepts, hardware, and software programs with specific application to drawing and page layout on Macintosh personal computer. 3 hours.

**170. Introduction to Digital Photo Manipulation**—Concepts, hardware, and software programs with specific applications to creative photo manipulation on personal computer. *Prerequisite:* ARS 103 or permission of instructor. 3 hours.

**The following courses have prerequisites as indicated or may be taken with advance permission of the instructor. Each may be taken only once for 3 hours of credit, except for ARS 210.**

**200. Beginning Drawing**—Exploration of media, techniques, and concepts as they relate to drawing from diverse subject matter. *Prerequisite:* ARS 100. 3 hours.

**210. Beginning Painting**—Painting in oil, students will focus on the academic approach to observational painting as a means for developing and understanding paint as a language. Issues of content and problem solving assignments will be addressed toward the end of the semester. May be taken twice for credit. *Prerequisites:* ARS 100 and ARS 101. 3 hours.

**220. Beginning Sculpture**—Introduction to sculptural methods and processes dealing with mass, form, volume, space, and motion in the creation of sculptural objects and/or installations. Emphasis on conceptual understanding of the sculptural process and the proper application of a variety of materials and techniques necessary to the construct a finished sculptural work. Instruction to the safe and proper use of various power tools, hand tools, and other equipment. *Prerequisite:* ARS 102. 3 hours.

**230. Beginning Ceramic Sculpture**—Introduction to the use of clay as sculptural medium. Instruction in all hand-building, mold-making, and slip-casting techniques and their sculptural applications. Preliminary exposure to glazing technology and various firing processes. *Prerequisite:* ARS 102. 3 hours.

**240. Beginning Printmaking**—Investigation of basic Intaglio techniques such as metal plate etching and engraving along with basic printing processes. *Prerequisites:* ARS 100, 101, and 200. 3 hours.

**241. Beginning Lithography**—Investigation of basic lithographic techniques such as stone printing, litho crayon drawing, tusche washes, mono-printing processes. *Prerequisites:* ARS 100, 101, 200. 3 hours.

**250. Introduction to Graphic Design**—Introduction to the field. Overview of visual communications, printing, illustration, and art direction. Explorations with typography, basic design concepts, and processes. Previously listed as ARS 260. *Prerequisites:* ARS 100, 101, and 103. 3 hours.

**270. Beginning Photography**—Photography and photographic process including film development, print techniques, and camera controls emphasizing black-and-white photography as a creative medium. A 35-mm camera recommended. *Prerequisite:* ARS 101. 3 hours.

**298. Introduction to Technology in the Arts**—(Also MC 298, MU 298, THR 298). Applications of computer-based technology to the arts: music, theatre, video, and visual arts. Demonstrations of multimedia capabilities. *Prerequisite:* 6 hours in one cross-listed discipline. 3 hours.

**ARS 350, 351, 352, 355, 362, 370, and 375 may only be taken once for credit. All other 300 level courses may be taken once or twice for three semester hours of credit each time and must be taken twice before taking the 400 level course for which they are prerequisite. Art studio majors may not take any 300 level course until they have completed ARS 100, 101, 102, and 103.**

**300. Intermediate Drawing**—Descriptive, expressive, and abstract approaches using variety of media. *Prerequisite:* ARS 200. 3 hours.

**302. Figure Drawing**—Concepts and techniques of drawing in various media from live model. *Prerequisite:* ARS 200. 3 hours.

**310. Intermediate Painting**—Technical, aesthetic, and conceptual issues will be explored using various painting media. *Prerequisite:* ARS 210. 3 hours.

**320. Intermediate Sculpture**—Continued exploration and understanding of sculptural methods and processes with a concentration on the conceptual, aesthetic, and technical issues of form and space. Emphasis placed upon developing both an individual aesthetic and sophisticated formal vocabulary for sculptural expression. May be taken twice for credit to a maximum of 6 hours. *Prerequisites:* ARS 102, ARS 220. 3 hours.

**330. Intermediate Ceramic Sculpture**—Continued exploration of clay as a sculptural medium with a concentration on the conceptual, aesthetic, and technical issues specific to the medium. Emphasis placed upon developing both an individual aesthetic and an understanding of the appropriate applications of clay as a sculptural material. Continued understanding of glazing technology and firing processes. May be taken twice for credit to a maximum of six hours. *Prerequisites:* ARS 102, ARS 230. 3 hours.

**335. Intermediate Ceramics: Wheel Thrown Forms and Functions**—An exploration of both the functional and sculptural applications of clay through the direct use of both kick wheels and electric wheels. Technical instruction in the proper use and care of the potter's wheel and an understanding of the traditional functional applications of the medium. Instruction and direct application of glaze calculations and firing techniques. *Prerequisites:* ARS 102, ARS 230. 3 hours.

**340. Intermediate Printmaking**—Intermediate Intaglio techniques such as color printing processes, along with basic photographic printmaking processes. There will be greater emphasis on how form and content are integrated to form a unified work of art. *Prerequisite:* ARS 240. 3 hours.

**341. Intermediate Lithography**—Techniques will be explored through a hands-on approach. The course will also introduce color processes such as multiple stone color printing, alternative registration, and photo-litho techniques. There will be a greater emphasis on how form and content are integrated to form a unified work of art. *Prerequisite:* ARS 241. 3 hours.

**342. Experimental Printmaking**—Investigation of alternative printmaking techniques will be explored through a hands-on approach. This class will focus on transfer techniques and the introduction of digital printmaking processes. *Prerequisite:* ARS 103, 240, or 241. 3 hours.

**350. Intermediate Graphic Design**—Type and image explorations in design and design history research. Previously listed as ARS 360. *Prerequisite:* ARS 250 and one course in ARH. 3 hours.

**351. Technical Processes for Graphic Design**—Comping, presentation skills, and project development using professional layout software. Emphasis on printing technology. Previously listed as ARS 361. *Prerequisites:* ARS 103, 250, and one course in ARH. 3 hours.

**352. Typography**—Study of expressive type, symbols, and typographic layout through studio assignments. Previously listed as ARS 363. *Prerequisites:* ARS 103, 250, and one course in ARH. 3 hours.

**355. Interactive Design**—Concepts and skills in interactive media as applied to web design and animation that focus on graphic design. Previously listed as ARS 366. *Prerequisite:* ARS 350 or permission of instructor. 3 hours.

**362. Creative Strategy for Advertising Design**—Creative concepts and strategy for design of advertising campaigns. Research and presentations. *Prerequisite:* ARS 350, EH 102, MC 101, or approved substitute. 3 hours.

**365. Illustration**—Studio projects that explore variety of illustration techniques and professional issues. *Prerequisites:* ARS 200 and 260. 3 hours.

**370. Intermediate Photography Level I**—This course is the first of a two-part intermediate sequence. The course will focus on the mastery of skills that were introduced in Beginning Photography such as camera controls, print quality, and photographic imagery. The course will introduce new types of film and papers and will cover archival toning, night photography, color slide film, and hand coloring. There will be an emphasis on improving print quality and understanding natural light. May be taken once for credit. The second course in the sequence is ARS 375 Intermediate Photography Level II. *Prerequisite:* ARS 270. 3 hours.

**372. Digital Photographic Imagery**—Concepts, hardware, and software programs with specific application to various forms of digital photographic manipulation. *Prerequisites:* ARS 170 and 270. 3 hours.

**375. Intermediate Photography Level II**—The second course in the intermediate sequence. This course will introduce students to more advanced photographic materials and techniques. The course will introduce new cameras and film, including medium format, pinhole cameras, and infrared film. Students will work with red and polarizing filters to improve their images in appropriate situations. Students will use more creative papers and will work with digital printing media. There will be field trips to photographic studios. *Prerequisite:* ARS 370. 3 hours.

**387. Field Study in Art Studio**—On-site research at art venues such as prominent museums, galleries, and studios, some of

which are typically unavailable to the general public, and other related sites either in the United States or in foreign countries. Preliminary meetings in Birmingham and significant studio and written assignments required. *Prerequisites:* ARS 200, one other 200 level ARS, and one art history. 3 hours.

**395. Introduction to the Book Arts**—This course will introduce students to the creation of the artist's book, a one-of-a-kind or limited edition book that uses a variety of materials and media to create an art object that resembles a book. It is intended that it be a flexible course that will address such things as basic bookbinding, box making, various hand-made book structures, paper making, and other areas of the book arts. *Prerequisite:* ARS 100, 101, 102, 103, 200, and one 300 level course or permission of instructor. 3 hours.

**Most 400 level courses may be taken one to three times for 3 semester hours of credit each time. ARS 489 and 491 may be taken only once for 3 hours credit. ARS 490 may be taken multiple times for a total maximum of 9 hours.**

**For the graphic design emphasis, ARS 451, 459, and 490 may be taken twice for credit, but only a maximum of 9 hours can be taken in any combination of these courses. Other than these courses and ARS 458, no other graphic design courses may be repeated for credit.**

**400. Advanced Drawing**—Emphasis on in-depth projects using expressive approaches to drawing with a variety of media. *Prerequisite:* ARS 300. 3 hours.

**406. Digital Filmmaking**—Students will learn computer programs in time-based media. Technical and conceptual issues will be addressed as well as producing a short film based on project. *Prerequisites:* Minimum of 12 hours 100 level ARS, 9 hours upper level courses, experience with digital media (ARS 103, 170) and instructor's permission. 3 hours.

**407. Ethnographic Filmmaking**—Students will document and analyze aspects of human social life using film and video. They will develop an understanding of the visual syntax and narrative structure of successful ethnographic and documentary films through discussion and criticism in the classroom as well as through short film projects of their own. *Prerequisites:* Minimum of 12 hours 100 level ARS, 9 hours upper level courses, experience with digital media, and/or instructor's permission. 3 hours.

**410. Advanced Painting**—Individualized coursework allowing personalized course objectives approved by instructor based on previous work. *Prerequisite:* ARS 310. 3 hours.

**420. Advanced Sculpture**—Advanced studies in sculptural methods and processes with an emphasis on in-depth individually generated projects. *Prerequisites:* ARS 102, 320 (taken twice for a total of six hours). 3 hours.

**422. Sculpture Internship**—Advanced independent study, working directly with knowledgeable and qualified arts professional in a sculptural discipline. *Prerequisites:* ARS 102, completion of ARS 300 sequence in a sculptural discipline, and instructor's permission. 3 hours.

**430. Advanced Ceramic Sculpture**—Advanced studies in the use of clay as sculptural medium with emphasis on in-depth individually generated projects. *Prerequisites:* ARS 102, 330 (taken twice for a total of six hours). 3 hours.

**440. Advanced Printmaking**—Advanced Intaglio techniques such as color processes, along with basic photographic printmak-

ing processes. *Prerequisite:* ARS 340. 3 hours.

**441. Advanced Lithography**—Techniques such as complex color printing processes and basic photographic printmaking processes are explored. Continued emphasis on improving student's conceptual and technical skills. *Prerequisites:* ARS 170, 241, and 341. 3 hours.

**442. Advanced Experimental Printmaking**—Investigation of alternative printmaking techniques will be explored through a hands-on approach. The class will focus on transfer techniques and the introduction of digital printmaking processes. *Prerequisites:* ARS 170, 342. 3 hours.

**450. Advanced Graphic Design**—Advanced type, layout and image explorations, and design history research. *Prerequisites:* ARS 350 and either 351 or 352 or permission of instructor. 3 hours.

**451. Advanced Graphic Design Projects**—Assignments individually designed to strengthen each student's portfolio. Generally, a student will take a project and create a complete campaign/identity. Visual and verbal presentation skills also emphasized. *Prerequisite:* ARS 450 or permission of instructor. May be taken twice for credit; maximum combined credit in ARS 451, 459, and 490 is 9 hours. Does not fulfill minimum B.A. degree requirement for a 400 level studio course. 3 hours.

**452. Graphic Design Portfolio**—Portfolio preparation and presentation. Re-working of some old projects and addition of new. Résumé and job interview skills emphasized. Previously listed as ARS 463. *Prerequisite:* ARS 450, ARS 350 and 352 or permission of instructor. 3 hours.

**454. Multimedia Productions**—Concepts and skills explored as design/art direction components in collaborative project format. Interrelates with music, theatre, and broadcasting. Previously listed as ARS 464. *Prerequisites:* ARS 350 and permission of instructor. 3 hours.

**455. Advanced Interactive Design**—Advanced concepts and skills in development of web-page design. Previously listed as ARS 466. *Prerequisites:* ARS 355 or permission of instructor. 3 hours.

**457. Advanced Advertising Design**—Community-based projects specific to advertising. Portfolio building and presentations. *Prerequisite:* ARS 357. 3 hours.

**458. Special Topics in Graphic Design**—An investigation of special topics in graphic design history, theory, or practice. Subject to be determined by instructor. Repeatable for different topics. Course can be taken twice for credit. *Prerequisites:* ARS 350, ARH 464 or ARH 480, or by permission of the instructor. 3 hours.

**459. Graphic Design Field Internship**—Work in local, approved graphic design office under guidance of field supervisor and Art Department graphic designer. *Prerequisites:* ARS 350, 351, and permission of instructor. May be taken twice for credit. Maximum combined credit in ARS 451, 459, and 490 is 9 hours. Does not fulfill the minimum B.A. degree requirement for a 400-level course. 3 hours.

**475. Advanced Photography**—This course will introduce large scale and multiple print techniques. There will be further work with medium format cameras and an introduction to large format or view cameras. There will be some natural light studio photography and work with studio lights for students at the appropriate level. May be taken twice for credit. *Prerequisite:* ARS 375. 3 hours.

**479. Photography Internship**—This course will provide students

with direct working knowledge with the field of professional photography in the Birmingham area through a program of internships at cooperating institutions, studios, and businesses. The student will be required to work at the cooperating agency a minimum of 16 supervised hours per week during the term. *Prerequisites:* 12 hours in ARS and permission of instructor. 3 hours.

**480. Practicum in Art Studio Management**—This course is designed to familiarize the student with the art studio-teaching environment in both technical and conceptual aspects. The student will assist the faculty member and learn about maintenance and operation of the lab, including learning more detailed equipment or chemical information than may be available in a class. The student may assist in class demonstrations or beginning level classes in order to gain exposure to teaching art studio. 3 hours.

**487. Field Study in Art Studio**—On-site research at art venues such as prominent museums, galleries, and studios, some of which are typically unavailable to the general public, and other related sites either in the United States or in foreign countries. Preliminary meetings in Birmingham and significant studio and written assignments required. *Prerequisites:* ARS 200, one other 200 level ARS, two courses at the 300 level, and one art history. 3 hours.

**489. Professional Artist Seminar**— Explore and develop skills for managing ones career as a professional artist. *Prerequisites:* One studio discipline at the 400 level, and at least junior standing, or permission of instructor. 3 hours.

**490. Independent Advanced Study in Studio Art**—May be repeated for credit; maximum combined credit in ARS 463, 469, and 490 is 9 hours. Does not fulfill the minimum B.A. degree requirement for a 400-level studio course. 1 to 9 hours.

**491. B.F.A. Exhibition**—B.F.A. students plan and mount exhibition of work during final year. Graphic design students may prepare public portfolio presentation instead of exhibition. *Prerequisite:* Permission of advisor. 3 hours.

**492. Studio Internship**—This course will provide students with direct working knowledge of the studio arts through an internship at cooperating studios, institutions, and businesses specializing in specific disciplines in the visual arts. The student will be required to work at the agency a minimum of 16 supervised hours per week during the term. *Prerequisites:* 12 hours in ARS and permission of instructor. 3 hours.

**493. Art Conservation Internship**—Advanced independent study with direct working knowledge of the studio arts with qualified Art Conservation professionals. *Prerequisite:* Minimum of 12 hours of ARS and professor's permission. 3 hours.

**495. Seminar in Art Studio**—Specialized advanced studio problems with permission of the instructor. *Prerequisite:* ARS, 100, 101, 102, 103 and a minimum of two 300 level art studio, or consent of the instructor. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## Art History (ARH)

Students usually take one of the first five courses below before taking a more advanced course.

**101. The Art Experience**—Elements of style with emphasis on original painting and sculpture in Birmingham Museum of Art and architecture in metropolitan Birmingham. 3 hours.

**203. Ancient and Medieval Art**—A survey of Prehistoric, Ancient, Near Eastern, Egyptian, Aegean, Greek, Roman, Hiberno-Saxon, Carolingian, Ottonian, Romanesque, and Gothic art. 3 hours.

**204. Renaissance through Modern Art**—A survey of Renaissance, Baroque, Rococo, late Eighteenth, Nineteenth, and Twentieth Century art. 3 hours.

**205. African, Native American and Oceanic Art**—Significant monuments and styles of these tribal cultures. 3 hours.

**206. Survey of Asian Art**—Art and culture of India, China, and Japan (A&S Track A). 3 hours.

**304. Art and Artist in Ancient Greece**—Sculpture, architecture, and vase painting, chiefly in fifth and fourth centuries B.C. *Prerequisite:* ARH 203. 3 hours.

**306. The Asian Experience**—The Asian Experience. 3 hours.

**319. Cathedral and Castle**—Design, construction, function, and importance of selected major buildings, chiefly medieval, and sculpture and painting adorning them. *Prerequisite:* ARH 101 3 hours.

**350. American Art to 1900**—Painting, sculpture, and architecture in the United States with emphasis on nineteenth century. *Prerequisite:* ARH 204. 3 hours.

**405. African Art**—African Art. *Prerequisite:* ARH 101. 3 hours.

**407. Roman Art**—Art of Roman world from republic to late empire with emphasis on Roman art in Italy. *Prerequisite:* ARH 204. 3 hours.

**416. Gothic Architecture**—Origins and development of Gothic style in architecture of Western Europe and British Isles, emphasizing great churches and training and practices of mason architecture. *Prerequisite:* ARH 203. 3 hours.

**419. Medieval Manuscript Painting**—Hiberno Saxon to late Gothic, emphasizing function of image in books and in later manuscripts, on artistic personalities. *Prerequisite:* ARH 203. 3 hours.

**421. Renaissance Art in Italy: 1300-1480**—Painting, sculpture, and architecture with an emphasis on the artistic centers of Florence, Venice, Rome, and Siena. *Prerequisite:* ARH 204. 3 hours.

**422. Renaissance Art in Italy:1480-1580**—Painting, sculpture, and architecture, with and emphasis on the artistic centers of Florence, Venice, Rome, and Milan. *Prerequisite:* ARH 204. 3 hours.

**423. Study Abroad: Renaissance and Baroque Art in Italy**—On-site study of works of art and architecture in Italy, 1300-1650. 3 hours.

**424. Renaissance Painting in Northern Europe**—Paintings in Holland, Belgium, and Germany, 1350-1550. *Prerequisite:* ARH 204. 3 hours.

**430. Eighteenth-Century Art in Europe**—Visual culture in eighteenth-century Britain and France, including study of eighteenth-century holdings in Birmingham Museum of Art. *Prerequisite:* ARH 204. 3 hours.

**431. Northern Baroque Painting**—Painting in Holland and Belgium 1580-1680. *Prerequisite:* ARH 204. 3 hours.

**435. Southern Baroque Art**—Painting, sculpture, and architecture, with an emphasis on the artistic centers of Rome, Florence, and Venice and painting in Spain, 1580-1680. *Prerequisite:* ARH 204. 3 hours.

- 440. 19th Century Art I: Neoclassicism & Romanticism**—Painting and sculpture in Europe, emphasizing France, 1780-1860. *Prerequisite:* ARH 204. 3 hours.
- 441. 19th Century Art II: Impressionism, Post-Impressionism, and Symbolism**—Painting and sculpture in Europe, emphasizing France, 1860-1900. *Prerequisite:* ARH 204. 3 hours.
- 450. American Art to 1900**—Painting, sculpture, and architecture in the U.S., with an emphasis on 19th Century. *Prerequisite:* ARH 204. 3 hours
- 460. Twentieth-Century Art to 1945**—(Also ARH 560.) Painting, sculpture, and architecture in Europe and the United States, 1900-1945. *Prerequisite:* ARH 204. 3 hours.
- 464. Art Since 1945**—Painting, sculpture, and architecture in Europe and the United States, 1945 to present. *Prerequisite:* ARH 204. 3 hours.
- 467. Modern Architecture**—Chiefly twentieth century architecture emphasizing the United States. *Prerequisite:* ARH 204. 3 hours.
- 469. The Architecture of Birmingham**—Architectural history from founding in 1871 in relation to American architecture. Physical study of buildings and local archival research. *Prerequisite:* ARH 101. 3 hours.
- 470. The Art and Culture of China**—An in-depth survey of the art and culture of China from the Neolithic era through the eighteenth century. *Prerequisite:* ARH 206. 3 hours.
- 473. Japanese Prints and Printmakers**—A history of Japanese block prints and printmakers from seventeenth through twentieth centuries. 3 hours.
- 474. Chinese Painting**—Painting and painting theory through eighteenth century. *Prerequisite:* ARH 206 or 470. 3 hours.
- 475. Japanese Art**—Art and culture, Neolithic era through nineteenth century. *Prerequisite:* ARH 206 or 470. 3 hours.
- 476. Oriental Ceramics**—History and connoisseurship of ceramics of China, Korea, and Japan using originals in Birmingham Museum of Art. *Prerequisite:* ARH 206. 3 hours.
- 480. Art Criticism**—Critical theory and contemporary issues focusing on art from 1960s to present. *Prerequisite:* ARH 204. 3 hours.
- 482. Topics in Art History**—Study of thematic topics throughout art history. *Prerequisite:* Permission of instructor. 3 hours.
- 485. Museum Studies**—Museum operation; organization and preparation of exhibitions; cataloging objects in collection; experience with UAB Visual Arts Gallery and Birmingham Museum of Art. *Prerequisite:* Permission of instructor. 3 hours.
- 487. Field Study**—Trips to prominent museums and galleries in United States or to art centers of foreign countries. Preliminary lectures in Birmingham and significant written assignments required. 3 hours.
- 490. Seminar in Art History**—*Prerequisite:* Permission of instructor. 3 hours.
- 491. Art History Problems**—Project proposed by student and approved by art history instructor. *Prerequisite:* Permission of instructor. 1 to 4 hours.
- 492. Museum Internship**—Through active participation in the daily operations of one or more curatorial departments, students will acquire direct working knowledge of museums through a pro-

gram of internships at cooperating institutions. The student will be required to work at the institution a minimum of 12 supervised hours per week during the term. *Prerequisite:* Permission of the instructor. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## DEPARTMENT OF COMMUNICATION STUDIES

**Chair:** Larry Powell (Interim)

**Faculty:** Amsbary, Bodon, Ibelema, R. Johnson, Mack, Merrill, Mills, Neiva, Hickson, Self, Tutwiler, Wittig

The Department of Communication Studies is concerned with human deliberation and communication in all its forms. Students majoring in communication studies may concentrate in communication management or mass communication. The concentration in communication management is designed for students interested in general principles of human communication, from interpersonal relationships to the theory and practice of public advocacy. The concentration in mass communication allows students to specialize in journalism, broadcasting, or public relations. Minors are available in each of the areas of study offered by the department. Students may pursue a double major in the degree concentrations or major in one concentration while minoring in the other.

Students interested in studying communication should consult the department chair. See page 53 for additional requirements set by the School of Arts and Humanities. Communication majors must take a two-course sequence in history.

To receive a major in communication studies, a student must complete at least 15 semester hours of CM or MC courses numbered 300-499 at UAB, approved by a departmental advisor, and earn a grade point average of at least 2.25 in these approved hours. No course in which a grade below C has been earned may be counted toward the completion of the major or minor. Students must achieve a 2.25 cumulative grade point average in the major.

Students who wish to apply credit by portfolio, credit by examination, or credit for armed services courses toward a major or minor must contact the department at least six months prior to graduation.

## COMMUNICATION MANAGEMENT

### CONCENTRATION

A concentration in communication management requires 40 semester hours. The following courses are required: MC 101, CM 105, CM 494, and CM 498. In addition, a communication management major must take 30 semester hours of communication management electives (numbered 300-499) approved by the departmental advisor.

### MINOR

The minor in communication management requires 21 semes-

ter hours, including CM 105, and 18 semester hours of communication management electives (numbered 300-495) approved by the departmental advisor.

## Course Descriptions

### Communication Management (CM)

**101. Public Speaking**—Effective public speaking. Analysis, research, organization, delivery, to enhance speaking performance. 3 hours.

**103. Professional Conduct and Communication Ethics**—Ethical questions in communication today. Ethical dimension of decision making process in communication and basic issues in professional conduct for media. 3 hours.

**105. Introduction to Human Communication**—Communication and persuasion as ideas in Western thought, ranging from Greek to contemporary period. 3 hours.

**112. Relational Communication**—Communication process in various interpersonal settings. Basic communication concepts and their application to communication skills in such areas as one-to-one communication, person perception, and conflict management. 3 hours.

**301. Classical Theories of Social Influence**—Classical systems of rhetoric applied to contemporary theory building in communication. Works selected from among Sophists, as well as Plato, Aristotle, Quintilian, Cicero, and St. Augustine. 3 hours.

**305. Advanced Communication Theory**—Major theoretical approaches to issues involved in human communication. Various psychological and sociological conceptualizations of communication process. *Prerequisite:* Junior standing. 3 hours.

**309. Interviewing**—Theory and practice in various types of interviews, such as employment, counseling, research, and journalistic. 3 hours.

**310. Group Decision Making in Organizations**—Theories of small group communication and practice in decision making in various group formats as part of organizational structure. 3 hours.

**311. Organizational Communication**—Theories and models of communication in organizational settings. Analysis and diagnosis of communicative patterns and consideration of methods for implementing appropriate communication models in organizations. 3 hours.

**315. Communication Leadership and Management**—Theory and research on leadership and communication management. Specific attention to contexts in which leaders and managers function. 3 hours.

**322. Argumentation Theory**—Bases of argument and nature of issues in controversy. Evidence, logic, refutation, and argumentative formats. Recommended for pre-law as well as general students. 3 hours.

**356. Propaganda and Public Persuasion**—(Also MC 356.) Theory and practice of propaganda with emphasis on mass media as tools of propagandist. Nazi, Soviet, and U.S. propaganda analyzed and critiqued in context of communication theory and ethics. *Prerequisite:* Junior standing. 3 hours.

**380. Health and Medical Communication**—Bases of theory and practice of communication in health-care setting. Emphasis on communication contexts and relationships. 3 hours.

**400. Professional Presentations**—Advanced speaking and delivery techniques in professional settings. Audience analysis,

professional delivery, research, and application of theories of persuasion. 3 hours.

**401. Instructional Communication**—Communication problems in the classroom. Translation of data into lecture discussion. Empirical research on verbal and nonverbal elements of effective presentation. *Prerequisite:* Junior standing. 3 hours.

**405. Contemporary Philosophies of Communication**—Twentieth-century systems of Western rhetoric. Concepts selected from among works of Burke, Weaver, Toulmin, Perelman, Richards, and McLuhan. *Prerequisite:* Junior standing. 3 hours.

**411. Seminar in Organizational Communication**—Theory and research in communication audits of organizations. *Prerequisite:* CM 311 or permission of instructor. 3 hours.

**413. Nonverbal Communication**—Elements of nonverbal behavior (physical appearance, gestures, space, voice) which affect communication in person-to-person situations. *Prerequisite:* Sophomore standing. 3 hours.

**414. Language and Thought**—Semiotics and communication. Definition of sign and sign process. Cognitive processes and communication processes. Signs in communicative action. *Prerequisite:* Junior standing. 3 hours.

**415. Intercultural Communication**—Communication problems in intercultural and multicultural contexts. Interpretations and otherness. Ethnocentricity and culture. Analysis of one culture interpreting another, with emphasis on modern societies. *Prerequisite:* Junior standing. 3 hours.

**455. Seminar in Political Communication**—(Also MC 455.) Emerging cross-disciplinary field of political communication. Literature and propositions surrounding key approaches, methods, and substantive areas of inquiry in political communication. *Prerequisite:* Junior standing. 3 hours.

**458. Communication Criticism**—(Also EH 458.) Rhetorical systems for appraising persuasive messages and campaigns in twentieth century. *Prerequisite:* Junior standing. 3 hours.

**460. Communication and Social Movements in America**—Exploration of role of public communication in political, religious, social, and economic evolution of America. Movements include war and peace, revolution, slavery, feminist concerns, and industrial change. *Prerequisite:* Junior standing. 3 hours.

**480. Seminar in Health and Medical Communication**—Advanced communication theory and research in health-care setting. Impact of interpersonal, organizational, and mass communication policy in field of human health and medicine. *Prerequisite:* Junior standing. 3 hours.

**481. Communication and Aging**—Biological, neurological, and socio-psychological effects of aging on communication process. Communication with elderly in various health and medical contexts. *Prerequisite:* Junior standing. 3 hours.

**490. Media Citizenship**—(Also MC 490.) Quantitative and qualitative measures of media content in television, film, magazines, newspapers, and computing networks. 3 hours.

**492. Independent Study**—Topics of mutual interest to student and faculty member. *Prerequisites:* 15 hours in CM courses and written permission of instructor prior to registration. 1 to 3 hours.

**493. Special Topics in Communication Arts**—Topics selected by faculty. *Prerequisites:* 15 hours in CM courses and permission of instructor. May be repeated for total of 6 hours. 1 to 3 hours.

**494. Communication Research Methods**—(Also MC 494.)

Research questions, design, methodology, data gathering, and analysis. Practice in conducting, interpreting, and communicating research findings to public. *Prerequisite:* Junior standing. 3 hours.

**498. Seminar in Communication**—(Also MC 498.) Completed paper in major area of study crossing divisional lines. *Prerequisites:* CM/MC major or minor and senior standing. 1 hour.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## MASS COMMUNICATION

### SPECIALIZATIONS

Students interested in developing a concentration in mass communication may select from one of three specializations available in the department: journalism, broadcasting, or public relations. Students concentrating in one of the mass communication specializations may also major or minor in communication management.

### REQUIREMENTS FOR MAJOR OR MINOR IN MASS COMMUNICATION

All students pursuing a major concentration in mass communication must complete 42 semester hours. General requirements include MC 101, CM 105, MC 391 (2 semester hours), MC 400, MC 494, MC 495, and MC 498. The remaining 24 semester hours in the major concentration shall be taken from the list of courses required in each of the specializations and others recommended by the appropriate advisor.

A minor concentration requires 21 semester hours including MC 101, MC 106, and 15 semester hours of courses numbered 300-499 recommended by the departmental advisor.

### JOURNALISM

The curriculum in journalism is designed to prepare students for work with newspapers, magazines, and company publications. In addition to courses in writing, reporting, and editing, the journalism program frequently offers special courses aimed at meeting the media demands of Birmingham, its people, and its publications.

Major requirements for the specialization: MC 106, MC 306, MC 310, MC 350, MC 360, and nine additional semester hours of electives in MC or CM approved by an advisor in journalism.

### BROADCASTING

Students in broadcasting prepare for professional careers in radio and television production, news operations, or management. In addition to skills courses, students are given a strong theoretical foundation designed for both the media professional and the potential graduate student in mass communication.

Major requirements for the specialization: MC 106, MC 370, MC 371, MC 372, MC 373, MC 383, MC 430, or CM 311, and three semester hours of electives in MC or CM approved by an advisor in broadcasting.

## PUBLIC RELATIONS

Public relations is a pre-professional program designed to acquaint students with the theoretical knowledge and the practical skills necessary for relating ideas and information to many "publics." The program stresses writing, oral, and analytical skills.

Major requirements for the specialization: MC 106, MC 339, MC 340, MC 341, MC 342, MC 310, or 360, and six additional semester hours approved by an advisor in public relations.

### Course Descriptions

#### Mass Communication (MC)

**101. Survey of Mass Communication**—Processes, uses, and effects of media messages in society. History, structure, and functioning of newspapers, books, magazines, radio, television, cinema, and recording industry. 3 hours.

**102. Introduction to Cinema**—Analysis of film processes, understanding of film as art form, and perspectives from the camera as well as editing, directing, screenplay, production, and distribution. 3 hours.

**106. Newswriting and Reporting I**—Recognizing news, interviewing, reporting, and writing news for print. *Prerequisites:* Grade of A or B in EH 102 or permission of instructor, and ability to type. 3 hours.

**216. Beginning Screenwriting**—(Also THR 216.) Study and practicum in writing scripts for TV and film with emphasis on creating works for production and/or sale. 3 hours.

**298. Introduction to Technology in the Arts**—(Also ARS 298, MU 298, THR 298). Applications of computer-based technology to the arts: music, theatre, video, and visual arts. Demonstrations of multimedia capabilities. *Prerequisite:* 6 hours in one cross-listed discipline. 3 hours.

**306. Public Affairs Reporting**—Gathering and writing in-depth news; covering courts, police, schools, and county and city governments. *Prerequisite:* MC 106. 3 hours.

**310. Newswriting and Reporting II**—Practice in gathering and writing news, with experience in writing under pressure of deadlines and covering beats. *Prerequisite:* MC 106. 3 hours.

**316. Advanced Screenwriting**—(Also THR 316.) Advanced study and practicum in writing feature-length screenplays, with emphasis on creating works for production, sale and/or publication. 3 hours.

**320. Introduction to Advertising in Mass Media**—Survey of methods, techniques, and strategy involved in creating an advertising campaign. *Prerequisite:* Sophomore standing. 3 hours.

**339. Introduction to Public Relations**—Survey of field of public relations in the United States. Relationships among marketing, advertising, and public relations. 3 hours.

**340. Public Relations Principles**—Relationship of business, industrial, educational, health, and service institutions to audiences. Public relations as management function in areas of communication analysis, counseling, and public information activities. *Prerequisites:* MC 106 and MC 339. 3 hours.

**341. Public Relations Methods I**—Planning and executing ongoing programs and campaigns to improve organizational and institutional relations with publics. Preparing and distributing news

releases, reports, letters, pamphlets, position papers, public statements, speeches, and backgrounders. *Prerequisite:* MC 340. 3 hours.

**342. Public Relations Campaigns**—National and local programs that illustrate good and bad practices. Student teams research, plan, and design public relations campaign for client. *Prerequisites:* MC 340 and MC 341. 3 hours.

**343. Public Relations Methods II**—Graphics, brochure and newsletter design, slide shows, broadcast PSAs, and multimedia presentations. *Prerequisites:* MC 340 and MC 341. 3 hours.

**350. Newspaper Editing and Design**—News selection, copy editing, picture editing, and headline writing. *Prerequisite:* MC 106. 3 hours.

**356. Propaganda and Public Persuasion**—(Also CM 356.) Theory and practice of propaganda with emphasis on mass media as tools of propagandist. Nazi, Soviet, and U.S. propaganda analyzed and critiqued in context of communication theory and ethics. *Prerequisite:* Junior standing. 3 hours.

**360. Feature Writing**—Finding subjects, collecting information, interviewing, writing, and marketing magazine and newspaper features. 3 hours.

**361. Magazine Editing and Production**—Principles and practice in story selection, copy editing, copy fitting, picture editing, cropping, and caption writing. 3 hours.

**370. Fundamentals of Broadcasting**—Broadcasting technology, history of radio and television, economics of broadcasting, government regulation of industry, and assessment of medium in society. 3 hours.

**371. Broadcast Copywriting**—Copywriting for freelance, in-station, agency, corporate in-house, and institutional settings. *Prerequisite:* MC 101. 3 hours.

**372. Newswriting for Broadcasting**—Information gathering for electronic media with emphasis on writing for ear and eye. *Prerequisite:* MC 101. 3 hours.

**373. Television Production I**—Television production elements; cameras, sound, lighting, videotape recording, film, optics, and studio control centers. Group and individual production activities. *Prerequisite:* MC 371. 3 hours.

**375. Audio Production for Radio, Television, and Film**—Audio recording in studio and field, proper microphone techniques, non-linear, multi-track mixing for radio, television, and motion picture applications. *Prerequisite:* MC 383. 3 hours.

**383. Television Production II**—Program origination, production, directing, and performing. *Prerequisite:* MC 373. 3 hours.

**384. Music Video Production**—Designing, shooting, and editing music video using film industry crew protocol. *Prerequisite:* MC 383. 3 hours.

**391. Mass Media Internship**—Professional experience in public relations, journalism, or broadcasting. Student must work in area of major or minor at least five hours per week for 10 weeks for each unit of credit awarded. *Prerequisites:* Junior standing and prior approval of appropriate internship director. Graded pass/fail only. May be repeated for maximum of 6 hours. 1 to 3 hours.

**400. Mass Communication Law**—Legal limitations and privileges affecting publishing and broadcasting. Major court decisions. Fair comment, libel, right of privacy, fairness doctrine, and license renewal. *Prerequisite:* Junior standing. 3 hours.

**430. Electronic Media Management**—Organizational structures and business policies of radio, television, and cable companies. Planning basic program structures for broadcast and cable operations with consideration of audience requirements, FCC policy, and competitive market. *Prerequisite:* Junior standing. 3 hours.

**441. Multimedia Production**—Techniques for producing programming, utilizing personnel and equipment from music, theatre, graphic design, and related fields. Emphasis on computer-based technologies. *Prerequisites:* Junior standing and permission of instructor. 3 hours.

**455. Seminar in Political Communication**—(Also CM 455.) Emerging cross-disciplinary field of political communication. Review of literature and propositions surrounding key approaches, methods, and substantive areas of inquiry in political communication. 3 hours.

**483. Television Production III**—Program origination, production, and direction. *Prerequisite:* MC 383. 3 hours.

**490. Media Citizenship**—(Also CM 490.) Quantitative and qualitative measures of media content in television, film, magazines, newspapers, and computing networks. 3 hours.

**492. Independent Study**—Topics of mutual interest to student and faculty member. *Prerequisites:* 15 hours of MC courses and written permission of instructor prior to registration. 1 to 3 hours.

**493. Special Topics in Mass Communication**—Topics selected by faculty. *Prerequisites:* 15 hours of MC courses and permission of instructor. 1 to 3 hours.

**494. Communication Research Methods**—(Also CM 494.) Research questions, design, methodology, data gathering, and analysis. Practice in conducting, interpreting, and communicating research findings to public. *Prerequisites:* Junior standing and permission of instructor. 3 hours.

**495. Mass Media and Society**—History of mass communication and research from 1940s to present. Transactional model of communication and symbolic-interactionist perspective used among other approaches to evaluate role of mass media in twentieth-century America. *Prerequisite:* Junior standing. 3 hours.

**498. Seminar in Communication**—(Also CM 498.) Completed paper in major area of study crossing divisional lines. *Prerequisites:* CM/MC major or minor and senior standing. 1 hour.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## DEPARTMENT OF ENGLISH

**Chair:** Marilyn Kurata

**Associate Chair:** Elaine Whitaker

**Faculty:** Bach, Baker, Basilio, Blythe, Bonds, Braswell, Butcher, Chapman, Collins, T. Crunk, DeVoll, Ellis, Frost, Glassmeyer, Glosecki, L. Graves, Grimes, Guinn, Haddin (*Emeritus*), Haggerty (*Emeritus*), Harris, Hoff, Hutchings, Jolly, Kim, A. Long (*Emerita*), McComiskey, Mersmann (*Emeritus*), Quinlan, Rushton, Ryan, Siegel, V. Smith, Stitt, Tatum, Temple, Treutel, Wharton, Whittle, Wood

**Director, Creative Writing:** Robert Collins

**Director, English Resource Center:** Tracey Baker

### **Director, Freshman Composition and Developmental**

**Program:** Peggy Jolly

**Director, Linguistics:** David Basilico

The Department of English offers programs of study leading to the degree of Bachelor of Arts with a major or minor in English. The department also offers an English major with a concentration in professional writing and public discourse, an English major with a concentration in creative writing, and an English major with a concentration in linguistics. The Department of English also offers courses leading to the Master of Arts degree in English. Further information may be obtained from the department chair or the UAB Graduate School Catalog.

## **MAJOR**

Requirements for a major in English are 42 semester hours (excluding EH 101 and 102); nine semester hours from EH 221, 222, 223, and 224; EH 301; EH 365 or EH 366; EH 476; three semester hours in non-Shakespearean British literature produced before 1660 (EH 469, 470, 471, 473, 474, 475, 478, 491 when approved, or 492 when approved); six semester hours in British literature produced after 1660 (EH 414, 480, 481, 482, 483, 485, 486, 487, 488, 489, 491 when approved, or 492 when approved); six semester hours in American literature at the 400 level; three semester hours in the study of English as a language (EH/LING 450, 451, 452, 453, 454, or 493 when approved) or six semester hours in linguistics at the 200/300 level (EH/LING 250, 251, 252, 292 when approved, 355, 356, 360, or 393 when approved [This option increases the total number of semester hours required for a major to 45.]); and six semester hours of electives at the 300 level or above (excluding 311), with at least three semester hours at the 400 level. Courses numbered 491 or 492 meet distribution requirements only when their contents fall within one of the above listed distribution areas. Students majoring in English must achieve a grade of C or higher in all courses applied toward the major requirement. Fifteen semester hours of English courses at the 300 and 400 levels must be taken at UAB.

## **MINOR**

Requirements for a minor in English are 18 semester hours (excluding EH 101 and 102), six of which must be at the 400 level; six semester hours from EH 217, 218, 221, 222, 223, or 224; three semester hours in British literature at the 300 or 400 level; three semester hours in American or African literature at the 300 or 400 level; six additional semester hours in EH courses at the 300 or 400 level, one of which may be creative writing. Students minoring in English must achieve a grade of C or higher in all courses applied toward the minor. English courses at the 300 and 400 levels must be taken at UAB.

## **HONORS IN ENGLISH**

### **PURPOSE**

The English Honors program is designed for outstanding English majors. In their senior year, qualified students write a Senior Thesis under the supervision of a Senior Thesis Committee.

### **BENEFITS**

Benefits of participating in the Honors Program in English include individual mentoring by exceptional faculty and useful

practice in undertaking extended work in the area of English, American, African American literatures, and world literatures; creative writing; linguistics; or rhetoric. Writing the thesis gives students the chance to work one-on-one with outstanding research faculty in all fields of English study. Our honors students thus gain valuable writing and critical experience, personalized writing instruction, and the opportunity to acquire especially strong letters of recommendation from committee members. Students completing the program are recognized at the English Department Awards Reception and will graduate from UAB "With Honors in English" at their UAB commencement, an accomplishment that enhances any résumé.

### **ELIGIBILITY**

To be eligible for the Honors Program in English, a student must be enrolled full-time as a UAB English major, have earned a 3.5 GPA in English courses taken and a 3.0 GPA overall, and have completed at least EH 101 and EH 102 and 9 semester hours of EH 200-level literature survey courses.

### **REQUIREMENTS**

Qualified students electing to enter and complete the Honors Program in English must do the following:

- Successfully complete EH 301.
- Submit a completed English Honors Program application form to the Associate Chair for approval. Students must secure permission of the Associate Chair in order to enter the English Honors Program.
- Select a member of the English graduate faculty to serve as faculty mentor and one other member of the English graduate faculty to serve with that mentor and the Associate Chair on the Senior Thesis Committee. Fill out a Senior Thesis Committee Form and give it to the Associate Chair for approval. Obtain a copy of the Honors Thesis Guidelines.
- Write a thesis proposal and have it approved by the Senior Thesis Committee. Once approved, a copy of the proposal should be filed with the Associate Chair.
- Enroll non-concurrently for two courses (6 semester hours) of EH 497: Individual Studies for the purpose of writing the thesis under faculty guidance. Students usually do this in their senior year.
- Obtain approval of the completed thesis from all members of the Senior Thesis Committee.
- Complete a final, one-hour public defense of the thesis.

### **CONTACT**

Program descriptions are available from the English Information Center, located in the Humanities Building, Room 215A. For more information and/or admission to the English Honors Program, contact Dr. Elaine E. Whitaker, Associate Chair, UAB Department of English, Humanities Building, Room 214, Birmingham, AL 35294-1260.

## **PROFESSIONAL WRITING AND PUBLIC DISCOURSE**

Students interested in non-fiction writing for corporate and public life may pursue a concentration in professional writing and public discourse within the English major or a minor in writing.

The concentration in professional writing and public discourse consists of 42 semester hours (excluding EH 101 and EH 102): six semester hours from EH 221, 222, 223, or 224; EH 301; EH 203 or 303; EH 365 or EH 366; EH 476; six semester hours from EH 304, 311 when approved, 403, 404, or 492 when approved; six semester hours from EH 401, 402, 457, 459, or 492 when approved; three semester hours in non-Shakespearean British literature produced before 1660 (EH 469, 470, 471, 473, 474, 475, 478, 491 when approved, or 492 when approved); three semester hours at the 400 level in British literature produced after 1660 (EH 414, 480, 481, 482, 483, 485, 486, 487, 488, 489, 491 when approved, or 492 when approved); three semester hours in American literature at the 400 level; and three semester hours in the study of English as a language (EH/LING 450, 451, 452, 453, 454, or 493 when approved) OR six semester hours in linguistics at the 200/300 level (EH/LING 250, 251, 252, 292 when approved, 355, 356, 360, or 393 when approved [This option increases the total number of semester hours required for this concentration to 45.]). At least 15 hours of English courses at the 300 or 400 levels which count towards the concentration must be taken at UAB.

The minor in writing consists of 18 semester hours (excluding EH 101 and EH 102): six semester hours from EH 203, 301, or 303; three or six semester hours from EH 304, 311 when approved, 403, 404, or 492 when approved; three or six semester hours from EH 401, 402, 457, 459, or 492 when approved; three semester hours from any linguistics course at the 200 or 300 level OR three semester hours from any creative writing course at the 300 level (EH 305-306, 307-308, or 309-310). At least 12 semester hours of English courses at the 300 or 400 levels which count towards the minor must be taken at UAB.

Students must achieve a grade of C or higher in all courses applied toward the concentration or minor.

## CREATIVE WRITING

**Director:** Robert Collins

Students may pursue a concentration in creative writing within the English major or a minor in creative writing, taking workshops in poetry, fiction, creative nonfiction, and special topics in creative writing.

The concentration in creative writing consists of 42 semester hours (excluding EH 101 and EH 102): EH 205; six semester hours from EH 221, 222, 223, or 224; EH 301; three semester hours from EH 305-306, 307-308, or 309-310; EH 365 or EH 366; six semester hours from EH 405-406, 407-408, 409-410, or 417-418; three additional semester hours from any 300 or 400 level creative writing course; EH 476; three semester hours in non-Shakespearean British literature produced before 1660 (EH 469, 470, 471, 473, 474, 475, 478, 491 when approved, or 492 when approved); three semester hours in British literature produced after 1660 (EH 414, 480, 481, 482, 483, 485, 486, 487, 488, 489, 491 when approved, or 492 when approved); three semester hours in American literature at the 400 level; three semester hours in the study of English as a language (EH/LING 450, 451, 452, 453 [recommended for this concentration], 454, or 493 when approved) or six semester hours in linguistics at the 200/300 level (EH/LING 250, 251, 252, 292 when approved, 355, 356, 360, or 393 when approved [This option increases the total number of semester hours required for a concentration to

45.]). At least 15 hours of English courses at the 300 or 400 levels which count towards the concentration must be taken at UAB.

The minor in creative writing consists of 18 semester hours (excluding EH 101 and EH 102): EH 205; nine semester hours from EH 304, 305-306, 307-308, or 309-310; six semester hours from EH 405-406, 407-408, 409-410, or 417-418. At least 12 semester hours of English courses at the 300 or 400 levels which count towards the minor must be taken at UAB.

To enroll in a workshop at the 400-level, a student must have taken at least one workshop in that genre at the 300 level or receive permission of the instructor. When courses have two numbers, they may be taken twice for credit by using each course number only once. Students must achieve a grade of C or higher in all courses applied toward the concentration or minor.

## LINGUISTICS

### INTERDISCIPLINARY PROGRAM

**Director:** David Basilico (*English*)

**Interdisciplinary Faculty:** B.R. Bryant (*Computer Science*), Flege (*Biocommunications*), Glosecki (*English*), Price (*Philosophy*), Reilly (*Computer Science*), Walley (*Psychology*)

Students interested in a concentration in linguistics within the English major or a minor in linguistics are invited to participate in an interdisciplinary program. The linguistics concentration and minor are designed for students interested in careers represented by the participating disciplines that might involve detailed knowledge of natural or artificial languages. Note that the program is not necessarily one for "people who speak a lot of languages," but rather is intended for students interested in the structure and function of language. Students should consult the program director for advising.

The concentration in linguistics consists of 42 semester hours (excluding EH 101 and EH 102): six semester hours from EH 221, 222, 223, or 224; EH 301; EH 365 or EH 366; EH 476; three semester hours in non-Shakespearean British literature produced before 1660 (EH 469, 470, 471, 473, 474, 475, 478, 491 when approved, or 492 when approved); three semester hours in British literature produced after 1660 (EH 414, 480, 481, 482, 483, 485, 486, 487, 488, 491 when approved, or 492 when approved); three semester hours in American literature at the 400 level; and three semester hours in the study of English as a language (EH/LING 450, 451, 452, 453, 454, or 493 when approved) OR six semester hours in linguistics at the 200 or 300 levels (EH/LING 250, 251, 252, 292 when approved, 355, 356, 360, or 393 when approved [This option increases the total number of semester hours required for the concentration to 45]); and 15 semester hours in linguistics courses, at least nine of which must be at the 400 level [Since linguistics is interdisciplinary, these 15 hours can be selected from any EH linguistics course, LING course, or ANTH or CS course cross-listed with LING].

The minor in linguistics consists of 18 semester hours (excluding EH 101 and EH 102): EH/LING 250; EH/LING 451; six semester hours from EH/LING 251, 360, 450, 453, or 493 when approved, or LING 494 when approved, or LING 495 when approved; and two other LING courses.

Courses numbered EH 491 or EH 492 meet distribution requirements only when their contents fall within one of the above listed

distribution areas. Students must achieve a grade of C or higher in all courses applied toward the concentration or minor. At least 15 hours of English courses at the 300 and 400 levels must be taken at UAB.

## Course Descriptions

### English (EH)

**091. Introduction to College English**—Focuses on connections between reading and writing, especially as they relate to a writer's purpose and development of academic writing. Includes review of grammar, punctuation, and usage, with emphasis on editing skills and writing effective paragraphs and expository essays. Required for students who score below 20 on the English portion of the ACT or equivalent on English Placement Test. Prepares students for EH 101; may not be used for fulfillment of any degree requirement. 5 hours.

**101. English Composition**—Process and final product of expository and analytical essays. Research and documentation required on most essays. Students must receive grade of C or higher in EH 101 and 102 to complete Core Curriculum requirement in English language. *Prerequisite:* Satisfactory ACT or UAB English Placement score or completion of EH 091 with a C or better if indicated. 3 hours.

**102. English Composition**—Process and final product of argumentative essays. Research and documentation required on most essays. Students must receive grade of C or higher in EH 101 and EH 102 to complete Core Curriculum requirement in English language. *Prerequisite:* EH 101 or equivalent. 3 hours.

**203. Writing in Birmingham**—Improvement of skills for public writing, using Birmingham as geographical, historical, and institutional context. *Prerequisite:* EH 102 or equivalent. 3 hours.

**205. Introduction to Creative Writing**—An introduction to the writing of fiction, poetry, and the creative essay. Emphasis on fundamentals of writing creatively, with students producing original work in each of the three genres. *Prerequisite:* EH 102 or equivalent. 3 hours.

**210. Semiotics of Film**—Introduction to critical analysis of the language of film, surveying concerns in contemporary film theory, including narrative, authorship, genre, the cinematic apparatus, race, gender, and spectatorship. *Prerequisite:* EH 102 or equivalent. 3 hours.

**214. Introduction to Literature: Special Topics**—See class schedule for topic. *Prerequisite:* EH 102 or equivalent. 3 hours.

**215. Introduction to Literature: Detective Fiction**—Poe and Holmes to present, including novels and short stories by Christie, Hammett, Chandler, and others. *Prerequisite:* EH 102 or equivalent. 3 hours.

**216. Introduction to Literature**—Short stories, novellas, poems, and plays from variety of historical periods and cultures. Emphasis on techniques of each genre. *Prerequisite:* EH 102 or equivalent. 3 hours.

**217-218. World Literature**—EH 217: World literature before 1660. EH 218: World literature since 1660. *Prerequisite:* EH 102 or equivalent. 3 hours each.

**220. Young Adult Literature**—Young adult books of demonstrated literary and social value, with emphasis on adolescent psychology, the history of the young adult as reader, and the formation of literary canons. *Prerequisite:* EH 102 or equivalent. 3 hours.

**221-222. British and Irish Literature**—EH 221: Anglo-Saxon literature to end of eighteenth century. EH 222: End of eighteenth century into twentieth century. *Prerequisite:* EH 102 or equivalent. 3 hours each.

**223-224. American Literature**—EH 223: 1620 to 1865. EH 224: 1865 to present. *Prerequisite:* EH 102 or equivalent. 3 hours each.

**241. Literature of the Supernatural**—Critical examination and historical survey of fairy tale, ghost story, wonder tale, and gothic narrative. *Prerequisite:* EH 102 or equivalent. 3 hours.

**242. Greek and Roman Mythology**—Introduction to classical myths; emphasis on influence of mythology in Western literature. *Prerequisite:* EH 102 or equivalent. 3 hours.

**250. Introduction to Linguistics**—(Also LING 250.) Areas of linguistics and fundamentals of linguistic science; world language families. 3 hours.

**251. Structure of English**—(Also LING 251.) Description and analysis of present-day English grammar. *Prerequisite:* EH 102 or equivalent. Does not count as literature for Core Curriculum requirement. 3 hours.

**252. The Structure of English Words**—(Also LING 252.) English vocabulary elements and word formation, including topics in history of English and sound patterns as these topics relate to word formation. Does not count as literature for Core Curriculum requirement. 3 hours.

**292. Special Topics in Linguistics**—(Also LING 292.) See class schedule for topic. 3 hours.

### Advanced Undergraduate

*Prerequisites:* Nine semester hours in EH, including 101 and 102.

**300. Engineering Communication**—(Also EGR 300.) Introduces engineering students to the theory and practice of communicating effectively in various organizational contexts. Subjects covered include managing and producing professional reports, proposals, and feasibility studies; communicating ethically in the workplace; and presenting ideas to multiple audiences in written and oral formats. Required for most undergraduate engineering majors. *Prerequisites:* EH 101, EH 102, EGR 100, or permission of instructor. 2 hours.

**301. Reading Writing and Research for Literature**—Designed to improve skills for critical writing about literary texts. Required for English majors; recommended prior to taking 400-level courses. 3 hours.

**303. Advanced Composition**—Improvement of skills for academic and public writing, focusing on analysis and critique. *Prerequisite:* EH 102 or equivalent. 3 hours.

**304. Editing in Professional Contexts.**—Theory and practice of editorial/rhetorical concerns throughout writing process, particularly as related to professional contexts. 3 hours.

**305-306. Beginning Poetry Writing Workshop**—Fundamentals for beginners; emphasis on techniques and style through readings and student's own writing. 3 hours each.

**307-308. Beginning Creative Nonfiction Writing Workshop**—Fundamentals for beginners; emphasis on techniques and style through readings and student's own writing. 3 hours each.

**309-310. Beginning Fiction Writing Workshop—**

Fundamentals for beginners; emphasis on techniques and style through readings and student's own writing. 3 hours each.

**311. English Internship—**On-campus and off-campus training positions in fields utilizing language and writing skills, with some positions offering external funding. Students should contact the Associate Chair to discuss available positions and application procedures. May be counted as elective only in professional writing concentration and writing minor with approval of Associate Chair. *Prerequisites:* Junior or senior standing as English major and approval of application. May be repeated once for credit. 3 hours.

**318. Science Fiction—**Modern science fiction, including novels and short stories by Asimov, Heinlein, LeGuin, and others. 3 hours.

**329. Literature of the Vikings—**Old Norse mythology, poetry, and sagas in translation. Background for *Beowulf*. 3 hours.

**344. Native American Literature—**Introduction to oral and written storytelling arts by North American Native peoples. 3 hours.

**355. Introduction to Sociolinguistics—**(Also LING 355.) Social factors that play a role in language usage and learning; emphasis on American English. 3 hours.

**356. Semantics—**(Also LING 356.) Meaning in language with reference to questions of synonymy, ambiguity, and language use. 3 hours.

**360. Phonology—**(Also LING 360.) Sound patterning of languages. 3 hours.

**365. African American Literature, 1746–1954—**Cultural values from colonial writer Lucy Terry, through slavery and emancipation, to Ralph Ellison and writers of early 1950s. 3 hours.

**366. African American Literature, 1954–Present—**Cultural values from James Baldwin in 1950s, through black nationalist, civil rights, and black feminist movements, to contemporary writers such as Ishmael Reed, Charles Johnson, and Toni Morrison. 3 hours.

**367. Southern Literature—**Literature of American South: Faulkner, Jefferson, Douglass, Chopin, O'Connor, and others. 3 hours.

**368. American Drama in the Twentieth Century—**(Also THR 368.) Major developments and themes emphasizing O'Neill, Odets, Williams, Miller, Albee, and Shepard. 3 hours.

**369. The American Dream—**Literature expressing values and ideals of American people from Hawthorne and Thoreau to Richard Wright and Adrienne Rich. 3 hours.

**376. Shakespeare—**Five or six plays: one history, one comedy, three major tragedies. Intensive study of two or more tragedies. 3 hours.

**389. Bible as Literature—**Literary themes and styles of Old and New Testaments. 3 hours.

**392. Special Topics in Literature—**See class schedules for topic. 3 hours.

**393. Special Topics in Linguistics—**(Also LING 393.) See class schedule for topic. 3 hours.

*Advanced Undergraduate*

*Prerequisites (unless otherwise specified):* Nine semester hours in EH, including 101, 102, and three semester hours in EH at the 200 level, or permission of instructor. In addition, majors are

strongly encouraged and all students are advised to take EH 301 prior to enrolling in 400-level literature courses.

**401. Tutoring Writing—**Improvement of writing skills through understanding theories of tutoring. Preparation of future teachers for tutor training and writing center development. 3 hours.

**402. Writing in Popular Periodicals—**Current theory regarding production, distribution, and consumption of popular periodicals. Practice contributing to these sources. 3 hours.

**403. Business Writing—**Advanced writing concentrating on letters, resumes, and professional reports. 3 hours.

**404. Technical Writing—**Advanced writing concentrating on short informal and long formal reports. 3 hours.

**405-406. Poetry Writing Workshop—**Advanced work in poetry through student's own writing. *Prerequisites:* EH 305 or 306 or permission of instructor. 3 hours each.

**407-408. Creative Nonfiction Writing Workshop—**Advanced work in creative nonfiction through student's own writing. *Prerequisites:* EH 307 or 308 or permission of instructor. 3 hours each.

**409-410. Fiction Writing Workshop—**Advanced work in prose fiction through student's own writing. *Prerequisites:* EH 309 or 310 or permission of instructor. 3 hours each.

**411. Novel—**Techniques of prose fiction: selections from British, American, European, and Russian literature. 3 hours.

**412. Poetry: Lyric and Shorter Forms—**Songs, sonnets, elegies, odes, and dramatic monologues. 3 hours.

**413. Drama—**Techniques and problems of drama, classical through contemporary. 3 hours.

**414. Modern British and European Drama—**Techniques and problems of modern European drama: Ibsen, Shaw, Chekhov, Synge, Pirandello, Brecht, Beckett, and others. 3 hours.

**415. Form of Fiction: The Short Story—**American, Russian, and European short stories emphasizing aesthetics of form. 3 hours.

**416. Modern American Poetry—**Selections from Frost, Stein, Stevens, Pound, Eliot, Williams, Doolittle, Jeffers, Moore, McKay, Loy, Toomer, Crane, Hughes, and others. 3 hours.

**417-418. Creative Writing Workshop: Special Projects—**Advanced work in genres other than poetry, fiction, or creative nonfiction or a special workshop taught by a visiting writer. *Prerequisite:* Permission of instructor (obtained by submission of manuscripts). 3 hours each.

**419. Young Adult Literature—**Close reading of young adult literature and study of its form and history, its assumptions about adolescent psychology, and its literary relationship to the traditional canon. 3 hours.

**420-421. World Literature—**(Also LT 420-421.) EH 420: Selections in translation from Greek, Roman, and Hebrew classics, other literature, and oral tradition. EH 421: Selections in translation from European, African, and South American writers. 3 hours each.

**422. African Literature—**Selected novels, short stories, autobiographies, folk tales, drama, essays, films, songs from pre-colonial Africa to the present, including works by Emecheta, wa Thiong'o, Head, Achebe, Ba, Armah, Laye, Salih, Soyinka, and Abrahams. 3 hours.

**423. African Women's Literature—**Writing in all genres by

African women from pre-colonial Africa to the present. 3 hours.

**425. French or Francophone Literature in English Translation**—(Also LT 425.) Topic to be announced. 3 hours.

**426. German Literature in English Translation**—(Also LT 426.) Topic to be announced. 3 hours.

**427. Spanish and/or Spanish-American Literature in English Translation**—(Also LT 427.) Topic to be announced. 3 hours

**430. Brazilian and/or Portuguese Literature in English Translation**—(Also LT 430.) Topic to be announced. 3 hours.

**431. Special Topics in Film**—In-depth study of a specialized topic in film, for example, a particular national cinema, one or more directors, a development in film history or genre, or issues in visual representation. *Prerequisite:* EH 210 or permission of instructor. 3 hours.

**435. Practicum in Teaching Creative Writing**—Practicum in teaching creative writing in high school. 3 hours.

**441. Literary Theory and Criticism, the Ancients to the Nineteenth Century**—Introduction to theories of art and literary production in the contexts of aesthetics and culture from Plato to the end of the nineteenth century. 3 hours.

**442. Literary Theory and Criticism, the Twentieth Century to the Present**—Introduction to theories of art and literary production in the contexts of aesthetics and culture from Russian formalism to the present. 3 hours.

**443. Archetype and Myth**—Recurring images, underlying patterns, and shapes-of-meaning in poetry, fiction, and fairy tales. 3 hours.

**444. Women's Literature and Theory**—Literary works and theoretical perspectives of Angelou, Chopin, Hong, Kingston, Hurston, Walker, Woolf, Plath, and others. 3 hours.

**445. Special Topics in African American Literature**—Investigates writings of colonial and contemporary African American writers on specific topic. 3 hours.

**446. African American Autobiography**—Personal narratives by African Americans, including texts by Wheatley, Douglass, Jacobs, Wilson, DuBois, Johnson, Hurston, Hughes, Wright, Baldwin, Angelou, and Moody. 3 hours.

**447. African American Dramatic Tradition**—Development of African American dramatic tradition from the nineteenth century through the Harlem Renaissance and Black Arts movement to contemporary postmodernism, including Brown, Hurston, Baraka, and Wilson. 3 hours.

**448. African American Poetry Tradition**—Development of African American poetry from its early works to the present, including Wheatley, Dunbar, Hughes, Brooks, and Angelou. 3 hours.

**450. Advanced Grammar**—(Also LING 450.) Present-day English grammar. *Prerequisite:* EH/LING 250 or 251 suggested or written permission of instructor. 3 hours.

**451. Generative Grammar**—(Also LING 451.) Advanced analysis of English grammar with emphasis on Chomskyan generative grammar. *Prerequisite:* EH/ LING 250 or 251 suggested or written permission of instructor. 3 hours.

**452. Grammar and Usage for English Teachers**—(Also LING 452.) Intensive review of structure of English; usage, punctuation,

and style as these relate to grammar. *Prerequisite:* EH/ LING 250 or 251 suggested or written permission of instructor. 3 hours.

**453. Advanced History of the English Language**—(Also LING 453.) Advanced topics. *Prerequisite:* EH/ LING 250 suggested or written permission of instructor. 3 hours.

**454. The Biology of Language**—(Also LING 454.) Vocal tract and neuroanatomical specializations for language, language acquisition, genetic language disorders, language and other primates, and evolution of language. *Prerequisites:* EH 101 and 102 and 3 hours in EH at the 200 level. 3 hours.

**457. Writing and Medicine**—Public discourse focusing on health, illness, and medical practice. Production of texts as health consumers and health practitioners. 3 hours.

**458. Communication Criticism**—(Also CM 458.) Rhetorical systems for appraising persuasive messages and campaigns in twentieth century. *Prerequisite:* Junior standing. 3 hours.

**459. Discourse Analysis**—Public discourse, with emphasis on social politics of linguistic choices. 3 hours.

**460. American Women Writers Before 1900**—Survey of American women's writing before 1900. 3 hours.

**461. American Literature, 1620–1820**—Representative American writing from colonial period to Washington Irving. 3 hours.

**462. American Literature, 1820–1870**—Representative writers such as Alcott, Cooper, Poe, Hawthorne, Melville, Emerson, Fuller, Fern, Harper, Thoreau, Jacobs, Whitman, Stowe, and Dickinson. 3 hours.

**463. American Literature, 1870–1914**—Realism and naturalism: Twain, James, Howells, Crane, Jewett, Wharton, Dreiser, Norris, and Chopin, among others. 3 hours.

**464. American Literature, 1914–1945**—Selected fiction, poetry, and drama of major American writers: Cather, Eliot, Faulkner, Hemingway, Hurston, O'Neill, and Wright, among others. 3 hours.

**465. American Literature, 1945–Present**—Selected fiction, poetry, and drama in context of post-war cultural trends and literary movements. 3 hours.

**466. The Slave Narrative and Its Literary Expressions**—Genre of slave narrative, its critical theories, and its nineteenth- and twentieth-century literary expressions. Includes Equiano, Jacobs, Wilson, Douglass, DuBois, Wright, Angelou, and Morrison. 3 hours.

**467. Black Women Writers**—Evolution of Afrocentric feminist consciousness through early and contemporary writings. 3 hours.

**468. The Harlem Renaissance**—Black writers during Harlem Renaissance movement. Includes Johnson, Toomer, Murray, Larsen, McKay, Thurman, Reed, and Morrison. 3 hours.

**469. Medieval Culture: Literature and Society**—Exploration through art, literature, and history of dominant themes of Middle Ages, from Germans to Dante and Chaucer. 3 hours.

**470. Arthurian Legend**—King Arthur and his knights in literature from sixth-century history and formulation of legend in Middle Ages to its use in twentieth century. 3 hours.

**471. Beowulf in Context**—An interdisciplinary course in Anglo-Saxon art and culture bearing upon *Beowulf*; close study of the Norse analogues of the Old English epic. 3 hours.

- 473. Chaucer: Pilgrimage to Canterbury**—Selections from *Canterbury Tales* and Chaucer's fourteenth-century milieu. 3 hours.
- 474. English Renaissance Drama (Excluding Shakespeare)**—Plays by Marlowe, Kyd, Jonson, Tourneur, Webster, Middleton, and Ford. 3 hours.
- 475. English Renaissance Poetry and Prose**—Topics vary. Broad survey of period or close analysis of genre, theme, or author. 3 hours.
- 476. Shakespeare**—*King Lear*, *Othello*, and three other plays. Required for English majors. 3 hours.
- 478. Milton**—Selected prose and poetry, including *Paradise Lost*. 3 hours.
- 480. The Restoration**—Dryden, Butler, Rochester, Marvell, Bunyan, Congreve, Wycherley, and Etherege. 3 hours.
- 481. The Eighteenth Century: Literature and Culture**—Interdisciplinary exploration of texts that focuses on social, economic, and political backgrounds. Topics and authors vary. 3 hours.
- 482. The Eighteenth Century: Theory and Interpretation**—Formal and philosophical implications of selected texts. Authors and topics vary. 3 hours.
- 483. British Romanticism**—Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, Hazlitt, Lamb, and DeQuincy. 3 hours.
- 485. British Victorian Poetry**—Selected works by Tennyson, Browning, Arnold, and others. 3 hours.
- 486. Eighteenth-Century British Novel**—Selected works by Fielding, Defoe, Sterne, Smollet, Richardson. 3 hours.
- 487. Nineteenth-Century British Novel**—Selected works by Austen, Dickens, Thackeray, Bronte, Trollope, Eliot, or other novelists. 3 hours.
- 488. British Novel: The Modern Age**—Selected works by Conrad, Lawrence, Joyce, Woolf, Ford, and others. 3 hours.
- 489. James Joyce**—Joyce's fiction through *Ulysses*. 3 hours.
- 491. Major Writers**—See class schedule for topic. May be repeated. 3 hours.
- 492. Special Topics**—See class schedule for topic. May be repeated for total of 9 hours. 3 hours.
- 493. Special Topics in Linguistics**—See class schedule for topic. 3 hours.
- 497. Individual Studies**—*Prerequisite:* Permission of departmental Curriculum Committee. If taken as part of departmental honors program, may be repeated for a total of six hours with approval of Associate Chair. 1 to 3 hours.
- 499. Film Thesis**—Thesis on an independently designed topic within film history or film aesthetics, allowing the completion of the interdisciplinary film minor. *Prerequisite:* EH 210 or permission of instructor, as well as approval of Associate Chair. 3 hours

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## Course Descriptions

### Linguistics (LING)

- 221. Introductory Descriptive Linguistics**—Description and

analysis of non-Western languages. 3 hours.

**250. Introduction to Linguistics**—(Also EH 250.) Areas of linguistics and fundamentals of linguistic science; world language families. *Prerequisite:*s EH 101 and 102. 3 hours.

**251. Structure of English**—(Also EH 251.) Description and analysis of present-day English grammar. *Prerequisite:* EH 102 or equivalent. 3 hours.

**252. The Structure of English Words**—(Also EH 252.) Introduction to English vocabulary elements and word formation, including topics in history of English and sound patterns as these topics relate to word formation. *Prerequisites:* EH 101 and 102. 3 hours.

**260. Language and Culture**—(Also ANTH 120.) Language origins, classification, acquisition, and universals. Language as expression of cultural values and social structures. *Prerequisites:* EH 101 and 102. 3 hours.

**292. Special Topics in Linguistics**—(Also EH 292.) See class schedule for topic. *Prerequisites:* EH 101 and 102. 3 hours.

**355. Introduction to Sociolinguistics**—(Also EH 355.) Social factors that play role in language usage and learning; emphasis on American English. *Prerequisite:* 9 hours in EH including EH 101 and 102. 3 hours.

**356. Semantics**—(Also EH 356.) Meaning in language with reference to questions of synonymy, ambiguity, and language use. *Prerequisite:* 9 hours in EH including EH 101 and 102. 3 hours.

**360. Phonology**—(Also EH 360.) Sound patterning of languages. *Prerequisite:* 9 hours in EH including EH 101 and 102. 3 hours.

**393. Special Topics in Linguistics**—(Also EH 393.) See class schedule for topic. **Prerequisite:** 9 hours in EH including EH 101 and 102. 3 hours.

**450. Advanced Grammar**—(Also EH 450.) Present-day English grammar. *Prerequisite:* EH/LING 250 or 251 suggested or written permission of instructor. 3 hours.

**451. Generative Grammar**—(Also EH 451.) Advanced analysis of English grammar with emphasis on Chomskyan generative grammar. *Prerequisite:* EH/ LING 250 or 251 suggested or written permission of instructor. 3 hours.

**452. Grammar and Usage for English Teachers**—(Also EH 452.) Intensive review of structure of English, usage, punctuation, and style as these relate to grammar. *Prerequisite:* EH/ LING 250 or 251 suggested or written permission of instructor. 3 hours.

**453. Advanced History of the English Language**—(Also EH 453.) Advanced topics. *Prerequisite:* EH/ LING 250 suggested or written permission of instructor. 3 hours.

**454. The Biology of Language**—(Also EH 454.) Vocal tract and neuroanatomical specializations for language, language acquisition, genetic language disorders, language and other primates, and evolution of language. *Prerequisite:* 9 hours in EH including EH 101 and 102. 3 hours.

**466. Computational Linguistics**—Computational models for describing and recognizing natural languages. 3 hours.

**493. Special Topics in Linguistics**—(Also EH 493.) See class schedule for topic. 3 hours.

**494. Special Problems in Linguistics**—(Also ANTH 494.) See class schedule for topic. May be repeated for total of 6 hours. 3 hours.

**495. Special Problems in Linguistics**—(Also ANTH 495.) See

class schedule for topic. May be repeated for total of 6 hours. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES

**Chair:** Sheri Spaine Long

**Faculty:** Bokobza, Carter, Cobb, Daniélou, Long, Martin-Ogunsola, Sánchez-López, Moore, Orihuela.

The Department of Foreign Languages and Literatures offers a multifaceted foreign language program that will meet the diverse global challenges facing students of the 21st century. The Department offers programs of study leading to the degree of Bachelor of Arts in Foreign Languages. In addition to these programs, there are opportunities for students to learn, speak, comprehend, read, and function in various foreign languages offered in the Department (Chinese, Italian, Japanese, Latin, French, German, and Spanish). Promoting a comprehensive view of foreign cultures, languages, and literatures enhances the students' ability to compete on the job market and/or pursue graduate or professional studies.

The Department also offers an Honors Track Program and Internships in Foreign Languages to qualified Foreign Language majors. Furthermore, we promote and sponsor opportunities for study abroad.

The UAB Department of Foreign Languages and Literatures offers a full range of traditional language, culture, civilization, and literature classes and also enrolls students in such fields as literature in translation, film and cultural studies, foreign media and society, U.S. Latino topics, applied linguistics, and languages for the professions.

The Department also collaborates on designing unique foreign language study programs through the Birmingham Area Consortium for Higher Education (BACHE).

For more information about our programs, online placement exams, internships, events, and sponsored study abroad opportunities, visit the Department of Foreign Languages and Literatures web site or at the UAB Testing Center.

### LANGUAGE PLACEMENT

To assure that students taking foreign language courses are properly placed, students who have had one or more years of a foreign language in high school within the last two years must take a placement test in that language before enrolling in the 100-level sequence. Individual placement tests in French, Spanish, and German are available on the Department of Foreign Languages and Literatures Web site.

Native speakers of French, German, and Spanish will not be permitted to take for credit courses in their native language on the beginning level. The level at which they may begin will be determined by the appropriate foreign language advisor after the student has taken the online placement exam.

Exceptional native/heritage language students may apply for CBE (Credit by Examination). CLEP examinations are available in French, German, and Spanish.

### MAJOR

The Department of Foreign Languages and Literatures offers programs of study leading to the degree of Bachelor of Arts in Foreign Languages with concentrations in French and Spanish. Presently, only a minor in German is offered. However, a limited number of courses at the major or advanced undergraduate levels are available for enrichment or for foreign language education majors. Courses in French, German, and Spanish, as well as the critical languages, may also be taken through the Birmingham Area Consortium for Higher Education (BACHE). See the department chair for details.

Students wishing to major or minor in foreign languages should consult the department chair, who will assign a departmental advisor to assist in working out an individual program of study.

The major consists of 33 semester hours at or above 200, of which 21 semester hours must be taken at or above 300, including at least nine semester hours at or above 400. No course in which a grade below C has been earned may be counted toward the major requirement. Courses should be distributed according to the particular needs of the individual student and in agreement with an assigned advisor from the modern foreign language faculty.

### CONCENTRATION IN FRENCH

The French concentration at UAB offers an articulated approach to the study of the French language—the culture, civilization and literature of the French-speaking world. Literacy skills and understanding (e.g., reading, writing, and speaking) are developed throughout the course of study, as well as the nurturing of critical and analytical skills. Students will leave the program with the ability to engage in critical and cross-cultural analysis. Students have the opportunity to do in-depth work in special topics seminars (e.g., Advanced Grammar, French Civilization, Contemporary France, French Film, Fin-de-siècle Literature, Francophone literature, and current issues). Typically, French students have more than one major or a complement of minors to facilitate the applied aspect of language study (e.g., pre-health, education, art, anthropology, communication studies, business, and criminal justice). Students graduating from UAB with a concentration in French have gone on to graduate or professional school and/or employment in such fields as business, education, government, industry, international relations, law, public health, medicine, hotel and restaurant management, and publishing.

The French concentration has opportunities for community outreach activities (e.g., internships, and service learning) in Alabama, and has diverse study abroad opportunities from which to choose. The Department works very closely with students to personalize their studying experience. The Department also helps them to find ways to enhance their language and culture skills through unique experiences abroad (e.g., application for French government youth grants and internships, and teaching exchanges).

The Department encourages students to enroll in more than one language to learn about varied linguistic structures and receive a broader cross-cultural perspective.

## CONCENTRATION IN SPANISH

The Spanish concentration at UAB offers an articulated approach to the study of the Spanish language—the culture, civilization, and literature of the Spanish-speaking world. Literacy skills and understanding (e.g., reading, writing, and speaking) are developed throughout the course of study, as well as the nurturing of critical and analytical skills. Students will leave the program with the ability to engage in critical and cross-cultural analysis. Students have the opportunity to do in-depth work in special topics seminars (e.g., Afro-Hispanic Literature, Latino Topics, and Peninsular Film.) Typically, Spanish students have more than one major or a complement of minors to facilitate the applied aspect of language study (e.g., pre-health, education, anthropology, communication studies, and business). Students graduating from UAB with a concentration in Spanish have gone on to graduate or professional school and/or employment in such fields as business, education, government, industry, international relations, law, medicine, and publishing.

The Spanish concentration has significant opportunities for community outreach activities (e.g., internships, and service learning) in Alabama, and has diverse study abroad opportunities from which to choose.

The Department encourages students to enroll in more than one language to learn about varied linguistic structures and receive a broader cross-cultural perspective.

## MINOR

Twelve semester hours at or above 200 are required for the minor in French, German, or Spanish. No course in which a grade below C has been earned may be counted toward the minor requirement.

## HONORS IN FOREIGN LANGUAGES

### PURPOSE

The FLL Honors Program is designed for qualified, self-motivated foreign language majors. Through special course distribution and credit hours requirements, as well as a directed honors thesis, students are prepared for in-depth foreign language research and related graduate or professional opportunities.

### ELIGIBILITY

Acceptance into the FLL Honors Program requires the student to

- Be a FLL major;
- Have at least sophomore standing;
- Have at least 6 hours at the 300-level in UAB foreign language courses;
- Have at least a 3.25 GPA in UAB foreign language coursework;
- Have at least an overall 3.0 GPA; and
- Have submitted a Formal Application for the FLL Honors Program to the department chair or have been recommended to the program by a member of the department.

Application forms can be obtained from the department office. Students may seek recommendation for the program from any faculty member, and faculty may recommend students independently. The department chair approves

admission into the program in consultation with the FLL faculty. Admission is acknowledged by a formal letter of invitation from the chair.

### REQUIREMENTS

- Completion of a written honors thesis directed by a professor in the department;
- Completion of a major in foreign languages plus one of the following options.

### OPTIONS

An FLL honors student must complete one of the following two options:

- Four courses (or an approved equivalent) in a foreign language other than that of the student's major: typically 101, 102, 201, 202;
- or-
- A minor (or the equivalent number of hours) in a related field other than FLL.

### BENEFITS

In addition to intellectual research benefits and enhanced credentials for graduate or professional school, honors majors will graduate "With Honors in Foreign Languages."

### CONTACT

For more information and/or admission to the FLL Honors Program, please contact:

Chair of the Department, Department of Foreign Languages and Literatures, 407 Humanities Building (HB); telephone 205-934-4651, e-mail [espanol@uab.edu].

## SELF-INSTRUCTIONAL LANGUAGE PROGRAM

Self-instructional language programs are available for a limited number of critical (lesser-taught) languages not offered through the regular programs. Students must have prior experience in learning a foreign language, must be highly motivated to study independently, and must have permission of the instructor. For additional information, contact the Department of Foreign Languages and Literatures.

## SPANISH FOR SPECIAL PURPOSES

The Spanish for Specific Purposes (SSP) Program in the UAB Department of Foreign Languages and Literatures offers courses designed for traditional as well as non-traditional students. The objective of this program is not only to fulfil UAB students' academic needs but also to reach out to local professionals. The growing Spanish-speaking community in Alabama is a reality. More and more professionals such as teachers, health professionals, business people, law enforcement officers, and others have the need to communicate with the Hispanic community. SSP courses focus on content, vocabulary, and culture. Students learn the vocabulary, language, and cultural background that they will use in their professional field through extensive practice in class and, in some cases, outside of class as well.

Classes from the SSP Program include Spanish for Health

Professionals, Spanish for Classroom Teachers, Spanish for the Professions, and Business Spanish.

For more information about SSP, visit the Department of Foreign Languages and Literatures Web site.

## FOREIGN LANGUAGE MEDIA SERVICES

The computer-based Foreign Language Media Services (FLMS) at the University of Alabama at Birmingham enables Foreign Language students, faculty, and community users outside UAB to access and utilize foreign languages and cultures in a digital environment in order to provide multi-dimensional learning and research opportunities. FLMS plays an integral role in the activities and services of the UAB Department of Foreign Languages and Literatures and also serves as a support center for the university. FLMS enables the UAB Department of Foreign Languages and Literatures at UAB to respond to the demand for additional language resources, the requirements for a wider range of tasks being performed in the languages, more and varied language learners, and more instructional modi.

For more information about FLMS, online placement exams, and internships, visit the Department of Foreign Languages and Literatures Web site.

## FOREIGN LITERATURE IN ENGLISH TRANSLATION

This program is primarily designed to acquaint students who have little or no knowledge of a foreign language with non-English literatures through translation. These courses do not count toward a major or minor in French, German, or Spanish.

### Course Descriptions

#### Foreign Language (FLL)

**120. Foreign Cultures**—Exploration of the customs, traditions, languages, ancestry, religions, values, and institutions of varied western and non-western nations through the use of humanities disciplines. (A&S TRACK A) 3 hours.

**220. Foreign Literatures in English Translation**—Exploration of the literary traditions, trends, and approaches to the study of global cultures. *Prerequisite:* FLL 120 or permission of the instructor. (A&S TRACK A) 3 hours.

**303. History of World Movies I: The Origins to 1960**—(Also MC 303). From the first silent movies to the development of the modern color sound movie of Hollywood in the fifties: comparison and contrast of the views of major film makers of the sixty years of the 20th century. *Prerequisite:* Students are strongly encouraged to take Introduction to Cinema before enrolling in History of World Movies. 3 hours.

**304. History of World Movies II: From 1960 to Present**—(Also MC 304). From the modern color sound movie of the fifties and the Nouvelle Vague to the latest movies produced around the globe: comparison and contrast of the views of filmmakers of the last forty years. *Prerequisite:* Students are encouraged to take Introduction to Cinema before enrolling in History of World Movies. 3 hours.

**333. Foreign Language Internship**—Faculty-supervised opportunity for practical experience in tasks of international scope, may

provide opportunities to use language(s) studied or applications of cultural knowledge. *Prerequisites:* Junior or senior standing as foreign language major and permission of department chair. 1-6 hours.

**485. Foreign Language Seminar**—Advanced seminar on broad cultural and cross-cultural topics in foreign languages; taught in English, readings and assignments in foreign languages. 3 hours.

### Foreign Literature in English Translation (LT)

*Prerequisite:* Nine hours in English or permission of instructor.

**420. World Literature**—(Also EH 420.) Selections in translation from Greek, Roman, and Hebrew classics and other literature, and from oral tradition. 3 hours.

**421. World Literature**—(Also EH 421) Selections in translation from European, African, and South American writers. 3 hours.

**425. French Literature in English Translation**—(Also EH 425.) Topic to be announced. 3 hours.

**426. German Literature in English Translation**—(Also EH 426.) Topic to be announced. 3 hours.

**427. Spanish and/or Spanish-American Literature in English Translation**—(Also EH 427.) Topic to be announced. 3 hours.

**430. Brazilian and/or Portuguese Literature in English Translation**—(Also EH 430.) Topic to be announced. 3 hours.

**431. Directed Studies**—Individual studies. *Prerequisite:* Permission of department chair. 3 hours.

### Chinese (CHI)

**101. Introductory Chinese I**—Essentials of language and culture needed for proficient communication. Includes basic exercises in listening comprehension, speaking, writing, and reading. Conducted in Chinese. (CORE AREA II) 3 hours.

**102. Introductory Chinese II**—Continuation of CHI 101. Conducted in Chinese. *Prerequisite:* CHI 101 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**201. Intermediate Chinese I**—Continued development of grammar, vocabulary, reading, writing and cultural proficiency. Conducted in Chinese. *Prerequisite:* CHI 102 or equivalent. 3 hours.

**202. Intermediate Chinese II**—Continuation of Chinese 201. Conducted in Chinese. *Prerequisite:* CHI 201 or equivalent. 3 hours.

### French (FR)

Beginning Introductory Level (FR 101, 102, and 108 include a one-hour labrequirement)

**101. Introductory French I**—Essentials of language needed for proficient communication. Includes basic exercises in listening comprehension, speaking, writing, and reading. Conducted in French. (CORE AREA II) 4 hours.

**102. Introductory French II**—Continuation of FR 101. Conducted in French. *Prerequisite:* FR 101 or equivalent. (CORE AREA II) (A&S TRACK A) 4 hours.

**108. Introductory Intensive French**—Accelerated essentials of language and culture needed for communication, speaking, writing, and reading. Review of French 101 and 102. Conducted in French (A&S TRACK A). 4 hours.

**190. Study Abroad**—First-year level of approved study-abroad program in a French-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

### Minor Level

*Prerequisite:* Eight hours at the beginning level or equivalent.

**201. Intermediate French I**—Comprehensive review of grammar and composition through written exercises of reading and writing proficiency, listening comprehension, and speaking skills. Conducted in French. *Prerequisite:* FR 102 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**202. Intermediate French II**—Continuation of grammatical review, vocabulary building, and reading and writing proficiency. Includes a study of style and meaning. Conducted in French. *Prerequisite:* FR 102 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**210. Conversation and Culture**—Development of oral expression within the context of contemporary French culture. Conducted in French. *Prerequisite:* FR 102 or equivalent. 3 hours.

**220. French Composition**—Fundamental composition course focusing on syntactical patterns of French, vocabulary building, correct usage, stylistic control, writing skills, and free composition. Conducted in French. *Prerequisite:* French 201 or 202 or equivalent or permission of instructor. (A&S TRACK A) 3 hours.

**290. Study Abroad**—Second-year level of approved study-abroad program in a French-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

### Major Level

*Prerequisite:* Six hours of French at the minor level or permission of department chair.

**305. French-Speaking Cinema**—Overview of French-speaking cinema from the end of the nineteenth century to the present. Emphasis on the cinema of l'Entre deux Guerres, la Nouvelle Vague, and French-speaking movies from Africa. Conducted in French. *Prerequisite:* 6 hours of French at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**306. Advanced French for the Professions**—Concentration on writing letters, negotiations and vocabulary build-up for the legal, medical, or business fields. Conducted in French. *Prerequisite:* 6 hours of French at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**307. Advanced Grammar and Composition I**—Thorough review of principles of French grammar, vocabulary, and idioms. Also comparative linguistics and phonetics. Conducted in French. *Prerequisite:* 6 hours of French at the minor level. (A&S TRACK A) 3 hours.

**308. Advanced Grammar and Composition II**—Continuation of FR 307. Conducted in French. *Prerequisite:* 6 hours of French at the minor level or equivalent. (A&S TRACK A) 3 hours.

**310. Contemporary France**—Overview of the culture of contemporary France with emphasis on social, political, and economic institutions. Conducted in French. *Prerequisite:* 6 hours of French at the minor level or equivalent. (A&S TRACK A) 3 hours.

**311. Survey of French Literature**—Overview of French literature and civilization from the seventeenth century to the present.

Conducted in French. *Prerequisite:* 6 hours of French at the minor level or permission of department chair. (A&S TRACK A) 3 hours.

**320. French Composition**—Fundamental composition course which focuses on the syntactical patterns of French, vocabulary building, correct usage, stylistic control, writing skills, and free composition. Integrates the four language skills into a structured approach to composition. Conducted in French. *Prerequisite:* 6 hours of Intermediate French or equivalent. (A&S TRACK A) 3 hours.

**390. Study Abroad**—Third-year level of approved study-abroad program in a French-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

**399. Special Readings in French**—Special Readings in French and individual study. *Prerequisite:* Permission of department chair. 3 hours.

### Advanced Undergraduate

*Prerequisite:* advanced undergraduate standing or permission of department chair.

**401. Pre-Revolutionary France, 1610-1789**—Literature, culture, and civilization of seventeenth- and eighteenth-century France, reflecting the historical and literary ambience in which *Ancien Régime* writers, philosophes, and artists worked. Selected works of representative authors. Conducted in French. *Prerequisite:* Advanced undergraduate standing or permission of the instructor. 3 hours.

**402. Post-Revolutionary France, 1789-1913**—Literature, culture, and civilization of late eighteenth-, nineteenth-, and early twentieth-century France, illustrating the impact of the French Revolution on the historical and literary ambience of Europe and the Americas. Selected works of representative authors. Selections will vary according to instructor. Conducted in French. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**403. Fin-de-Siècle France, 1895-1940**—Major literary and artistic movements of *fin-de-siècle* France, from *La Belle Époque* period through World War I. Selected works of representative authors. Selections will vary according to instructor. Conducted in French. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**404. French Literature since 1940**—Cultural trends and literary movements from World War II to the present, including existentialism and the *nouveau roman*. Selected works of representative authors. Selections will vary according to instructor. Conducted in French. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**405. Francophone Literature**—French-speaking literature outside France that developed through colonization, decolonization, revolution, and emigration. Representative writers from Francophone countries with emphasis on Africa and the Caribbean. Selected works of representative authors. Selections will vary according to instructor. Conducted in French. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**410. Special Topics in French**—Seminar on individual authors, specific genres, important literary movements, or literary discourse/theory. Selected works of representative authors. Selections will vary according to instructor. Conducted in French.

*Prerequisite:* Advanced undergraduate standing or permission of instructor. May be repeated for credit. 3 hours.

**412. French Civilization before 1789**—Historical and cultural foundation of France, from its conquest by Julius Caesar to the French Revolution. Conducted in French. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**413. French Civilization after 1789**—Historical and cultural development of France from the French Revolution to the present, including the student revolts of May 1968. Conducted in French. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**490. Study Abroad**—Fourth-year level of approved study-abroad program in a French-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

**499. Directed Studies**—Individual studies. *Prerequisite:* Advanced undergraduate standing or permission of instructor and permission of department chair. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

### German (GN)

Beginning Introductory Level (GN 101 and 102 include a one-hour lab requirement)

**101. Introductory German I**—Essentials of language needed for proficient communication. Includes basic exercises in listening comprehension, speaking, writing, and reading. Conducted in German. (CORE AREA II) 4 hours.

**102. Introductory German II**—Continuation of GN 101. Conducted in German. *Prerequisite:* GN 101. (CORE AREA II) (A&S TRACK A) 4 hours.

**190. Study Abroad**—First-year level of approved study-abroad program in a German-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

### Minor Level

*Prerequisite:* Eight hours at the beginning introductory level or equivalent.

**201. Intermediate German I**—Continued development of grammar, composition, reading, writing, listening comprehension, speaking, and cultural proficiency. Conducted in German. *Prerequisite:* GN 102 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**202. Intermediate German II**—Continuation of GN 201. Conducted in German. *Prerequisite:* GN 102 or permission of instructor. (A&S TRACK A) 3 hours.

**203. German Culture and Civilization**—Introduction to historical and contemporary aspects of German culture through readings and other media. Emphasizes continued development of oral and written skills. Conducted in German. *Prerequisite:* GN 102 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**204. Readings in German Literature**—Selections from representative modern authors. Emphasis on oral and written practice. Conducted in German. *Prerequisite:* GN 102 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**205. German for the Professions**—Intensive conversation course designed to acquaint students with more extensive vocabulary of German-speaking professionals. Students also learn about the cultural context in which German is used in various professions. Conducted in German. *Prerequisite:* GN 102 or equivalent. (A&S TRACK A) 3 hours.

**206. German for Technology and Media**—Practice in the use of technology and media in German studies. Conducted in German. *Prerequisite:* GN 102 or equivalent. (A&S TRACK A) 3 hours.

**290. Study Abroad**—Second-year level of study-abroad approved program in a German-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

### Major Level

*Prerequisite:* Six hours of German at the minor level or permission of department chair.

**390. Study Abroad**—Third-year level of approved study-abroad program in a German-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

**399. Special Readings in German**.—*Prerequisite:* Permission of department chair. 3 hours.

### Advanced Undergraduate

*Prerequisite:* 9 hours of German at the major level or permission of department chair.

**480. Special Topics in German Literature**—Emphasis on particular authors, genres, or topics. May be repeated for credit. 3 hours.

**490. Study Abroad**—Fourth-year level of approved program in a German-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

**499. Directed Studies**—Directed Readings. *Prerequisite:* Permission of department chair. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

### Italian (ITL)

**101. Introductory Italian I**—Essentials of Italian language and culture needed for proficient communication. Includes basic exercises in listening comprehension, speaking, writing, and reading. Conducted in Italian. (CORE AREA II) 3 hours.

**102. Introductory Italian II**—Continuation of ITL 101. Conducted in Italian. *Prerequisite:* ITL 101 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

### Japanese (JPA)

**101. Introductory Japanese I**—Essentials of language and culture needed for proficient communication. Includes basic exercises in listening comprehension, speaking, writing, and reading. Conducted in Japanese. (CORE AREA II) 3 hours.

**102. Introductory Japanese II**—Continuation of JPA 101. Conducted in Japanese. *Prerequisite:* JPA 101 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**201. Intermediate Japanese I**—Continued development of grammar, vocabulary, reading, writing, and cultural proficiency. Conducted in Japanese. *Prerequisite:* JPA 102 or equivalent. 3 hours.

**202. Intermediate Japanese II**—Continuation of JPA 201. Conducted in Japanese. *Prerequisite:* JPA 201 or equivalent. 3 hours.

### Latin (LA)

**101. Introductory Latin I**—Essentials of language and culture. Includes grammar, reading, and writing. (CORE AREA II) 3 hours.

**102. Introductory Latin II**—Continuation of LA 101. Preq: LA 101 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

### Spanish (SPA)

Beginning Introductory Level (SPA 101, 102, 106, and 108 include a one-hour lab requirement)

**101. Introductory Spanish I**—Essentials of language needed for proficient communication. Includes basic exercises in listening comprehension, speaking, writing, and reading. Conducted in Spanish. (CORE AREA II) 4 hours.

**102. Introductory Spanish II**—Continuation of SPA 101. Conducted in Spanish. *Prerequisite:* SPA 101 or equivalent. (CORE AREA II) (A&S TRACK A) 4 hours.

**106. Introductory Spanish for the Professions**—Intensive drills in pronunciation and listening comprehension. Emphasis on conversation and acquisition of vocabulary for the professions. *Prerequisite:* SPA 102 or equivalent. 4 hours.

**108. Introductory Intensive Spanish**—Accelerated essentials of language and culture needed for proficient communication, speaking, writing, and reading. Review of SPA 101 and SPA 102. Conducted in Spanish. (CORE AREA II) (A&S TRACK A) 4 hours.

**180. Spanish for Health Professionals**—Intensive conversation course to acquaint health professionals with basic structures of Spanish. Focus on practical vocabulary, idiomatic expressions, medical terminology, and cultural patterns of Spanish-speaking patients with little or no proficiency in English. Conducted in Spanish. *Prerequisite:* SPA 102 or equivalent. (A&S TRACK A) 3 hours.

**190. Study Abroad**—First-year level of approved study-abroad program in a Spanish-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

### Minor Level

*Prerequisite:* Eight hours of Spanish at the beginning introductory level or equivalent.

**201. Intermediate Spanish I**—Continued development of grammar, composition, reading, writing, listening comprehension, speaking, and cultural proficiency. Conducted in Spanish. *Prerequisite:* SPA 102 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**202. Intermediate Spanish II**—Continuation of SPA 201. Conducted in Spanish. *Prerequisite:* SPA 201 or equivalent. (CORE AREA II) (A&S TRACK A) 3 hours.

**206. Intermediate Spanish for the Professions**—The course puts emphasis on intensive conversation and acquisition of vocabulary pertinent to the professions while focusing on the Spanish-speaking professional culture. Conducted in Spanish. *Prerequisite:*

SPA 102 or equivalent. (A&S TRACK A) 3 hours.

**210. Conversation and Culture**—Development of oral expression within the context of contemporary Spanish-speaking cultures. *Prerequisite:* SPA 201 and 202 or equivalent. (A&S TRACK A) 3 hours.

**280. Spanish for Health Professionals**—Focusing on the Spanish-speaking health-related culture, course emphasizes intensive conversation, technical reading, and vocabulary acquisition. Conducted in Spanish. *Prerequisite:* SPA 201 or equivalent. 3 hours.

**290. Study Abroad**—Second-year level of approved study-abroad program in a Spanish-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

**299. Special Readings in Spanish**—Directed readings in intermediate Spanish. Studies select texts of the Spanish-speaking world to increase overall literacy in Spanish. *Prerequisite:* SPA 202 or equivalent. 3 hours.

### Major Level

*Prerequisite:* Six hours of Spanish at the minor level or permission of department chair.

**300. Advanced Grammar and Composition**—Analysis and practice of basic grammatical structures of Spanish in diverse contexts. Development of writing skills. Conducted in Spanish. *Prerequisite:* 6 hours of Spanish at the minor level. (A&S TRACK A) 3 hours.

**304. Phonetics and Phonemics**—Course focuses on how the Spanish sound system functions in various regions. Development of pronunciation through oral practice. Conducted in Spanish. *Prerequisite:* 6 hours of Spanish at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**310. Cultures of the Spanish-Speaking World**—Historical overview of the heritage of Spain, Latin America, and the Hispanic U.S., with emphasis on social, political, and economic institutions. Conducted in Spanish. *Prerequisite:* 6 hours of Spanish at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**311. Survey of Spanish Peninsular Literature**—Overview of Spanish civilization and literature from medieval to contemporary periods. Representative works of various authors, with emphasis on fundamental literary concepts and distinctive stylistic features of Spanish discourse. Conducted in Spanish. *Prerequisite:* 6 hours of Spanish at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**312. Survey of Latin American Literature**—Overview of Latin American civilization and literature from the Pre-Colombian era to the contemporary period. Representative works of various authors, with emphasis on fundamental literary concepts and distinctive stylistic features of Latin American discourse. Conducted in Spanish. *Prerequisite:* 6 hours of Spanish at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**313. Business Spanish**—Vocabulary, idioms, protocol, and style characteristic of speaking and writing commercial Spanish. Concentration on writing letters, job descriptions, advertisements, and import-export documents. Conducted in Spanish. *Prerequisite:* 6 hours of Spanish at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**314. Spanish Translation and Interpretation**—History, principles, theory, and practice of translation and interpretation, includ-

ing a systematic study and contrastive exercises in Spanish-English translation and interpretation. A wide variety of conceptual fields with emphasis on vocabulary building. Conducted in Spanish. *Prerequisite:* 6 hours of Spanish at the minor level or permission of instructor. (A&S TRACK A) 3 hours.

**390. Study Abroad**—Third-year level of approved study-abroad program in a Spanish-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

**399. Special Readings in Spanish**—Individual studies. Conducted in Spanish. *Prerequisite:* Permission of department chair. 3 hours.

### *Advanced Undergraduate*

*Prerequisite:* 12 hours of Spanish at the major level or permission of department chair.

**401. Discourse of Imperial Spain**—Culture and civilization of Imperial Spain from the end of the Reconquest to the late nineteenth century (1492-1898). Includes study of the art, history, music, oral traditions, and literature of the Spanish people. Selected writings by representative authors will vary according to instructor. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**402. Discourse of Colonial Latin America**—Culture and civilization of Colonial Latin America from the advent of European dominance to the decades following the Spanish American War (1492-1920). Emphasis on the blending of Spanish, Amerindian, and African cultural forms and their diverse literary expressions. Selected works by representative authors will vary according to instructor. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**403. Discourse of Contemporary Spain**—Cultural and literary trends of Spain from the transformation of Spanish society in the late nineteenth century to the post-Franco era. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**405. U.S. Latino Writers**—Focus on the growing body of literature written by Latinos in the United States. Explores Latino issues and cultural identity through the analysis of their narrative works and experience. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**407. Indigenous and Indigenist Latin America**—Indigenous and indigenist Latin America. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**409. Spanish-Speaking Nobel Laureates**—Spanish-speaking Nobel laureate writers. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**411. Cervantine Discourse**—Civilization of Golden Age Spain as reflected in Miguel Cervantes's *El ingenioso hidalgo don Quixote de la Mancha*. Development of modern novel and importance of Don Quixote as national hero and recurring figure in international art, music, film, and literature. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**412. Discourse of Contemporary Latin America, 1920-Present**—Cultural and literary trends of Latin America from *la nueva narrativa* through the Boom and post-Boom periods. Focus

on Mexico, Northern Latin America, and the Southern Cone. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**414. Afro-Hispanic Discourse**—Cultural and literary forms of African-descended writers in Spanish-speaking world. Focus on African presence in Medieval and Golden Age Spain, Equatorial Guinea, Latin America, or the Caribbean. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**416. Special Topics in Spanish**—Seminar on individual authors, specific genres, literary movements, literary discourse/theory, or transatlantic studies. Conducted in Spanish. May be repeated for credit. *Prerequisite:* Advanced undergraduate standing or permission of instructor. 3 hours.

**490. Study Abroad**—Fourth-year level of approved study-abroad program in a Spanish-speaking country. *Prerequisite:* Permission of department chair. 1 to 6 hours.

**499. Directed Studies**—Special Readings in Spanish. Conducted in Spanish. *Prerequisite:* Advanced undergraduate standing and permission of department chair. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## DEPARTMENT OF MUSIC

**Chair:** Jeff W. Reynolds

**Associate Chair:** Michael Angell

**Faculty:** Angell, Candelaria, Clemmons, Copeland, Fambrough, Gainey, Irving, Kasman, Mathes, Mosteller, Panion, Ray, Reach, D. Reynolds, Samuels, Turner

The Department of Music offers the Bachelor of Arts degree with a major in music. Optional concentrations in music education (including teacher certification) and music technology are also available in the Bachelor of Arts degree program. Students majoring in other fields may complete a minor in music or music technology and may take music courses as electives. The Department of Music is accredited by the National Association of Schools of Music.

The Department of Music offers instruction at a variety of levels to provide a balanced musical education for a broad spectrum of students. Areas of instruction include music theory and composition, music history and literature, music performance, music education, and music technology. Courses in music theory explore the materials and techniques employed in music composition. History and literature courses present the evolution of musical styles in the context of our cultural heritage and identify certain works that represent the highest levels of artistic achievement. Performance activities develop individual musical skills through personal creative involvement. Music education prepares students to teach music at the nursery through high school level. Music technology explores current developments in computers and their applications to and impact on the creation, presentation, and recording of music. Full updated information is available on the Department of Music Web site.

## MUSIC ENSEMBLES

Students of all majors are invited to participate in a variety of musical ensembles: Blazer Band, Brass Ensemble, Chamber Singers, Clarinet Choir, Guitar Ensemble, Computer Music Ensemble, Concert Choir, Flute Choir, Gospel Choir, Jazz Combo, Jazz Ensemble, Marching Band, Opera Workshop, Orchestra, Percussion Ensemble/Steel Band, Piano Ensemble, Women's Chorale, and Wind Symphony.

## MUSIC SCHOLARSHIPS

The Myrtle Jones-Steele and James Darrell McAnnally Scholarships (piano), the Alys Robinson Stephens Scholarship (any instrument or voice), and the Deans Scholarships in Music are awarded each year to qualified music majors. Choral, Opera, Wind Symphony, and Marching Band Scholarships are also competitively based and are awarded to any full-time student enrolled in the University for participation in those ensembles. The Music Technology and Stevie Wonder Scholarships are awarded to students in the Music Technology program. Auditions are scheduled throughout the year for award for the next academic year. For an application or further information about music scholarships or any of the programs and activities described above, call the Department office, telephone (205) 934-7376.

## ADMITTANCE FOR MUSIC MAJORS

Students who wish to pursue a degree in music must first apply for admission to the UAB Office of Undergraduate Admissions. In addition, students must complete an audition before members of the music faculty for admission to the Department of Music. Auditions are scheduled on several dates throughout the year. Examinations to be administered on audition days will also be required to determine the appropriate placement of students within the curriculum. Students should contact the music office at (205) 934-7376 or email [jwr@uab.edu] for specific audition requirements and to schedule a date on which they may complete this requirement. Once the audition is complete, students will be informed of one of three outcomes: 1) admission to the Department is granted and they may enroll as a music major, 2) admission to the Department is conditional, in which case they are admitted into the pre-music program and have one year to gain full admission as a music major, or 3) admission to the Department is denied. In the case of number 2 above, students must re-audition in order to gain full admission as a music major. In the event they are not accepted, they will be advised to seek another major within the University. Once fully or conditionally admitted to the Department of Music, students will work closely with a music faculty advisor who will monitor their progress and advise in the selection of appropriate courses. All students must audition during the term preceding the expected entrance date. Admission to UAB does not guarantee admission to the Department of Music.

## PIANO PROFICIENCY

All music majors must demonstrate basic proficiency at the piano keyboard prior to graduation. Students who are not able to pass the piano proficiency examination upon entering the music degree program must enroll in Class Piano (MUP 124) until they are able to do so. Up to three semester hours of credit earned in Class Piano may be counted toward electives.

## PIANO PROFICIENCY EXAMINATION REQUIREMENTS

**I. PURPOSE:** To demonstrate functional keyboard skills at a level appropriate for students majoring in Music, Music Technology, or Music Education.

**II. PROCEDURE:** All Music, Music Technology, and Music Education majors must pass the Piano Proficiency Examination prior to graduation. Students with considerable experience in piano may be allowed to take the examination during their first term without enrolling for Class Piano. In the event they are not successful, they must begin enrolling in Class Piano until the proficiency exam has been passed. All other students must enroll in Class Piano in their first term and continue enrollment until the exam has been passed. Under no circumstances should the proficiency exam be taken later than the end of the junior year. Proficiency examinations will be scheduled during examination week of each semester. The instructor of MUP 125 and one other faculty member will administer the exam. Students wishing to take the proficiency exam must contact the instructor at least one week before the last day of classes to schedule a time and place for the exam. The exam will be approximately fifteen minutes in duration and will cover examples from the areas listed below. The examination may be attempted once each semester until it is passed.

**III. REQUIREMENTS:** The student is expected to demonstrate proficiencies in the areas of sight-reading, performance, technique, and related functional skills including transposing and improvising simple accompaniments.

A. Sight-reading of song arrangements and/or simple solo piano literature such as a selected example from Chapter V, pages 195-219 in *Progressive Class Piano* by Elmer Heerema.

B. Performance:

1. A solo selected from the following list or from repertoire of comparable difficulty (memorization optional).

- J.S. Bach - *Little Preludes*
- Clementi - *Sonatinas*
- Schumann - *Album for the Young*

2. Two patriotic songs: *America* and *The Star Spangled Banner*. Music may be used.

C. Technique:

1. All major and harmonic minor scales: Two octaves in parallel motion, hands together.

2. All major and minor arpeggios: Two octaves, hands together.

D. Functional Skills:

1. Accompaniment improvisations (see *Progressive Class Piano*; each chapter contains sections on harmonization and improvisation).

2. Transpose a simple accompaniment or song at sight (see *Progressive Class Piano*, Chapter 5 pages 195-204 for examples).

Play the progression I-IV-I-V7-I hands together in all major and minor keys.

## PERFORMANCE ATTENDANCE REQUIREMENT

All music majors are expected to attend Music Department concerts and programs. To satisfy the Department's performance attendance requirement, all music majors must enroll in and successfully complete MUP 001 every term of enrollment, except during the term of student teaching or internship, for a minimum of seven terms. A grade of P (pass) or NP (not pass) will be assigned accordingly for a student's attendance at concerts, student recitals, Department-sponsored lectures, and other events approved previously by the Department.

## MAJOR REQUIREMENTS FOR B.A. IN MUSIC

	<i>Sem. Hrs.</i>
Music Theory I-IV (MU 221, 222, 321, 322) .....	<b>12</b>
Aural Skills I-IV (MU 224, 225, 324, 325) .....	<b>4</b>
Advanced Theory electives (from MU 359, 445, 446, 448, 451, 455, 458, 459) .....	<b>3</b>
Music History and Literature (MU 371, 372) .....	<b>6</b>
Music History/Literature elective (from MU 261, 364, 365, 366, 461) .....	<b>6</b>
Computer Music I (MU 115 Also satisfies A&S requirement Track C) .....	<b>3</b>
Conducting (MU 329).....	<b>3</b>
Music Ensembles (from MUP 110, 220, 230, 231 232, 234, 235, 236, 237, 320, 341, 353, 420) .....	<b>7</b>
Applied Music (Private Lessons, MUP 240 or above) .....	<b>6</b>
Music electives (not below MU 120 or MUP 140) .....	<b>3</b>
Piano Proficiency Exam (MUP125) .....	<b>0</b>
Performance Attendance (MUP 001 for seven terms) .....	<b>0</b>
<b>Total semester hours .....</b>	<b>53</b>

## CONCENTRATION IN MUSIC TECHNOLOGY

	<i>Sem. Hrs.</i>
Music Theory I-IV (MU 221, 222, 321, 322).....	<b>12</b>
Aural Skills I-IV (MU 224, 225, 324, 325) .....	<b>4</b>
Advanced Theory electives (from MU 359, 445, 446, 448, 451, 455, 458, or 459) .....	<b>3</b>
Music History and Literature (MU 372 and either 261 or 371) .....	<b>6</b>
Music Ensembles (from MUP 110, 220, 230, 231 232, 234, 235, 236, 237, 320, 341, 353, 420) .....	<b>7</b>
Applied Music (Private Lessons, MUP 240 or above) .....	<b>4</b>
Performance Attendance (MUP 001 for seven terms) .....	<b>0</b>
Computer Music I (MU 115 also satisfies A&S requirement Track C) .....	<b>3</b>
Computer Music II-III (MU 341, 342).....	<b>6</b>
Recording Technology I-II (MU 245, 345) .....	<b>6</b>
Multimedia Productions (MU 441) .....	<b>3</b>
Internship (MU 498).....	<b>1</b>
Piano Proficiency Exam (MUP 125).....	<b>0</b>
<b>Total semester hours .....</b>	<b>55</b>

## MAJOR REQUIREMENTS FOR B.A. IN MUSIC EDUCATION (INSTRUMENTAL)

	<i>Sem. Hrs.</i>
Public Speaking (CM 101 counts towards Core Area .....	<b>3</b>
Psychology (PY 101 counts towards Core Area.....	<b>3</b>
Music Theory I-IV (MU 221, 222, 321, 322).....	<b>12</b>
Aural Skills I-IV (MU 224, 225, 324, 325) .....	<b>4</b>
Music History and Literature (MU 371, 372) .....	<b>6</b>
Computer Music I (MU 115 also satisfies A&S requirement Track C) .....	<b>3</b>
Conducting (MU 329, 429) .....	<b>6</b>
Music Ensembles (from MUP 230, 232, 231 234, 235, 236, 237, 353) .....	<b>7</b>
Applied Music (Private Lessons, MUP 240 or above) .....	<b>7</b>
Music electives (not below MU 120 or MUP 140) .....	<b>3</b>
Piano Proficiency Exam (MUP 125).....	<b>0</b>
Performance Attendance (MUP 001 for seven terms) .....	<b>0</b>
Methods (EMU 402, 403, 404, 405) .....	<b>8</b>
Applied Methods (MUP 122, 132, 134, 136, 138).....	<b>5</b>
Education (ECY 300, EDT 300, EHS 410, HPE 200, EDF 362, EDU 200, EPR 363) .....	<b>18</b>
Internship (EMU 490, EMU 499) .....	<b>10</b>
<b>Total semester hours .....</b>	<b>95</b>

## MAJOR REQUIREMENTS FOR B.A. IN MUSIC EDUCATION (VOCAL/CHORAL)

	<i>Sem. Hrs.</i>
Public Speaking (CM 101 counts towards Core Area II) .....	<b>3</b>
Psychology (PY 101 counts towards Core Area IV).....	<b>3</b>
Music Theory I-IV (MU 221, 222, 321, 322).....	<b>12</b>
Aural Skills I-IV (MU 224, 225, 324, 325) .....	<b>4</b>
Music History and Literature (MU 371, 372) .....	<b>6</b>
Computer Music I (MU 115 also satisfies A&S requirement Track C) .....	<b>3</b>
Conducting (MU 329, 429) .....	<b>6</b>
Music Ensembles (from MUP 110, 220, 230, 353, 420) .....	<b>7</b>
Applied Music (Private Lessons, MUP 240 or above) .....	<b>7</b>
Music electives (not below MU 120 or MUP 140) .....	<b>3</b>
Piano Proficiency Exam (MUP 125).....	<b>0</b>
Performance Attendance (MUP 001 for seven terms) .....	<b>0</b>
Methods (EMU 402, 403, 404, 405) .....	<b>8</b>
Applied Methods (MUP 132, 134, 136, 138) .....	<b>4</b>
Education (ECY 300, EDT 300, EHS 410, HPE 200, EDF 362, EDU 200, EPR 363) .....	<b>18</b>
Internship (EMU 490, EMU 499) .....	<b>10</b>
<b>Total semester hours .....</b>	<b>94</b>

## ENSEMBLE PARTICIPATION REQUIREMENT

Students in the B.A. degree program in Music are required to earn credit in at least one music ensemble per term for a minimum of seven terms. At least six of the seven terms of the required ensemble participation must include involvement in one of the following major ensembles: Concert Choir, Marching Band, Wind

Symphony, and Orchestra. Other ensembles are considered major ensembles, but only for students whose major instrument is listed here: Jazz Ensemble (Guitar and Piano), Guitar Ensemble (Guitar), and Piano Ensemble (Piano). All other ensembles are considered minor ensembles. Credit earned in excess of the seven semester hour minimum requirement stated above may be applied toward electives. Students in the Music Technology program may take up to four of their ensemble hours in Computer Music Ensemble. The remaining three hours must be in the major ensembles named above.

## TEACHER CERTIFICATION

Students who wish to prepare for careers as music teachers in schools at the pre-college level will need to complete the requirements for the professional teaching certificate issued by the Alabama Department of Education. These requirements are met by completing the curriculum for the Bachelor of Arts in Music Education degree.

The Alabama teaching certificate is issued for two teaching fields in music: instrumental music and vocal/choral music, both valid for nursery school through grade twelve. Contact the Department of Music for a current outline of requirements for these certification areas. Students in any of the teacher certification areas in Music Education are required to earn credit in at least one music ensemble per term for a minimum of seven terms. In fulfilling the participation requirement, instrumental students must enroll in an instrumental ensemble, and vocal/choral students must enroll in a vocal/choral ensemble. At least six terms of the required ensemble participation must include involvement in Concert Choir, Jazz Ensemble, Piano Ensemble, Wind Symphony, and/or Marching Band. Credit earned in excess of the minimum semester hour requirements for ensembles may be applied to music electives within the general studies portion of the teacher certification program.

## MINOR IN MUSIC OR MUSIC TECHNOLOGY

The minor consists of 26 semester hours of coursework in music. Students who minor in music or music technology should have some prior musical experience. Music courses in which a grade below C is earned may not be counted toward the minor. Minors are encouraged to participate in music ensembles throughout their academic program.

### REQUIREMENTS FOR MINOR IN MUSIC

	<i>Sem. Hrs.</i>
Music Theory I–II (MU 221, 222) .....	<b>6</b>
Aural Skills I–II (MU 224, 225) .....	<b>2</b>
Music History and Literature (MU 371, 372) .....	<b>6</b>
Music Ensembles (from MUP 110, 220, 230, 232, 234, 235, 236, 237, 320, 341, 353, 420) .....	<b>6</b>
Applied Music (Private Lessons, MUP 140 or above) .....	<b>3</b>
Music electives (not below MU 120 or MUP 140) .....	<b>3</b>
Total semester hours .....	<b>26</b>

### REQUIREMENTS FOR MINOR IN MUSIC TECHNOLOGY

	<i>Sem. Hrs.</i>
Music Theory I–II (MU 221, 222) .....	<b>6</b>
Aural Skills I–II (MU 224, 225) .....	<b>2</b>
Music History and Literature (MU 261) .....	<b>3</b>
Music Ensembles (MUP 110, 220, 230, 232, 234, 235, 236, 237, 320, 341, 353, 420) .....	<b>4</b>
Applied Music (MUP 124 or 150) .....	<b>2</b>
Music Technology (MU 115, 245, 341) .....	<b>9</b>
Total semester hours .....	<b>26</b>

### TRANSFER STUDENTS

A student may not apply more hours of transfer credit toward any requirement for a major or minor in music than are awarded for the equivalent courses at UAB. Excess hours in any required area may be applied as electives. Music majors must complete at least nine semester hours in music at UAB. Minors must complete at least six semester hours in music at UAB. See the section of the catalog titled “Completion of a Degree” for additional residency requirements.

The stated requirements for majors and minors in music are intended to assure a balanced academic program. In evaluating transfer credits, therefore, course content as well as the number of credits in particular areas must be considered in order to determine whether courses taken at other colleges satisfy UAB requirements. To be considered equivalent to Music Theory I–IV and Aural Skills I–IV, courses taken at another college must have included “aural skills.” If a separate “theory laboratory” was taken, both the laboratory and the related music theory course must have been satisfactorily completed. Transfer students may be required to demonstrate by examinations, auditions, and other means that their current knowledge and skills meet expected standards. Auditions may be required to determine placement in applied music courses and conducting. Transfer students majoring in music will be required to pass the UAB piano proficiency examination unless written verification is provided from the appropriate official at the former college which shows that they have passed an equivalent examination at that institution.

Music majors who transfer to UAB and students who change their major from another field to music may either (1) complete the normal ensemble participation requirement for their degree program or (2) participate in an ensemble during each term they are enrolled as a music major at UAB, with no fewer than three terms of participation in UAB ensembles. In either case, the semester hour ensemble requirement must be met by transfer and/or UAB credit. Students must be officially enrolled in an ensemble in order to fulfill the participation requirement.

Music majors who transfer to UAB and students who change their major from another field to music may either (1) complete the normal performance attendance requirement or (2) enroll in MUP 001 during each term they are enrolled as a music major at UAB, for a minimum of three terms.

Courses transferred from a two-year college cannot be used to satisfy requirements for work at advanced levels (courses numbered 300 or higher). No more than 60 semester hours may be transferred from a two-year college.

## MUSIC HONORS PROGRAM

### PURPOSE

The Music Honors Program is designed for highly talented, self-motivated students majoring in music. Through individual instruction and mentoring by the student's applied faculty member, he/she will present a full public recital on his/her major instrument or present a series of original compositions. In the Department of Music this program is also referred to as the Young Artists Program.

### ELIGIBILITY

Acceptance to the Music Honors Program requires the student to:

- Be a music major;
- Be of at least of sophomore standing in music; and
- Be admitted to 300-level private lessons.

### REQUIREMENTS

- Have permission of his/her applied instructor;
- Be recommended and accepted to the program by members of the music faculty by way of an end-of-semester jury;
- Present a 30 minute (junior year) and/or 1 hour (senior year) preliminary recital before the music faculty. Permission from the faculty must be granted before proceeding to a public recital;
- In consultation with the applied teacher, arrange and program a recital, write program notes, and assemble the program; and
- Present a 30 minute (junior year) and/or 1 hour (senior year) public recital.

### BENEFITS

Students will receive valuable individual attention and a public recital sponsored by the Department of Music. On most occasions, the performance is accompanied by a professional accompanist and is recorded onto compact disc. This recording is of great use to students when they are applying for music positions, graduate schools, fellowships, and assistantships. Students who complete the program will graduate "With Honors in Music."

### CONTACT

For more information concerning the Department of Music Honors Program, please contact:

Dr. Denise Gainey, Coordinator  
Young Performing Artists Program  
231 Hulsey Center  
Campus Phone: (205) 975-0558  
E-mail: [clarinet@uab.edu]

Dr. Jeff Reynolds, Chair  
Department of Music  
231 Hulsey Center  
Campus Phone: (205) 934-7376  
E-mail: [jwr@uab.edu]

## SCHEDULING OF COURSES

Certain music courses are offered one time each year or once every two years, according to a Department plan. A copy of this plan may be obtained from the Department of Music. Several courses are offered irregularly, according to need.

## ACADEMIC ADVISING

Each music major is assigned a Departmental academic advisor. The student must meet with his/her advisor before registering for classes each term.

### Course Descriptions

#### Music (MU)

**100. Fundamentals of Music**—Basic elements of music and music notation: rhythm, scales, keys, and chords. 3 hours.

**115. Computer Music I**—Concepts, hardware, and programs for creating and performing music with personal computers. Prerequisite: MU 100 or permission of instructor (call 934-7375). (A &S TRACK C). 3 hours.

**120. Music Appreciation**—Guided listening and class discussion covering variety of styles. Emphasis on European concert music of the eighteenth and nineteenth centuries. (CORE AREA II). 3 hours.

**130. Music Appreciation for Concert Goers**—Musical understanding emphasizing elements, styles, and forms in representative masterworks. One lecture per week and attendance at nine concerts during term. 3 hours.

**141. Musical Acoustics**—(Also PHS 141) Physical nature of musical tones (pitch, loudness, and timbre) and numerical basis of scales, tuning, and musical instrument design. Laboratory/discussion including use of oscilloscope to study actual acoustic systems. 3 hours.

**165. Jazz Styles: History and Appreciation**—American jazz with emphasis on instrumental and vocal performers, jazz bands, and combos. Development of big band, swing, and popular music. 3 hours.

**199. Independent Study**—Directed projects in music. Prerequisite: Permission of department chair based on written proposal submitted prior to registration (call 934-7375). 1 to 3 hours.

**210. Special Workshop**—Specialized subjects taught as opportunity allows. May be repeated for credit. Prerequisite: Permission of instructor (call 934-7375). 1 to 3 hours.

**211. Recording Studio Workshop**—Specialized subjects taught as opportunity allows. May be repeated for credit. Prerequisite: Permission of Instructor (call 934-7375). 1 to 3 hours.

**221. Music Theory I**—Melody, harmony, and rhythm; their interaction in music. Diatonic musical materials with emphasis on choral and simple keyboard idioms. Prerequisite: MU 100 or permission of instructor (call 934-7375). 3 hours.

**222. Music Theory II**—Continuation of MU 221. Prerequisite: MU 221. 3 hours.

**224. Aural Skills I**—Required laboratory for MU 221. Prerequisite: Permission of instructor (call 934-7375). 1 hour.

**225. Aural Skills II**—Required laboratory for MU 222. Prerequisite: MU 224. 1 hour.

**245. Recording Technology I**—Concepts and techniques of music production in recording studios. Limited enrollment. First class meets on campus. 3 hours.

**261. Introduction to Music Literature**—Score reading and elementary analysis. Chronological survey of styles and forms of each historical period. Prerequisite: Basic music reading ability. 3 hours.

**298. Introduction to Technology in the Arts**—(Also ARS 298, MC 298, THR 298.) Applications of computer-based technology to the arts: music, theatre, video, and visual arts. Demonstrations of multimedia capabilities. *Prerequisite:* 6 hours in one cross-listed discipline. 3 hours.

**299. Independent Study**—May be repeated for credit. *Prerequisites:* MU 199 or equivalent and permission of Department Chair based on written proposal submitted prior to registration (Call 934-7375). 1 to 3 hours.

**321. Music Theory III**—Introduction to chromatic materials. *Prerequisite:* MU 222. 3 hours.

**322. Music Theory IV**—Chromatic materials, modulation, extensions of tertian harmony, and overview of contemporary techniques. *Prerequisite:* MU 321. 3 hours.

**324. Aural Skills III**—Required laboratory for MU 321. *Prerequisite:* MU 225. 1 hour.

**325. Aural Skills IV**—Required laboratory for MU 322. *Prerequisite:* MU 324. 1 hour.

**329. Conducting**—Basic conducting techniques and rehearsal procedures. *Prerequisite:* Permission of instructor (call 934-7375). 3 hours.

**330. Marching Band Techniques**—Organizing and administering a marching band, including show design and computer-assisted drill-writing experience. *Prerequisite:* Permission of instructor (call 934-7375). 3 hours.

**331. Band Literature**—Frequently performed modern concert band literature. *Prerequisite:* Music or music education major or permission of instructor (call 934-7375). 3 hours.

**341. Computer Music II**—Using computer applications, including MIDI and sampling technology, in the creation of musical compositions. *Prerequisite:* MU 115. 3 hours.

**342. Computer Music III**—Continuation of MU 341. Advanced computer music projects utilizing sound synthesis, sound file manipulation, and hard disk recording techniques. *Prerequisites:* MU 222, 225, and 341. 3 hours.

**345. Recording Technology II**—Advanced concepts and techniques of multitrack recording in project and professional recording studio, including signal processing mixing and mastering. *Prerequisites:* MU 115, 221, 224, and 245. 3 hours.

**359. Composition I**—Discussions and creative projects designed to help beginning composers or arrangers gain experience in handling variety of musical styles and in shaping musical ideas. May be repeated for maximum of 3 hours credit. *Prerequisites:* MU 353 and permission of instructor (call 934-7375). 1 to 2 hours.

**364. American Music**—Music in United States from colonial times to the present. *Prerequisite:* MU 120 or 261 or permission of instructor (call 934-7375). 3 hours.

**365. The Evolution of Jazz**—Origins and survey of jazz types and styles. Lectures, recordings, and readings. *Prerequisite:* MU 120 or 261 or permission of Instructor (Call 934-7375). 3 hours.

**366. Music in World Cultures**—(Also ANTH 370) Characteristics of musical styles found in various cultures throughout world. *Prerequisite:* MU 120 or 261 or permission of instructor (call 934-7375). 3 hours.

**367. Introduction to Ethnomusicology**—Holistic approach to

study of music. Musicians' training, instruments, and role in society. Methods for documenting and transcribing, social functions and economic context, and theories of performance and creativity. Ghanaian and Indian traditions, with other music, including Western, as appropriate. *Prerequisite:* 6 hours in ANTH, MU, or MUP, or permission of instructor (call 934-7375). 3 hours.

**371. Music History and Literature to 1750**—Major developments of musical styles and forms from pre-Christian era through Baroque. Includes critical listening to selected musical examples. *Prerequisite:* MU 222 or permission of instructor (call 934-7375). 3 hours.

**372. Music History and Literature: 1750-Present**—Classical period through the present. *Prerequisite:* MU 222 or permission of instructor (call 934-7375). 3 hours.

**399. Independent Study**—*Prerequisites:* MU 299 or equivalent and permission of department chair based on written proposal submitted prior to registration (call 934-7375). May be repeated for credit. 1 to 3 hours.

**429. Advanced Conducting Techniques**—Rehearsal techniques, expression, and interpretation. May occasionally work with University ensembles. *Prerequisites:* MU 329 and permission of instructor (call 934-7375). 3 hours.

**441. Multimedia Productions**—Techniques for producing music for television, film, video, computer presentations, and slide shows using computer-based technologies. *Prerequisites:* MU 342 and 345. 3 hours.

**445. Modal Counterpoint**—Important characteristics of vocal polyphonic writing based on modal scales with emphasis on style of Palestrina and other Renaissance composers. *Prerequisite:* MU 222. 3 hours.

**446. Tonal Counterpoint**—Important characteristics of polyphonic writing based on major and minor scales with emphasis on style of J.S. Bach and other eighteenth century composers. *Prerequisite:* MU 322. 3 hours.

**448. Orchestration**—Scoring techniques for orchestra, band, and other instrumental groups. *Prerequisite:* MU 322. 3 hours.

**451. Topics in Music Theory**—Aspects of music theory and analysis. May be repeated for credit. *Prerequisite:* MU 322 or permission of Instructor (Call 934-7375). 3 hours.

**455. Analysis of Musical Structure**—Principles and techniques of organization in tonal music; analytical methods. *Prerequisite:* MU 322. 3 hours.

**458. Contemporary Techniques**—Techniques and materials employed in contemporary music, including nonfunctional and nontertian harmony, polyharmony, atonal and serial music, microtones, sound-mass composition, and contemporary notation. *Prerequisite:* MU 322. 3 hours.

**459. Composition II**—Directed individual projects in composition and discussions on related topics. May be repeated for credit. *Prerequisites:* MU 359 and permission of Instructor (Call 934-7375). 1 to 2 hours.

**461. Seminar in Music Literature**—Selected topics concerning specific periods, genres, and forms. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). 3 hours.

**498. Internship**—Practical experience in recording studios, concert halls, audio-video post production suites, and advertising and

publishing agencies. May be repeated for credit. *Prerequisites:* MU 342, 345, and 441. 1 to 2 hours.

**499. Independent Studies**—Independent Studies. *Prerequisite:* Permission of Department Chair based on written proposal submitted prior to registration (Call 934-7375). 1-3 hours.

## Music Performance (MUP)

**001. Performance Attendance**—Attendance at Department-approved musical events such as concerts, recitals, and festivals. Pass (P)/ no pass (NP) grading (see detailed performance attendance requirement above). Required of all Music, Music Technology and Music Education Majors. *Prerequisite:* Open only to Music, Music Technology or Music Education majors. 0 hours.

**110. Gospel Choir**—Performs traditional and contemporary gospel choral music. Open to students of all majors. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**122. Class Voice**—Fundamentals of singing for teaching or performance. Group and individual instruction. *Prerequisites:* Basic music-reading ability and permission of Instructor (Call 934-7375). 1 hour.

**124. Class Piano**—Basic keyboard skills for adult beginner. May be repeated for maximum of 3 hours of credit. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**125. Piano Proficiency**—Required of music majors for graduation and of music education majors before entering Teacher Education Program (TEP). *Prerequisite:* Permission of Department Chair (Call 934-7375). 0 hours.

**130. Class Guitar.**—Basic materials and performance techniques. *Prerequisite:* Permission of Chair (Call 934-7375). 1 hour.

**132. Class Woodwinds**—Basic materials and performance techniques, primarily for Music Education students. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**134. Class Brass**—Basic materials and performance techniques, primarily for Music Education students. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**136. Class Percussion**—Basic materials and performance techniques, primarily for Music Education students. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**138. Class Strings**—Basic materials and performance techniques, primarily for Music Education students. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**140. Private Lessons: Voice**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the Instructor, are required. 1 Hour.

**150. Private Lessons: Piano**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. 1 Hour.

**161. Private Lessons: Flute**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**162. Private Lessons: Oboe**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**163. Private Lessons: Clarinet**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**164. Private Lessons: Saxophone**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**165. Private Lessons: Bassoon**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**171. Private Lessons: Trumpet**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**172. Private Lessons: French Horn**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**173. Private Lessons: Trombone**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**174. Private Lessons: Euphonium**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**175. Private Lessons: Tuba**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**180. Private Lessons: Percussion**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. 1 Hour.

**191. Private Lessons: Violin**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**192. Private Lessons: Viola**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**193. Private Lessons: Cello**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**194. Private Lessons: Bass**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**195. Private Lessons: Guitar**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 Hour.

**220. Concert Choir**—Performs choral music representing variety of periods and styles. Some sight-reading ability necessary. Open to students, faculty, staff, and townspeople. May be repeated for credit. *Prerequisite:* Permission of Instructor. 1 hour.

**230. Guitar Ensemble**—Performs original and pre-arranged selections of guitar ensemble literature. May be repeated for credit. *Prerequisite:* Permission of Department Chair and audition required (Call 934-7376). 1 hour.

**231. Orchestra**—Participation in community orchestra. Open to string students; wind or percussion players must enroll concurrently in MUP 235 or MUP 236. *Prerequisites:* Approval of conductor based on audition and permission of Department Chair. May be repeated for credit. 1 hour.

**232. Marching Band**—Supports UAB football program by performing pre-game and half time shows. May also perform for other special University or community events. Open to students of all majors with marching band experience. Scholarships available. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). No audition required. Required organizational meeting and pre-season band camp in late August. May be repeated for credit. 1 hour.

**234. Percussion Ensemble**—Performs original and pre-arranged selections of concert percussion literature. Advanced percussion skill necessary. Open to students of all majors. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). May be repeated for credit. 1 hour.

**235. Wind Ensemble**—Performs finest concert band literature. Open to all UAB students with high school band experience. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). May be repeated for credit. 1 hour.

**236. Jazz Ensemble**—Performs classic and contemporary jazz, swing, and rhythm and blues. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). May be repeated for credit. 1 hour.

**237. Blazer Band**—Supports UAB basketball program by performing at games. May also perform for other special University or community events. Open to students of all majors. Scholarships available. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). May be repeated for credit. 1 hour.

**240. Private Lessons: Voice**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 to 2 hours.

**250. Private Lessons: Piano**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 to 2 hours.

**261. Private Lessons: Flute**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. 1- May be repeated for credit. 2 Hours.

**262. Private Lessons: Oboe**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. 1- May be repeated for credit. 2 Hours.

**263. Private Lessons: Clarinet**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private

lesson, to be scheduled with the instructor, are required. 1- May be repeated for credit. 2 Hours.

**264. Private Lessons: Saxophone**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**265. Private Lessons: Bassoon**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**271. Private Lessons: Trumpet**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**272. Private Lessons: French Horn**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**273. Private Lessons: Trombone**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**274. Private Lessons: Euphonium**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**275. Private Lessons: Tuba**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**280. Private Lessons: Percussion**—*Prerequisite:* Permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. Limited to music majors and minors only. May be repeated for credit. 1 to 2 hours.

**291. Private Lessons: Violin**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**292. Private Lessons: Viola**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**293. Private Lessons: Cello**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**294. Private Lessons: Bass**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**295. Private Lessons: Guitar**—*Prerequisite:* Permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**320. Chamber Singers**—Advanced choral group. Performs variety of choral music representing different periods and styles. By

audition only. Advanced music-reading skills required. May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**340. Private Lessons: Voice**—*Prerequisite:* Qualifying audition and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. 1-2 Hours. May be repeated for credit. 1 to 2 hours.

**341. Computer Music Ensemble**—Performs computer and other electronically generated music of various styles. *Prerequisite:* MU 252, 255, and 341, or permission of Instructor. May be repeated for credit. 1 hour.

**350. Private Lessons: Piano**—*Prerequisite:* Qualifying audition and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 to 2 hours.

**361. Private Lessons: Flute**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**362. Private Lessons: Oboe**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**363. Private Lessons: Clarinet**—*Prerequisite:* Qualifying audition and permission of Instructor (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**364. Private Lessons: Saxophone**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**365. Private Lessons: Bassoon**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**371. Private Lessons: Trumpet**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**372. Private Lessons: French Horn**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**373. Private Lessons: Trombone**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**374. Private Lessons: Euphonium**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private

lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**375. Private Lessons: Tuba**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**380. Private Lessons: Percussion**—*Prerequisite:* Qualifying audition and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. Limited to Music Majors and Minors only. May be repeated for credit. 1 to 2 hours.

**391. Private Lessons: Violin**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**392. Private Lessons: Viola**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**393. Private Lessons: Cello**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**394. Private Lessons: Bass**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**395. Private Lessons: Guitar**—*Prerequisite:* Qualifying audition and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**420. Opera Workshop**—Select member group. Performs staged productions of operas, opera scenes, and musical theater. Requires advanced music-reading skills and two semester commitment (fall and spring). May be repeated for credit. *Prerequisite:* Permission of Instructor (Call 934-7375). 1 hour.

**440. Private Lessons: Voice**—*Prerequisite:* Successful completion of MUP340 and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 to 2 hours.

**450. Private Lessons: Piano**—*Prerequisite:* Successful completion of MUP350 and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 to 2 hours.

**461. Private Lessons: Flute**—*Prerequisite:* Successful completion of MUP361 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**462. Private Lessons: Oboe**—*Prerequisite:* Successful completion of MUP362 and permission of Chair (Call 934-7375).

Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**463. Private Lessons: Clarinet**—*Prerequisite:* Successful completion of MUP363 and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**464. Private Lessons: Saxophone**—*Prerequisite:* Successful completion of MUP364 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**465. Private Lessons: Bassoon**—*Prerequisite:* Successful completion of MUP365 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**471. Private Lessons: Trumpet**—*Prerequisite:* Successful completion of MUP371 and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**472. Private Lessons: French Horn**—*Prerequisite:* Successful completion of MUP372 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**473. Private Lessons: Trombone**—*Prerequisite:* Successful completion of MUP373 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**474. Private Lessons: Euphonium**—*Prerequisite:* Successful completion of MUP374 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**475. Private Lessons: Tuba**—*Prerequisite:* Successful completion of MUP375 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**480. Private Lessons: Percussion**—*Prerequisite:* Successful completion of MUP380 and permission of Instructor (Call 934-7375). Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1 to 2 hours.

**491. Private Lessons: Violin**—*Prerequisite:* Successful completion of MUP391 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**492. Private Lessons: Viola**—*Prerequisite:* Successful completion of MUP392 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**493. Private Lessons: Cello**—*Prerequisite:* Successful completion of MUP393 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**494. Private Lessons: Bass**—*Prerequisite:* Successful completion of MUP394 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

**495. Private Lessons: Guitar**—*Prerequisite:* Successful completion of MUP395 and permission of Chair (Call 934-7375). Limited to Music Majors and Minors. Weekly performance class and private lesson, to be scheduled with the instructor, are required. May be repeated for credit. 1-2 Hours.

## DEPARTMENT OF PHILOSOPHY

**Chair:** Harold Kincaid

**Faculty:** Arnold, Benditt, Kelley, Pence, Price, Ross, Stephens, Whall

The Department of Philosophy offers the Bachelor of Arts degree with a major in philosophy, as well as a minor in philosophy and course offerings for non-majors and non-minors. These include occasional graduate courses for students in other fields. The department also sponsors two interdisciplinary minors, one in Science Studies (see page 56 of this catalog), the other in Philosophy and Law described below.

The program for majors is built around two aims. First, the major offers study of the methods, problems, and history of philosophy. Second, it exposes the student to applications of and current developments within the discipline.

The study of philosophy in a spirit of free inquiry enables the student to develop and exercise powers of intellectual discrimination, creative imagination, logical organization, and evaluative judgment. Graduates of the department have pursued careers in teaching, law, medicine, counseling, and business.

Further information about the department and its programs may be obtained by securing a copy of "Philosophy at UAB: A Guide for Students," by calling the department office at (205) 934-4805, or by visiting the department's Web site: [www.uab.edu/philosophy].

### MAJOR

There are three different ways in which to major in philosophy at UAB: three tracks towards the bachelor's degree. These include the general track, the individually designed track, and the honors track.

When a student first declares a major in philosophy, he or she is classified in the general track. Students remain in this track unless they request entry into the individually designed track or are successfully admitted upon request into the honors track. These requests are made of the department chair.

The general track consists of any 10 philosophy courses (30 semester hours), at least seven of which (21 semester hours) must be at the 200 level or above. The general track appeals to students

with broad philosophic interests as well as students desiring a second major or in need of class schedule flexibility.

The individually designed track is designed in consultation with a faculty advisor. Concentrations are available in applied ethics, bioethics, cognitive science, history of ideas, law and society, religion, and science and the modern world. Like the general track, it consists of 10 philosophy courses (30 semester hours), at least seven of which (21 semester hours) must be at the 200 level or above. The individually designed track may appeal to students with specific thematic interests.

The honors track is also known as the philosophy honors program. Students graduating in the honors track graduate "With Honors in Philosophy."

No course in which a grade below C has been earned may be counted towards the major. For transfer students at least three courses must be taken at UAB. Students in the honors track must complete the honors thesis at UAB.

## MINOR

Requirements: The requirements for a minor in philosophy are six courses (18 semester hours) with at least a C in each of them; at least three of the courses must be at the 200 level or above and must be taken at UAB.

## HONORS IN PHILOSOPHY

### PURPOSE

The Philosophy Honors Program is designed for qualified, self-motivated students. It is suited for those contemplating graduate work in philosophy or in professional fields in which an honors degree is desired. Through special distribution and credit hour requirements and a directed honors thesis, honors students are prepared for in-depth philosophical research and related graduate and professional opportunity.

### ELIGIBILITY

Entrance is restricted to students already enrolled at UAB. Criteria are:

- at least sophomore standing;
- at least nine semester hours in UAB philosophy courses;
- at least a 3.30 GPA in UAB philosophy course work; and
- application to the department chair or recommendation by a faculty member of the department.

### REQUIREMENTS

After receipt of a formal letter of admission from the department chair, students must have:

- 36 semester hours in philosophy with no grade below C counted toward the major;
- an honors thesis under supervision of a faculty member (requires enrollment in PHL 590, Directed Readings); and
- completion of the distribution requirement as follows:

### ETHICS AND VALUE THEORY (6 HOURS)

Courses that can be used to satisfy this requirement: PHL 115, 116, 125, 215, 230, 335, and 315.

### HISTORY OF PHILOSOPHY (6 HOURS)

Courses that can be used to satisfy this requirement: PHL 205, 215, 239, 240, 341, 342, 343, and 348.

### EPISTEMOLOGY/METAPHYSICS/PHILOSOPHY OF MIND/LOGIC/PHL OF LANGUAGE/PHL OF SCIENCE (9 HOURS)

Courses that can be used to satisfy this requirement: PHL 220, 270, 305, 308, 320, 350, 372, 375, and 470.

### SEMINAR (3 HOURS)

Courses that can be used to satisfy this requirement: PHL 490, 491, and 492.

### PHILOSOPHY ELECTIVES (9 HOURS)

Any philosophy courses can be used to satisfy this requirement.

### HONORS THESIS (3 HOURS)

Course that must be used to satisfy this requirement: PHL 590. To register contact the department.

### BENEFITS

Participation in the Philosophy Honors Program provides an enriched undergraduate major and in-depth study opportunity. Through completion of an honors thesis, the student will interact with faculty in research. Philosophy honors students are also invited to join the social and intellectual communities of other disciplinary and university honors students. Finally, students who complete the philosophy honors program will graduate "With Honors in Philosophy."

### CONTACT

For more information and/or admission to the Philosophy Honors Program, contact Chair, Department of Philosophy, 414A Humanities Building, Birmingham, AL 35294-1260. Telephone (205) 934-4805.

## PHILOSOPHY AND LAW INTERDISCIPLINARY MINOR

Director: Theodore Benditt (Philosophy)

The Philosophy and Law minor provides interested students with a secondary specialization focusing upon the philosophical underpinnings of the political and legal systems of the United States and the modes of thought found in the legal system. Since legal argument frequently uses ideas found in moral thought, exposure to the theory or history of ethics is critical.

The program may be of interest to students contemplating a career in law and related careers, though it is not intended as a pre-law or legal studies program.

Course requirements include 18 semester hours (six courses), among which are the following: PHL 135; PHL 230/PSC 252; PHL 125 or 315; PHL 335; as well as certain courses in the Department of Government and Public Service. For further information contact Dr. Theodore Benditt, 407E Humanities Building, (205) 934-4083.

## DEPARTMENTAL ACTIVITIES

Activities or resources available to philosophy students and others include the following:

Center for Values and Ethics in the Sciences. The Center is designed to enrich the understanding of normative issues in the sciences. It sponsors an annual conference, maintains a Web site, and assists in university teaching.

Guest lectures by distinguished philosophers from throughout the United States.

### Course Descriptions

#### Philosophy (PHL)

**100. Introduction to Philosophy**—Introductory survey of philosophy, its nature, methods, and problems. Topics typically include, among others, God, freedom, knowledge, right, and wrong. Classical and/or contemporary readings. 3 hours.

**115. Contemporary Moral Issues**—Today's moral problems and dilemmas; elementary methods and concepts of moral philosophy. Problems typically include, among others, abortion, euthanasia, capital punishment, and respect for animals and nature. 3 hours.

**116. Bioethics**—Moral problems and dilemmas in medicine and health affairs; elementary methods and concepts of moral philosophy. Problems typically include, among others, AIDS and human and animal experimentation. 3 hours.

**120. Practical Reasoning**—Nature of reason and inference, informal reasoning skills, and assessment of arguments. 3 hours.

**125. Introduction to Ethics**—Elements of moral philosophy. Moral objectivity; connections among morality, rationality, and religion; nature and significance of moral value. 3 hours.

**135. The Rule of Law**—Law and legal institutions and processes, with emphasis on civil law. Development of legal ideas in such areas as torts, contracts, and labor law. Role and history of legal institutions within political framework. Relations between courts and legislatures. 3 hours.

**203. Philosophy of Religion**—Religion; its nature, warrant, and significance. God, evil, religious experience, faith, and reason. 3 hours.

**204. Philosophy and Christianity**—What Christians believe and why they believe it; foundations of Christian philosophical thought. Christian concepts of God, Christ, salvation, atonement, faith, and ethics. 3 hours.

**205. Existentialism**—What existentialists believe and why they believe it; foundations of existentialist philosophical thought. Existentialist concepts of freedom, commitment, anxiety, and authenticity. 3 hours.

**208. Philosophy of the Arts**—Art; its nature, scope, and significance. Concepts of expression, beauty, artistic creation, and standards of art criticism. 3 hours.

**215. History of Moral Philosophy**—Socrates to present, focusing on historical development of moral tradition that has shaped Western society. Plato, Aristotle, Aquinas, Hobbes, Hume, Kant, Mill, Nietzsche, and others. 3 hours.

**220. Introduction to Symbolic Logic**—(Also MA 120.) Formal reasoning and formal reasoning skills. Deductive inference and

validity; truth-function theory and elementary concepts of quantification theory. 3 hours.

**230. Social and Political Philosophy**—(Also PSC 252.) Basic principles of political life; their nature, warrant, and scope. Political authority; proper role of government, economic justice, freedom, rights, and free enterprise system. 3 hours.

**232. Classical Political Thought**—(Also PSC 361.) Development of Western political thought from Plato to Augustine. Theories of major political thinkers. 3 hours.

**233. Modern Political Theory**—(Also PSC 362.) Development of Western political thought from early modern era to contemporary debates in works of Machiavelli to Mill. Theories of major political thinkers. 3 hours.

**239. Classical Thought of India, China, and the West**—Conceptions of self, society, and natural world. 3 hours.

**240. History of Philosophy: Socrates, Plato, and Aristotle**—Origins and development of Western philosophic tradition, with emphasis on writings of Plato and Aristotle. Concepts of knowledge, reality, and the good life. 3 hours.

**270. The Scientific Enterprise**—Science; its nature, scope, and significance. Scientific reasoning; science as social institution; ethical issues in science. 3 hours.

**290-291-292. Topics in Philosophy**—In-depth examination of one or more problems, authors, or ideas of historical or current interest. 3 hours each.

**305. Epistemology**—Human knowledge; its nature, sources, and limits. Concepts of truth, objectivity, evidence, and belief. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**308. Metaphysics**—Reality; its basic elements, principles of existence and identity, and appearance and reality. Concepts of cause, matter, mind, realism, and anti-realism. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**314. Philosophy and Feminism**—Feminism; conceptual foundations, scope, and applications. Problems typically include, among others, feminist concepts of gender, reasoning, knowledge, and ethics. 3 hours.

**315. Ethics: Theories of Good and Evil**—Morality; its nature, principles, and scope. Normative and critical problems in moral philosophy; moral obligation. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**320. Intermediate Symbolic Logic**—(Also MA 224 and continuation of PHL 220.) Quantification theory; identity and definite description; soundness and completeness; skill in formal proof and ability to express arguments from natural language into artificial language. *Prerequisite:* PHL 220/MA 120 or permission of instructor. 3 hours.

**335. Philosophy of Law**—Nature and function of law. Justification of punishment, legal responsibility, judicial review, regulation of pornography, and Constitutional interpretation. 3 hours.

**341. History of Philosophy: Descartes to Hume**—Philosophy in modern era, focusing on continental rationalism and British empiricism; emphasis on theories of knowledge and reality; science, religion, and modernism. 3 hours.

**342. History of Philosophy: Kant and the Nineteenth Century**—Western philosophic tradition from Kant through end

of nineteenth century. Kant, Hegel, Marx, Kierkegaard, and Mill, among others. 3 hours.

**343. History of Philosophy: Twentieth Century**—Major movements and problems of twentieth century philosophy. Moore, Russell, Wittgenstein, and Quine, among others. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**348. American Philosophy**—Major philosophers of classical American period; Pierce, James, and Dewey. Origins and nature of American pragmatism. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**350. Philosophy of Language**—Language; its nature, structure, and uses. Reference, meaning, communication, and interpretation; Russell, Wittgenstein, Chomsky, and Quine, among others. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**372. Minds and Machines**—(Also CS 372). Artificial intelligence; its philosophical foundations and implications. Topics may include mind-body problem, nature of intelligence, machine models of mind, computational processes, and mental representation. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**375. Philosophy of Mind**—(Also PY 375.) Mind; its nature, forms, and functions. Concepts of mind/body, consciousness, rationality, and personal identity; free will. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**470. Philosophical Problems in the Natural and Social Sciences**—Nature and uses of science. Concepts of explanation, confirmation, scientific law, and theory; special problems in sciences. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**490-491-492. Philosophy Seminar**—In-depth examination of one or more problems, authors, or ideas of current or historical interest. *Prerequisite:* Two previous PHL courses or permission of instructor. 3 hours each.

**499. Directed Studies**—Special arrangement opportunity for in-depth study. *Prerequisite:* Permission of instructor. 1 to 3 hours.

## DEPARTMENT OF THEATRE

**Chair:** Marc Powers

**Faculty:** Allison, Baker, Cannon, Coker, Haarbauer, Hall, Hubbard, McLernon, Pollard, Schnormeier, Shackelford, Simon, York, Zuckerman

The Department of Theatre holds the philosophy that classroom study and practical experience are of equal and complementary value. Production opportunities are available in performance and design/tech at the Morris K. Sirote Theatre and the Odess Theatre in the Alys Robinson Stephens Performing Arts Center, including the Showcase series and film and video projects. In addition to departmental requirements, see School of Arts and Humanities requirements on page 53.

The Department of Theatre offers a major and minor in theatre with three areas of emphasis in the major: general theatre, pre-professional performance, and pre-professional design/technology. Theatre/speech is an approved area of concentration for the N-12 certificate in the School of Education.

Theatre majors are expected to maintain grades, to be active in department productions, and to be professional both in attitude and actions while representing the department. Failure to do so will lead to loss of stipend and/or scholarship support and loss of further opportunities in the program.

Theatre faculty conduct individual advisement to assist students in progressing toward their academic and professional goals. For more information, call (205) 934-3236.

## SCHOLARSHIPS, STIPENDS, AND OTHER FINANCIAL AID

In addition to university financial aid packages, specific stipends and scholarships are available through the Department of Theatre to qualified students. Students holding stipends and scholarships must remain active in department activities and must complete their core requirements in a timely fashion. For further information concerning departmental financial aid, call (205) 934-3236.

## THEATRE MAJOR

Theatre majors choose from three concentrations, depending on their primary area of interest. All three concentrations share a common core. The general concentration provides a student with a well-rounded education in all areas of theatre. The pre-professional performance concentration focuses on actor training, with an emphasis on movement and vocal training. The pre-professional design/technology concentration focuses on developing design and technology skills in the areas of scenery, costume, and lighting. The department also offers an honors program for qualified students. All three tracks share a common 40 hour theatre core.

### THEATRE CORE (REQUIRED OF ALL MAJORS)

	<i>Sem. Hrs.</i>
THR 124 Theatre Technology: Scenery and Lighting .....	<b>3</b>
THR 125 Theatre Technology: Costumes and Makeup .....	<b>3</b>
THR 154 Beginning Acting .....	<b>3</b>
THR 202 Beginning Voice .....	<b>3</b>
THR 210 Introduction to Design .....	<b>3</b>
THR 217 Beginning Movement .....	<b>3</b>
THR 235 Play Analysis .....	<b>3</b>
THR 236 Dramatic Literature .....	<b>3</b>
Choose one from: .....	<b>3</b>
THR 323 Lighting Design	
THR 326 Scene Design	
THR 327 Costume Design	
THR 365 Directing I .....	<b>3</b>
THR 451 Theatre History to 1800 .....	<b>3</b>
THR 452 Theatre History, 1800 to Present .....	<b>3</b>
THR 204 and/or 404 Theatre Practicum.....	<b>4</b>
(3 technical, 1 performance)	
<hr/> Total semester hours.....	<b>40</b>

## GENERAL THEATRE CONCENTRATION

In addition to the theatre core, students in general theatre must take six semester hours of theatre electives, for a total of 46 hours.

These hours may be chosen from the courses offered in the pre-professional concentrations or from general theatre electives.

## PRE-PROFESSIONAL PERFORMANCE CONCENTRATION (REQUIREMENTS ABOVE THEATRE CORE)

	<i>Sem. Hrs.</i>
THR 203 Intermediate Voice .....	3
THR 219 Intermediate Movement .....	3
THR 254 Intermediate Acting .....	3
THR 355 Advanced Acting.....	3
THR 454 Acting: Period Styles .....	3
3 hours chosen from: .....	3
THR 302 Singing for the Actor	
THR 303 Dialects	
3 hours chosen from: .....	3
THR 106, THR 107, THR 108, THR 109 (1 credit hour each)	
or	
THR 318 Modern Stage Combat	
<hr/>	
Total semester hours for performance concentration (including theatre core) .....	<b>61</b>

## PRE-PROFESSIONAL DESIGN AND TECHNOLOGY CONCENTRATION (REQUIREMENTS ABOVE THEATRE CORE)

	<i>Sem. Hrs.</i>
THR 226 Drawing and Rendering for the Theatre .....	3
THR 424 Advanced Design .....	3
Complete the remaining 6 hours from.....	6
THR 323 Lighting Design	
THR 326 Scene Design	
THR 327 Costume Design	
3 hours chosen from: .....	3
THR 340 Period Style for the Theatre	
THR 350 Costume History	
6 hours chosen from: .....	6
THR 221 Scenographic Techniques	
THR 224 Scene Painting	
THR 227 Costume Construction and Tailoring	
THR 325 Costume Patterning and Draping	
THR 341 Advanced Technical Production	
THR 342 Makeup, Masks and Wigs	
THR 462 Special Workshop in Theatre	
THR 496 Honors Project	
THR 499 Individual Studies	
<hr/>	
Total semester hours for design/technology concentration (including theatre core) .....	61

## MINOR IN THEATRE

	<i>Sem. Hrs.</i>
THR 154 Beginning Acting .....	3
THR 202 Beginning Voice .....	3
THR 210 Introduction to Design .....	3
THR 235 Play Analysis .....	3
THR 236 Dramatic Literature .....	3

3 hours chosen from: .....	<b>3</b>
THR 124 Theatre Technology: Scenery and Lighting	
THR 125 Theatre Technology: Costumes and	
Makeup	
3 hours chosen from: .....	<b>3</b>
THR 368 American Drama in the Twentieth Century	
THR 451 Theatre History to 1800	
THR 452 Theatre History: 1800 to Present	
3 hours elective credit in theatre.....	<b>3</b>
Total semester hours .....	<b>24</b>

## HONORS PROGRAM IN THEATRE

### PURPOSE

The Theatre Honors Program is designed for outstanding students majoring in theatre. Through mentored work on an individually developed creative project or research topic, students will develop skills in preparation for graduate school or a professional career.

### ELIGIBILITY

Acceptance into the Theatre Honors Program requires the student to:

- Be a theatre major;
- Have earned a 3.5 GPA in theatre courses attempted;
- Have earned a 3.0 GPA overall;
- Have completed THR 124, 125, 154, 210, 235, and 236;
- Have completed 60 hours toward the BA degree; and
- Have completed at least two UAB theatre production practicums.

### REQUIREMENTS

- Completion of required courses for the theatre major;
- Arrangement with a faculty mentor for a creative or research project;
- Submission of a formal project proposal;
- Registration for 3 credit hours of THR 496—Honors Project;
- Public presentation of the honors project; and
- Acceptance of the completed project by the theatre faculty.

### BENEFITS

In addition to the educational benefits of working on a mentored, individually designed project, honors majors will graduate "With Honors in Theatre."

### CONTACT

For more information and/or admission to the Theatre Honors Program, please contact: Marc Powers, Chair, Department of Theatre, Bell 101, (205) 934-3236, [mpowers@uab.edu].

## Course Descriptions Theatre (THR)

**100. Introduction to the Theatre**—Understanding the theatre experience through class lectures, reading and writing assignments, demonstrations, discussions, and viewing live evening performances. 3 hours.

- 105. Introduction to Dance**—Understanding the dance experience through class lectures, demonstrations, discussions, and viewing performances. 3 hours.
- 106. Jazz I**—Basic movement and combinations based on modern jazz, Broadway/theatrical styles, and popular jazz forms. 1 hour.
- 107. Tap I**—Basic rhythmic studies and combinations based on Broadway/theatrical tap styles. 1 hour.
- 108. Ballet I**—Basic movement and combinations based on principles and techniques of classical ballet. 1 hour.
- 109. Modern I**—Basic movement and combinations based on principles and techniques of modern dance. 1 hour.
- 112. Actor's Studio**—Participation as performer or stage manager in planning, rehearsal, and performance of an Actor's Studio production under faculty supervision. *Prerequisite:* Permission of instructor through audition. May be repeated for a total of 4 hours. 1 hour.
- 124. Theatre Technology: Scenery and Lighting**—Scenic construction techniques and execution of stage lighting via lectures, demonstrations, and practical application. Emphasis in tools, materials, and procedure. 40 lab hours outside of scheduled classes required. 3 hours.
- 125. Theatre Technology: Costumes and Makeup**—Fundamentals of costume construction, finishing, and manipulation. Basic stage makeup techniques. Lectures, demonstrations, and practical experience. 40 lab hours outside of scheduled classes required. 3 hours.
- 154. Beginning Acting**—Introduction to the basic principles of acting. Exercises in talking and listening, actions and objectives, subtext and internal monologue. 3 hours.
- 200. Plays on Film**—Understanding major genres of drama through lecture, analysis, reading scripts, and viewing performances. 3 hours.
- 202. Beginning Voice**—Entry level course in speech and tonal production exploring the techniques of the Lessac system for training the voice. 3 hours.
- 203. Intermediate Voice**—Second course in a sequence of voice training for the actor based on the Lessac system of vocal training. Concentration in applying Lessac techniques in contemporary scene study. *Prerequisite:* THR 202. 3 hours.
- 204. Theatre Practicum**—Practical directed experience in scenery, costumes, lighting, audio, stage management, or performance in conjunction with actual production. THR 204 and 404 may be repeated for a combined total of eight hours. 1 to 2 hours.
- 206. Jazz II**—Further exploration of jazz idiom, musicality, and technique, with emphasis on theatrical and choreographic styles. *Prerequisite:* THR 106 or permission of instructor. 1 hour.
- 207. Tap II**—Further exploration of tap genre, with emphasis on musicality and technique. *Prerequisite:* THR 107 or permission of instructor. 1 hour.
- 208. Ballet II**—Intermediate study of movement and combinations based on principles and techniques of ballet. *Prerequisite:* THR 108 or permission of instructor. 1 hour.
- 209. Modern II**—Intermediate study of movement and combinations based on principles and techniques of modern dance. *Prerequisite:* THR 109 or permission of instructor. 1 hour.
- 210. Introduction to Theatrical Design**—Study and application of elements of design in theatre setting. Roles of scenic, lighting, and costume designers and their collaborative relationship with director. 3 hours.
- 215. Beginning Playwriting**—Study and practicum in playwriting with emphasis on creating works for production and/or publication. *Prerequisites:* THR 235 or 236 or 9 hours in EH. 3 hours.
- 216. Beginning Screenwriting**—(Also MC 216.) Study and practicum in writing scripts for TV and film, with emphasis on creating works for production and/or sale. *Prerequisites:* EH 101 and 102. 3 hours.
- 217. Beginning Movement**—Basic movement techniques for performance. 3 hours.
- 219. Intermediate Movement**—Continued study in movement techniques and systems for the performer. *Prerequisite:* THR 217. 3 hours.
- 221. Scenographic Techniques**—Practical work to develop proficiency in drafting technical drawings for the stage, including ground plans, elevations, detail, and isometric drawings. *Prerequisite:* THR 124. 3 hours.
- 224. Scene Painting**—Historic and contemporary methods of painting scenery for the stage. Includes practical application of techniques in the scenic studio. *Prerequisites:* THR 210 or permission of instructor. 3 hours.
- 226. Drawing and Rendering for the Theatre**—Emphasis on rendering styles and drawing skills used in developing costume, scenic, and lighting designs. Studies in color theory, basic perspective, illustrating light source, and figure drawing. Work in a variety of media and styles. *Prerequisites:* THR 210 or permission of instructor. 3 hours.
- 227. Costume Construction and Tailoring**—Specialty construction techniques for theatre such as corsetry, period garment construction, and basic tailoring techniques. *Prerequisite:* THR 125. 3 hours.
- 230. Stage Management**—The role and responsibilities of the stage manager for live theatrical events. Emphasis on managerial theory and practice. *Prerequisites:* THR, 124, 125, 154. 3 hours.
- 235. Play Analysis**—Dramatic structure for live performance. *Prerequisites:* EH 101 and 102. 3 hours.
- 236. Dramatic Literature**—Play structure from the Greeks to the present with consideration of how plays reflect elements of the societies of their times. *Prerequisite:* THR 235 or 9 hours of EH. 3 hours.
- 254. Intermediate Acting**—Second course in a series. Exploring the techniques of sense memory, transfer of emotion, internal characterization, and scoring. Concentration on monologues and two-person scenes from contemporary plays. *Prerequisite:* THR 154. 3 hours.
- 270. Development of the American Musical Theatre**—Evolution of musical theatre from *The Black Crook* (1866) to *Rent* (1996). Major developments of themes, music conventions, and artists and influence on American art form. 3 hours.
- 298. Introduction to Technology in the Arts**—(Also ARS 298, MC 298, MU 298.) Applications of computer-based technology to the arts: music, theatre, video, and visual arts. Demonstrations of multimedia capabilities. *Prerequisite:* 6 hours in one cross-listed discipline. 3 hours.

**300. Exploring the African American Creative Experience**—Contributions of African Americans to theatre and dance. Creative process and application of creative process through live performance. *Prerequisite:* THR 100 or 200 or 235 or 236. 3 hours.

**302. Singing for the Actor**—An introduction to the fundamentals of music with emphasis on techniques for the actor/singer. Students will prepare various songs for theatrical auditions. *Prerequisite:* THR 203. 3 hours.

**303. Dialects**—Development and implementation of American and foreign dialects for the stage through the use of the International Phonetic Alphabet. *Prerequisite:* THR 203. 3 hours.

**315. Advanced Playwriting**—Intensive study and practicum in playwriting with emphasis on creating complex full-length works for production and/or publication. *Prerequisite:* THR 215 or permission of instructor. 3 hours.

**316. Advanced Screenwriting**—(Also MC 316) Advanced study and practicum in writing feature-length screenplays, with emphasis on creating works for production, sale, and/or publication. *Prerequisite:* THR 216 or permission of instructor. 3 hours.

**318. Modern Stage Combat**—The study of occidental unarmed fighting techniques and firearms used for the stage and screen. *Prerequisite:* THR 219. 3 hours.

**319. Period Stage Combat**—The study of hand-to-hand fighting techniques for stage and screen, using rapier, dagger, and broadsword. *Prerequisite:* THR 318. 3 hours.

**323. Lighting Design**—Interpreting visual needs of scripts into lighting and color designs and translating designs to paper. *Prerequisites:* THR 124, 210. 3 hours.

**325. Costume Patterning and Draping**—Theory and practice in developing costume patterns through two and three-dimensional methods. Emphasis on developing period garment shapes. *Prerequisite:* THR 125. 3 hours.

**326. Scenic Design**—Exploration of the theory and practice of scene design for live performance. *Prerequisites:* THR 124, 210. 3 hours.

**327. Costume Design**—Exploration of the theory and practice of costume design for live performance. Basic principles of design, characterization, and rendering technique. *Prerequisites:* THR 125, 210. 3 hours.

**340. Period Style for the Theatre**—Systematic study of architecture, furniture, and decorative arts of different historical eras, emphasizing frequently produced periods. Influences which create historical style. 3 hours.

**341. Advanced Technical Production**—Advanced scenic construction techniques and procedures. Emphasis on tools, materials, and procedures. 40 lab hours outside of scheduled classes required. *Prerequisite:* THR 124. 3 hours.

**342. Makeup, Masks, and Wigs**—Principles and construction techniques used in creating advanced projects in makeup design. Basic wigmaking and ventilating techniques. *Prerequisite:* THR 125. 3 hours.

**350. Costume History**—History of clothing from prehistoric times to present day; societal, cultural, and economic influences. Emphasis on frequently produced periods. *Prerequisite:* EH 102. 3 hours.

**355. Advanced Acting**—Third in a series. Exploration of acting techniques necessary to work in the style of Beginning Modern Realism. *Prerequisite:* THR 254. 3 hours.

**360. Internship**—Experience in non-academic theatre under supervision of professional staff. Interns may work in single area of specialty or in rotation throughout host theatre operation and may contract for single term or academic year. *Prerequisites:* Permission of department chair and concurrence of host theatre. May be repeated for total of 9 hours. 3 hours.

**365. Directing I**—Basic principles of staging, picturization, composition, focus, and movement. Text analysis, directorial scoring, and actor/director dynamics. *Prerequisites:* THR 154, 210, 235, and 236. 3 hours.

**368. American Drama in the Twentieth Century**—(Also EH 368.) Major developments and themes emphasizing modern and contemporary playwrights. Reading of selected plays. *Prerequisite:* 9 hours in EH. 3 hours.

**377. Acting for the Camera**—Techniques used in commercials and films. *Prerequisite:* THR 154. 3 hours.

**401. Theatre as Ritual**—A study of universal use of the theatrical elements of masks, costume, mimicry, and storytelling in religious rituals and celebrations. *Prerequisite:* THR 100, 200, or 451. 3 hours.

**404. Theatre Practicum**—Advanced practical experience in scenery, costumes, lighting, audio, stage management, or performance in conjunction with a realized production. *Prerequisite:* Permission of instructor. THR 204 and 404 may be repeated for a combined total of eight hours. 1 to 2 hours.

**424. Advanced Design**—Emphasis on advanced projects in costume, scenery, or lighting design. *Prerequisite:* THR 321 or 322 or 323 (300 level of area chosen for advanced study). 3 hours.

**451. Theatre History to 1800**—Important theatres, personalities, and theories of drama. Includes Asian theatre. *Prerequisite:* THR 236. 3 hours.

**452. Theatre History, 1800 to Present**—*Prerequisite:* THR 236. 3 hours.

**454. Acting Period Styles**—Actor training exploring specific problems of language, movement, manners, and speech found in Elizabethan, Jacobean, French Neo-classical, and Restoration drama. *Prerequisite:* THR 355. 3 hours.

**462. Special Workshop**—Specialized subjects taught as opportunity allows. May be repeated for credit. 1 to 3 hours.

**465. Directing II**—Preparing performances. Director/actor communication in rehearsal, rehearsal motifs, rehearsal organization, and finishing production. Actual direction of one-act play for laboratory performance. *Prerequisite:* THR 365. 3 hours.

**490. Seminar in Production Concepts**—Creation and detailed proposals for implementation of production concepts for selected playscripts based on analysis of script and target audience. *Prerequisites:* THR 210, 235, and 365. 3 hours.

**496. Honors Project**—*Prerequisites:* Admission into the departmental honors program and permission of the department chair. 3 hours.

**499. Individual Studies**—*Prerequisite:* Permission of department chair. 1 to 3 hours.



**UAB's School of Business** is accredited at the baccalaureate and master's level by AACSB International and holds separate AACSB International accreditation of the undergraduate and master's programs in accounting. Professional education in business administration is offered through the Departments of Accounting and Information Systems; Finance, Economics, and Quantitative Methods; Management, Marketing, and Industrial Distribution; as well as the Graduate School of Management. In designing the school's programs, the faculty recognizes the importance of meeting the many and diverse educational needs of the urban environment in which the school functions. Additionally, faculty members are involved in activities that (1) advance knowledge in business and assist city, state, and regional constituencies through theoretical and applied research; and (2) maintain a continuing relationship with the community through participation in professional societies, consulting, conferences, non-credit courses, and other service roles.

At the undergraduate level, the school offers programs of study leading to the Bachelor of Science degree with majors in accounting, economics, finance, industrial distribution, information systems, management, and marketing. Tracks in the economics major, the finance major and the management major are also offered. Each program combines a broad exposure to the arts and sciences with comprehensive preparation in all areas of business.

At the graduate level, the Graduate School of Management offers programs of study leading to the Master of Business Administration and Master of Accounting degrees. Programs resulting in a dual degree are offered in cooperation with the School of Public Health (MPH/MBA), the School of Health Related Professions (MSHA/MBA) and the School of Nursing (MSN/MBA). The Ph.D. degree in administration/health services is offered in cooperation with the School of Health Related Professions.

## MISSION STATEMENT

Our mission is to deliver undergraduate and graduate business programs of superior quality and relevance through excellent instruction, scholarly contributions and service to our students and other constituencies.

UAB, located in the largest business community in the state, has a School of Business committed to the development and delivery of innovative and collaborative programs with business firms, schools within UAB, and other organizations.

## VISION STATEMENT

We see a future where the faculty and staff of the UAB School of Business work together to create and govern relevant, high quality, and innovative programs that serve our community.

We see a future where the UAB School of Business is widely recognized as one of the best and most innovative schools of business in the region.

We see a future where regional businesses and other organizations seek out the UAB School of Business for partnerships in meeting their educational, consulting, and service needs.

We see a future where employers look to our students first for qualified employees. We see a future where, when people of the region think of the University of Alabama at Birmingham, they think of business as well as health care.

## VALUES STATEMENT

*We value:*

- Quality teaching, scholarship, and professional and public service by faculty, staff, and students;
- Relevance and innovation in curriculum, instructional methods, scholarship, and professional and public service;
- Intellectual growth, professional and ethical development of our students;
- A collegial environment of academic freedom and faculty governance;
- Partnerships with our internal and external constituencies;
- Diversity in our students, faculty, staff, and community;
- High standards of professional and ethical conduct;
- A climate that fosters continuous improvement.

## ADMISSION REQUIREMENTS

### BEGINNING FRESHMEN

Beginning freshmen, admitted with conditional or unconditional status, may enroll in the School of Business. See pages 21-22 for the definition of each status.

### TRANSFERS FROM OTHER INSTITUTIONS

Admission to the School of Business is restricted to those students who are admitted to UAB as degree-seeking students.

Students must have a minimum 2.0 grade point average, as well as a minimum 2.0 grade point average in all business courses attempted.

## TRANSFERS WITHIN UAB

Degree-seeking students changing their major from schools within UAB will be admitted to the School of Business provided they have a minimum 2.0 overall grade point average and a minimum 2.0 UAB grade point average, as well as a 2.0 grade point average in all business courses attempted. All pre-business requirements must be met before upper-level business courses may be taken.

## STUDENTS READMITTED TO UAB

Degree-seeking students readmitted to UAB may be admitted to the School of Business if they have an overall average of at least C in all courses attempted and in courses attempted at UAB.

## NON-DEGREE SEEKING STUDENTS

Admission of non-degree seeking students (see page 23) to the School of Business is restricted to only those students who already have a four-year degree from a regionally accredited college or university. The following policies apply:

1. Post-baccalaureate students not seeking a UAB business degree will be classified as “undeclared” majors after their initial meeting with an advisor. They may enroll in any undergraduate business course for which they have completed the specified course prerequisites. Completion of pre-business requirements is not required. Students having less than a C average in prerequisite courses or those who took the prerequisites many years earlier are advised to repeat the prerequisites.
2. Post-baccalaureate students seeking a UAB undergraduate business degree will be classified under the appropriate major after their initial meeting with an advisor. Once the decision to seek a business degree is made, post-baccalaureate students are expected to meet all catalog requirements in effect at the time of their admission or readmission to UAB.
3. Students are responsible for providing transcripts to their advisors for verification of prerequisites.

## TRANSIENT STUDENTS

Transient students who wish to attend UAB for one or two terms and attempt 300- to 400-level business courses must petition in the undergraduate advisors’ office (Room 203, BEC) and must:

4. Provide a letter of good standing from their home institution;
5. Provide evidence that the courses to be taken at UAB will be accepted at their home institution; and
6. Meet the UAB prerequisites for the courses to be taken. Unofficial transcripts should be brought to the undergraduate advisors’ office in the School of Business at the time a petition is made.

## PRE-BUSINESS CLASSIFICATION

All undergraduate students entering the School of Business are admitted with a pre-business classification. Degree-seeking students (defined on page 21) remain in this classification until they have met all of the following:

1. Successful completion of all pre-business courses, including a course in public speaking. Freshman/sophomore-level course requirements are listed on page 97 under “Curriculum Outline.”
2. Achievement of specified grade point requirements (must meet all three):
  - a. a minimum 2.0 higher education grade point average,
  - b. a minimum 2.0 UAB grade point average,
  - c. a minimum 2.0 grade point average in all attempts of the following pre-business courses:
    - Principles of Accounting (AC 200-201 or equivalent),
    - Principles of Economics (EC 210-211 or equivalent),
    - Legal Environment of Business (LS 246 or equivalent),
    - Applied Information Technology (IS 103 or equivalent),
    - Quantitative Analysis (QM 214-215 or equivalent).
3. A minimum grade of C in each of the eight lower-level business courses listed in 2.c. above. Once a grade of C or better has been earned in one of the eight courses, subsequent repeats of the course will not be counted toward the minimum 2.0 grade point average requirement specified in 2.c above.

Students listed in the pre-business classification may not register for any upper-level business courses (those numbered 300 or higher). Any request for deviations from the requirements above must be petitioned through the undergraduate advisors’ office in the School of Business.

To have the pre-business classification changed, students must apply through the undergraduate advisors’ office in the School of Business. The registrar’s office cannot make this change.

## ACADEMIC REQUIREMENTS

The following general requirements and policies apply to all students majoring in the School of Business.

1. Students newly admitted to upper-level business courses must earn at least a 2.0 grade point average in the first 12 semester hours of upper-level business courses attempted at UAB. Students failing to meet this requirement will be subject to dismissal from the School of Business.
2. Students may not enroll more than three times in any upper-level business course. Enrollment is determined by a grade other than W on a student’s transcript.
3. A business course (upper or lower level) in which a grade has been earned at UAB cannot be repeated at another institution (including cooperative institutions).

4. Courses regularly offered at UAB may not be taken for credit at another institution (including cooperative institutions) while a student is simultaneously enrolled at UAB without prior written permission of the appropriate department chair and the Director of Undergraduate Programs. Failure to receive such permission may result in the non-applicability of courses completed elsewhere.
5. A total of 60 semester hours of courses outside the School of Business are required. This total will include nine hours of economics, six hours of statistics, and three hours of public speaking.
6. In cases where one year or more has elapsed or when another school has been attended since the last enrollment at UAB has interrupted enrollment, students are expected to meet catalog requirements effective at the time they re-enter UAB.

## GPA GRADUATION REQUIREMENT

The School of Business grade point average (GPA) graduation requirement is in addition to the general UAB requirements on page 45. Students must earn at least a 2.0 GPA in both of the following:

1. all business courses attempted for the degree, and
2. all courses required for the departmental major (see specific major for any deviation).

For purposes of this computation, a course is counted each time the student is registered and receives a grade (A, B, C, D, F). The course repeat policy on page 39 applies to the computation of the higher education GPA but not to the computations of the GPA in business courses and in major courses shown above.

## RESIDENCY REQUIREMENT

Of the 21 to 24 semester hours of upper-level major courses required for a departmental major, at least 15 semester hours must be completed at UAB. In addition, 50 percent (27 to 30 semester hours) of business hours required must be taken at UAB. These hours exclude nine hours of economics and six hours of statistics.

## CURRICULUM OUTLINE

The School of Business reserves the right to modify curricula and specific courses of instruction, to alter requirements for graduation, and to change the majors to be awarded at any time the school may determine. Such changes may be applicable to either prospective or currently enrolled students.

The curriculum outline that follows is formatted to show how freshman and sophomore requirements of the School of Business concur with the Core Curriculum requirements (pages 49-51). Students, in cooperation with their advisor, should sequence the first two-year requirements in a manner to ensure that the courses will be substantially completed before beginning the junior year. School of Business advisors are available in Room 203 of the Business-Engineering Complex or by telephone (205) 934-8813 or via email at [undergrad@business.uab.edu].

## FRESHMAN AND SOPHOMORE YEARS

### CORE CURRICULUM REQUIREMENTS (SEE PAGES 49-51)

*Sem. Hrs.*

#### Area I. Written Composition

EH 101, 102 ..... **6**

#### Area II. Humanities and Fine Arts

Two-course sequence in literature ..... **6**

CM 101 ..... **3**

One fine arts course from approved list in ARH, MU, THR ..... **3**

#### Area III. Natural Sciences and Mathematics

Two natural science courses with laboratories from approved list in AST, BY, CH, ENV, ES, PH<sup>1</sup> ..... **8**

MA 109 ..... **3**

#### Area IV. History, Social, and Behavioral Sciences

EC 210, 211 ..... **6**

One course from PY 101, SOC 100, ANTH 101 ..... **3**

One course from HY 101, 102, 120, 121 ..... **3**

Total ..... **41**

### LOWER-LEVEL BUSINESS REQUIREMENTS

*Sem. Hrs.*

AC 200 Principles of Accounting I ..... **3**

AC 201 Principles of Accounting II ..... **3**

LS 246 Legal Environment of Business ..... **3**

IS 103 Applied Information Technology ..... **3**

QM 214 Quantitative Analysis I ..... **3**

QM 215 Quantitative Analysis II ..... **3**

Total semester hours ..... **18**

Total for freshman and sophomore requirements ..... **59**

## JUNIOR AND SENIOR YEARS

*Sem. Hrs.*

FN 310 Fundamentals of Financial Management ..... **3**

MG 302 Management Processes and Behavior ..... **3**

IS 303 Information Systems ..... **3**

MG 403 Operations Management<sup>2</sup> ..... **3**

MK 303 Basic Marketing ..... **3**

One 400-level International Business (IB) course<sup>3</sup> ..... **3**

One 300- or 400-level EC course approved by major department<sup>4</sup> ..... **3**

Major courses<sup>5</sup> ..... **21-27**

MG 450 Strategic Management ..... **3**

Electives<sup>6</sup> ..... **10-16**

Total semester hours required for degree ..... **120**

(1) Industrial Distribution (ID) majors select two natural sciences from CH 105/106, CH 107/108, PH 201/211, PH 202/212, and PHS 101. In addition, ID majors must take ME 102 and EGR 100 as electives.

(2) Accounting majors take QM 400, Survey of Management Science. Finance majors take AC 320, Financial Reporting Survey.

(3) All majors must complete one international business course from IB 407, IB 412, IB 415, or IB 416. Finance majors choose from IB 407, IB 415, or IB 416.

(4) Finance majors take EC 304, Microeconomics, or EC 310, Managerial Economics.

(5) See requirements listed under individual departments.

(6) Must be approved by advisor. Hours vary by major. Ten (10) hours must be in courses outside the School of Business.

## TWO-YEAR COLLEGE TRANSFERS

Students considering transferring to UAB from a two-year college should consult their two-year college advisor about specific courses that are transferable to UAB and the School of Business. UAB's pre-business requirements include those defined in the Alabama General Studies Articulation program for a major in business, plus a required course in public speaking and business calculus. The public speaking requirement may be taken as part of Area II and the business calculus course may be taken as part of Area III. Students planning to major in industrial distribution should see the footnoted exceptions to the Core Curriculum requirements in regard to elective hours.

In cases where enrollment has been interrupted by one year or more, transfer and former students are expected to meet catalog requirements in effect at the time of their re-entry.

Only 60 semester hours of two-year college coursework can be applied toward a degree.

## BUSINESS MINORS

The School of Business offers minors in accounting, business administration, economic analysis and policy, finance, information systems, management, marketing, and quantitative methods. These minors are available for students in all schools. The School of Social and Behavioral Sciences houses the expanded economics minor.

The following requirements apply to minors:

1. Students must meet the same grade point requirements in required pre-business classes as majors before registering for upper-level business courses. (See "Pre-Business Classification," page 96.) Once a grade of C or better has been earned in one of the lower-level pre-business courses required for the minor, subsequent repeats of that course will not be counted toward the minimum 2.0 grade point average required for admission to upper-level business courses.
2. Students must have the following:
  - A minimum overall average of C in all business courses attempted (including minor courses transferred),
  - A minimum overall average of C in UAB business courses required for the minor, and
  - At least 12 semester hours of the minor courses taken in the UAB School of Business (the accounting minor has additional requirements).
3. All 200-level courses listed must be completed prior to enrollment in the 300- and 400-level courses listed.
4. Students who wish to take upper-level business courses other than those specified below must meet all prerequisites for those courses and have permission of the School of Business Undergraduate Advisors' Office (Room 203, Business and Engineering Complex).
5. School of Business majors may also earn a School of Business minor, with the exception of the minor in business administration. The minor must include at least nine semester hours beyond the requirements of the student's selected business major. The undergraduate advisors can assist School of Business majors in tailoring a School of Business minor.

## MINOR IN ACCOUNTING

A minor in accounting consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
AC 200 Principles of Accounting I .....	3
AC 201 Principles of Accounting II .....	3
AC 300 Financial Accounting I .....	3
AC 304 Accounting Information Systems .....	3
AC 310 Financial Accounting II .....	3
AC 401 Cost Accounting .....	3

*Note that students minoring in accounting must have a grade of C in all 300 and above accounting courses.*

## MINOR IN BUSINESS ADMINISTRATION

A minor in business administration consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
AC 200 Principles of Accounting I .....	3
EC 210 Principles of Microeconomics .....	3
LS 246 FN 310 Fundamentals of Financial Management.....	3
MG 302 Management Processes and Behavior .....	3
MK 303 Basic Marketing .....	3

## MINOR IN ECONOMIC ANALYSIS AND POLICY

A minor in economic analysis and policy consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
EC 210 Principles of Microeconomics .....	3
EC 211 Principles of Macroeconomics.....	3
QM 214 Quantitative Analysis I.....	3
EC 304 Microeconomics.....	3
EC 305 Macroeconomics .....	3
One 300-level or above economics course.....	3

*Note that the prerequisite for QM 214 is MA 109.*

## MINOR IN ECONOMICS-QUANTITATIVE METHODS

A minor in economics-quantitative methods consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
EC 210 Principles of Microeconomics .....	3
EC 211 Principles of Macroeconomics.....	3
QM 214 Quantitative Analysis I.....	3
QM 215 Quantitative Analysis II .....	3

Two courses from the following:

QM 400, QM 410, QM 420, QM 425, or QM 442 .....6

*Note that the prerequisite for QM 214 is MA 109.*

## MINOR IN FINANCE

A minor in finance consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
AC 200 Principles of Accounting I .....	3
EC 210 Principles of Microeconomics .....	3
FN 310 Fundamentals of Financial Management .....	3
Three 300-level or above finance courses .....	9

## MINOR IN INFORMATION SYSTEMS

The minor in information systems consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
IS 204 Introduction to Business Programming.....	3
IS 301 Introduction to Database Management .....	3
IS 302 Telecommunication Management.....	3
IS 303 Information Systems .....	3
IS 321 Systems Analysis .....	3
IS 422 Advanced Systems Analysis and Design .....	3

## MINOR IN MANAGEMENT

A minor in management consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
AC 200 Principles of Accounting I.....	3
EC 210 Principles of Microeconomics .....	3
LS 246 Legal Environment of Business .....	3
MG 302 Management Processes and Behavior .....	3
MG 403 Operations Management .....	3
MG 409 Human Resources Management .....	3

## MINOR IN MARKETING

A minor in marketing consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
AC 200 Principles of Accounting I.....	3
EC 210 Principles of Microeconomics .....	3
LS 246 Legal Environment of Business .....	3
MK 303 Basic Marketing .....	3
Two 300-level or above marketing courses .....	6

## MINOR IN INTERNATIONAL BUSINESS

The international business minor is available only to School of Business majors. It supplements the student's major with an appreciation of the global economy and issues unique to doing business on a worldwide basis. The minor includes a required foreign language component. The international business minor consists of the following 18 semester hours:

	<i>Sem. Hrs.</i>
IB 407 International Economics .....	3
IB 412 International Financial Management .....	3
IB 415 International Business Dynamics .....	3
IB 416 International Marketing.....	3
Two courses in a foreign language (preferably with a conversational emphasis) .....	6

## Course Descriptions

### International Business (IB)

**407. International Economics**—(Also EC 407) Theoretical principles underlying international trade; application to recent historical developments and current national policies. *Prerequisite:* One 300- to 400-level economics course. 3 hours.

**412. International Financial Management**—(Also FN 412) Financial analysis and decision making in international context. All traditional areas of corporate finance explored. *Prerequisite:* FN 310. 3 hours.

**415. International Business Dynamics**—(Also MG 415) Business and managerial problems of international business activity. Emphasis on relating current international information to problems and opportunities for business firms. *Prerequisite:* MG 302. 3 hours.

**416. International Marketing**—(Also MK 416) International marketing activities such as environmental issues, marketing strategy, and tactical considerations in entering foreign markets. *Prerequisite:* MK 303. 3 hours.

## DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

**Chair:** Frank M. Messina

**Faculty:** Adkins, Broom, Burg, C. Edmonds, T. Edmonds, Folami, McAlister, McCormack, McKissock, O. Powers, Rivera, Singh, Singleton, D. Tanju, M. Tanju, Tsay, Turpen, Watkins

The department is responsible for activities in accounting, information systems, and legal studies.

## MISSION STATEMENT

## UNIFORM CPA EXAM

The State of Alabama requires that applicants for the Uniform CPA Exam hold a baccalaureate degree from an accredited institution and possess a total of 150 semester hours of post-secondary education, including at least 33 semester hours of accounting at the upper-division or graduate level.

There are two ways that UAB students can meet these requirements:

1. By obtaining a Master of Accounting degree. The Department of Accounting offers a master's program that is fully accredited by AACSB International. Under the state's 150-hour law, holders of graduate degrees from accredited accounting programs automatically qualify to sit for the Uniform CPA Exam. Students interested in this option should refer to the UAB Graduate School Catalog for admission policies.
2. By obtaining an undergraduate accounting degree (or its equivalent) and completing certain additional coursework as specified under the state's 150-hour law. Students interested in this option should contact the undergraduate counseling office in the School of Business for specific guidance. Students interested in this option who hold degrees

from other institutions should contact an undergraduate business advisor as well as apply to the university as an undergraduate seeking a second degree.

## OTHER PROFESSIONAL ACCOUNTING CERTIFICATIONS

Other examinations leading to professional certification (CMA, CIA, etc.) generally do not require academic coursework beyond the baccalaureate degree. Students interested in other accounting certifications should contact an undergraduate business advisor or any member of the accounting faculty for further information.

## ACCOUNTING MAJOR

The objective of the major in accounting is to provide basic conceptual accounting and business knowledge as a foundation for beginning professional careers as accountants in the fields of public accounting, private or industrial accounting, and governmental accounting, or for pursuing study at the graduate level. In the senior year, students may specialize to a limited extent by taking one or more advanced courses in a particular field.

### COURSES REQUIRED FOR A MAJOR IN ACCOUNTING

*Sem. Hrs.*

AC 300 Financial Accounting I .....	3
AC 304 Accounting Information Systems .....	3
AC 310 Financial Accounting II .....	3
AC 401 Cost Accounting .....	3
AC 402 Income Taxation I .....	3
AC 413 Internal Auditing .....	3
AC Electives numbered 400 or higher .....	6
Total semester hours .....	<b>24</b>

In addition, students are required to take QM 400, Survey of Management Science, instead of MG 403.

Students must have a minimum grade of C in all accounting courses numbered 300 or above. The grade of C is a prerequisite for all accounting courses numbered above 300. In addition, students must have a minimum overall average of C in all major courses attempted.

## INFORMATION SYSTEMS MAJOR

The information systems (IS) major is designed to provide students with the foundational knowledge and managerial skills to pursue a career in an information systems user department or as a professional responsible for the analysis and design and/or the implementation of a complex information system.

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## Course Descriptions

### Accounting (AC)

## Legal Studies (LS)

### LOWER LEVEL

### UPPER LEVEL

## DEPARTMENT OF FINANCE, ECONOMICS, AND QUANTITATIVE METHODS

**Chair:** Lance A. Nail

**Faculty:** Bos, Cowan, Culver, DasGupta, Fetherston, Ignatin, Jang, Lee, Stanford, Sutton, Van Matre, Walker

The Department of Finance, Economics and Quantitative Methods is responsible for activities in finance, economics, and quantitative methods.

### FINANCE MAJOR

The finance curriculum is designed to provide an understanding of financial operating and investment problems in both financial and non-financial businesses. Careers are available in areas such as government, securities businesses, banking, insurance, real estate, savings, and other financial intermediaries, and in the financial management of non-financial businesses.

Finance majors should select one of the following tracks.

#### FINANCIAL MANAGEMENT

Students who expect to own and/or operate small businesses or who wish to seek employment in the financial sections of large corporations should select this track. Topics studied include financial analysis and forecasting, capital budgeting, working capital management, valuation theory, and more.

#### COURSES REQUIRED FOR A MAJOR IN FINANCE (FINANCIAL MANAGEMENT TRACK)

	<i>Sem. Hrs.</i>
FN 311 Short-Term Financial Management.....	3
FN 350 Investments .....	3

FN 410 Advanced Financial Management.....	3
FN 411 Case Studies in Financial Management .....	3
FN 412 International Financial Management .....	3
FN 453 Financial Risk Management .....	3
AC 401 Cost Accounting .....	3
One other School of Business course numbered 300 or above with prior consent of a finance advisor .....	3
<b>Total semester hours .....</b>	<b>24</b>

### INVESTMENTS AND INSTITUTIONS

Students who wish to prepare for careers in financial institutions, such as banks, savings and loans, and credit unions, or careers in the securities industry, such as stockbroker or securities analyst, should choose this track. Topics include commercial bank management, borrowing and lending, trust services, securities markets, and portfolio management.

#### COURSES REQUIRED FOR A MAJOR IN FINANCE (INVESTMENTS AND INSTITUTIONS TRACK)

	<i>Sem. Hrs.</i>
FN 350 Investments .....	3
FN 351 Fixed Income Analysis .....	3
FN 410 Advanced Financial Management.....	3
FN 412 International Financial Management .....	3
FN 452 Management of Financial Intermediaries .....	3
FN 453 Financial Risk Management .....	3
EC 420 Applied Forecasting.....	3
One other School of Business course numbered 300 or above with prior consent of a finance advisor .....	3
<b>Total semester hours .....</b>	<b>24</b>

In addition, students take AC 320, Financial Accounting Survey, instead of MG 403. EC 304, Microeconomics, or EC 310, Managerial Economics, should be taken as the 300- or 400-level economics course required in the upper-level business curriculum.

### ECONOMICS MAJOR

The major in economics is designed to provide students with a solid grounding in economic analysis and quantitative decision making. These skills allow students to follow many career paths in business and government. Also, this major provides excellent training for students planning to pursue graduate work in economics, law, or business.

Economics majors should select one of the following tracks.

#### ECONOMIC ANALYSIS AND POLICY

This track is for students who desire an understanding of the functions of the economy at the micro and macro levels. The analytical skills acquired provide excellent preparation for graduate work or for a variety of careers in industry and government.

#### COURSES REQUIRED FOR A MAJOR IN ECONOMICS (ECONOMIC ANALYSIS AND POLICY TRACK)

	<i>Sem. Hrs.</i>
EC 304 Microeconomics.....	3
EC 305 Macroeconomics .....	3

Six other economics courses numbered 300 or above .....	18
Total semester hours .....	<b>24</b>

Courses used in the major may not be used to fulfill the upper level Economics requirement.

## QUANTITATIVE METHODS

The quantitative methods track trains students to use a variety of quantitative techniques to solve real-world problems related to business, economics, and the sciences. This training prepares students for a number of careers in a rapidly growing profession. The track also conveys the skills essential to succeed in virtually any graduate research program.

### COURSES REQUIRED FOR A MAJOR IN ECONOMICS (QUANTITATIVE METHODS TRACK)

	<i>Sem. Hrs.</i>
QM 400 Survey of Management Science .....	3
One of the following: QM 410 or QM 416 .....	3
QM 420 Applied Forecasting .....	3
QM 425 Applied Regression Analysis .....	3
Three courses from the following:	
QM 430, QM 442, QM 490, EC 409,	
MK 308, SOC 370, QM 416 or QM 410	
(the one not taken), AC 401, EC 310, or	
other courses with permission of a QM advisor .....	9
Total semester hours .....	<b>21</b>

Any economics course taken in the QM track may not be used to fulfill the upper level Economics requirement.

### Course Descriptions

#### Finance (FN)

##### LOWER LEVEL

**101. Personal Finance**—Selected aspects of finance encountered by an individual during his or her lifetime. Lower-level elective credit only. 3 hours.

##### UPPER LEVEL

**310. Fundamentals of Financial Management**—Basic principles of financial management emphasizing time value of money, stock and bond valuation, and capital budgeting; risk/return analysis, cost of capital, capital structure, and cash flow analysis included. *Prerequisites:* Completion of all pre-business requirements. 3 hours.

**311. Short-Term Financial Management**—Multidisciplinary approach to analysis of financial statements and working capital management. Financial planning, corporate liquidity, and short-term financial policy issues. *Prerequisite:* FN 310. 3 hours.

**340. Principles of Insurance**—Insurance from purchaser's point of view. Risk-insuring devices and insurance industry. *Prerequisite:* FN 310. 3 hours.

**350. Investments**—Investment theory with emphasis on risk-return tradeoff; equity investment instruments and environment, sources and interpretation of investment information, portfolio theory, market indices, options and futures, and international investing. *Prerequisite:* FN 310. 3 hours.

**351. Fixed Income Analysis**—Fixed income markets and instru-

ments, including valuation and portfolio strategies. Derivatives of fixed income securities. *Prerequisite:* FN 310. 3 hours.

**410. Advanced Financial Management**—Analysis of long-term corporate financial management; detailed stock and bond valuation, cost of capital, capital budgeting, cash-flow analysis, capital structure, and dividend policy. *Prerequisite:* FN 310. 3 hours.

**411. Case Studies in Financial Management**—Case method approach to study of applied and special topics in financial management; spreadsheet applications used in analysis of initial public offerings, imbedded options, leases, mergers, bankruptcy, and pension plan management. *Prerequisite:* FN 410. 3 hours.

**412. International Financial Management**—(Also IB 412) Financial analysis and decision making in international context. All traditional areas of corporate finance explored. *Prerequisite:* FN 310. 3 hours.

**452. Management of Financial Intermediaries**—Roles, activities, and functions of financial institutions and their interrelationships. *Prerequisites:* FN 351, FN 410 and FN 412. 3 hours.

**453. Financial Risk Management**—Domestic and international risk management issues. Tools to measure and manage interest rate; exchange rate and commodity price risks. *Prerequisites:* FN 350, FN 410 and FN 412. 3 hours.

**460. Finance Internship**—A work experience to enable students to better integrate academic knowledge with practical applications and to enhance students' educational experiences by making subsequent study more meaningful. *Prerequisites:* FN 310, 3.0 Finance GPA, and permission of the instructor. 3 hours.

**490. Advanced Topics in Finance**—Issues and problems in selected areas of finance. *Prerequisite:* Depends on topic; to be announced. 3 hours.

**499. Directed Readings in Finance**—Supervised study of specific areas of finance. *Prerequisite:* Permission of department chair or designated representative. 1 to 3 hours.

#### Economics (EC)

##### LOWER LEVEL

**110. Economics and Society**—Economic principles and development of economic analysis. Combines key elements of EC 201 and 202. Primarily intended for majors in School of Education seeking to meet certification requirements; also open to students outside School of Business who wish to survey economics in one course. Not open to entering freshmen; not open to majors in School of Business or economics majors in School of Social and Behavioral Sciences. 3 hours.

**210. Principles of Microeconomics**—Theory of production and value, including problems of monopoly, oligopoly, and distribution of income. Not open to entering freshmen. (CORE AREA IV). 3 hours.

**211. Principles of Macroeconomics**—Economic analysis and its use in dealing with business and governmental problems. National income, price-level, employment, governmental fiscal policies, and international economics. Not open to entering freshmen. (CORE AREA IV). 3 hours.

##### UPPER LEVEL

**301. Money and Banking**—Money supply, banking system, and other financial institutions; how money affects aggregate economic

activity. *Prerequisite:* EC 210, EC 211 and QM 214. 3 hours.

**303. Labor Economics**—Economic analysis in dealing with major aspects of such problems as employment, wages, hours, unionism, labor-management relations, and social security. Influence of psychological and institutional factors. *Prerequisite:* EC 210, EC 211 and QM 214. 3 hours.

**304. Microeconomics**—Advanced economic principles underlying value and distribution with additional training in application of these principles to problems of analysis. *Prerequisite:* EC 210, EC 211 and QM 214. 3 hours.

**305. Macroeconomics**—Forces determining level of income and employment in economic systems, with special reference to United States. Causes and cures of unemployment. Role of government in maintaining high level of employment. *Prerequisite:* EC 210, EC 211 and QM 214. 3 hours.

**308. Economics of Environment**—Use of economic analysis to examine interaction between economic institutions and physical environment. Specific topics: social costs and benefits of economic growth, interactions between private business and public welfare, and socioeconomic systems and goals. *Prerequisite:* EC 210, EC 211 and QM 214. 3 hours.

**310. Managerial Economics**—Economic theory and application in managerial decision making process. Demand analysis, forecasting, pricing strategy, cost analysis, and capital budgeting. *Prerequisite:* EC 210, EC 211, and QM 215. 3 hours.

**401. Mathematical Approach in Economics and Business**—Mathematical approach in economics and business. *Prerequisite:* EC 304. 3 hours.

**403. Monetary Economics**—Current theories of monetary policy and management, historical development of theory and practice, contemporary policies employed by monetary authorities, institutions concerned, evaluation of policies and reform, and interrelations between monetary factors and economic processes. *Prerequisites:* EC 304 and EC 301 or 305. 3 hours.

**404. Topics in Public Policy**—Topics in Public Policy. *Prerequisite:* EC 304. 3 hours.

**405. Economic Development and Growth**—Problems of economic development; growth of less developed economies compared with those of advanced economies. Theories of economic development. Policy measures to promote development of growth, with emphasis on measures to accelerate development of countries. *Prerequisite:* EC 304. 3 hours.

**407. International Economics**—(Also IB 407) Theoretical principles underlying international trade with application of these principles to recent historical developments and to current national policies. *Prerequisite:* One 300- to 400-level EC course. 3 hours.

**408. Topics in the History of Economic Theory**—Development of basic concepts in economic theory from late eighteenth century through first half of twentieth century. Emphasis on establishing synthesis of evolving ideas basic to currently accepted economic theory. *Prerequisites:* EC 210 and 211. 1 to 6 hours.

**409. Survey of Econometrics**—Econometric methods emphasizing mathematical formulation and statistical testing of economic theories. Problems and corrective procedures in single-equation regression estimation, such as multicollinearity, autocorrelation, heteroscedasticity, and lagged variables. Identification, estimation,

and applications of simultaneous-equation models. *Prerequisite:* EC 301 or EC 305. 3 hours.

**411. Public Finance**—Principles of taxation, government expenditures, borrowing, and fiscal administration. *Prerequisite:* EC 304. 3 hours.

**413. Urban Economics**—(Also UA 413) Economic issues and structure of metropolitan areas. Economic growth and decay of urban regions. Specific topics: housing, education, employment, political economy, and public policy. *Prerequisite:* EC 210, EC 211 and QM 214. 3 hours.

**414. Industrial Organization**—Structure and performance of monopolistic and oligopolistic industries, emphasizing efficiency, pricing policies, and investment decisions. Extent and nature of concentration in economy as whole. *Prerequisite:* EC 304 and EC 305. 3 hours.

**420. Applied Forecasting**—(Also QM 420) Practical use of various forecasting techniques on business and economic data. Topics include dynamic regression models, exponential smoothing, moving averages, seasonality, and univariate Box Jenkins ARIMA modeling. *Prerequisite:* EC 210, EC 211, QM 214 and QM 215. 3 hours.

**425. Applied Regression Analysis**—(Also QM 425) Simple, multilinear, and polynomial regression analysis. Model selection, inferential procedures, and application with computer. *Prerequisite:* EC 210, EC 211, QM 214 and QM 215. 3 hours.

**440. Economics for Educators**—(Also EC 540) Students will gain an understanding of both basic economic principles and entrepreneurship and learn innovative methods of transferring economic knowledge to elementary and secondary students. Students will also become well-versed in the National and Alabama State standards of learning. *Prerequisites:* Only open to education majors and certified teachers in K-12. This class is not open to economics or business majors. 3 hours.

**490. Advanced Topics in Economics**—Selected topics in economics. *Prerequisite:* Depends on topic; to be announced. 3 hours.

**499. Directed Readings in Economics**—Investigation of specific areas in economics. *Prerequisite:* Permission of department chair or designated representative prior to registration. 1 to 3 hours.

## Quantitative Methods (QM)

### LOWER LEVEL

**214. Quantitative Analysis I**—Basic statistical concepts applied to business problems. Descriptive statistics, index numbers, probability, estimation, and statistical inference. Binomial, normal, Poisson, and t distributions introduced. *Prerequisites:* IS 103 and MA 109. 3 hours.

**215. Quantitative Analysis II**—Continuation of QM 214. Chi-square distribution, f distribution, analysis of variance, simple linear regression, and correlation. *Prerequisite:* QM 214. 3 hours.

### UPPER LEVEL

**400. Survey of Management Science**—Application of mathematical and statistical techniques to management problems. Network planning techniques, linear programming, inventory systems, queuing theory, simulation, and decision analysis. *Prerequisite:* EC 210, EC 211, QM 214 and QM 215. 3 hours.

**410. Nonparametric Statistics**—Nonparametric methods applied to business decisions. Nonparametric tests for medians using one and two samples; tests for randomness and independence. Contingency tables and goodness of fit tests. All applications in area of behavioral sciences, particularly marketing and management. *Prerequisite:* EC 210, EC 211, QM 214 and QM 215. 3 hours.

**416. Sampling Techniques**—Sampling procedures and application to estimation problems in business. Simple random, stratified, and cluster sampling reviewed and applied to simple and ratio estimators. *Prerequisite:* EC 210, EC 211, QM 214 and QM 215. 3 hours.

**420. Applied Forecasting**—(Also EC 420) Practical use of various forecasting techniques on business and economic data. Topics include dynamic regression models, exponential smoothing, moving averages, seasonality, and univariate Box Jenkins ARIMA modeling. *Prerequisite:* EC 210, EC 211, QM 214 and QM 215. 3 hours.

**425. Applied Regression Analysis**—(Also EC 425) Simple, multilinear, and polynomial regression analysis. Model selection, inferential procedures, and application with computer. *Prerequisite:* EC 210, EC 211, QM 214 and QM 215. 3 hours.

**430. Quantitative Decision Support Models**—Building, use, and interpretation of decision models based on quantitative techniques without detailed consideration of underlying mathematical processes involved. Computer software packages utilized for exposure to computer-based procedures in business. *Prerequisite:* QM 400. 3 hours.

**442. Statistics for Quality and Productivity**—(Also MG 442) Application of statistics to improve quality and productivity throughout organization. Process analysis and improvement via numerical and graphical procedures; construction and interpretation of various control charts. Tolerances, specifications, process capability studies, and elements of total quality program as espoused by Deming and Ishikawa. *Prerequisite:* MG 403 or permission of instructor. 3 hours.

**490. Advanced Topics in Statistics/Management Science**—Statistics/management science application to problems in business and economics. 3 hours.

**499. Directed Readings in Quantitative Methods**—Permission of department chair or designated representative prior to registration. 1 to 3 hours.

## DEPARTMENT OF MANAGEMENT, MARKETING AND INDUSTRIAL DISTRIBUTION

**Chair:** Robert Robicheaux

**Faculty:** Ayers, Cox Edmondson, Duncan, Ginter, Jack, Kennedy, Key, Martin, Munchus, Musa, T. Powers, J. Smith, Underwood, Wech

### MANAGEMENT MAJOR

The management major is designed to provide students with the ability to be effective decision makers in an organizational setting. The objective of the major is to enable students to acquire the knowledge and skills necessary for gaining entry into a management career and for sustaining successful performance throughout that career.

The management major should select one of the following tracks.

#### GENERAL MANAGEMENT

The general management track is designed for students who wish to develop a broad exposure to the management discipline rather than pursue any one specific emphasis. Topics include human resources, quality, planning and control, and entrepreneurship.

#### COURSES REQUIRED FOR A MAJOR IN MANAGEMENT (GENERAL TRACK)

	<i>Sem. Hrs.</i>
MG 358 Business and Society .....	3
MG 401 Organizational Analysis.....	3
MG 409 Human Resources Management.....	3
3 hours chosen from .....	3
MG 410 Labor-Management Relations	
MG 412 Employee Selection and Development	
MG 413 Employment Law	
3 hours chosen from .....	3
MG 417 Project Management	
MG 418 Quality Management	
MG/QM 442 Statistics for Quality and Production	
6 hours chosen from .....	6
MG/MK 440 Small Business Consulting and Research	
MG 421 Entrepreneurship	
MK 412 Retail Management	
One 400-level or higher management course approved by management department .....	3
<b>Total semester hours .....</b>	<b>24</b>

#### HUMAN RESOURCE MANAGEMENT

The human resource management (HRM) track is designed for students who wish to pursue a career in human resources, to develop a knowledge of employee relations for continuing career development, or to gain skills in this increasingly important area of the overall management task.

#### COURSES REQUIRED FOR A MAJOR IN MANAGEMENT (HUMAN RESOURCE TRACK)

	<i>Sem. Hrs.</i>
MG 358 Business and Society .....	3
MG 401 Organizational Behavior .....	3
MG 409 Human Resources Management.....	3
MG 410 Labor-Management Relations .....	3
MG 411 Compensation Administration .....	3
MG 412 Employee Selection and Development.....	3
MG 413 Employment Law .....	3
One 400-level or higher management course approved by management department.....	<b>3</b>
<b>Total semester hours .....</b>	<b>24</b>

#### OPERATIONS MANAGEMENT

This track is designed for students seeking greater knowledge in operations management and the production processes used in both manufacturing and non-manufacturing systems. It combines managerial skills with operations management applications to prepare students wishing to pursue a career in this rapidly developing field.

**COURSES REQUIRED FOR A MAJOR IN MANAGEMENT (OPERATIONS TRACK)**

	<i>Sem. Hrs.</i>
MG 358 Business and Society .....	3
MG 401 Organizational Behavior .....	3
MG 409 Human Resources Management .....	3
MG 416 Supply Chain Management .....	3
MG 417 Project Management .....	3
MG 418 Quality Management or	
MG/QM 442 Statistics for Quality and Production .....	3
MK 320 Industrial Distribution Management.....	3
MK 430 Industrial Distribution Operations or	
MK 419 Services Marketing.....	3
<b>Total semester hours .....</b>	<b>24</b>

**MARKETING MAJOR**

The objective of the major in marketing is to prepare students for a wide range of marketing jobs in both business and not-for-profit organizations. The areas covered include retailing, consumer selling, industrial selling, marketing management, marketing research, promotion, and advertising. The major is an excellent foundation for graduate work in marketing or for the M.B.A. degree. The student may concentrate in an area of marketing through elective courses offered by the marketing department.

**COURSES REQUIRED FOR A MAJOR IN MARKETING**

	<i>Sem. Hrs.</i>
MK 308 Marketing Research .....	3
MK 314 Consumer Behavior.....	3
MK 330 Professional Selling Techniques.....	3
MK 410 Integrated Marketing Communication or	
MK 420 Sales Management .....	3
MK 450 Marketing Strategy <sup>1</sup> .....	3
Two courses from the following:.....	6
MK 320, MK 410 (if not already taken), MK 412, MK 413,	
MK 416, MK 418, MK 419, MK 420 (if not already taken),	
MK 440, MK 445, MK 490	
<b>Total semester hours .....</b>	<b>21</b>

**INDUSTRIAL DISTRIBUTION MAJOR**

A business-engineering program, this major focuses on the total industrial distribution (ID) business. Technical and engineering education, along with a solid foundation in the arts and sciences, complement the broad business core. Majors complete six engineering courses specifically tailored for ID students and four ID management courses, as well as an internship/practicum with a host distributor or manufacturing firm.

Industrial distribution graduates are prepared for entry-level positions leading to careers with distributors in technical and industrial sales, sales management, materials and warehouse management, operations, purchasing, inventory management, and branch management. Careers with manufacturers include sales and

- (1) To attempt MK 450, students must meet one of the following conditions:  
 1. Completion of MK 303 plus five additional MK courses; or 2.  
 Completion of MK 303 and four of the five MK courses, with the fifth taken as a corequisite with MK 450.

marketing, procurement, and account representative positions.

**COURSES REQUIRED FOR A MAJOR IN INDUSTRIAL DISTRIBUTION ENGINEERING COURSES**

	<i>Sem. Hrs.</i>
EGR 100 Introduction to Engineering .....	2
ME 101 Drawing for Industrial Distribution .....	1
ME 301 Design, Measurement, and Enhancement	
of Work Systems: A Survey.....	2
EE 305 Fundamentals of Electrical Engineering .....	2
ME 302 Overview of Mechanical Engineering.....	3
MSE 350 Engineering Materials I .....	3
<b>Total semester hours .....</b>	<b>13</b>

**MARKETING COURSES**

	<i>Sem. Hrs.</i>
MK 308 Marketing Research .....	3
MK 320 Industrial Distribution Management.....	3
MK 330 Professional Selling Techniques.....	3
MK 413 Business-to-Business Marketing .....	3
MK 430 Industrial Distribution Operations .....	3
MK 435 Industrial Distribution Problems and Policies .....	2
MK 495 Industrial Distribution Directed Studies/Practicum .....	2
<b>Total semester hours .....</b>	<b>19</b>

*Sem. Hrs.*  
 Electives hours with the consent of ID advisor .....

**INDUSTRIAL DISTRIBUTION ELECTIVES**

The industrial distribution program permits students to choose the following area of emphasis through the selection of approved electives:

**INDUSTRIAL DISTRIBUTION/MARKETING/SALES:\***

	<i>Sem. Hrs.</i>
MK 314 Consumer Behavior.....	3
MK 410 Integrated Marketing Communication .....	3
MK 450 Marketing Strategy.....	3
<b>Total semester hours .....</b>	<b>9</b>

\*Completion of this sequence constitutes a double major in Industrial Distribution and Marketing.

**INDUSTRIAL DISTRIBUTION (E-COMMERCE ENGINEERING CONCENTRATION)**

An Industrial Distribution E-Commerce Engineering Concentration can be selected which will enhance the level of engineering training for industrial distribution majors. A unique combination of engineering and business, this curriculum is designed to provide students with greater skills in electronic commerce and information areas for distribution. The concentration is composed of courses from the business core, as well as the engineering core, along with selected courses that range from technical software to information handling to industrial distribution management.

Note: For core curriculum/pre-business courses (60 semester hours), EE 130 Engineering Computations must be completed rather than IS 103.

**JUNIOR/SENIOR BUSINESS COURSES:**

	<i>Sem. Hrs.</i>
FN 310 Fundamentals of Financial Management .....	3
MG 302 Management Processes & Behavior .....	3
MK 303 Basic Marketing .....	3
<b>Total Semester Hours .....</b>	<b>9</b>

**INDUSTRIAL DISTRIBUTION CORE:**

	<i>Sem. Hrs.</i>
MK 308 Marketing Research .....	3
MK 320 Industrial Distribution Management.....	3
MK 330 Professional Selling Techniques.....	3
MK 413 Business to Business Marketing .....	3
MK 430 Industrial Distribution Operations .....	3
MK 435 Industrial Distribution Problems & Policies.....	2
MK 495 Industrial Distribution Directed Studies/Practicum .....	2
<b>Total Semester Hours .....</b>	<b>19</b>

**ENGINEERING CORE:**

	<i>Sem. Hrs.</i>
ME 301 Design, Measurement, and Enhancement of Work Systems: A Survey.....	2
ME 302 Overview of Mechanical Engineering .....	3
MSE 350 Engineering Materials I .....	3
<b>Total Semester Hours .....</b>	<b>8</b>

**ADDITIONAL ENGINEERING:**

	<i>Sem. Hrs.</i>
ME 250 Introduction to Thermodynamic Science.....	2
CE 212 Statics and Dynamics.....	3
EE 210 Digital Logic.....	3
CE/ME 395 Engineering Economics.....	3
EE 233 Engineering Programming Methods.....	3
EE 332 Principles of Computer Networking.....	3
EE 447 Internet/Intranet Application Development .....	3
EE 485 Engineering Operations.....	3
EGR 499 Senior Design Project.....	2
<b>Total Semester Hours .....</b>	<b>25</b>

**Course Descriptions****Management (MG)****UPPER LEVEL**

**302. Management Processes and Behavior**—Planning and decision making; organization of process and design concepts; leadership and communication within organizations; motivation, job attitudes, and performance evaluation; process of control. *Prerequisite:* AC 200, EC 210 or EC 211, LS 246 and junior level standing. 3 hours.

**358. Business and Society**—Economic and social consequences of contemporary issues such as public policy, management of legal/political process, standard-setting for ethical behavior, and environmental changes in 1990s. Emergence of global competition and effects on social and economic interests of multinational corporations. *Prerequisite:* MG 302. 3 hours.

**401. Organizational Behavior**—Theories of human motivation with applications; intra- and intergroup processes and leadership theories with applications; organizational environment and classi-

cal design theory; planned change with applications; organizational development and culture. *Prerequisite:* MG 302. 3 hours.

**403. Operations Management**—Operations management as related to manufacturing and non-manufacturing enterprises. Forecasting, inventory theory, scheduling, production control, facility layout, job design, and supporting functions. *Prerequisite:* MG 302. 3 hours.

**409. Human Resources Management**—Managerial problems associated with acquisition, development, motivation, and compensation of human resources. Personnel problems such as employment, employee education and training, labor relations, industrial health and safety, and wage and salary administration; personnel research cases reviewed. *Prerequisite:* MG 302. 3 hours.

**410. Labor-Management Relations**—Managerial issues and opportunities associated with development of industrial and labor relations policy. Impact of public policy, significance of pressure groups, negotiation and administration of collective bargaining agreements, and review of NLRB/arbitration cases. *Prerequisite:* MG 409. 3 hours.

**411. Compensation Administration**—Problems of compensation administration in public and private organizations, with emphasis on determination of range, salary levels, and structures. Job analysis, worker-trait-requirement analysis, job evaluation, incentive pay systems, employee benefits development, and wage and salary control. *Prerequisite:* MG 409. 3 hours.

**412. Employee Selection and Development**—Employee selection, placement, and development functions within organizations. Recruitment, selection techniques, and state and federal laws and regulations affecting selection, performance appraisal, and development of manpower within organization. *Prerequisite:* MG 409. 3 hours.

**413. Employment Law**—Impact of legislation, regulations, and court decisions on management of human resources in public and private organizations. Equal employment opportunity, health and safety, pension reform legislation, employment insurance, and social security. *Prerequisite:* MG 409. 3 hours.

**415. International Business Dynamics**—(Also IB 415.) Business and managerial problems of international business activity. Emphasis on relating current international information to problems and opportunities for business firms. *Prerequisite:* MG 302. 3 hours.

**416. Supply Chain Management**—Overview of measurement and improvement of output per unit of resources used. *Prerequisite:* MG 403. 3 hours.

**417. Project Management**—Information requirements and activities involved in coordinating production operations. Logistics system dynamics and information requirements, capacity planning, master scheduling, purchasing, and material requirements planning. *Prerequisite:* MG 403. 3 hours.

**418. Quality Management**—Concepts, techniques, and organizational requirements to ensure that quality is provided to consumer. Breadth of quality efforts, statistical quality control methods, quality circle principles, and quality assurance activities in various enterprises. *Prerequisite:* MG 403. 3 hours.

**421. Entrepreneurship**—Analytical and critical examination of functions and environments where new organizational development takes place. Role of entrepreneurship in creation and development of new economic entities. *Prerequisite:* MG 401. 3 hours.

**422. Management Planning and Control**—Relationship among long-, intermediate-, and short-range plans emphasizing managerial decision making. Acquisition, allocation of resources, and methods for evaluating proper utilization. *Prerequisite:* MG 302. 3 hours.

**440. Small Business Consulting and Research**—(Also MK 440) Applied field work integrating functional business fields of management, finance, accounting, marketing, economics, production policy, and decision making related to small business enterprises. *Prerequisites:* FN 310, MG 302, MK 303, and permission of instructor. 3 hours.

**442. Statistics for Quality and Production**—(Also QM 442) Application of statistics to improve quality and productivity throughout organization. Process analysis and improvement via numerical and graphical procedures illustrated with construction and interpretation of control charts. Tolerances, specifications, process capability studies, and elements of total quality program as espoused by Deming and Ishikawa. *Prerequisite or corequisite:* MG 403 or permission of instructor. 3 hours.

**445. Management Internship**—(Also MK 445) Offers qualified undergraduate students the chance to gain first-hand experience in a local business while receiving academic credit. *Prerequisites:* Must be management major, at least junior standing, B or better in MG 302, GPA of 2.5 overall. Sponsoring business may require additional courses. 3 hours.

**450. Strategic Management**—Senior seminar integrating functional business fields of management, finance, accounting, marketing, economics, production policy, and decision making. *Prerequisite:* Must be senior in last term. 3 hours.

**490. Seminar in Management**—Selected management topics. *Prerequisites:* MG 302, senior standing, and permission of instructor. 3 hours.

**492. Current Topics in Operations Management**—Selected topics in production and operations management. *Prerequisites:* MG 403 and permission of instructor. 3 hours.

**493. Current Topics in Human Resource Management**—Current development and issues in human resource management. *Prerequisites:* MG 409 and permission of instructor. 3 hours.

**499. Directed Reading in Management**—Specific areas in management. *Prerequisite:* Permission of department chair or designated representative prior to registration. 1 to 3 hours.

## Marketing (MK)

### LOWER LEVEL

**101. Introduction to Consumer Marketing**—Survey course designed to provide understanding of business marketing practices and consumer decision making processes. 3 hours.

### UPPER LEVEL

**303. Basic Marketing**—Forces operating, institutions employed, and methods followed in distribution of goods and services. *Prerequisite:* AC 200, EC 210 or EC211, LS 246, and junior level standing. 3 hours.

**308. Marketing Research**—Research techniques in marketing with application of research findings to decision making and formulation of marketing strategies, policies, and procedures. *Prerequisites:* MK 303 and QM 215. 3 hours.

**314. Consumer Behavior**—Determinants of consumer behavior; cultural, social, family, economic, and business environments within which consumer purchase decisions are made. *Prerequisite:* MK 303. 3 hours

**320. Industrial Distribution Management**—Basic problems, concepts, and management practices of industrial distribution firms and manufacturing relationships. History, types of distributor organizations, functions, and role of industrial distribution in economy. *Prerequisite:* MK 303. 3 hours.

**330. Professional Selling Techniques**—Integration of interpersonal communication skills and marketing concepts. Identifying prospects' needs, establishing communication, paths, generating interest in product, creating awareness of benefits to prospect, describing total benefit package, and evaluating reasons for and against given proposal. Role playing used. *Prerequisite:* MK 303. 3 hours.

**410. Integrated Marketing Communication**—Considers the organization's coordinated and strategic use of communication tools used in marketing including advertising, sales promotion, direct marketing, interactive media, publicity/public relations, sponsorship marketing, point-of-purchase communications and personal selling. *Prerequisite:* MK 303. 3 hours.

**412. Retail Management**—Location, organization, buying, receiving, stock inventory and control, sales systems, policies, pricing, services, control, and personnel management within retail establishments. *Prerequisite:* MK 303. 3 hours.

**413. Business to Business**—Role of industrial marketing in national economy. Planning, organizing, implementing, and controlling industrial marketing activities. *Prerequisite:* MK 303. 3 hours.

**416. International Marketing**—(Also IB 416) International marketing activities, including environmental issues, marketing strategy, and tactical considerations in entering foreign markets. *Prerequisite:* MK 303. 3 hours.

**418. Introduction to E-Commerce**—Management of internet technology into the marketing function of organization. Web-based business models, customer support, on-line quality, product pricing, and Internet based channels of distribution development studied. *Prerequisite:* MK 303. 3 hours.

**419. Services Marketing**—Marketing of services topics covered: understanding service customers, customer satisfaction, motivating service employees, improving service quality and role of services in strategy planning. *Prerequisite:* MK 303. 3 hours.

**420. Sales Management**—Management of personal selling function. Nature of selling task; recruiting, selecting, training, compensating, and evaluating sales personnel; planning, implementing, and controlling selling strategies. *Prerequisite:* MK 303. 3 hours.

**430. Industrial Distribution Operations**—Concepts of value added, profitability, inventory management, scheduling, decision support systems, facilities, and warehouse operations integrated with financial control of distributor operations. Case studies and industrial speakers. *Prerequisite:* MK 320. 3 hours.

**435. Industrial Distribution Policies and Quality Issues**—Cases incorporating current approaches and procedures for attaining optimum manufacturer/distributor/customer relationships. Methods for planning, implementing, and controlling distribution strategies. Market demand analysis, profitability and multi-branch operations, quality assurance, TQM concepts, and forecasting. *Prerequisite:* MK430 or permission of instructor. 2 hours.

**440. Small Business Consulting and Research**—(Also MG 440) Applied field work integrating functional business fields of management, finance, accounting, marketing, economics, production policy, and decision making related to small business enterprises. *Prerequisites:* FN 310, MG 302, MK 303, and permission of instructor. 3 hours.

**445. Marketing Internship**—(Also MG 445) Offers qualified undergraduate students the chance to gain first-hand experience in a local business while receiving academic credit. *Prerequisites:* Must be marketing major, at least junior standing, B or better in MK 303, GPA of 2.5 overall. Sponsoring business may require additional courses. 3 hours.

**450. Marketing Strategy**—Problems of marketing management with emphasis on planning, implementing, and controlling marketing activities with individual firms. *Prerequisites:* MK 303 plus five additional MK courses or completion of four of the five upper level MK courses and fifth course as corequisite. 3 hours.

**490. Special Topics in Marketing**—Selected marketing topics not covered in other marketing courses. *Prerequisite:* MK 303. 3 hours.

**495. Industrial Distribution Directed Studies/ Practicum**—Problems in management of industrial distribution firms, both as suppliers for and customers of manufacturers and other businesses. Students work with host distributor/manufacturer on current and future distribution problem areas. *Prerequisite:* MK 435. 2 hours.

**499. Directed Readings in Marketing**—Specific areas in marketing. *Prerequisite:* Permission of department chair or designated representative prior to registration. 1 to 3 hours.

## Courses Required for a Major in Information Systems

		Sem, Hrs.
IS 204	Introduction to Business Programming	3
IS 205	Introduction to Application Development	3
IS 301	Introduction to Database Management	3
IS 302	Telecommunications Management	3
IS 308	Advanced Application Development	3
IS 321	Systems Analysis	3
IS 422	Advanced Systems Analysis and Design	3
IS 495	IS Capstone Systems Development	3
IS elective		3
IS elective		3
<hr/>		
Total semester hours		30

## Minor in Information Systems

The minor in information systems consists of the following 18 semester hours:

		Sem, Hrs.
IS 204	Introduction to Business Programming	3
IS 301	Introduction to Database Management	3
IS 302	Telecommunications Management	3
IS 303	Information Systems	3
IS 321	Systems Analysis	3
IS 422	Advanced Systems Analysis and Design	3

## Course Descriptions

### Information Systems Courses

**IS 103. Applied Information Technology** - Use of microcomputers, business applications in office automation, analysis of business problems and retrieval and presentation of information. Prerequisite: MA 105 or permission of the instructor. 3 hours.

**IS 204. Introduction to Business Programming** - An introductory course addressing the concepts, structures, and use of an event-driven programming language to implement business solutions. Emphasis is placed on developing general problem-solving strategies and implementing solutions through algorithm development. Prerequisite: IS 103. 3 hours.

**IS 205. Introduction to Application Development** - A course addressing the concepts, structures, and use of object-oriented problem solving and the C# programming language. Emphasis is placed on developing general problem-solving strategies and implementing solutions through algorithm development using object class models and C#. Prerequisite: IS 204. 3 hours.

**IS 301. Introduction to Database Management Systems** - An introductory course on database management systems. Emphasis is placed on providing students with the fundamental knowledge necessary to model business data needs, design logical data models, and design, implement, and use a physical database in application development. Prerequisite: IS 204. 3 hours.

**IS 302. Telecommunications Management** - A study of data communications technologies used for business. The technologies include local and wide area networks, as well as telephony. Network management and security are also emphasized. Prerequisite: IS 204. 3 hours.

**IS 303. Information Systems**—Theory and application of management information systems. Planning, design, development, and implementation of and strategic issues in information systems, World Wide Web, Internet, and knowledge-based systems. *Prerequisite:* Junior standing. 3 hours.

**IS 308. Advanced Application Development** - An introductory course on distributed systems development. Emphasis is placed on providing students with the fundamental knowledge necessary to design, construct, and test distributed business applications. Prerequisites: IS 205, IS 301, and IS 303.

**IS 321. Systems Analysis** - Focuses on the planning, decision making, tasks and requisite skills necessary for the analysis of information systems. Prerequisite(s) IS 204. 3 hours.

**IS 383. Current Programming Languages** - A course addressing the concepts, structures, and features of a programming language currently in demand by businesses and organizations. Emphasis is placed on developing general-problem solving strategies and implementing solutions through algorithm development using the programming language. Prerequisite: IS 204 or IS 205 as appropriate to the programming language being addressed. 3 hours.

**IS 396. Introduction to Project Management.** - A course addressing the concepts and application of project management techniques and tools. Emphasis is placed on the Project Management Institute's body of knowledge, information technology project management, and preparing the student for the Project Management Professional certification exam. Prerequisite: IS 321. 3 hours.

**IS 422. Advanced Systems Analysis and Design.** - Focuses on the planning, decision making, tasks, and requisite skills necessary for the design of information systems. Prerequisites: IS 301 and IS 321. 3 hours.

**IS 464. IS Internship**—Work experience enabling students to better integrate academic knowledge with practical applications by exposure to accounting practice and the business environment. *Prerequisites:* IS 308, 2.75 GPA in IS courses, and permission of instructor. 3 hours.

**IS 472. Forensic Accounting & Information Technology Auditing** - Introduction to the practice of forensic accounting and its relationship to auditing in settings characterized by extensive reliance on information technology. An emphasis on audit methodology as applied to accounting information systems. Prerequisite: Junior standing and permission of instructor. 3 hours.

**IS 473. Fraud Examination** - Advanced forensic accounting concepts with a primary focus on occupational fraud and abuse – its origins, perpetration, prevention, and detection. Prerequisite: Junior standing and permission of instructor. 3 hours.

**IS 474. Forensic Practicum** - Work experience requiring the application of forensic accounting concepts and methods. Prerequisites: IS 472, 473, LS 471, senior standing and permission of instructor. 1-3 hours.

**IS 477. Introduction to Systems Security** – A study of data communications technologies used for business. The technologies include local and wide area networks, as well as telephony. Network management and security are also emphasized. Prerequisites: IS 301 and IS 302 or permission of instructor. 3 hours.

**IS 491. Current Topics in Information Systems** - A study of selected current developments in information systems, emphasizing development and managerial implications. Prerequisites: IS 308 and IS 302 or permission of the instructor. 3 hours.

**IS 495. IS Capstone Systems Development** - Team systems development project with special emphasis on information management from an organizational perspective. Prerequisites: IS 302, IS 308, and IS 422 or permission of the instructor.

**IS 499/599. Directed Readings** – Readings and independent study in selected areas. Prerequisite: Permission of the Department Chair. 1-3 hours.

## *Course Descriptions*

### *Accounting (AC)*

#### **LOWER LEVEL**

**200. Principles of Accounting, Part I**—Basic concepts with focus on how accounting events affect financial statements. Emphasizes both preparation and use of external financial reports. Accrual versus cash, receivables, payables, inventory, long-term operational assets, long-term liabilities, stockholders' equity, recording procedures, and financial statement analysis. Not open to entering freshmen. 3 hours.

**201. Principles of Accounting, Part II**—Basic concepts associated with internal reporting. Use of relevant information for planning, control, and decision making. Cost behavior, cost allocation, product costing, budgeting, responsibility accounting, and capital budgeting. *Prerequisite:* AC 200. 3 hours.

#### **UPPER LEVEL**

**300. Financial Accounting I**—Accounting cycle, environment of financial accounting, conceptual framework of financial accounting, financial statements, time value of money, cash and receivables. *Prerequisite:* AC 201 and junior standing. *Prerequisite or corequisite:* AC 304. 3 hours.

**304. Accounting Information Systems**—Transaction processing cycles of accounting system; internal control, development, and control of information systems; emerging development of information technology. *Prerequisite:* AC 201 and junior standing. 3 hours.

**310. Financial Accounting II**—Continuation of AC 300. Inventories, plant assets, intangible assets, current liabilities, long-term debt, and stockholders' equity. *Prerequisites:* AC 300 and AC 304. 3 hours.

**320. Financial Reporting Survey**—Accounting cycle, financial accounting theory, financial statements, cash and receivables, inventories, plant assets, intangible assets, current liabilities, long-term debt, stockholders' equity, investments, income taxes, pension benefits, leases, error correction, and reporting of accounting changes and earnings per share. *Prerequisite:* AC 201 and junior standing. Not open to accounting majors. 3 hours.

**401. Cost Accounting**—Basic theory and procedures involving cost determination, analysis, and control. Cost allocations, application of overhead, budgeting, standard costs, job order, process and by-product costing, spoilage, and quantitative techniques. *Prerequisite:* AC 300 or AC 320. 3 hours.

**402. Income Taxation I**—Fundamentals and basic concepts of taxation of various entities, with emphasis on federal income taxation of individuals. *Prerequisite:* AC 201 and junior standing. 3 hours.

**413. Internal Auditing**—Theory and practice of internal auditing and application of internal auditing principles and techniques to selected audit problems. *Prerequisite:* AC 300 and AC 304. 3 hours.

**414. Fund Accounting**—Budgetary and fund accounting as applied to municipalities, other governmental units, and institutions operating as nonprofit entities. *Prerequisite:* AC 300. 3 hours.

**423. External Auditing**—Basic objectives of external auditing, terminology, procedures, standards, ethics, working papers, and preparation of reports. *Prerequisite:* AC 413 as a pre- or corequisite and AC 310. 3 hours.

**430. Financial Accounting III**—Continuation of AC 310. Accounting for dilutive securities, earnings per share, investments, derivatives, income taxes, retirement benefits, leases, error correction and accounting changes, statement of cash flows, and selected financial disclosures. *Prerequisite:* AC 310. 3 hours.

**451. Advanced Cost Accounting**—A continuation of AC 401. Cost Accounting with attention to emerging issues, applied theory, decision models, and advanced cost analysis techniques using business problems and case studies. *Prerequisites:* AC 401 & QM 400. 3 hours.

**452. Income Taxation II**—Completion of fundamentals of taxation for individuals. Basic concepts and law applicable to partnerships and corporations. Tax research techniques and tax planning concepts. *Prerequisite:* AC 402. 3 hours.

**464. Accounting Internship**—Work experience enabling students to better integrate academic knowledge with practical applications by exposure to accounting practice and business environment. *Prerequisites:* AC 300, permission of instructor, and 2.75 grade point average in AC courses. 3 hours.

**472. Forensic Accounting and Information Technology Auditing**—(Also IS 472) Introduction to the practice of forensic accounting and its relationship to auditing in settings characterized by extensive reliance on information technology. An emphasis on audit methodology as applied to accounting information systems. *Prerequisite:* AC 304. 3 hours.

**473. Fraud Examination**—(Also IS 473) Advanced forensic accounting concepts with a primary focus on occupational fraud and abuse—its origins, perpetration, prevention, and detection. *Prerequisite:* AC 304. 3 hours.

**474. Forensic Accounting Practicum**—(Also IS 474) Work experience requiring the application of forensic accounting concepts and methods. *Prerequisites:* AC 472, 473, LS 471, permission of instructor, and senior standing. 1 to 3 hours.

**480. Financial Accounting IV**—Business combinations, consolidated financial statements, multinational accounting, and partnerships.

*Prerequisite:* AC 430. 3 hours.

**490. Advanced Topics in Accounting** – Contemporary professional accounting issues. *Prerequisite:* Permission of instructor. 3 hours.

**499. Directed Readings**—Readings and independent study in selected areas. *Prerequisite:* Permission of department chair or designated representative prior to registration. 1 to 3 hours.

## ***Legal Studies (LS)***

### **LOWER LEVEL**

**246. Legal Environment of Business**—Background and survey of current legal system; legal process, contracts, torts, product liability, employment law, securities, anti-trust, and ethics.

*Prerequisite:* Sophomore standing. 3 hours.

### **UPPER LEVEL**

**457. Business Law for Accountants**—Legal forms of business organization, including partnerships and corporations. Commercial paper, especially negotiable instruments; sales under Uniform Commercial Code; other CPA examination material.

*Prerequisite:* LS 246 and junior standing. 3 hours.

**471. Legal Elements of Fraud Investigation** – Key legal principles and courtroom procedures relevant to forensic accounting and survey of related topics – criminology theories, evidence management and litigation services. *Prerequisite:* LS 246 and junior standing. 3 hours.





**The School of Education** offers programs that are fully approved by the Interstate Agreement on Qualifications of Educational Personnel, National Association of State Directors of Teacher Education Council (NASDTEC), the National Council for Accreditation of Teacher Education (NCATE), and the Alabama State Board of Education. These programs lead to Bachelor of Science degrees in collaborative teacher education, early childhood/elementary education, health education, physical education, and secondary education. The School of Education also offers Master of Arts degrees, post-master's degree programs leading to the Educational Specialist degree and to the "AA" professional teaching certificate, and the Ed.D. and Ph.D. degrees in educational leadership, early childhood education, and health education/health promotion.

For teacher certification programs, the School of Education recommends to the Alabama Department of Education that a teacher's certificate be issued; the Alabama State Board of Education issues the certificate to teach. To be recommended for Alabama teacher certification, a student must have met program requirements outlined in the appropriate sections that follow. UAB cannot recommend any student for certification who has not satisfied all state and university requirements for admission to and completion of an approved program. Baccalaureate programs lead to "Class B" certification. All School of Education baccalaureate programs listed in this catalog that lead to teacher certification meet the criteria established by the State Department of Education for defining teachers as highly qualified as required by the federal *No Child Left Behind Act* of 2001.

In addition to teacher certification programs, the School of Education also offers programs that prepare graduates for employment in agencies and healthcare facilities. Descriptions of non-teaching specialties may be found in the Department of Human Studies.

## OFFICE OF CLINICAL EXPERIENCES

The Office of Clinical Experiences is responsible for coordination of student teaching and other clinical experiences for the School of Education. Information concerning student teaching applications, placement, and field experiences may be found in Room 222, Education Building.

## OFFICE OF STUDENT SERVICES

The Office of Student Services in Room 100, Education Building, is responsible for academic advising for the School of Education. Application materials for the Teacher Education Program and Alabama teacher certification are available from this office. Alabama teacher certification programs and basic degree requirements vary among majors. Students should contact this office early in their studies to be certain they will meet School of Education requirements and State Department of Education teaching certification requirements. Students should see their advisor on a regular basis.

## ENGLISH LANGUAGE AND CULTURE INSTITUTE (ELCI)

The English Language and Culture Institute (ELCI) is UAB's English language training resource for undergraduate ESL students. ELCI provides semester-long courses as well as workshops and training programs designed to help English language learners achieve academic English language proficiency. For more information call (205) 975-6628 or e-mail [ELCI@uab.edu].

### Course Descriptions

#### *English Language and Culture (ELC)*

**092. English Language and Culture I**—Development of various types of academic writing with emphasis on spelling, language mechanics, and usage. All aspects of writing process: generating ideas, drafting, revising, and editing. May not be used to fulfill any degree requirements. *Prerequisite:* Score on English as a Second Language placement examination. 5 hours.

**093. English Language and Culture II**—Further development of all aspects of writing process. May not be used to fulfill any degree requirements. *Prerequisite:* ELC 092. 5 hours.

## TEACHER EDUCATION PROGRAM

To enroll for certain courses required for Alabama teacher certification, students must be admitted to the School of Education's Teacher Education Program (TEP). Admission to this program is not automatic. Students interested in obtaining a "Class B" teaching certificate must make application for admission to the Teacher Education Program early in the term in which they are completing prerequisites to the Teacher Education Program. Details concerning admission, retention, and completion of TEP are outlined below.

## TEP ADMISSION REQUIREMENTS

1. Completion of the following courses with a GPA of 2.50 or better. Any course with a grade below "C" must be retaken.
  - EDU 200 Education as a Profession (grade of "Pass" required)
  - HPE 200 Quality of Life

- EDF 362 Foundations of Education I: Social and Historical
  - EPR 363 Foundations of Education II: Psychological
  - ECY 300 Survey of Special Education
  - EDT 300 Teaching and Technology
2. Completion of 41 semester hours in the Core Curriculum and seven semester hours in pre-professional/major courses with a minimum GPA of 2.50
  3. Minimum higher education GPA of 2.50
  4. Evidence of writing proficiency as documented by
    - Passing score on objective writing examination in EDU 200
    - Passing score on formal writing evaluation in EDF 362
    - Grade of at least one "B" and one "C" in EH 101 and EH 102
  5. Evidence of speaking proficiency as documented by
    - Passing score on formal speaking sample in ECY 300
    - Passing score on spontaneous speaking sample at TEP interview
    - Grade of "C" or better in CM 101
  6. Negative chest x-ray or tuberculosis skin test
  7. Current (within three years) first aid certification and current (within one year) infant/child/adult CPR certification
  8. Score of "pass" on Pre-TEP portfolio as reviewed by faculty
  9. Score of "pass" on TEP interview as reviewed by faculty
  10. Additional requirements by program area:
    - Collaborative Teacher Education:
      - Passing score on spontaneous writing sample at TEP interview
    - Early Childhood/Elementary Education:
      - EEC 300 Child Development and Family Relationships ("C" or better)
      - EEC 301 Introduction to P-6 Education ("C" or better)
      - Passing score on spontaneous writing sample at TEP interview
    - Physical Education:
      - Grade of "C" or better in all math, science, and major courses
      - Statement of eligibility from faculty advisor
      - Completion of the following courses:
        1. All activity courses (100 level)
        2. Officiating course
        3. PE 300 Organization and Administration of Physical Education
        4. PE 305 Motor Development
        5. BY 115 Human Anatomy
        6. BY 116 Human Physiology
    - Secondary Education:
      - At least 18 semester hours of required teaching field content courses completed with at least six semester hours completed at UAB

- Minimum 2.50 GPA in teaching field courses
- A grade of "C" or better in all teaching field courses
- Passing score on spontaneous writing sample at TEP interview

Applications for admission to the Teacher Education Program and corresponding submission deadlines are available in the Office of Student Services (Room 100, Education Building) and online at [<http://main.uab.edu/soed/show.asp?durki=48889>]. Students will be notified of their admission status by the School of Education prior to the beginning of the term for which they have applied.

## TEP RETENTION REQUIREMENTS

A student may be dropped from the Teacher Education Program for failure to maintain satisfactory academic performance as described by School of Education policy.

## STUDENT TEACHING ADMISSION REQUIREMENTS

All students seeking baccalaureate degrees leading to teaching certificates must participate in a student teaching internship. All students must apply for student teaching in the January preceding the academic year in which they wish to student teach. Applications are available in the Office of Student Services, Room 100, Education Building. For additional information, contact the Office of Clinical Experiences, (205) 934-7530.

To be eligible for this internship, students must have an approved student teaching application based on the following.

### **COLLABORATIVE TEACHER (SPECIAL EDUCATION):**

1. Formal admission to the Teacher Education Program;
2. Report on file of negative chest x-ray or tuberculosis skin test taken within the last three years;
3. Student teaching application approved by the faculty of the Department of Leadership, Foundations, and Special Education;
4. Minimum higher education GPA of 2.50;
5. Minimum GPA of 2.50 on core curriculum courses;
6. Minimum GPA of 2.50 in teaching field courses;
7. Minimum GPA of 2.50 in professional courses;
8. Completion of all methods courses with a grade of "C" or better;
9. Passing score on the undergraduate comprehensive examination;
10. Passing score on the Alabama Prospective Teacher Testing Program (APTTP); and
11. Demonstration of the dispositions needed to be successful as a teacher of students with special needs.

### **EARLY CHILDHOOD/ELEMENTARY EDUCATION:**

1. Formal admission to the Teacher Education Program;
2. Report on file of negative chest x-ray or tuberculosis skin test taken within the last three years;
3. Student teaching application approved by the faculty of the Department of Curriculum and Instruction;

4. Minimum higher education GPA of 2.50;
5. Minimum GPA of 2.50 on core curriculum courses;
6. Minimum GPA of 2.50 in teaching field courses;
7. Minimum GPA of 2.50 in professional courses;
8. Completion of all methods courses (EDR 440, EDR 443, EEC 405, EEC 406, EEC 412, EEC 413, EEC 414, and EPR 410) with a grade of "C" or better;
9. Passing score on the undergraduate comprehensive examination;
10. Passing score on the Alabama Prospective Teacher Testing Program (APTTP); and
11. Demonstration of the dispositions needed to be successful as a teacher of young children.

Students approved to student teach in Early Childhood/Elementary Education must enroll in both EEC 490, Internship in P-3/3-6, and EEC 491, Internship Seminar in P-6 Education, concurrently. Students cannot take additional coursework besides these two courses during the term in which they student teach.

#### **HEALTH EDUCATION:**

1. Satisfactory completion of Teacher Education Program requirements, including completion of all coursework;
2. Permission of health education advisor;
3. Permission of department chair;
4. Student teaching application submitted by the required deadline; and
5. Departmental interview.

#### **PHYSICAL EDUCATION:**

1. Formal admission to the Teacher Education Program;
2. Report on file of negative chest x-ray or tuberculosis skin test taken within the last three years;
3. Student teaching application approved by the faculty of the Physical Education Program;
4. Minimum higher education GPA of 2.50;
5. Minimum GPA of 2.50 on core curriculum courses;
6. Minimum GPA of 2.50 in teaching field courses;
7. Minimum GPA of 2.50 in professional courses;
8. Completion of all teaching field courses (PE 307, 308, 311, 320, 400, 402, 409, and 489) with a grade of C or better;
9. Passing score on the undergraduate comprehensive examination;
10. Passing score on the Alabama Prospective Teacher Testing Program (APTTP); and
11. Demonstration of the dispositions needed to be successful as a teacher.

#### **SECONDARY EDUCATION:**

1. Formal admission to the Teacher Education Program;
2. Report on file of negative chest x-ray or tuberculosis skin test taken within the last three years;

3. Student teaching application approved by the faculty of the Department of Curriculum and Instruction;
4. Minimum higher education GPA of 2.50;
5. Minimum GPA of 2.50 on core curriculum courses;
6. Minimum GPA of 2.50 in teaching field courses;
7. Minimum GPA of 2.50 in professional courses;
8. Completion of all coursework except two teaching field courses;
9. Passing score on the Alabama Prospective Teacher Testing Program (APTTP); and
10. Demonstration of the dispositions needed to be successful as a teacher of middle and high school students, including students with special needs.

### **TEP PROGRAM COMPLETION AND CERTIFICATION REQUIREMENTS**

A student who satisfies admission and retention requirements and who meets the following completion requirements will be recommended for "Class B" teacher certification. Students must apply for certification. Certification application packets are available in the Office of Student Services, Room 100, Education Building, and should be completed no later than the beginning of the term of student teaching.

1. Students must achieve a minimum 2.50 higher education GPA.
2. Each teacher education student must complete the program of courses approved by the Alabama State Board of Education for the teaching field(s) in which certification will be sought.
3. Demonstrated readiness to teach through on-the-job performance as a student teacher is required. This evaluation is conducted by the School of Education faculty and appropriate personnel from local school systems. For additional information contact the department chair or assigned advisor.
4. Students are required to pass a comprehensive examination.
5. Students must successfully complete a professional portfolio documenting readiness to teach before being recommended for certification. See the department chair or program coordinator for guidelines.
6. The State Department of Education has additional requirements for teacher certification. Included in these are fees associated with obtaining a certificate which are set by legislative action and may be changed. Students seeking initial certification are required to obtain background clearance to determine any criminal history through a fingerprint review conducted by the Alabama Bureau of Investigation (ABI) and the Federal Bureau of Investigation (FBI) prior to the issuance of a teaching certificate or license. Students must also pass the Alabama Prospective Teacher Testing Program (APTTP). Information on these requirements is available in the Office of Student Services, Room 100, Education Building, and is included in the certification application packet.

## CERTIFICATION FOR STUDENTS WHO HOLD A BACCALAUREATE DEGREE

Students who hold a baccalaureate degree may complete teacher certification requirements at UAB. In general, these students must meet the same requirements for admission to and exit from the Teacher Education Program as regular undergraduate students. There are several classifications that may be appropriate for these students. Consequently, they must consult the Departments of Curriculum and Instruction, Human Studies, or Leadership, Special Education, and Foundations, as appropriate, to have credits evaluated in terms of Teacher Education Program requirements and to have a program plan approved by the department chair before enrolling for any courses.

### Course Descriptions

#### Education for Pre-TEP (EDU)

**200. Education as a Profession**—Formal introduction to the Teacher Education Program (TEP). Provides clear and realistic understanding of issues involved in choosing education as a career. 1 hour.

**210. Writing and Speaking Skills for Educational Professionals**—Development of essential writing and speaking skills required for successful education practice. 3 hours.

## DEPARTMENT OF CURRICULUM AND INSTRUCTION

**Chair:** Charles Calhoun

**Faculty:** Aldridge, Burns, Cellitti, Christensen, Eason, Emfinger, Fitzgerald, Kamii, Kirkland, Kluge, Manning, Martin, Meadows, Patterson, Perry, Pierce, Radford, Sims, Smith

The Department of Curriculum and Instruction offers numerous undergraduate programs which lead to a B.S. degree in education and an Alabama "Class B" teaching certificate in the student's program area. Programs offered through the department include early childhood (grades P-3) and elementary education (grades K-6); high school education (grades 6-12); and foreign language education (grades P-12). Programs in art education (grades P-12), instrumental music education (grades P-12), and vocal/choral music education (grades P-12) are also offered in conjunction with the School of Arts and Humanities (see page 53). Faculty advisors are assigned following students' acceptance into the Teacher Education Program (TEP).

Students preparing to teach are expected to participate in a series of planned assignments in community and/or school settings both before and after admission to the Teacher Education Program. These opportunities to work with children and youth are designed to enhance the students' professional development and to supplement their campus coursework.

The Department of Curriculum and Instruction also offers programs leading to the Master of Arts in Education degree and to an Education Specialist degree. These programs are designed so that students may receive the Alabama "Class A" and "Class AA" teaching certificates in certain fields. Students may also earn a Doctor of Philosophy degree in early childhood education.

## EARLY CHILDHOOD AND ELEMENTARY EDUCATION

The early childhood/elementary education program is designed as a double major program. Students successfully completing the program will receive a baccalaureate degree and Alabama "Class B" professional teaching certificates in early childhood education (grades P-3) and elementary education (grades K-6).

Professional preparation includes courses in humanistic and behavioral studies, early childhood education, elementary education, curriculum and teaching, evaluation of teaching and learning, extensive pre-internship field experiences in P-6 settings, and an internship. Students must work closely with their faculty advisor for appropriate selection of courses in each area of general and professional studies.

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking (C or better required) .....	<b>3</b>
Literature .....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence preferred.</i>	
<b>Area III</b> BY 101/102 Topics in Contemporary Biology/Laboratory or BY 123	
Introductory Biology I .....	<b>4</b>
Natural Science (not biology).....	<b>4</b>
Mathematics .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science (ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science (PY 101 and SOC 100 preferred) .....	<b>6</b>

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
Natural science with laboratory (from AGSC list) .....	<b>4</b>
Mathematics (from AGSC list) .....	<b>3</b>
Mathematics (MA 113 and MA 114 preferred) .....	<b>6</b>
PY 101 Introduction to Psychology (if not taken in Area IV).....	<b>3</b>
HPE 200 Quality of Life.....	<b>2</b>

### FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>
EDF 362 Foundations of Education I: Social and Historical .....	<b>3</b>
EPR 363 Foundations of Education II: Psychological .....	<b>3</b>
EDT 300 Teaching and Technology .....	<b>3</b>
EEC 300 Child Development and Family Relationships .....	<b>4</b>
EEC 301 Introduction to P-6 Education.....	<b>3</b>

## TEACHING FIELD COURSES

	<i>Sem. Hrs.</i>
EEC 302 Expressive Arts P-6.....	3
HPE 301 Methods of Teaching Health Education and Physical Education .....	3
Education elective (not introductory EDT; not HE or PE) .....	3
EDR 440 Developmental Reading I* .....	3
EEC 405 Children's Literature in Elementary and Early Childhood Education* .....	3
EEC 406 Language Arts in Elementary and Early Childhood Education* .....	3
EPR 410 Introduction to Measurement and Evaluation in Education* .....	3
EDR 443 Developmental Reading II* .....	3
EEC 412 Teaching Mathematics in Elementary and Early Childhood Education* .....	3
EEC 413 Teaching Science in Elementary and Early Childhood Education* .....	3
EEC 414 Teaching Social Studies in Elementary and Early Childhood Education* .....	3

\* Requires admission to TEP.

## INTERNSHIP

	<i>Sem. Hrs.</i>
EEC 490 Internship in P-3 / 3-6 .....	9
EEC 491 Internship Seminar in P-6 Education .....	3

## MIDDLE SCHOOL EDUCATION

An endorsement in middle school education is currently available in English language arts, mathematics, and general social science. To be eligible for a middle school endorsement, students must have certification in high school education and a major in their content teaching field. A middle school endorsement provides specific preparation for teaching young adolescents. Students who receive a middle school endorsement will be certified to teach grades 4-12 in departmental settings. Students should see their advisor for available majors and courses.

## SECONDARY EDUCATION

The secondary education program offers six certification areas for high school grades 6-12: biology, chemistry, comprehensive social science, English language arts, mathematics, and physics. Two certification areas for grades P-12 are offered in French and Spanish. Programs leading to certification in art education and music education (instrumental or vocal/choral) are also offered in conjunction with the School of Arts and Humanities (see page 57). A minor in secondary education is available.

In compliance with the federal *No Child Left Behind Act*, students obtaining teacher certification in a high school (grades 6-12) or P-12 field must have a double major. As a result, a major in education and a major in the teaching field (e.g., art, biology, mathematics, etc.) are required. The specific courses taken to satisfy the Core Curriculum will vary with each teaching field and major.

Students must declare education and their teaching field as double majors. Students may list education as the primary major and

the teaching field (e.g., English) as the second major or list the teaching field (e.g., English) as the primary major and education as the second major. Students completing the program will receive a single degree with both majors listed. The degree (B.A. or B.S.) depends upon the primary major.

Due to Alabama Department of Education requirements for teachers, Core Curriculum requirements for education majors are more specific than Core Curriculum requirements for the teaching field major. Students should obtain a program checklist from the Office of Student Services, Room 100, Education Building.

## ALTERNATE CERTIFICATION PROGRAM

The secondary education program also offers a nontraditional fifth-year option that leads to a M.A. degree in education and an Alabama "Class A" professional teaching certificate. This program is designed for persons who have an undergraduate degree in areas other than education and those with an education degree who desire "Class A" teacher certification in an additional teaching field. Students should contact the Office of Student Services, Room 100, Education Building, for information on program admission requirements.

## HIGH SCHOOL EDUCATION/BIOLOGY (DOUBLE MAJOR)

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	3
EH 102 English Composition.....	3
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	3
Literature.....	3
Fine Arts .....	3
Humanities or Fine Arts.....	3
<i>Note: Literature sequence preferred.</i>	
<b>Area III</b> Natural Sciences (fulfilled by biology major requirements) .....	8
Mathematics (fulfilled by biology major requirements) .....	3
<b>Area IV</b> History .....	3
History or Social Science (ANTH 101 or GEO 121 preferred) .....	3
Social Science (PY 101 and SOC 100 preferred) .....	6

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
PY 101 Introduction to Psychology (if not taken in Area IV).....	3
MA 125 Calculus I (if not taken in Area III) .....	4
CH 115/116 General Chemistry I and Laboratory .....	3/1
CH 117/118 General Chemistry II and Laboratory .....	3/1
CH 235/236 Organic Chemistry I and Laboratory .....	3/1
CH 237/238 Organic Chemistry II and Laboratory .....	3/1
PH 201 or 221 College Physics I or General Physics I.....	4
PH 202 or 222 College Physics II or General Physics II .....	4
HPE 200 Quality of Life.....	2

**FOUNDATIONS AND PROFESSIONAL STUDIES**

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>
EDF 362 Foundations of Education I: Social and Historical ..	<b>3</b>
EPR 363 Foundations of Education II: Psychological .....	<b>3</b>
EDT 300 Teaching and Technology .....	<b>3</b>

**SECONDARY EDUCATION COURSES\***

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	<b>3</b>
EHS 402 Practicum I .....	<b>1</b>
EHS 467 Secondary Science Methods.....	<b>3</b>
EHS 470 Practicum II .....	<b>1</b>
EHS 410 Introduction to Measurement and Evaluation .....	<b>3</b>
EHS 471 Special Education Accommodation/Modification Laboratory .....	<b>1</b>

\* *Requires admission to TEP.*

**INTERNSHIP**

	<i>Sem. Hrs.</i>
EHS 489 Internship Seminar in Secondary Education.....	<b>1</b>
EHS 490 Secondary School Student Teaching I .....	<b>9</b>

**BIOLOGY MAJOR REQUIREMENTS (40 HOURS)**

*Note: All other requirements for this major (i.e., grade point average, residency) must be met. See page 189.*

*Note: At least six semester hours must be 400 level or above.*

	<i>Sem. Hrs.</i>
BY 123 Introductory Biology I (if not taken in Area III).....	<b>4</b>
BY 124 Introductory Biology II (if not taken in Area III) .....	<b>4</b>
BY 210 Genetics .....	<b>3</b>
Organismal: one from BY 255, 256, 260, 271, or 342 .....	<b>4</b>
Ecology/Evolution: one from BY 350, 370, 407, or 435 .....	<b>3-4</b>
Physiology/Development: one from BY 309, 314, 405, 410, or 450 .....	<b>3-4</b>
Cellular/Molecular: one from BY 311 or 330.....	<b>3</b>
Biology electives .....	<b>14-16</b>

**HIGH SCHOOL EDUCATION/CHEMISTRY (DOUBLE MAJOR)****CORE CURRICULUM**

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking (C or better required).....	<b>3</b>
Literature.....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence preferred.</i>	

**Area III** Natural Sciences

(fulfilled by chemistry major requirements) .....	<b>8</b>
Mathematics (fulfilled by chemistry major requirements) .....	<b>3</b>

**Area IV** History .....

History or Social Science (ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science (PY 101 and SOC 100 preferred) .....	<b>6</b>

**LOWER LEVEL REQUIREMENTS**

	<i>Sem. Hrs.</i>
PY 101 Introduction to Psychology (if not taken in Area IV) ..	<b>3</b>
MA 125 Calculus I (if not taken in Area III) .....	<b>4</b>
MA 126 Calculus II .....	<b>4</b>
BY 123 Introductory Biology I.....	<b>4</b>
BY 124 Introductory Biology II .....	<b>4</b>
PH 201 or 221 College Physics I or General Physics I.....	<b>4</b>
PH 202 or 222 College Physics II or General Physics II .....	<b>4</b>
HPE 200 Quality of Life.....	<b>2</b>

**FOUNDATIONS AND PROFESSIONAL STUDIES**

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>
EDF 362 Foundations of Education I: Social and Historical ..	<b>3</b>
EPR 363 Foundations of Education II: Psychological .....	<b>3</b>
EDT 300 Teaching and Technology .....	<b>3</b>

**SECONDARY EDUCATION COURSES\***

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	<b>3</b>
EHS 402 Practicum I .....	<b>1</b>
EHS 467 Secondary Science Methods.....	<b>3</b>
EHS 470 Practicum II .....	<b>1</b>
EHS 410 Introduction to Measurement and Evaluation .....	<b>3</b>
EHS 471 Special Education Accommodation/Modification Laboratory .....	<b>1</b>

\* *Requires admission to TEP.*

**INTERNSHIP**

	<i>Sem. Hrs.</i>
EHS 489 Internship Seminar in Secondary Education.....	<b>1</b>
EHS 490 Secondary School Student Teaching I .....	<b>9</b>

**CHEMISTRY MAJOR REQUIREMENTS**

*Note: All other requirements for this major (i.e., grade point average, residency) must be met. See page 194.*

	<i>Sem. Hrs.</i>
CH 115/116 General Chemistry I and Laboratory (if not taken in Area III) .....	<b>3/1</b>
CH 117/118 General Chemistry II and Laboratory (if not taken in Area III) .....	<b>3/1</b>
CH 235/236 Organic Chemistry I and Laboratory .....	<b>3/1</b>
CH 237/238 Organic Chemistry II and Laboratory .....	<b>3/1</b>
CH 325 Thermodynamics and Chemical Kinetics.....	<b>4</b>
CH 326 Structure/Bonding and Molecular Spectroscopy .....	<b>4</b>

CH 345 Principles and Applications of Chemical Periodicity	4
CH 355 Analysis Techniques.....	4
CH 461 Biochemistry I .....	3
CS 101 Computing Fundamentals .....	3
Chemistry electives: three from CH 440, 450, 463, 464, 465, 466, 480, or 481 .....	9-12

## HIGH SCHOOL EDUCATION/ENGLISH (DOUBLE MAJOR)

This curriculum results in a double major in high school education and English, with teacher certification in English Language Arts.

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	3
EH 102 English Composition.....	3
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	3
EH 221 British and Irish Literature .....	3
EH 222 British and Irish Literature .....	3
THR 100 Introduction to the Theatre .....	3
<b>Area III</b> Natural Sciences .....	8
Mathematics .....	3
<b>Area IV</b> History .....	3
History or Social Science (ANTH 101 or GEO 121 preferred) .....	3
Social Science (PY 101 and SOC 100 preferred) .....	6

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
PY 101 Introduction to Psychology (if not taken in Area IV)...	3
MC 101 Survey of Mass Communication.....	3
MC 106 News Writing and Reporting I .....	3
HPE 200 Quality of Life.....	2

### FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	1
ECY 300 Survey of Special Education.....	3
EDF 362 Foundations of Education I: Social and Historical ..	3
EPR 363 Foundations of Education II: Psychological .....	3
EDT 300 Teaching and Technology .....	3

### SECONDARY EDUCATION COURSES\*

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	3
EHS 402 Practicum I .....	1
EHS 466 Language Arts Methods .....	3
EHS 470 Practicum II .....	1
EHS 410 Introduction to Measurement and Evaluation .....	3
EHS 471 Special Education Accommodation/Modification Laboratory .....	1

\* Requires admission to TEP.

### INTERNSHIP

	<i>Sem. Hrs.</i>
EHS 489 Internship Seminar in Secondary Education.....	1
EHS 490 Secondary School Student Teaching I .....	9

### ENGLISH MAJOR REQUIREMENTS (42 HOURS)

*Note: All other requirements for this major (i.e., grade point average, residency) must be met. See page 67.*

*Note: A grade of C or better required.*

*Note: EH 491 and 492 meet distribution requirements only when their contents fall within one of the distribution areas listed below.*

*Both courses require approval.*

	<i>Sem. Hrs.</i>
Three literature courses from EH 217, 218, 223, or 224 .....	9
EH 301 Reading, Writing, and Research for Literature .....	3
EH 476 Shakespeare .....	3
African American Survey: one from EH 365 or 366 .....	3
Non-Shakespearean British Literature before 1660: one from EH 469, 470, 471, 473, 474, 475, 478, 491, or 492 .....	3
British Literature after 1660: two from EH 414, 480, 481, 482, 483, 485, 486, 487, 488, 489, 491, or 492 .....	6
American Literature: two courses at the 400 level .....	6
EH 452 Grammar and Usage for English Teachers .....	3
Expository Writing: one from EH 401, 402, 457, 459, or 492 .....	3
EH 435 Practicum in Teaching Creative Writing .....	3

## HIGH SCHOOL EDUCATION/FRENCH (DOUBLE MAJOR)

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	3
EH 102 English Composition.....	3
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	3
Literature.....	3
Fine Arts .....	3
Humanities or Fine Arts.....	3
<i>Note: Literature sequence preferred.</i>	
<b>Area III</b> Natural Sciences .....	8
Mathematics .....	3
<b>Area IV</b> History .....	3
History or Social Science (ANTH 101 or GEO 121 preferred) .....	3
Social Science (PY 101 and SOC 100 preferred) .....	6

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
PY 101 Introduction to Psychology (if not taken in Area IV)...	3
HPE 200 Quality of Life.....	2
FR 101 Introductory French I.....	4
FR 102 Introductory French II .....	4

## FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	1
ECY 300 Survey of Special Education.....	3
EDF 362 Foundations of Education I: Social and Historical ..	3
EPR 363 Foundations of Education II: Psychological .....	3
EDT 300 Teaching and Technology .....	3

## SECONDARY EDUCATION COURSES\*

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	3
EHS 402 Practicum I .....	1
EFL 485 Foreign/Secondary Language Methods .....	3
EFL 470 Practicum in Foreign Language N-12 .....	1
EHS 410 Introduction to Measurement and Evaluation .....	3
EHS 471 Special Education Accommodation/Modification Laboratory .....	1

\* Requires admission to TEP.

## INTERNSHIP

	<i>Sem. Hrs.</i>
EFL 498 Student Teaching in Foreign Languages, N-12 .....	9
EFL 499 Internship Seminar in Foreign Language Education ..	1

## FOREIGN LANGUAGES - FRENCH (33 HOURS)

Note: All other requirements for this major (i.e., grade point average, residency) must be met. See page 73.

Note: A grade of C or better required.

	<i>Sem. Hrs.</i>
FR 201 Intermediate French I .....	3
FR 202 Intermediate French II .....	3
FR 210 Conversation and Culture .....	3
FR 200-level elective (see advisor) .....	3
FR 307 Advanced Grammar and Composition I .....	3
FR 308 Advanced Grammar and Composition II .....	3
FR 310 Contemporary France.....	3
FR 311 Survey of French Literature .....	3
FR 400-level electives (three courses).....	9

## HIGH SCHOOL EDUCATION/HISTORY (DOUBLE MAJOR)

This curriculum results in a double major in high school education and history, with teacher certification in Comprehensive Social Science.

## CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	3
EH 102 English Composition.....	3
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking (C or better required).....	3
Literature.....	3
Fine Arts .....	3
Humanities or Fine Arts.....	3

<b>Area III</b> Natural Sciences .....	8
Mathematics .....	3
<b>Area IV</b> History (fulfilled by history major requirements) .....	6
PY 101 Introduction to Psychology .....	3
GEO 121 World Regional Geography .....	3

## LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
PSC 101 Introduction to American Government .....	3
PSC 221 American State and Local Government .....	3
GEO 221 Geography of North America .....	3
SOC 100 Introduction to Sociology .....	3
EC 210 Principles of Microeconomics .....	3
EC 211 Principles of Macroeconomics .....	3
HPE 200 Quality of Life.....	2

## FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	1
ECY 300 Survey of Special Education.....	3
EDF 362 Foundations of Education I: Social and Historical ..	3
EPR 363 Foundations of Education II: Psychological .....	3
EDT 300 Teaching and Technology .....	3

## SECONDARY EDUCATION COURSES\*

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	3
EHS 402 Practicum I .....	1
EHS 468 Secondary Social Science Methods .....	3
EHS 470 Practicum II .....	1
EHS 410 Introduction to Measurement and Evaluation .....	3
EHS 471 Special Education Accommodation/Modification Laboratory .....	1

\* Requires admission to TEP.

## INTERNSHIP

	<i>Sem. Hrs.</i>
EHS 489 Internship Seminar in Secondary Education.....	1
EHS 490 Secondary School Student Teaching I .....	9

## HISTORY MAJOR REQUIREMENTS (36 HOURS)

Note: All other requirements for this major (i.e., grade point average, residency) must be met. See page 239.

Note: A grade of C or better required.

	<i>Sem. Hrs.</i>
HY 101 Western Civilization I (if not taken in Area IV).....	3
HY 102 Western Civilization II (if not taken in Area IV) .....	3
HY 120 The United States to 1877 .....	3
HY 121 The United States Since 1877 .....	3
HY 225 History of Alabama.....	3
HY 300 The Historian's Craft.....	3
Non-Western history: one from HY 271, 476, or 477 .....	3
HY 300/400-level electives (must be taken at UAB) .....	15

## HIGH SCHOOL EDUCATION/MATHEMATICS (DOUBLE MAJOR)

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	<b>3</b>
Literature.....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence preferred.</i>	
<b>Area III</b> Natural Sciences .....	<b>8</b>
Mathematics (fulfilled by mathematics major requirements) .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science (ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science (PY 101 and SOC 100 preferred) .....	<b>6</b>

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
PY 101 Introduction to Psychology (if not taken in Area IV)...	<b>3</b>
CS 201 Introduction to Object Oriented Programming.....	<b>3</b>
HPE 200 Quality of Life.....	<b>2</b>

### FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>
EDF 362 Foundations of Education I: Social and Historical ..	<b>3</b>
EPR 363 Foundations of Education II: Psychological .....	<b>3</b>
EDT 300 Teaching and Technology .....	<b>3</b>

### SECONDARY EDUCATION COURSES\*

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	<b>3</b>
EHS 402 Practicum I .....	<b>1</b>
EHS 465 Secondary Math Methods .....	<b>3</b>
EHS 470 Practicum II .....	<b>1</b>
EHS 410 Introduction to Measurement and Evaluation in Education.....	<b>3</b>
EHS 471 Special Education Accommodation/Modification Laboratory .....	<b>1</b>

\* Requires admission to TEP.

### INTERNSHIP

	<i>Sem. Hrs.</i>
EHS 489 Internship Seminar in Secondary Education.....	<b>1</b>
EHS 490 Secondary School Student Teaching I.....	<b>9</b>

### MATHEMATICS MAJOR REQUIREMENTS (42 HOURS)

*Note: All other requirements for this major (i.e., grade point average, residency) must be met. See page 201.*

*Note: A grade of C or better required.*

	<i>Sem. Hrs.</i>
MA 125 Calculus I (if not taken in Area III) .....	<b>4</b>
MA 126 Calculus II .....	<b>4</b>
MA 227 Calculus III.....	<b>4</b>
MA 252 Introduction to Differential Equations .....	<b>3</b>
MA 261 Introduction to Mathematical Modeling.....	<b>3</b>
MA 270 Geometry .....	<b>3</b>
MA 305 History of Mathematics I.....	<b>3</b>
MA 434 Algebra I: Linear .....	<b>3</b>
MA 435 Algebra II: Modern .....	<b>3</b>
MA 440 Advanced Calculus I .....	<b>3</b>
MA 441 Advanced Calculus II .....	<b>3</b>
MA 485 Probability .....	<b>3</b>
MA 486 Mathematical Statistics.....	<b>3</b>

## HIGH SCHOOL EDUCATION/PHYSICS (DOUBLE MAJOR)

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	<b>3</b>
Literature.....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence preferred.</i>	
<b>Area III</b> Natural Sciences (fulfilled by physics major requirements) .....	<b>8</b>
Mathematics (fulfilled by physics major requirements) .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science (ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science (PY 101 and SOC 100 preferred) .....	<b>6</b>

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
PY 101 Introduction to Psychology (if not taken in Area IV)...	<b>3</b>
MA 125 Calculus I (if not taken in Area III) .....	<b>4</b>
MA 126 Calculus II .....	<b>4</b>
MA 227 Calculus III .....	<b>4</b>
MA 252 Introduction to Differential Equations .....	<b>3</b>
MA elective (must be approved by faculty advisor).....	<b>3</b>
CH 115/116 General Chemistry I and Laboratory .....	<b>3/1</b>
CH 117/118 General Chemistry II and Laboratory .....	<b>3/1</b>
HPE 200 Quality of Life.....	<b>2</b>

### FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>

EDF 362 Foundations of Education I: Social and Historical ..	3
EPR 363 Foundations of Education II: Psychological .....	3
EDT 300 Teaching and Technology .....	3

### SECONDARY EDUCATION COURSES\*

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	3
EHS 402 Practicum I .....	1
EHS 467 Secondary Science Methods.....	3
EHS 470 Practicum II .....	1
EHS 410 Introduction to Measurement and Evaluation .....	3
EHS 471 Special Education Accommodation/Modification Laboratory .....	1

\* Requires admission to TEP.

### INTERNSHIP

	<i>Sem. Hrs.</i>
EHS 489 Internship Seminar in Secondary Education.....	1
EHS 490 Secondary School Student Teaching I .....	9

### PHYSICS MAJOR REQUIREMENTS (40 HOURS)

Note: All other requirements for this major  
(i.e., grade point average, residency) must be met. See page 206.

Note: A grade of C or better required.

	<i>Sem. Hrs.</i>
PH 221 General Physics I (if not already taken in Area III) ...	4
PH 222 General Physics II (if not already taken in Area III) ..	4
PH 351 Modern Physics I .....	4
PH 352 Modern Physics II.....	4
PH 445 Electromagnetic Theory I.....	3
PH 446 Electromagnetic Theory II .....	3
PH 450 Introductory Quantum Mechanics I .....	3
PH 451 Introductory Quantum Mechanics II .....	3
PH 461 Classical Mechanics I .....	3
PH 462 Classical Mechanics II.....	3
Optics: one from PH 425, 426, 427, or 428 .....	3-4
PH elective (must be approved) .....	2-3

### HIGH SCHOOL EDUCATION/SPANISH (DOUBLE MAJOR)

#### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	3
EH 102 English Composition.....	3
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking (C or better required).....	3
Literature.....	3
Fine Arts .....	3
Humanities or Fine Arts.....	3
<i>Note: Literature sequence preferred.</i>	
<b>Area III</b> Natural Sciences .....	8
Mathematics .....	3
<b>Area IV</b> History .....	3
History or Social Science	

(ANTH 101 or GEO 121 preferred) .....	3
Social Science (PY 101 and SOC 100 preferred) .....	6

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
PY 101 Introduction to Psychology (if not taken in Area IV) ..	3
HPE 200 Quality of Life.....	2
SPA 101 Introductory Spanish I .....	4
SPA 102 Introductory Spanish II.....	4

### FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	1
ECY 300 Survey of Special Education.....	3
EDF 362 Foundations of Education I: Social and Historical ..	3
EPR 363 Foundations of Education II: Psychological .....	3
EDT 300 Teaching and Technology .....	3

### SECONDARY EDUCATION COURSES\*

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I ..	3
EHS 402 Practicum I .....	1
EFL 485 Foreign/Secondary Language Methods .....	3
EFL 470 Practicum in Foreign Language N-12 .....	1
EHS 410 Introduction to Measurement and Evaluation in Education.....	3
EHS 471 Special Education Accommodation/Modification Laboratory .....	1

\* Requires admission to TEP.

### INTERNSHIP

	<i>Sem. Hrs.</i>
EFL 498 Student Teaching in Foreign Languages, N-12 .....	9
EFL 499 Internship Seminar in Foreign Language Education .....	1

### FOREIGN LANGUAGES - SPANISH (33 HOURS)

Note: All other requirements for this major  
(i.e., grade point average, residency) must be met. See page 74.

Note: A grade of C or better required.

	<i>Sem. Hrs.</i>
SPA 201 Intermediate Spanish I .....	3
SPA 202 Intermediate Spanish II.....	3
SPA 210 Conversation and Culture.....	3
SPA 200-level elective (see advisor) .....	3
SPA 300 Advanced Grammar and Composition .....	3
SPA 304 Phonetics and Phonemics.....	3
SPA 311 Survey of Spanish Peninsular Literature.....	3
SPA 312 Survey of Latin American Literature.....	3
SPA 400 level (three courses) .....	9

### SECONDARY EDUCATION MINOR

The minor in secondary education helps students understand foundational issues in education, especially those related to teaching in public middle schools and high schools. The secondary education minor does not result in teaching certification. When combined with selected majors from the Schools of Arts and

Humanities, Natural Sciences and Mathematics, or Social and Behavioral Sciences, the education minor provides an excellent pathway toward UAB's Fifth Year Education program, which does result in teacher certification.

	<i>Sem. Hrs.</i>
ECY 300 Survey of Special Education.....	3
EDT 300 Teaching and Technology .....	3
EDF 362 Foundations of Education I: Social and Historical ..	3
EPR 363 Foundations of Education II: Psychological .....	3
EHS 401 Secondary Education Curriculum and Methods I ..	3
EHS 402 Practicum I .....	1
EDR 442 Reading in Content Areas .....	3
TOTAL .....	19

## Course Descriptions

### Early Childhood Education (ECE)

**320. Introduction to Curriculum and Teaching**—Early childhood curriculum for programs for infant through third grade in variety of settings. Relationship of child growth and development in planning and implementing all areas of curriculum. *Prerequisites:* EEC 240 or EEC 241 and admission to TEP. 3 hours.

**331. Creative Learning Experiences for the Young Child**—Planning and implementation of activities in art, music, movement, and play considering growth patterns of individual child. Emphasis on preserving and maintaining creative expressions. Laboratory experiences. *Prerequisite:* Admission to TEP. 3 hours.

**332. Literature and Storytelling for the Young Child**—Literature suitable for young children (grades N–3). Reading aloud, storytelling, and other planned experiences. Laboratory experiences included. 3 hours.

**334. Young Children: Family and School**—Introduction and practicum in early childhood education. Programs, teaching opportunities, professional organizations and publications, trends, contemporary problems, parent involvement, and family relationships. Conducting parent conferences and using volunteers in classroom. Directed observation and participation with children in learning environment required. Practicum experiences required. *Prerequisite:* EEC 240. 3 hours.

**390. Practicum in Early Childhood Education**—Supervised teaching in early childhood program (birth–K). Directed observation of teacher (childcare giver) and children with minimum participation. Participation gradually increased until student assumes responsibility for planning and teaching in classroom for one day. Supervised experience working with parents. *Prerequisites:* Admission to TEP, ECE 320, and approval of practicum application. 1-6 hours.

**410. Organizing Programs for Young Children**—Trends, practices, and research in administration, organization, evaluation, and design of early childhood programs. *Prerequisite:* Admission to TEP. 1 hour.

**445. Curriculum for Young Children: Math, Science, and Social Studies**—(Also ECE 545) Concepts required for teaching mathematics, science, and social studies to young children. Child growth and development as basis for planning and teaching curricular areas in variety of programs. Teaching methods and use of

instructional media. Practicum experiences required. *Prerequisites:* EEC 240, MA 113, MA 114, and admission to TEP. 6 hours.

**446. Communication Arts and Reading for the Young Child**—(Also ECE 546) Nature of reading and language arts experiences for children grades N-3. Media, materials, experiences, programs, and strategies to facilitate development of communicative abilities with emphasis on preserving and maintaining creative expression. Integration of learning in areas of listening, speaking, reading, composition, literature, handwriting, spelling, and other communication arts. Laboratory experiences required. *Prerequisites:* EDR 440 and admission to TEP. 6 hours.

**448. Infant/Toddler Development**—(Also ECE 548) Human development within ecological context from pre-birth to three years. Social, emotional, physical, cognitive, language, and creative development of infant and toddler in home and in programs for very young children. 3 hours.

**449. Educational Environment: Infants/Parents**—(Also ECE 549) Infant (or toddler) development as related to organization of parent/infant (or toddler) education program. Program management, observation of parent/infant (or toddler) interaction, development and sequencing of activities, creation and evaluation of materials, and examination of techniques and procedures for parent involvement and education. Experience in working with parent/infant (or toddler) program. *Prerequisite:* ECE 448. 3 or 6 hours.

**490. Student Teaching in Early Childhood Education I**—Supervised teaching in early childhood program (grades N–3). *Prerequisite:* Approval of application for student teaching. 9 hours.

**491. Student Teaching in Early Childhood Education II**—Supervised teaching in early childhood program (grades N–3). *Prerequisites:* Permission of instructor and department. 3, 6, or 9 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

### Art Education (EDA)

**483. Methods of Teaching (Art)**—(Also EDA 583) Preparation to teach art in schools. Learning experiences necessary for development of essential teaching competencies. Materials and methods in art studio media, technology skills for art classroom, art history and criticism, and current issues in art education. *Prerequisite:* Admission to TEP. *Corequisite:* EDA 484. 3 hours.

**484. Methods of Teaching (Art) Laboratory**—(Also EDA 584) Observations in schools. *Corequisite:* EDA 483. 1 hour.

**490. Student Teaching in Art, N–12**—Supervised student teaching in elementary and secondary art. *Prerequisites:* Admission to TEP, senior standing, and approval of student teaching application. 9 hours.

**499. Internship Seminar in Art Education**—Problem solving related to situations such as classroom management, grading, professionalism and ethics, legal issues, and teachers' rights. *Prerequisite:* Admission to TEP. *Corequisite:* EDA 490. 1 hour.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## Reading Education (EDR)

**440. Developmental Reading I**—(Also EDR 540) Materials and methods. Emphasis on planning balanced program and understanding reading process. Includes field experiences. *Prerequisite:* Admission to TEP. 3 hours.

**441. Literature for Adolescents**—(Also EDR 541) Literary works written for or about adolescents. 3 hours.

**442. Reading in Content Areas**—Application of principles of reading process to content-area materials and instruction. Designed for elementary, middle, and high school pre-service teachers. Includes field experiences. *Prerequisite:* Admission to TEP. 3 hours.

**443. Developmental Reading II: Focus on Content Areas**—(Also EDR 543) Application of principles of reading process to content-area materials and instruction. Designed for elementary and middle school pre-service teachers. Includes field experiences. *Prerequisites:* Admission to TEP and EDR 440. 3 hours.

**450. Literature for Elementary and Middle Schools I**—Needs of children, selection of books, societal issues in children's literature, and role of media in children's literature. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## Elementary and Early Childhood Education (EEC)

**240. Child Growth, Development, and Learning I**—Interrelationships of physical, emotional, intellectual, and social development and influence of home, school, and social environments on children's growth. Early childhood (birth–6 years). Includes field experiences. 3 hours.

**241. Child Growth, Development, and Learning II**—Interrelationships of physical, emotional, intellectual, and social development and influence of home, school, and social environments on children's growth. Middle childhood (6–12 years). Includes field experiences. 3 hours.

**300. Child Development and Family Relationships**—Interrelationship of physical, emotional, intellectual, and social development and influence of home, school, and social environments on human growth from conception through adolescent years. *Prerequisites:* EDU 200, EDF 362, and EPR 363. 4 hours.

**301. Introduction to P-6 Education**—Basic knowledge of early childhood and elementary school curricula in variety of settings from infancy programs through elementary school. Theories and practical approaches to teaching and to curriculum development; relationship between child growth and development and areas of curriculum. Observation in early childhood and elementary programs required. *Prerequisites:* EDU 200, EDF 362, and EPR 363. 3 hours.

**302. Expressive Arts (P-6)**—Creativity through numerous experiences in music, theatre, dance, and visual arts. Experiences correlate with literacy skills, critical thinking skills, symbols, and images that can be directly applied to both teacher-centered and child-centered methods of teaching. *Prerequisites:* EEC 300 and EEC 301. 3 hours.

**405. Children's Literature in Elementary and Early**

**Childhood Education**—(Also EEC 505) Materials and methods. Needs of children, selection of books, societal issues in children's literature, and role of media in children's literature. Field experiences required. *Prerequisite:* Admission to TEP. 3 hours.

**406. Language Arts in Elementary and Early Childhood Education**—(Also EEC 506) Materials and methods. Communication-based approach in developing effective language arts program. All aspects of language arts program addressed. Field experiences required. *Prerequisite:* Admission to TEP. 3 hours.

**411. Discipline and Classroom Management**—Theoretical and practical application of various theories of discipline. Development of skills in management of student behavior and classroom environment. 3 hours.

**412. Mathematics in Elementary and Early Childhood Education**—(Also EEC 512) Materials and methods. Scope, sequence, and content of mathematics program. Computational skills and problem solving. Field experiences required. *Prerequisites:* Admission to TEP, EEC 405, EEC 406, and EDR 440. 3 hours.

**413. Science in Elementary and Early Childhood Education**—(Also EEC 513) Materials and methods. Scope, sequence, and content of science program. Inquiry, science process skills, and concept development. Field experiences required. *Prerequisites:* Admission to TEP, EEC 405, EEC 406, and EDR 440. 3 hours.

**414. Social Studies in Elementary and Early Childhood Education**—(Also EEC 514) Materials and methods. Scope, sequence, and content of social studies curriculum. Teaching strategies, program articulation, and instructional planning. Field experiences required. *Prerequisites:* Admission to TEP, EEC 405, EEC 406, and EDR 440. 3 hours.

**440. Workshop in Education**—Strengthens proficiency in teaching area. Specific teaching area and themes vary. May be repeated for maximum of nine hours of differing topics. 1, 2, 3, or 6 hours.

**460. Current Topics in Education**—Topics vary. May be repeated for maximum of six hours of differing topics. 1 to 3 hours.

**465. Teaching Globe and Map Skills**—Concepts and skills related to understanding functional use of globes and maps. Strategies and methods for teaching concepts and skills to children. Curriculum scope, sequence, continuity, and application within social studies program. Materials and resources for teaching. *Prerequisite:* Admission to TEP. 3 hours.

**490. Internship in P-3/3-6**—Supervised teaching in early childhood (P-3) and elementary (3-6) program. Gradual assumption of responsibility for planning and teaching for the entire class (minimum of 12 weeks). Supervision in working with resource professionals and parents. *Prerequisite:* Approval of application for student teaching. 9 hours.

**491. Internship Seminar in P-6 Education**—Supports and extends efforts of student teaching. Problem solving related to classroom situations such as classroom management, grading, professionalism and ethics, legal issues, teacher rights, and others that occur during internship. *Prerequisite:* Approval of application for student teaching. Corequisite: EEC 490. 3 hours.

**492. Individual Curriculum Projects: (Area Specified)**—Field projects in curriculum modification and improvement of class-

room practice. *Prerequisite:* Permission of instructor. 3 or 6 hours.

**493. Individual Readings**—Individualized readings on special topics. *Prerequisite:* Permission of instructor. 1-3 hours.

**494. Field Work in Elementary and Early Childhood Education**—Observation and participation experiences with children. *Prerequisite:* Permission of instructor. 1, 2, 3, or 6 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

### Foreign Language Education (EFL)

**470. Practicum in Foreign Language N-12**—Assignment to foreign language classroom to teach selected topics in field of certification. *Prerequisite:* Admission to TEP. *Corequisite:* EFL 485. 1 hour.

**485. Foreign/Secondary Language Methods**—(Also EFL 585) Approaches and methods of teaching and testing foreign language. Selection and use of audiovisual equipment and materials. Structured school observations. *Prerequisite:* Admission to TEP. *Corequisite:* EFL 470. 3 hours.

**498. Student Teaching in Foreign Languages, N-12**—(Also EFL 598) Supervised teaching in foreign languages (N-12). *Prerequisite:* Approval of application for student teaching. 9 hours.

**499. Internship Seminar in Foreign Language Education**—Supports and extends efforts of student teaching. Problem solving related to classroom situations such as classroom management, grading, professionalism and ethics, legal issues, teacher rights, and others that occur during internship. *Prerequisite:* Approval of application for student teaching. *Corequisite:* EFL 498. 1 hour.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

### High School Education (EHS)

**401. Secondary Education Curriculum and Methods I**—Coherent view of effective teaching and instructional design in middle and high schools. Students design lesson plans to meet needs of diverse learners. *Prerequisite:* Admission to TEP. *Corequisite:* EHS 402. 3 hours

**402. Practicum I**—Interaction with middle and high school teachers and students and representatives from support agencies in their respective environments. Observations, interactions and experiences provide foundation for constructing lesson plans in EHS 401. *Prerequisite:* Admission to TEP. *Corequisite:* EHS 401. 1 hour.

**410. Introduction to Measurement and Evaluation**—Principles of student assessment. *Prerequisites:* Admission to TEP, EHS 401, and EHS 402. 3 hours.

**456. Classroom Management in the Secondary School**—(Also EHS 556) Management and instructional problems in secondary schools; techniques for improving study skills and developing better instructional planning. 3 hours.

**458. Science, Technology, and Society: A Primer for Education Majors**—(Also EHS 558) Nature of momentous changes: origin, current status, and future direction. Role of educational community in helping young people better understand and deal with various issues raised. 3 hours.

**459. History and Philosophy of Mathematics**—Historical and cultural significance of mathematical principles taught in secondary mathematics. Historical, social, and scientific influences on mathematics education. 3 hours.

**465. Secondary Math Methods**—(Also EHS 565) Planning and organization, methods and techniques of teaching mathematics, methods of evaluating student and teacher performance, and professional issues. Methods and techniques for teaching problem solving, using computers and calculators, meeting needs of individual students, dealing with mathematics anxiety, and using manipulative materials. Required micro-teaching and clinical experiences. *Prerequisite:* Admission to TEP. *Corequisites:* EHS 470 and 471. 3 hours.

**466. Language Arts Methods**—(Also EHS 566) Curriculum and instruction in English/language arts. *Prerequisite:* Admission to TEP. *Corequisites:* EHS 470 and 471. 3 hours.

**467. Secondary Science Methods**—(Also EHS 567) Teaching methods and curricula in secondary science programs. *Prerequisite:* Admission to TEP. *Corequisites:* EHS 470 and 471. 3 hours.

**468. Secondary Social Science Methods**—(Also EHS 568) Curriculum and instruction in social studies. *Prerequisite:* Admission to TEP. *Corequisites:* EHS 470 and 471. 3 hours.

**469. Secondary School Curriculum: Foreign Language**—(Also EHS 569) Approaches and methods of teaching and testing foreign language. Selection and use of audiovisual equipment and materials. Structured school observations. *Prerequisite:* Admission to TEP. *Corequisites:* EHS 470 and 471. 3 hours.

**470. Practicum II**—(Also EHS 570) Coherent view of effective teaching and instructional design in middle and high schools. Extensive guided teaching experiences. Students implement full range of instructional process: planning, delivery, and evaluation. *Prerequisite:* Admission to TEP. *Corequisite:* EHS 465, 466, 467, or 468. 1-2 hours.

**471. Special Education Accommodation/Modification Laboratory**—Specific teaching strategies addressing special need students included in regular classroom. Emphasis on high incident special needs. *Corequisite:* EHS 465, 466, 467, or 468. 1 hour.

**489. Internship Seminar in Secondary Education**—Supports and extends efforts of student teaching. Problem solving related to classroom situations such as classroom management, grading, professionalism and ethics, legal issues, teacher rights, and others that occur during internship. *Corequisite:* EHS 490. 1 hour.

**490. Secondary School Student Teaching I**—Observation and teaching in secondary schools. *Prerequisites:* Appropriate methods course, senior standing, and approval of application for student teaching. 9 hours.

**491. Secondary School Student Teaching II**—Supervised teaching in high school. *Prerequisites:* Permission of instructor and department. 3 or 6 hours.

**497. Special Problems in Education**—Topics of current interest. May be repeated for total of 6 hours. *Prerequisites:* Permission of instructor and advisor. 1, 2, or 3 hours.

**499. Field Studies in (Selected Educational Settings)**—Field visits to locations of high educational impact. *Prerequisites:* Permission of instructor and advisor. 1, 2, or 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## Elementary Education (ELE)

**255. Elementary School Curriculum: Introduction**—Role of elementary teacher. Overview of elementary school curriculum, classroom management, and organization in elementary school. Planned observations required. 3 hours.

**315. Elementary School Curriculum: Children's Literature**—Materials and methods. Communication-based approach in developing effective language arts program. Needs of children, selection of books, societal issues in children's literature, and role of media in children's literature. Includes field experiences. *Prerequisite:* Admission to TEP. 3 hours.

**316. Elementary School Curriculum: Language Arts**—Communication-based approach in developing effective language arts program. All aspects of language arts program addressed. *Prerequisite:* Admission to TEP. 3 hours.

**333. Art Experiences in the Elementary School**—Art concepts, methods, and skills for teaching art in elementary schools. 3 hours.

**334. Music Experiences in the Elementary School**—Concepts of music, methods, and skills for teaching music in elementary schools. 3 hours.

**380. Practicum I: Reading and Language Arts**—Assignment in elementary school classroom to teach selected topics in reading and language arts. *Prerequisites:* Admission to TEP and prior or concurrent enrollment in ELE 316 and EDR 443; must be enrolled in at least one of these courses concurrently. 3 hours.

**412. Elementary School Curriculum: Mathematics**—(Also ELE 512) Materials and methods of teaching mathematics. Scope, sequence, and content of mathematics program. Computational skills, problem solving, and discovery learning. Includes field experiences. *Prerequisites:* Admission to TEP and six hours of mathematics. 3 hours.

**413. Elementary School Curriculum: Science**—(Also ELE 513) Scope, sequence, materials, and methods. Teaching and development of content and process skills. Field experiences required. *Prerequisite:* Admission to TEP. 3 hours.

**414. Elementary School Curriculum: Social Studies**—(Also ELE 514) Scope, sequence, and content of elementary school social studies curriculum. Teaching strategies, program articulation, and instructional planning. Field experiences required. *Prerequisite:* Admission to TEP. 3 hours.

**415. Classroom Organization and Management**—Developing skills and techniques in classroom organization and management and becoming proficient in organization and utilization of educational media in classroom. *Prerequisites:* Admission to TEP; must be taken concurrently with six hours of student teaching. 3 hours.

**450. Elementary School Curriculum: Interdisciplinary Teaching Strategies**—Development of ability to select appropriate strategies for teaching. *Prerequisite:* Admission to TEP. 3 hours.

**480. Practicum II: Science and Social Studies**—Assignment in elementary school classroom to teach selected topics in science and social studies. *Prerequisites:* Admission to TEP or Fifth Year Program, ELE 380, and prior or concurrent enrollment in ELE 413 and 414 (must be enrolled in at least one of these courses concurrently). 3 hours.

**489. Student Teaching in the Elementary School I**—Supervised teaching in elementary school. Student may select

assignment within either grades 1–3 or 4–6. *Prerequisites:* ELE 315, 316, 412, 413, 414, and 415; EDR 440; and approval of application for student teaching. 6 hours.

**490. Student Teaching in the Elementary School II**—Supervised teaching in elementary school (grades 3–6). *Prerequisite:* Approval of application for student teaching. 9 hours.

**491. Student Teaching in the Elementary School**—Supervised teaching in elementary school. *Prerequisites:* Permission of instructor and department. 3, 6, or 9 hours.

See the UAB Graduate School Catalog for descriptions of graduate courses.

## Middle School Education (EMS)

**330. Introduction to Middle/Junior High School Teaching**—Survey of curriculum, methods, and techniques of teaching, materials for instruction, and evaluation of instruction. Field experiences required. 3 hours.

**335. Materials and Methods of Teaching in the Middle School**—Development of skills and techniques for teaching 10–14 year olds. Two-thirds of course dedicated to generic skills and techniques needed to teach all children in age group and one-third to specific skills discipline for which student is seeking endorsement. Teacher as decision maker. 3 hours.

**343. Implications of Growth and Development in Middle School Years**—Developmental stages of students ages 10–14 with emphasis on developing curricula and teaching strategies compatible with these growth stages. Laboratory and case studies required. 3 hours.

**490. Student Teaching in Middle/Junior High School I**—Teaching in middle/junior high school. *Prerequisites:* Completion of EMS 330 and 343, EDR 440 and 442, EDT 300, methods courses in teaching field(s), and approval of student teaching application. 9 hours.

**491. Student Teaching in Middle/Junior High School II**—Supervised teaching in middle/junior high school. *Prerequisites:* Permission of instructor and department. 3 or 6 hours.

## Music Education (EMU)

**402. Methods of Teaching Music N-6**—(Also EMU 502) Organization of appropriate music concepts and musical experiences for all elementary children; development of methods and skills needed for direct student involvement in musical experiences for each grade level. *Prerequisite:* Admission to Music Education Program or permission of instructor. 3 hours.

**403. Methods of Teaching Music N-6 Laboratory**—(Also EMU 503) Laboratory experience. 1 hour.

**404. Methods of Teaching Music in Secondary Education**—Aims, principles, and philosophies of music; various methods of teaching in secondary schools for both non-performance music classes and instrumental and vocal activities. Laboratory includes direct method application in secondary music classrooms. *Prerequisite:* Junior standing in music education. 3 hours.

**405. Methods of Teaching Music in Secondary Education Laboratory**—Laboratory experience. 1 hour.

**490. Internship in Music Education**—Supervised teaching in grades N–12 as appropriate to student's teaching field (general music, instrumental music, or vocal/choral music). *Prerequisites:* EPR 410, EMU 402, and 404, and approval of application for student teaching. 9 hours.

**499. Internship Seminar in Music Education N-12**—Supports and extends efforts of student teaching. Problem solving related to classroom management, grading, professionalism and ethics, legal issues, teacher rights, and others that occur during internship. *Prerequisites:* Completion of methods courses with no grade below C. *Corequisite:* EMU 490. 1 hour.

## DEPARTMENT OF HUMAN STUDIES

**Chair:** David M. Macrina

**Faculty:** Abbott, Ahmad, A. Coker, M. Coker, Evans, Geiger, Hester, Hunter, Kohler, Menear, O'Neal, Petri, Ross, Roy, Sapp, Sheets, Snyder, Sumrall, Tyson

The Department of Human Studies offers programs in counseling, health education, and physical education. The department offers undergraduate majors in both health education and physical education. Health education majors choose between two concentrations: community health (non-teaching) or health education teacher certification (grades 6-12). Physical education majors choose between three concentrations: grades P-12 physical education teacher certification, fitness leadership (non-teaching), or exercise science (non-teaching). All programs leading to degrees and/or certificates in counseling and school psychometry/psychology are graduate programs.

Students should contact the Office of Student Services, Room 100, Education Building, early in their studies to obtain pertinent program information related to the Core Curriculum. Students majoring in the department should complete a student information form, available in Room 207, Education Building. Once this form is completed, students are assigned faculty advisors. Students should consult their advisor prior to each registration period for the appropriate guidance (e.g., students are expected to take courses in the appropriate sequence, including prerequisites). All undergraduate majors must be admitted to their respective programs as a prerequisite to taking upper-division major courses. Procedures are available from the department office.

### Course Descriptions Counseling (ECG)

**150. Career Planning and Management**—Understanding aptitudes, abilities, and interests as related to career alternatives. Group and individual experiences aid self-direction in planning and career management. Values, preferences, skills, and personal resources matched with educational and employment opportunities using variety of experiences and resources. 3 hours.

**155. Job Search Strategies**—Current occupational information, employer information, and job market trends. Relevance of academic preparation to world of work. Job search strategies and résumé preparation. 1 hour.

**300. Strategies for Effective Career Development**—Concepts of career development through assessment, career exploration, experiential education, resume writing, interviewing skills, and job search strategies. 1 hour.

**420. Alcoholism**—Emotional, intellectual, psychological, and social aspects of alcoholism. 3 hours.

**422. Strategies for Attitude Development**—Dynamics of positive and negative attitudes. Techniques and exercises for improving communication, empathy, and awareness. Techniques for determining personal strengths, setting goals, managing time, and developing strong positive attitudes. 3 hours.

**423. Strategies for Effective Interviewing**—Selected interviewing skills described, demonstrated, and practiced in role play with feedback to increase effectiveness in interviewing. 3 hours.

**424. Strategies for Constructive Conflict Management**—Strategies of constructive conflict management in multicultural settings. Synthetic culture laboratory organized to practice managing conflict in safe context. Strategies for mediating conflict focus on increased awareness, knowledge, and skills for reframing conflict. 3 hours.

**438. Interpersonal Skills Development**—Classroom lectures plus experiential, structured exercises in small groups for development of more effective interpersonal communication skills. 3 hours.

**451. Issues in the Helping Professions**—1 to 3 hours.

**460. Sign Language I: Survival**—Beginning course in manual communication. Finger spelling and language of signs to facilitate communication with individuals who have severe hearing impairments. 3 hours.

**461. Sign Language II: Intermediate**—Manual communication; signed English. Finger spelling and language of signs. *Prerequisite:* ECG 460. 3 hours.

**462. Sign Language III: Advanced**—American Sign Language. Syntax structure for more effective communication with adult deaf persons. Sign concept and concept transmission. *Prerequisite:* ECG 461. 3 hours.

**463. Introduction to Interpreting for the Deaf**—Basic theories, principles, and practices of interpreting for deaf in general and specialized settings; guidelines appropriate in situational settings. Development of interpreting skills and manual communications skills. *Prerequisite:* ECG 462. 3 hours.

**470. Crisis Intervention Techniques**—(Also ECG 570) Crisis counseling theory, applications of crisis intervention, and crisis situations. 3 hours.

**474. Seminar in Death, Dying, and Bereavement**—(Also ECG 574) Attitudes, beliefs, and response to death, dying, and bereavement. Multicultural perspective. Implications for counseling. 3 hours.

**478. Counseling African-American Clients**—Historical, contemporary, and psychosocial forces influencing African-American population. Techniques for counseling African-Americans. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

### Educational Psychology (EPR)

**005. Educational Skills**—Educational skills needed in pursuing baccalaureate degree. Study skills, evaluation and resources, note taking, test taking, outlining and organization of data, time management, verbal communication, and use of library. May not be used for fulfillment of any degree requirement. 2 hours.

**363. Foundations of Education II: Psychological**—Psychological principles basic to understanding of learner, learning process, and learning situation. Field experiences required. 3 hours.

**410. Introduction to Measurement and Evaluation in Education**—(Also EPR 510) Basic concepts and principles of measurement and evaluation of personal and academic progress in classroom. Elementary descriptive statistics and measurement techniques used in student evaluation. *Prerequisite:* Admission to TEP. 3 hours.

**414. Human Development**—Physical, intellectual, emotional, and social development of child's personality as affected by physical, cultural, and social factors. Importance of child's interpersonal relationships with family and peer group. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## HEALTH EDUCATION MAJOR: TEACHER CERTIFICATION CONCENTRATION

The emphasis of the health education teacher certification concentration is to prepare students to teach and work collaboratively within the school setting in grades 6-12. Coursework includes exposure to concepts in health as well as training in teaching methods. Because schools are part of a larger community, coursework extends beyond the classroom experience and examines programming issues involving the community at large. Students are given opportunities to practice skills learned. The combination of courses and experiences provides for a well developed education in health content as well as planning, implementing, and evaluating school and community programs and interventions.

Students must earn a "C" or better in all HE and major requirements, including pre-professional courses.

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition .....	<b>3</b>
EH 102 English Composition .....	<b>3</b>
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking (C or better required) .....	<b>3</b>
Literature .....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts .....	<b>3</b>
<i>Note: Literature sequence strongly preferred.</i>	
<b>Area III</b> Natural Sciences	
(BY 101/102 and CH 105/106 strongly preferred) ....	<b>8</b>
Mathematics .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science	
(ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science	
(PY 101 and SOC 100 strongly preferred) .....	<b>6</b>

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
HE 140 First Aid .....	<b>3</b>
HE 141 Personal Health .....	<b>3</b>

BY 115 Human Anatomy.....	<b>4</b>
BY 116 Human Physiology .....	<b>4</b>
NTR 220 Contemporary Issues in Nutrition .....	<b>3</b>
PY 214 Elementary Statistical Methods and Design .....	<b>3</b>

### FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>
EDF 362 Foundations of Education I: Social and Historical .....	<b>3</b>
EPR 363 Foundations of Education II: Psychological .....	<b>3</b>
EDT 300 Teaching and Technology .....	<b>3</b>

### MAJOR REQUIREMENTS\*

	<i>Sem. Hrs.</i>
EHS 401 Secondary Education Curriculum and Methods I .....	<b>3</b>
EHS 402 Practicum I .....	<b>1</b>
HE 489 Health Education Methods .....	<b>3</b>
EHS 470 Practicum II .....	<b>1</b>
EHS 471 Special Education Accommodation/Modification Laboratory .....	<b>1</b>
EPR 410 Introduction to Measurement and Evaluation in Education.....	<b>3</b>
EPR 414 Human Development .....	<b>3</b>
HE 223 Introduction to Epidemiology and Disease Impact .....	<b>3</b>
HE 342 Introduction to Health Education .....	<b>3</b>
HE 343 Theories and Determinants of Health Behavior/Community Applications.....	<b>3</b>
HE 402 Mental Health and Stress Management.....	<b>3</b>
HE 408 Drug Use and Abuse .....	<b>3</b>
HE 421 Health Communications .....	<b>3</b>
HE 423 Human Sexuality .....	<b>3</b>
HE 431 Planning and Evaluating Effective Health Education and Promotion Programs .....	<b>3</b>
HE 432 Administration of Health and Fitness Programs .....	<b>3</b>

\* *Requires admission to TEP.*

### INTERNSHIP

	<i>Sem. Hrs.</i>
EHS 489 Internship Seminar in Secondary Education.....	<b>1</b>
HE 497 Secondary Health Education Student Teaching .....	<b>9</b>

## HEALTH EDUCATION MAJOR: COMMUNITY HEALTH CONCENTRATION

Community health education is designed to prepare students for work in a variety of health settings. These include, but are not limited to, national and state government (e.g., health departments), clinical-based programs (e.g., hospital wellness), and community agencies (e.g., national voluntary organizations and private or not-for-profit health-related organizations). In addition to studying general health content, students will learn the basics of planning, implementing, and evaluating health-related programs and interventions. Students are provided opportunities for skills practice.

A minor (minimum 18 semester hours) is required for the community health concentration. Students may choose from current UAB approved minor areas of study. All requirements for that minor must be met. All health education electives as well as the minor must be approved by the student's health education faculty advisor.

Students must earn a "C" or better in all pre-professional (lower level requirements) and major requirement courses including HE 499.

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	<b>3</b>
Literature.....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence strongly preferred.</i>	
<b>Area III</b> Natural Sciences	
(BY 101/102 and CH 105/106 strongly preferred) ...	<b>8</b>
Mathematics .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science	
(ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science	
(PY 101 and SOC 100 strongly preferred) .....	<b>6</b>

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
HE 140 First Aid .....	<b>3</b>
HE 141 Personal Health .....	<b>3</b>
BY 115 Human Anatomy.....	<b>4</b>
BY 116 Human Physiology .....	<b>4</b>
NTR 220 Contemporary Issues in Nutrition .....	<b>3</b>
PY 214 Elementary Statistical Methods and Design .....	<b>3</b>

### MAJOR REQUIREMENTS

	<i>Sem. Hrs.</i>
HE 223 Introduction to Epidemiology and Disease Impact ..	<b>3</b>
HE 342 Introduction to Health Education .....	<b>3</b>
HE 343 Theories of Determinants of Health Behavior/Community Applications.....	<b>3</b>
HE 421 Health Communications .....	<b>3</b>
HE 431 Planning and Evaluating Effective Health Education and Promotion Programs .....	<b>3</b>
HE 432 Administration of Health and Fitness Programs.....	<b>3</b>
EPR 414 Human Development .....	<b>3</b>
EDT 300 Teaching and Technology .....	<b>3</b>
Health Education electives: three from HE 402, 408, 423, or 490 (requires advisor approval; others may be approved – see HE faculty advisor).....	<b>9</b>

### INTERNSHIP

	<i>Sem. Hrs.</i>
HE 499 Health Education Internship .....	<b>9</b>

## HEALTH EDUCATION MINOR

The health education minor provides background information related to health issues and health programming. Students seeking this minor should complete a student information form, available in Room 207, Education Building. A grade of "C" or better is required in all courses in the minor. Students cannot apply courses toward both a major and a minor. This minor program is available to all students except health education majors.

	<i>Sem. Hrs.</i>
HE 141 Personal Health .....	<b>3</b>
HE 223 Introduction to Epidemiology and Disease Impact ..	<b>3</b>
HE 342 Introduction to Health Education .....	<b>3</b>
HE electives: three from HE 140, 343, 402, 408, 421, 423, 426, 431, 432, or 490 .....	<b>9</b>
<b>TOTAL</b> .....	<b>18</b>

### Course Descriptions

#### Health Education (HE)

**140. First Aid**—Knowledge and skills needed to perform basic first aid and CPR procedures. 3 hours.

**141. Personal Health**—Knowledge and skills that support a healthy lifestyle. Stress management, cardiovascular health, nutrition, and fitness. 3 hours.

**222. Concepts of Health and Fitness**—Fitness and related health concepts. Fitness assessment, variety of fitness-related activities, and development of personal fitness program. Nutrition and cardiovascular health. *Prerequisite:* Recent physical exam. 3 hours.

**223. Introduction to Epidemiology and Disease Impact**—Disease etiology, incidence, prevalence, prevention, and control. Impact of various diseases on society. *Prerequisite:* HE 141 or HE 222 or permission of instructor. 3 hours.

**301. Teaching Health in the Elementary School**—Techniques, rationale, and resources for implementing health education into school curriculum. Not for health education or physical education majors. 2 hours.

**342. Introduction to Health Education**—Foundations of health education and health promotion. Key concepts, definitions, models, theories, and skills. *Prerequisite:* HE 141 or permission of instructor. 3 hours.

**343. Theories and Determinants of Health Behavior/Community Applications**—Application of health education theories and methods to assist individuals and groups with planned behavior change. Basic steps of program planning and evaluation. *Prerequisite:* HE 342. 3 hours.

**402. Mental Health and Stress Management**—Stress process and its relationship to individual wellness and total health. Physical and psychological effects of stressors and individual appraisals using theoretical models and practical examples. How to identify and manage stress. Effective skills to reduce deleterious effects of stressful events. 3 hours.

**408. Drug Use and Abuse**—Concept, manifestation, and causes of addiction. Major drug classifications and their effects. Potential of drug education as preventative mechanism. 3 hours.

**421. Health Communications**—Skills appropriate for selected

health problems, problem solving, and referrals. Skills to enhance communication with clients, peers, and community members at large. Health-related theories, communication theories, and marketing strategies. *Prerequisite:* HE 342. 3 hours.

**423. Human Sexuality**—Biological, sociological, psychological, and ethical aspects of human sexuality. Biological overview, behavioral variations, research in sexuality, social issues, sexual decision making, sexuality of special populations, and sexual complications. 3 hours.

**426. Special Topics in Health**—Topics vary. *Prerequisite:* Permission of instructor. 1 to 3 hours.

**427. Special Topics in Health**—Topics vary. *Prerequisite:* Permission of instructor. 1 to 3 hours.

**431. Planning and Evaluating Effective Health Education and Promotion Programs**—Content and process of planning, implementing, and evaluating programs in health education and health promotion. Sociological, psychological, and epidemiological foundations of health promotion programs. Development of practical skills for school, occupational, clinical, and community settings. *Prerequisite:* HE 343. 3 hours.

**432. Administration of Health and Fitness Programs**—Administrative theory and practice related to health and fitness programs in various settings. Management issues, professional issues, and personal professionalism. *Prerequisite:* HE 342. 3 hours.

**452. Evaluation of Health Education Programs**—Evaluation of school-based programs and curricula. Current thought and practice related to evaluation of school health programs at individual and system level. *Prerequisite:* HE 489. 3 hours.

**489. Health Education Methods**—Methods and materials; media used in professional health education practice. Nature of effective helping relationships. Selection, development, and critique of resources for health instruction; development of lesson plans. Barriers and ethical issues related to planned health behavior change. *Prerequisite:* HE 343. 3 hours.

**490. Special Projects in Health Education**—Exploration of health-related topic via professional literature or research project. *Prerequisite:* Permission of instructor. 1, 3, or 6 hours.

**491. Problems in Health Education**—Controversial topics in health education or topics identified as state or national priority. *Prerequisite:* Permission of instructor. 1, 3, or 6 hours.

**497. Secondary Health Education Student Teaching**—Observation and teaching of health education in area school. *Prerequisites:* Completion of all required coursework, senior standing, admission to TEP, permission of advisor and department chair, departmental interview, and approved application for student teaching. 3 or 9 hours.

**499. Health Education Internship**—Supervised work experience in pre-approved community agency/organization. *Prerequisites:* Completion of required health education coursework, all major and minor courses, and permission of instructor and advisor. 3, 6, or 9 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## PHYSICAL EDUCATION PROGRAMS

Undergraduate students majoring in physical education may choose from three concentrations: teacher certification, exercise science, and fitness leadership. The teacher certification program prepares students for entry into teaching positions in grades P-12. The exercise science program prepares students for graduate work in physical therapy or exercise physiology. The fitness leadership program prepares students to be fitness leaders in fitness centers, clinics, or industrial settings.

## PHYSICAL EDUCATION MAJOR: TEACHER CERTIFICATION CONCENTRATION

A grade of "C" or better is required in all math, science, and major courses.

### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	<b>3</b>
Literature.....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence strongly preferred.</i>	
<b>Area III</b> Natural Sciences	
(BY 101/102 and CH 105/106 strongly preferred) ...	<b>8</b>
Mathematics .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science	
(ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science (PY 101 and SOC 100	
strongly preferred) .....	<b>6</b>

### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
BY 115 Human Anatomy.....	<b>4</b>
BY 116 Human Physiology .....	<b>4</b>
PY 214 Elementary Statistical Methods & Design	
or MA 180 Introduction to Statistics.....	<b>3</b>
HE 140 First Aid (must be certified in first aid	
and CPR for waiver) .....	<b>0-3</b>
HPE 200 Quality of Life.....	<b>2</b>
PE 109 Badminton and Tennis .....	<b>1</b>
PE 115 Weight Training.....	<b>1</b>
PE 136 Introduction to Physical Education,	
Fitness, and Sport .....	<b>3</b>
Aquatics: one from PE 101, 102 or 103.....	<b>1</b>

### FOUNDATIONS AND PROFESSIONAL STUDIES\*

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>
EDF 362 Foundations of Education I: Social and Historical ..	<b>3</b>

EPR 363 Foundations of Education II: Psychological .....	3
EDT 300 Teaching and Technology .....	3

**PRE-TEP MAJOR REQUIREMENTS\***

	<i>Sem. Hrs.</i>
PE 100 Sport Skill Proficiency .....	1
PE 112 Dance and Gymnastics .....	1
PE 113 Archery and Golf .....	1
PE 114 Recreational Games .....	1
PE 131 Aerobics .....	1
PE 201 Officiating Techniques.....	2
PE 300 Organization and Administration of Physical Education .....	2
PE 305 Motor Development .....	3

\*Required for admission to TEP.

**MAJOR REQUIREMENTS**

	<i>Sem. Hrs.</i>
PE 307 Applied Kinesiology .....	3
PE 308 Adapted Physical Education** .....	3
PE 311 Elementary School Physical Education .....	3
PE 320 Fitness and Motor Skill Acquisition** .....	3
PE 400 Physiology of Exercise.....	4
PE 402 Basic Athletic Training.....	2
PE 407 Coaching Young Athletes .....	3
PE 409 Tests and Measurements in Physical Education** .....	3
PE 489 Instructional Strategies for Physical Education K-12** .....	6

\*\* Requires admission to TEP.

**INTERNSHIP**

	<i>Sem. Hrs.</i>
PE 495 Elementary/Secondary Physical Education Student Teaching .....	9

**PHYSICAL EDUCATION MAJOR: EXERCISE SCIENCE CONCENTRATION**

A grade of "C" or better is required in all math, science, and major courses.

**CORE CURRICULUM**

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	3
EH 102 English Composition.....	3
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	3
Literature.....	3
Fine Arts .....	3
Humanities or Fine Arts.....	3
<i>Note: Literature sequence strongly preferred.</i>	
<b>Area III</b> BY 123 Introductory Biology I .....	4
CH 115/116 General Chemistry I/Lab .....	3/1
MA 125 Calculus I .....	4
<b>Area IV</b> History .....	3

History or Social Science (ANTH 101 or GEO 121 preferred) .....	3
Social Science (PY 101 and SOC 100 strongly preferred) .....	6

**LOWER LEVEL REQUIREMENTS**

	<i>Sem. Hrs.</i>
BY 115 Human Anatomy.....	4
BY 116 Human Physiology .....	4
PY 214 Elementary Statistical Methods & Design or MA 180 Introduction to Statistics .....	3
HE 140 First Aid (must be certified in first aid and CPR for waiver).....	0-3
HE 141 Personal Health .....	3
PE 136 Introduction to Physical Education, Fitness, and Sport .....	3

**MAJOR REQUIREMENTS**

	<i>Sem. Hrs.</i>
BY 210 Genetics .....	3
PY elective: one PY course 200 level or higher approved by faculty advisor .....	3
CH 117/118 General Chemistry II and Laboratory .....	4
PH 201 College Physics I.....	4
PH 202 College Physics II .....	4
Course in aging: one from BY 280, GER 280, GER 385, GER 411, GER 425, GER 469, PY 425, SOC 385, or SOC 469 .....	3
EDT 300 Teaching and Technology .....	3
PE 305 Motor Development .....	3
PE 307 Applied Kinesiology .....	3
PE 400 Physiology of Exercise.....	4
PE 402 Basic Athletic Training.....	2
PE 405 Nutrition and Physical Activity.....	3
PE 485 Exercise Testing and Prescription .....	3
Elective: one math, science, or PE course 200 level or above (must be approved by faculty advisor) .....	3
PE elective: one PE course 300 level or above (must be approved by faculty advisor) .....	3
PE 115 Weight Training.....	1
PE 131 Aerobics.....	1
Aquatics: one from PE 101, 102, or 103 .....	1
PE activity course: one (must be approved by faculty advisor) .....	1

**INTERNSHIP**

	<i>Sem. Hrs.</i>
PE 499 Fitness Internship .....	6

**PHYSICAL EDUCATION MINOR: EXERCISE SCIENCE**

A grade of "C" or better is required in all courses in the minor. Students cannot opt courses toward both a major and minor.

	<i>Sem. Hrs.</i>
BY 115 Human Anatomy.....	<b>4</b>
BY 116 Human Physiology .....	<b>4</b>
PE 307 Applied Kinesiology .....	<b>3</b>
PE 400 Physiology of Exercise.....	<b>4</b>
PE 402 Basic Athletic Training.....	<b>2</b>
PE 485 Exercise Testing and Prescription .....	<b>3</b>
PE 115 Weight Training.....	<b>1</b>
PE 131 Aerobics.....	<b>1</b>
<b>TOTAL .....</b>	<b>22</b>

*Note: First aid/CPR certification required. Students may take HE 140 First Aid or pursue off campus certification. Documentation must be provided.*

### PHYSICAL EDUCATION MAJOR: FITNESS LEADERSHIP CONCENTRATION

A grade of "C" or better is required in all math, science, and major courses.

#### CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<b>Area II</b> CM 101 Public Speaking ( <i>C or better required</i> ).....	<b>3</b>
Literature.....	<b>3</b>
Fine Arts .....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence strongly preferred.</i>	
<b>Area III</b> Natural Sciences	
(BY 101/102 and CH 105/106 strongly preferred) ....	<b>8</b>
Mathematics .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science	
(ANTH 101 or GEO 121 preferred) .....	<b>3</b>
Social Science	
(PY 101 and SOC 100 strongly preferred) .....	<b>6</b>

#### LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
BY 115 Human Anatomy.....	<b>4</b>
BY 116 Human Physiology .....	<b>4</b>
PY 214 Elementary Statistical Methods & Design or MA 180 Introduction to Statistics.....	<b>3</b>
HE 140 First Aid (must be certified in first aid and CPR for waiver).....	<b>0-3</b>
HE 141 Personal Health .....	<b>3</b>
PE 136 Introduction to Physical Education, Fitness, and Sport .....	<b>3</b>

#### MAJOR REQUIREMENTS

	<i>Sem. Hrs.</i>
EDT 300 Teaching and Technology .....	<b>3</b>
HE 223 Introduction to Epidemiology and Disease Impact ..	<b>3</b>

HE 342 Introduction to Health Education .....	<b>3</b>
HE 343 Theories and Determinants of Health Behavior/Community Applications.....	<b>3</b>
PE 305 Motor Development .....	<b>3</b>
PE 307 Applied Kinesiology .....	<b>3</b>
PE 320 Fitness and Motor Skill Acquisition .....	<b>3</b>
PE 340 Planning and Management of Fitness Facilities.....	<b>3</b>
PE 400 Physiology of Exercise.....	<b>4</b>
PE 402 Basic Athletic Training.....	<b>2</b>
PE 405 Nutrition and Physical Activity.....	<b>3</b>
PE 440 Principles of Conditioning the Athlete .....	<b>3</b>
PE 485 Exercise Testing and Prescription .....	<b>3</b>
Course in aging: one from BY 280, GER 280, GER 385, GER 411, GER 425, GER 469, PY 425, SOC 385, or SOC 469 .....	<b>3</b>
PE elective: two PE courses 300 level or above (must be approved by faculty advisor).....	<b>6</b>
PE 100 Sport Skill Proficiency.....	<b>1</b>
PE 115 Weight Training.....	<b>1</b>
PE 131 Aerobics.....	<b>1</b>
Aquatics: one from PE 101, 102, or 103 .....	<b>1</b>
PE activity course: one (must be approved by faculty advisor) .....	<b>1</b>

#### INTERNSHIP

	<i>Sem. Hrs.</i>
PE 499 Fitness Internship .....	<b>6</b>

### PHYSICAL EDUCATION MINOR: ATHLETIC COACHING

A grade of "C" or better is required in all courses in the minor. Students cannot apply courses toward both a major and minor.

	<i>Sem. Hrs.</i>
BY 115 Human Anatomy.....	<b>4</b>
HE 222 Concepts of Health and Fitness.....	<b>3</b>
PE 201 Officiating Techniques.....	<b>2</b>
PE 307 Applied Kinesiology .....	<b>3</b>
PE 402 Basic Athletic Training.....	<b>2</b>
PE 407 Coaching Young Athletes .....	<b>3</b>
PE 100 Sport Skill Proficiency.....	<b>1</b>
PE 115 Weight Training.....	<b>1</b>
PE activity: one from PE 104 or 105 .....	<b>1</b>
<b>TOTAL .....</b>	<b>20</b>

*Note: First aid/CPR certification required. Students may take HE 140 First Aid or pursue off campus certification. Documentation must be provided.*

#### Course Descriptions

##### Physical Education (PE)

**100. Sport Skill Proficiency**—First course for physical education majors. Evaluation and assessment of students' motor skills. 1 hour.

- 101. Beginning and Advanced Beginning Swimming**—1 hour.
- 102. Intermediate Swimming and Swimmer Course**—*Prerequisite:* Ability to swim 25 yards using crawl stroke and elementary backstroke. 1 hour.
- 103. Lifeguard Training**—*Prerequisite:* Ability to continuously swim 500 yards using specified strokes and perform retrieval tasks. 1 hour.
- 104. Tennis**—1 hour.
- 105. Golf**—1 hour.
- 106. Archery**—1 hour.
- 107. Badminton**—1 hour.
- 108. Weight Training and Aerobics**—1 hour.
- 109. Badminton and Tennis**—1 hour.
- 110. Racquetball**—1 hour.
- 111. Gymnastics**—1 hour.
- 112. Dance and Gymnastics**—1 hour.
- 113. Archery and Golf**—1 hour.
- 114. Recreational Games and Outdoor Leisure Pursuits**—Wide array of games and pursuits which may include bowling, orienteering, pickleball, and table tennis. 1 hour.
- 115. Weight Training**—1 hour.
- 116. Social Dance**—1 hour.
- 119. Football**—1 hour.
- 120. Volleyball**—1 hour.
- 121. Soccer**—1 hour.
- 122. Basketball**—1 hour.
- 123. Softball**—1 hour.
- 125. Cheerleaders and Dance Team**—1 hour.
- 131. Aerobics**—1 hour.
- 132. Group Exercise Leadership**—Physical training for group exercise leaders. *Prerequisites:* PE 115 and 131. 1 hour.
- 134. The College Athlete: Concerns and Issues**—Needs of and demands on college athletes. Time management, study skills and habits, drug use and abuse, drug testing and NCAA rules, use of trainer and training facilities, and nutritional practices. Holistic health with emphasis on keeping athletic experience in perspective. Does not count toward physical education major or minor. 3 hours.
- 136. Introduction to Physical Education, Fitness, and Sport**—Introduction to the fields; professional organizations, career opportunities, historical development, and philosophical and scientific foundations. 3 hours.
- 201. Officiating Techniques**—Knowledge and practical experience in officiating various team and individual sports. Includes officiating UAB intramurals. 2 hours.
- 206. Introduction to Teaching in Physical Education**—Research on teaching physical education and sociocultural influences on children as learners; development of basic teaching skills. *Prerequisite:* PE 136. 3 hours.
- 222. Principles and Practices of Gymnastics Teaching and Officiating**—Skill development, teaching various ability and experiential levels in educationally-based settings, safety techniques, selection of equipment, and techniques of officiating. 2 hours.
- 223. Principles and Practices of Football Coaching and Officiating**—Advanced skill development, coaching at various ability and experiential levels in educationally-based settings, equipment selection, and techniques of officiating. 1 hour.
- 224. Principles and Practices of Volleyball Coaching and Officiating**—Advanced skill development, coaching at various ability and experiential levels in educationally-based settings, equipment selection, and techniques of officiating. 1 hour.
- 225. Sports Officiating Football and Volleyball**—Practical framework to aspects of sports officiating. 1 hour.
- 226. Sports Officiating Basketball and Soccer**—Practical framework to aspects of sports officiating. 1 hour.
- 227. Sports Officiating Baseball and Softball**—Practical framework to aspects of sports officiating. 1 hour.
- 300. Organization and Administration of Physical Education**—Development of skills required to organize and administer physical education programs. *Prerequisites:* PE 136 and junior standing. 2 hours.
- 301. Teaching Physical Education in the Elementary School**—For classroom teachers. Communicating and working with physical education specialist. Developmentally appropriate activities and integration of movement activities and concepts into classroom subjects. Not for physical education majors or minors. 2 hours.
- 305. Motor Development**—Development of motor skills, physical fitness, and perceptual motor abilities across life span; concentration on preschool population. Laboratory experiences. *Prerequisite:* PE 136. 3 or 4 hours.
- 307. Applied Kinesiology**—Basic kinesiological concepts, including anatomical movements of skeletal system, basic concepts of biomechanics, application of mechanical principles of fundamental physical skills, and applications of kinesiological principles of various sports. *Prerequisite:* BY 115. 3 hours.
- 308. Adapted Physical Education**—Prescription and planning physical activity for individuals with disabilities. *Prerequisites:* PE 136 and 305, ECY 300, and admission to TEP, or permission of instructor. 3 hours.
- 310. Curriculum and Methods in Elementary Physical Education**—Physical education in elementary schools. Nature and content of elementary physical education program, characteristics of children, curriculum development, and class organization. Laboratory experiences. *Prerequisite:* PE 305. 4 hours.
- 311. Elementary School Physical Education**—Nature and content of developmentally appropriate physical education program. *Prerequisite:* PE 305. 3 hours.
- 320. Fitness and Motor Skill Acquisition**—Developmentally appropriate physical activity (motor skills and fitness) applicable to all physical activity settings (school and recreation). *Prerequisite (for fitness leadership):* PE 305, or permission of instructor and advisor. *Prerequisite (for teacher certification):* Admission to TEP. 3 hours.
- 340. Planning and Management of Fitness Facilities**—Management, marketing, operational leadership, evaluation, and planning principles of commercial, corporate, clinical, and community health/fitness facilities. *Prerequisites:* PE 136 and HE 140. 3 hours.

**400. Physiology of Exercise**—Exercise physiology, including bioenergetics, neuromuscular concepts of cardiorespiratory system, physical training, body composition, heat balance, training in females, and ergogenic aids. Laboratory experiences. *Prerequisite:* BY 116. 4 hours.

**402. Prevention and Treatment of Athletic Injuries**—Evaluation, treatment, and rehabilitation. Laboratory experience in training-room setting; physical examination of joint and soft-tissue injuries, methods and techniques of taping and supporting joint-muscle problems, initial and follow-up treatments, and rehabilitation. *Prerequisites:* PE 307 and BY 115. 2 hours.

**403. Basic Therapeutic Management of Sports Injuries**—Use of modalities and rehabilitation techniques to return injured athlete to athletic participation. Practical experience in therapeutic management of sports injuries. *Prerequisite:* PE 402. 3 hours.

**405. Nutrition and Physical Activity**—Nutrition, nutritional quackery in sport, weight maintenance (loss and gain) through nutrition and exercise, nutrition for optimal health/physical performance, and exercise principles for weight training. *Prerequisites:* Junior standing and PE 305, or permission of advisor. 3 hours.

**407. Coaching Young Athletes**—Decision making, coaching philosophy, coaching competency standards, effective communication, pedagogy, psychology, physiology, sports medicine, and sports law. *Prerequisite:* Completion of all coaching and officiating classes. 3 hours.

**409. Tests and Measurements in Physical Education**—Testing and measurement of physical skill associated with general fitness. Writing of knowledge tests. Basic statistics to analyze results of tests; methods utilized in testing sports skill and motor fitness and ability; and various parameters associated with writing of general health and knowledge tests. *Prerequisite:* Admission to TEP. *Corequisite:* PE 489. 3 hours.

**440. Principles of Conditioning the Athlete**—Isometric, isotonic, negative, variable resistance, and isokinetic training; tapering of athlete; constructing weight training programs; techniques of various types of exercise and weight training for specific sports. *Prerequisites:* BY 115 and PE 400. 3 hours.

**470. Advanced Treatment of Athletic Training**—Seminar in treatment and prevention. *Prerequisites:* PE 307 and 402 and BY 115. 3 hours.

**485. Exercise Testing and Prescription**—Concepts and procedures utilized in fitness leadership roles. Supervised practical experiences. *Prerequisite:* PE 400. 3 hours.

**488. Instructional Strategies for Secondary Physical Education**—Design and implementation of effective instructional programs. Curriculum and instruction for secondary level; opportunities for practice using instructional strategies in school settings. *Prerequisites:* Admission to TEP; must be within two terms of student teaching. 3 hours.

**489. Instructional Strategies for Physical Education K-12**—Various teaching methods and materials suitable for use in elementary (P-5) and secondary (middle school, junior high, or senior high) schools. Opportunities to apply methods and materials while working with small groups of elementary and secondary students. 6 hours.

**492. Special Projects in Physical Education**—*Prerequisites:* Permission of instructor and advisor. 1, 3, or 6 hours.

**493. Problems in Physical Education**—*Prerequisite:* Permission of advisor. 3 or 6 hours.

**495. Elementary/Secondary Physical Education Student Teaching**—Observation and teaching of physical education to attain grades P-12 Alabama certification. *Prerequisites:* All professional courses in field, senior standing, admission to TEP, and approval of application for student teaching. 3 or 9 hours.

**496. Physical Education Internship Seminar**—Supports and extends efforts of student teaching. Problem solving related to situations such as classroom management, grading, professionalism and ethics, legal issues, teacher rights, and others that occur during internship. *Prerequisites:* Admission to TEP and concurrent enrollment in PE 495. 3 hours.

**499. Fitness Internship**—*Prerequisites:* PE 485 and permission of instructor during term prior to internship. 3, 6, or 9 hours.

### *Health Education/Physical Education (HPE)*

**200. Quality of Life**—Total health; effects of lifestyle on total health. Decision-making skills to enable health enhancing choices and engage in health enhancing activities to improve and maintain health status. For education majors only. 2 hours.

**301. Teaching Health Education and Physical Education in the Elementary School**—For classroom teachers. Communicating and working with physical education specialists, selecting developmentally appropriate activities, and integrating movement activities and concepts into classroom subjects. Background information and skills to implement health education in grades K-6. *Prerequisite:* HPE 200. 3 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## DEPARTMENT OF LEADERSHIP, SPECIAL EDUCATION, AND FOUNDATIONS

**Chair:** Boyd Rogan

**Faculty:** Allison, Collins, Dahle, Gargiulo, Gauld, Goldman, Hudson, Kahn, Kelehear, Kilgo, Loder, McKnight, Nelson, Patterson, Sanspre, Voltz, Wang, Worthington

The Department of Leadership, Special Education, and Foundations offers an undergraduate program in collaborative teaching (special education) grades K-6 as well as support courses in foundations and technology for other program areas. The department also offers a master's degree in collaborative teaching (grades K-6 and 6-12) which results in an Alabama "Class A" teaching certificate. In addition, the department offers master's, educational specialist, and doctoral programs in educational leadership.

### **Course Descriptions**

#### *Educational Technology (EDT)*

**300. Introduction to Teaching with Media and Technology**—Knowledge and skills of variety of microcomputer applications used in teaching; use of latest information technologies to access available resources on campus, Internet, and e-mail. 3 hours.

## Exceptional Children and Youth Education (ECY)

**300. Survey of Special Education**—Exceptional children, their characteristics, and educational programs for various fields of exceptionality. 3 hours.

## Foundations of Education (EDF)

**362. Foundations of Education I: Social and Historical**—Realities of contemporary professional education and active participatory field experience in teaching situations. Seminars on current issues and problems in education. 3 hours.

## SPECIAL EDUCATION

The undergraduate collaborative teacher program prepares students as special education teachers to work collaboratively with general education teachers to address the needs of students with low incidence and high incidence disabilities in a variety of K-6 settings. Coursework includes a heavy emphasis on general education curriculum, assessment, legal issues, technology, diversity, and collaboration with families and other professionals. Most courses include problem-based learning and field experiences designed to develop knowledge, skills, and positive dispositions. A variety of field-based experiences are required in school/agency settings to supplement campus coursework. The program is designed to lead to an Alabama "Class B" teaching certificate (grades K-6).

Students should contact the Office of Student Services, Room 100, Education Building, early in their studies to be certain they will meet School of Education requirements and State Department of Education teaching certification requirements. Students will be assigned faculty advisors following their admission into the Teacher Education Program.

## CORE CURRICULUM

	<i>Sem. Hrs.</i>
<b>Area I</b> EH 101 English Composition.....	<b>3</b>
EH 102 English Composition.....	<b>3</b>
<i>Note: Grade of at least B in one and C in the other required.</i>	
<b>Area II</b> CM 101 Public Speaking (C or better required).....	<b>3</b>
Literature.....	<b>3</b>
Fine Arts.....	<b>3</b>
Humanities or Fine Arts.....	<b>3</b>
<i>Note: Literature sequence preferred.</i>	
<b>Area III</b> BY 101/102 Topics in Contemporary Biology/Laboratory or BY 123 Introductory Biology I .....	<b>4</b>
Natural Science (not biology).....	<b>4</b>
Mathematics .....	<b>3</b>
<b>Area IV</b> History .....	<b>3</b>
History or Social Science (PY 101 preferred) .....	<b>3</b>
Social Science (PY 212 and SOC 100 preferred) .....	<b>6</b>

## LOWER LEVEL REQUIREMENTS

	<i>Sem. Hrs.</i>
Natural science with laboratory (from AGSC list) .....	<b>4</b>
Mathematics (from AGSC list) .....	<b>3</b>
Mathematics (MA 113 and MA 114 preferred) .....	<b>6</b>
PY 101 Introduction to Psychology (if not taken in Area IV)...	<b>3</b>
PY 212 Developmental Psychology (if not taken in Area IV)...	<b>3</b>
HPE 200 Quality of Life .....	<b>2</b>

## FOUNDATIONS AND PROFESSIONAL STUDIES

	<i>Sem. Hrs.</i>
EDU 200 Education as a Profession .....	<b>1</b>
ECY 300 Survey of Special Education.....	<b>3</b>
EDF 362 Foundations of Education I: Social and Historical ..	<b>3</b>
EPR 363 Foundations of Education II: Psychological .....	<b>3</b>
EDT 300 Teaching and Technology .....	<b>3</b>

## TEACHING FIELD\*

	<i>Sem. Hrs.</i>
ECT 303 IEP Program Development .....	<b>3</b>
ECT 451 Assessment of Students with Special Needs .....	<b>3</b>
ECT 452 Characteristics of Students with Special Needs.....	<b>3</b>
ECT 453 Technology for Students with Special Needs .....	<b>3</b>
ECT 454 Behavior Supports for Students with Special Needs.....	<b>3</b>
ECT 460 Functional Curriculum for Students with Special Needs.....	<b>3</b>
ECT 470 Strategies for Teaching Students with Special Needs.....	<b>3</b>
EDR 440 Developmental Reading I.....	<b>3</b>
EEC 405 Children's Literature in Elementary and Early Childhood Education .....	<b>3</b>
EEC 406 Language Arts in Elementary and Early Childhood Education.....	<b>3</b>
ECT 480 Collaborative Roles in Education.....	<b>3</b>
Education elective: three hours approved by advisor .....	<b>3</b>

\* Requires admission to TEP.

## INTERNSHIP

	<i>Sem. Hrs.</i>
ECT 481 Collaborative Teacher Internship K-3/3-6.....	<b>12</b>

## Course Descriptions

### Collaborative Teacher Education (ECT)

**303. IEP Program Development**—Special education process as mandated by federal and state law and best practice. Observation in local schools. *Prerequisite:* ECY 300. 3 hours.

### 451. Assessment of Students with Special Needs—

Assessment of children and youth throughout special education process according to federal and state regulations. *Prerequisite:* Admission to TEP. 3 hours.

### 452. Characteristics of Students with Special Needs—

Characteristics, needs, and concerns relative to students with low and high incidence disabilities. Abnormal and normal growth and

development, transitions, community resources, inclusion, collaboration, and diversity. *Prerequisite:* Admission to TEP. 3 hours.

**453. Technology for Students with Special Needs—**

Designing instruction for students with low and high incidence disabilities using instructional, assistive, and augmentative technology. *Prerequisite:* Admission to TEP. 3 hours.

**454. Behavior Supports for Students with Special Needs—**

Preparation for work with children and youth with complex behavioral, social, and emotional problems in the classroom. Functional assessment and developing and implementing behavioral intervention plans. *Prerequisite:* Admission to TEP. 3 hours.

**460. Functional Curriculum for Students with Special**

**Needs—**Impact of low incidence disabilities in schools, community, and independent living. Assessment and goal writing for individualized educational plans addressing medical needs, school health care procedures, and social interactive skills and needs. Field experience includes school and clinical settings. *Prerequisites:* ECT 451, 452, and 453. 3 hours.

**470. Strategies for Teaching Students with Special Needs—**

Course content divided across two semesters (three hours per semester to total six hours). First semester: content and methods for teaching reading, written communication, spoken language, listening, study skills, social studies, science, and math to students with special needs. Second semester: strategies for academic, environmental, and behavioral management for children and youth with special needs. *Prerequisites:* Admission to TEP. 3 hours each semester for total of 6 hours.

**480. Collaborative Roles in Education—**Collaboration with professionals responsible for providing services to students with special needs and their families. Teamwork, adult learning principles, group decision-making, leadership, and communication.

*Prerequisite:* Admission to TEP. May be taken in combination with collaborative teacher internship. 3 hours.

**481. Collaborative Teacher Internship K-3/3-6—**Supervised teaching experience in elementary school setting in which general and special education teachers and others collaborate to provide instruction to students with varying disabilities and diverse backgrounds in their least restrictive environment. Includes time in K-3 and 4-6 grade settings. Gradual assumption of teaching responsibilities. *Prerequisite:* Permission of advisor. 9 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.



**The School of Engineering** provides professional education in engineering through the Departments of Biomedical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Materials Science and Engineering, and Mechanical Engineering. Each undergraduate curriculum is comprised of three components: the Core Curriculum as specified for engineering majors; a series of engineering courses intended to provide a breadth of technical education; and concentrated study in a particular engineering discipline. The curricula are designed to prepare the graduate to practice the profession of engineering and effectively participate as a member of society. All eligible undergraduate programs have been continuously accredited since 1971 by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), the national accrediting agency for engineering programs.

At the graduate level, the School of Engineering offers programs of study leading to the Master of Science in Biomedical Engineering, the Master of Science in Civil Engineering, the Master of Science in Electrical Engineering, the Master of Science in Materials Engineering, and the Master of Science in Mechanical Engineering. The Doctor of Philosophy degree in biomedical engineering and the Doctor of Philosophy degree in environmental health engineering are also offered. Joint Doctor of Philosophy degree programs are offered in materials and metallurgical engineering, materials science, and civil engineering. Cooperative Doctor of Philosophy degree programs in electrical and mechanical engineering are also offered. A shared Doctor of Philosophy degree in computer engineering is available.

Requirements for admission to the School of Engineering exceed the minimum requirements for admission to UAB. Because school requirements are subject to change, students who wish to be admitted to the School of Engineering should contact the UAB Admissions Office or the School of Engineering Office of Academic Programs.

In order to keep pace with accreditation standards as well as educational and technological developments, the School of Engineering reserves the right to make changes in its degree requirements. Changes may be applied to students already enrolled, but, in such cases, every effort will be made to give the student the benefit of the new educational program without imposing undue hardships.

Students are expected to know and follow the most up-to-date set of guidelines as detailed in the current School of Engineering Academic Policies Manual. A copy of this manual may be obtained from the School of Engineering Office of Academic Programs.

## VISION

To be a nationally and internationally recognized research-oriented School of Engineering, a first choice for undergraduate and graduate education.

## MISSION

To prepare engineering graduates to be immediately productive and able to adapt and to lead in a rapidly changing environment, and also to create and apply knowledge for the benefit of society.

## GOALS

- Provide an excellent educational experience for a community of highly capable students that reflect the diversity of our society;
- Develop an education and research program that fosters the development of a community of scholars capable of defining and solving problems to benefit society;
- Develop an internationally recognized research program focused in distinctive multi-discipline areas;
- Develop extensive and mutually beneficial relationships that foster understanding, respect, and a sense of common responsibility;
- Provide an environment where faculty and staff can achieve their full potential for the mutual benefit of the School and the individual.

### **School of Engineering Office of Academic Programs**

UAB School of Engineering • Hoehn Engineering Building  
1075 13th Street South, Suite 100  
Birmingham, Alabama 35294-4440  
Telephone: 205-934-8410 • E-mail [info@eng.uab.edu](mailto:info@eng.uab.edu)

### **UAB Admissions Office**

Hill University Center  
1400 University Boulevard, Room 260  
Birmingham, Alabama 35294-1150  
Telephone: 205-934-8221 • E-mail: [undergradadmit@uab.edu](mailto:undergradadmit@uab.edu)

## PRE-COLLEGE PREPARATION

The recommended program of high school preparation for the study of engineering includes four units of English; four units of mathematics (including algebra, geometry, trigonometry, and pre-calculus and/or calculus); four units of science (including biology, chemistry, and physics); and four units of social science.

Mechanical drawing, keyboarding, computer science, and foreign language are also excellent preparatory courses.

## NEW STUDENTS

All students meeting the admission requirements of the School of Engineering are eligible to be admitted directly into the engineering program of interest. The School of Engineering Office of Academic Programs provides academic advising to students through the first 64 semester hours of coursework applicable to the degree program within the School of Engineering. Juniors and seniors in engineering are assigned advisors within their department. All students must have an engineering advisor's approval prior to registering for classes each term. Students are referred to their respective programs for career advising by faculty in the School of Engineering.

## TRANSFER STUDENTS

Because the engineering curricula contain many specialized courses, students attending other institutions who plan to transfer to UAB should select their coursework with care. These students are encouraged to seek the advice of an advisor in the Office of Academic Programs as early as possible about comparable coursework. Such advice will help ensure the acceptance of a maximum amount of transfer credit. Specific articulation programs have been developed for a number of two-year and four-year institutions. Students also should inquire about these programs.

Upon acceptance to the School of Engineering, transfer students are eligible for admission into the engineering program of interest. The School of Engineering Office of Academic Programs provides academic advising to students entering the School. All students must have their advisor's approval prior to registering for classes each term.

Transfer students must be prepared to provide catalog course descriptions and other relevant documentation for the determination of equivalent coursework.

## TRANSIENT STUDENTS

Transient students who wish to enroll in engineering courses should provide evidence that prerequisites have been satisfied through transcripts and/or grade reports. Permission to enroll in engineering courses will not be granted without this substantiation. See UAB policy on non-degree seeking student status.

## TRANSFER BETWEEN ENGINEERING DEGREE PROGRAMS

Students wanting to transfer between engineering programs should complete an application for transfer in the School of Engineering Office of Academic Programs. In order to transfer between engineering programs, students must meet the requirements in the Reasonable Progress section.

## REASONABLE PROGRESS

All students in the School of Engineering must continually make reasonable progress toward the completion of their academic programs. Reasonable progress includes maintaining a GPA of at

least 2.0 in all UAB courses, all UAB engineering courses, and all UAB mathematics, natural sciences, and engineering courses. A student must successfully complete one course applicable to an engineering program within a 12-month period.

Students who are not making reasonable progress toward satisfaction of the graduation requirements of the School of Engineering will be placed on academic probation within the School of Engineering, normally for a period of two academic terms. Students on academic probation will not be allowed to progress beyond 64 semester hours applicable toward an engineering degree or be allowed to register for 300-level or 400-level engineering courses without approval of an engineering advisor. Students will not be allowed to withdraw from any engineering course while on academic probation without advisor approval. Students who do not meet the reasonable progress criteria at the end of this probationary period will be subject to dismissal from the School of Engineering. Additional information can be found in the Academic Policies Manual which can be obtained from the Office of Academic Programs in the School of Engineering.

## GRADUATION REQUIREMENTS

In addition to satisfying general graduation requirements (baccalaureate degrees), the School of Engineering requires that all students maintain a cumulative UAB GPA of 2.0 or better and a GPA of 2.0 or better in all engineering coursework. Students who are on academic probation cannot graduate from the School of Engineering.

The School of Engineering follows the University's course repeat policy as stated in this catalog. Only the grade from the first attempt at a course can be replaced. All subsequent attempts will be calculated in the student's GPA. All required courses in the engineering program failed at UAB must be repeated at UAB in order for the student to receive credit.

## MINORS IN ENGINEERING

A student majoring in one of the disciplines offered through the Schools of Arts and Humanities, Natural Sciences and Mathematics, or Social and Behavioral Sciences may select a minor in engineering to become familiar with topics including electrical systems, engineering materials, thermodynamic sciences, statics, and dynamics. Because technology greatly affects most aspects of society, the study of technology in conjunction with the pursuit of a non-engineering major can provide a worthwhile career-oriented educational experience.

Because enrollment in engineering courses is restricted, it is essential that students wishing to minor in engineering receive an approved program of study. These students should visit the School of Engineering Office of Academic Programs to receive relevant information. Students planning to minor in engineering should exercise care in the selection of courses to meet the requirements of their major as well as concurrently satisfying prerequisite requirements for engineering courses. Students should be particularly aware of the mathematics and natural sciences prerequisites.

To satisfy the minor requirements, a minimum grade point average of 2.0 is required for all engineering coursework. Transfer students wishing to earn a minor in engineering must earn a minimum GPA of 2.0 in UAB engineering courses attempted.

A non-engineering major who wishes to minor in engineering may choose one of the minor programs listed here.

<b>APPLIED MECHANICS</b>	<i>Sem. Hrs.</i>
CE 120 Engineering the Environment .....	<b>3</b>
CE 210 Statics .....	<b>3</b>
CE 215 Dynamics .....	<b>3</b>
CE 220 Mechanics of Solids .....	<b>3</b>
Three of the following courses:.....	<b>9</b>
CE 360 Structural Analysis	
CE 420 Advanced Mechanics	
CE 461 Introduction to the Finite Element Method	
CE 462 Advanced Structural Analysis	
CE 464 Structural Dynamics I	
<hr/>	
Total semester hours .....	<b>21</b>

<b>BIOMEDICAL ENGINEERING<sup>1</sup></b>	<i>Sem. Hrs.</i>
EGR 100 Introduction to Engineering .....	<b>2</b>
BME 101 Biomedical Engineering Seminar .....	<b>1</b>
BME 201 Biomedical Engineering Seminar .....	<b>1</b>
Three of the following courses:.....	<b>9</b>
BME 310 Biomaterials	
BME 312 Biocomputing	
BME 313 Bioinstrumentation	
BME 330 Biomechanics	
BME 340 Bioimaging	
Two of the following courses: .....	<b>6</b>
BME 406 Biosensors-Concepts to Applications	
BME 411 Polymers I	
BME 420 Implant –Tissue Interactions	
BME 442 Introduction to Medical Imaging	
BME 446 Principles of MRI	
BME 461 Bioelectric Phenomena	
BME 462 Cardiac Electrophysiology	
<hr/>	
Total Semester Hours .....	<b>19</b>

(1) Students must meet with Program Director to discuss course options.

<b>CIVIL ENGINEERING</b>	<i>Sem. Hrs.</i>
CE 120 Engineering the Environment .....	<b>3</b>
CE 210 Statics .....	<b>3</b>
CE 220 Mechanics of Solids .....	<b>3</b>
CE 230 Plane Surveying .....	<b>3</b>
Three of the following courses:.....	<b>9</b>
CE 215 Dynamics	
CE 332 Soil Engineering	
CE 345 Transportation Engineering	
CE 360 Structural Analysis	
CE 457 Concrete Technology	
<hr/>	
Total semester hours .....	<b>21-22</b>

<b>ELECTRICAL ENGINEERING</b>	<i>Sem. Hrs.</i>
EE 130 Engineering Computations.....	<b>3</b>
EE 210 Digital Logic .....	<b>3</b>
EE 233 Engineering Programming Methods .....	<b>3</b>
EE 300 Engineering Problem Solving .....	<b>3</b>
EE 314 Electrical Circuits .....	<b>3</b>
EE 316 Electrical Networks.....	<b>4</b>
EE 351 Electronics .....	<b>4</b>
<hr/>	
Total semester hours .....	<b>23</b>

<b>ENGINEERING SCIENCE</b>	<i>Sem. Hrs.</i>
CE 210 Statics .....	<b>3</b>
EE 312 Electrical Systems .....	<b>3</b>
EGR 100 Introduction to Engineering .....	<b>2</b>
MSE 280 Engineering Materials .....	<b>3</b>
ME 241 Thermodynamics I.....	<b>3</b>
Two of the following courses: .....	<b>6</b>
CE 215 Dynamics	
EE 210 Digital Logic	
MSE 281 Physical Materials I	
ME 321 Introduction to Fluid Mechanics	
<hr/>	
Total semester hours .....	<b>20</b>

<b>ENVIRONMENTAL ENGINEERING</b>	<i>Sem. Hrs.</i>
CE 236 Introduction to Environmental Engineering .....	<b>3</b>
CE 337 Hydraulics.....	<b>3</b>
CE 430 Water Supply and Drainage Design.....	<b>3</b>
CE 480 Water and Wastewater Treatment .....	<b>3</b>
Three of the following courses:.....	<b>8-9</b>
CE 433 Solid and Hazardous Wastes Management	
CE 434 Air Quality Modeling and Monitoring	
CE 437 Environmental Experimental Design Field Sampling	
CE 485 Engineering Hydrology	
CH 371 Chemistry and the Rise of Technology	
ME 250 Introduction to Thermodynamic Sciences	
ME 321 Introduction to Fluid Mechanics	
<hr/>	
Total semester hours .....	<b>20-21</b>

<b>MATERIALS ENGINEERING</b>	<i>Sem. Hrs.</i>
MSE 280 Engineering Materials .....	<b>3</b>
MSE 281 Physical Materials I.....	<b>3</b>
MSE 380 Thermodynamics of Materials <sup>2</sup> .....	<b>3</b>
MSE 381 Physical Materials II.....	<b>3</b>
MSE 382 Mechanical Behavior of Materials .....	<b>3</b>
MSE 465 Characterization of Materials .....	<b>4</b>
One of the following courses .....	<b>3</b>
MSE 413 Composite Materials	
MSE 430 Polymeric Materials	

MSE 464 Metals and Alloys  
MSE 470 Ceramic Materials

Total semester hours .....**22**

(2) An alternate materials course may be substituted with approval of the MSE Chair.

**MECHANICAL ENGINEERING**

*Thermal Systems Option*

	<i>Sem. Hrs.</i>
ME 241 Thermodynamics I.....	<b>3</b>
ME 242 Thermodynamics II .....	<b>3</b>
ME 321 Introduction to Fluid Mechanics.....	<b>3</b>
ME 322 Introduction to Heat Transfer .....	<b>3</b>
Nine semester hours approved by ME Chair .....	<b>9</b>
<hr/>	
Total semester hours .....	<b>21</b>

*Mechanical Systems Option*

	<i>Sem. Hrs.</i>
CE 210 Statics .....	<b>3</b>
CE 215 Dynamics .....	<b>3</b>
CE 220 Mechanics of Solids .....	<b>3</b>
ME 370 Kinematics of Machines.....	<b>3</b>
ME 371 Machine Design I.....	<b>3</b>
ME 475 Mechanical Vibrations .....	<b>3</b>
Three semester hours approved by ME Chair .....	<b>3</b>
<hr/>	
Total semester hours .....	<b>21</b>

**SOFTWARE ENGINEERING**

	<i>Sem. Hrs.</i>
EE 130 Engineering Computations.....	<b>3</b>
EE 210 Digital Logic .....	<b>3</b>
EE 233 Engineering Programming Methods .....	<b>3</b>
EE 333 Engineering Programming Using Objects .....	<b>3</b>
EE 337 Introduction to Microprocessors .....	<b>4</b>
EE 432 Computer Networking .....	<b>3</b>
Elective Courses (take one).....	<b>3</b>
EE 433 Engineering Software Solutions	
EE 447 Internet/Intranet Design	
EE 452 VHDL Digital System Design	
<hr/>	
Total semester hours .....	<b>22</b>

**OFFICE OF ACADEMIC PROGRAMS**

**Director:** E. Douglas Rigney, Jr.

The freshman year program is similar among the engineering curricula at UAB. It is based upon substantial high school preparation in English, mathematics, and natural sciences. Students who are not prepared adequately in these areas at the high school level must enroll in appropriate English, chemistry, mathematics, or physics sequences as indicated by placement tests. Other elements of the curriculum, however, may be pursued concurrently with courses in the major. Incomplete preparation at the high school level is not unusual, and coursework to strengthen the student's

academic background is routinely offered by UAB. Advice on this subject may be obtained from the Office of Academic Programs.

**SUGGESTED FRESHMAN YEAR**

	<i>Sem. Hrs.</i>
EGR 100 Introduction to Engineering .....	<b>2</b>
ME 102 Engineering Graphics .....	<b>2</b>
CH 115 General Chemistry I.....	<b>3</b>
CH 116 General Chemistry I Laboratory .....	<b>1</b>
EH 101 English Composition I .....	<b>3</b>
EH 102 English Composition II .....	<b>3</b>
MA 125 Calculus I.....	<b>4</b>
MA 126 Calculus II .....	<b>4</b>
PH 221 General Physics I and Laboratory .....	<b>4</b>
Area II Core Curriculum Requirement.....	<b>3</b>
Area IV Core Curriculum Requirement .....	<b>3</b>
<hr/>	
Total semester hours .....	<b>32</b>

**HONORS PROGRAMS**

Honors programs are offered by all departments in the School of Engineering:

- Biomedical Engineering
- Civil and Environmental Engineering
- Electrical and Computer Engineering
- Materials Science and Engineering
- Mechanical Engineering

**PURPOSE**

The Honors Programs are intended for the top undergraduates in each department.

**ELIGIBILITY**

To be accepted into any of the Engineering Honors Programs, a student must have:

- earned a GPA of 3.25 after MA 227 Calculus III; and
- an interview with the departmental representatives.

Top applicants will be accepted.

**REQUIREMENTS**

Students in the Engineering Honors Programs will be required to have nine credit hours in addition to the 128 hours required for a bachelor's degree as follows:

- two one-hour courses in honors research in the junior year; EGR 301 Honors Research I and EGR 302 Honors Research II
- one-hour departmental seminar taken any time in their course of study; and
- six hours of credit in senior research

**BENEFITS**

Students who complete an honors program will have earned nine additional credit hours in honors coursework. Honors research beyond the required six hours can be applied as graduate credit. Students who complete an honors program in engineering

with a minimum GPA of 3.0 will receive a bachelors degree “with Honors” in addition to any University honors designations.

## CONTACT

For more information about Engineering Honors Programs, contact Dr. E. Douglas Rigney, Jr., Associate Dean of Engineering, School of Engineering, Birmingham, AL 35294-4440. Telephone (205) 934-8410

## PRE-HEALTH PROGRAM OPTION

A number of students choose a pre-health curriculum before pursuing a course of study in one of the health disciplines, such as medicine, dentistry, or optometry. As health professions become more technologically based, engineering provides an excellent undergraduate preparation for these fields. All courses necessary for passage of professional-school entrance examinations should be completed by the end of the sophomore year. The additional coursework for this option includes the following:

- BY 123** Introductory Biology I
- BY 124** Introductory Biology II
- BY 271** The Biology of Microorganisms (pre-optometry only)
- BY** Elective (for pre-dental only<sup>3</sup>)
- CH 235** Organic Chemistry I
- CH 236** Organic Chemistry I Laboratory
- CH 237** Organic Chemistry II<sup>4</sup>
- CH 238** Organic Chemistry II Laboratory

The undergraduate program in biomedical engineering can be configured to satisfy most pre-health requirements without additional hours. Further information on pre-health program options can be obtained from:

### Dr. E. Douglas Rigney, Jr.

School of Engineering Pre-Health Program Coordinator  
Hoehn Engineering Building  
Office of Academic Programs  
1075 13th Street South  
Room 100  
Birmingham, Alabama 35294-4440

- (3) The pre-dental curriculum requires one additional course elected from the following list: BY 210, BY 256, BY 271, BY 314, and BY 330.
- (4) The UAB School of Optometry does not require CH 237 and CH 238.

## Course Descriptions Engineering (EGR)

Note: S, D, M, and O refer to the Accreditation Board for Engineering and Technology curricula content of engineering science (S), engineering design (D), mathematics (M), and other (O), respectively.

**100. Introduction to Engineering**—Profession of engineering; ethics and safety, engineering specialties and career opportunities, educational requirements, introduction to engineering design, team work and technical communications, and present and future societal demands on profession. *Prerequisites:* Grade of C or better in MA 102. *Corequisite:* EH 101. 2 hours. (1.0 O, 1.0 D)

**101. Engineering Orientation**—Engineering as a profession and engineering ethics and safety; introduction to engineering design process, team concepts, and technical presentations; educational requirements, career opportunities, and present and future societal demands on profession. 1 hour. (1.0 O)

**300. Engineering Communication**—Advanced technical communication skills, emphasizing written technical documents, oral presentations, and graphics presentations. *Prerequisite:* Grade of C or better in MA 102. *Corequisite:* EH 101. 2 hours. (2.0 O)

**301. Honors Research I**—Introduces students to research methodology, ethics, data analysis, and technical communication. *Prerequisite:* Admission to departmental honors program in School of Engineering. 1 hour. (1.0 O)

**302. Honors Research II**—Introduces honors students to research possibilities available in School of Engineering departmental honors programs. *Prerequisite:* Admission to departmental honors program in School of Engineering and EGR 301. 1 hour. (1.0 O)

**490. Special Topics**—1 to 4 hours. (S or D)

**499. Industrial Distribution Senior Design Project**—Capstone design project: interdisciplinary design teams, ethics, materials selection, the design process, development of a proposal, project planning and scheduling, project execution and resource scheduling. Successful completion and oral defense of a design project. *Prerequisite:* Application for Degree filed and approved. Student must be in the final year of his/her program. Permission of the instructor. For non-engineering industrial distribution majors only. 4 hours. (4.0 D)

## DEPARTMENT OF BIOMEDICAL ENGINEERING

**Interim Chair:** William M. Smith

**Faculty:** Anayiotos, Bray, Dobbins, Eberhardt, Evans, Fast, Feldman, Gray, Johnson, Kay, Lucas, Pollard, Rigney, Rogers, Smith, Twieg, Walsh, Xie

Biomedical engineering (BME) is the application of engineering principles and technology to the solution of problems in the life sciences and medicine. Highly qualified undergraduate students may be admitted to the BME Honors Program. The department offers Master of Science and Doctor of Philosophy degrees in biomedical engineering. With the M.S.B.M.E. degree, employment is usually found in medical centers or hospitals, in industry with manufacturers of medical products, or with government agencies, health-care groups, or computer application groups. Doctoral candidates are usually preparing for careers in research, teaching, or advanced design and development.

Students applying for admission into biomedical engineering must meet the following requirements: an ACT score of at least 25 (comparable SAT = 1150) and high school academic GPA of 3.2 or greater. UAB students or students from other institutions (universities, colleges, junior colleges, or community colleges) may transfer to the Department of Biomedical Engineering if both of the following performance requirements have been met: (a) an overall GPA in college-level work of at least a 3.2/4.0 and (b) a GPA of at least 3.2/4.0 in 12 hours of mathematics, natural science and engineering courses applicable to the BME degree.

The Department of Biomedical Engineering requires that, after 64 hours of coursework applicable to the biomedical undergraduate degree program and before the student will be allowed to register for 300-level BME courses, all students must have an overall GPA of at least 3.0/4.0. Students who do not meet this requirement will be reclassified as UEGR (undeclared engineering). To be re-admitted to the BME program, the student must have attained a UAB GPA of at least 3.0.

Prospective students for the graduate program should have earned a bachelor's degree in a field of engineering. Students with undergraduate degrees in the physical sciences, life sciences, or mathematics may be accepted into the program but will be required to demonstrate competence in engineering areas usually found in an undergraduate curriculum. Detailed admission requirements and programs of study are described in the UAB Graduate School Catalog.

## VISION

The Department of Biomedical Engineering at the University of Alabama at Birmingham will provide a nationally recognized undergraduate biomedical engineering education, and will excel in teaching and service.

## MISSION

The primary mission of the Biomedical Engineering undergraduate program is to provide a high quality engineering education and contribute to the well being of the Birmingham community, the State of Alabama, and the nation.

## GOALS

- Deliver high quality biomedical engineering education;
- Prepare students to take their place in a globally competitive environment;
- Educate students who can compete in new and emerging technologies and markets by teaching them problem solving, skills including critical thinking, strategic planning, effective communication, awareness of societal and ethical issues in engineering and medicine, and awareness of the need for life-long learning;
- Provide exemplary service for the benefit of the University, the Birmingham metropolitan community, the State of Alabama, business and industrial organizations, and the engineering profession.

## EDUCATIONAL OBJECTIVES

- To produce graduates who are able to apply principles of mathematics, life sciences, physical sciences, and engineering;
- To produce graduates who are able to define problems and are capable of developing and evaluating alternate solutions;
- To produce graduates who can make measurements and interpret data in living systems, and understand the interaction between living and non-living materials;
- To produce graduates who are able to communicate effectively and who demonstrate the ability to function on multi-disciplinary teams;

- To produce graduates who are skilled at using modern engineering tools for analysis, design, and communication;
- To produce graduates who are able to understand their responsibility to their profession and society in a global context and who are prepared for and realize the importance of life-long learning.

## CURRICULUM FOR THE BACHELOR OF SCIENCE IN BIOMEDICAL ENGINEERING (B.S.B.M.E.)

### FRESHMAN YEAR

	<i>Sem. Hrs.</i>
EGR 100 Introduction to Engineering .....	<b>2</b>
ME 102 Engineering Graphics .....	<b>2</b>
BY 115 Human Anatomy.....	<b>4</b>
BY 116 Human Physiology .....	<b>4</b>
CH 115 General Chemistry I.....	<b>3</b>
CH 116 General Chemistry I Laboratory .....	<b>1</b>
CH 117 General Chemistry II .....	<b>3</b>
CH 118 General Chemistry II Laboratory.....	<b>1</b>
EH 101 English Composition I .....	<b>3</b>
EH 102 English Composition II .....	<b>3</b>
MA 125 Calculus I.....	<b>4</b>
MA 126 Calculus II .....	<b>4</b>
<hr/>	
Total semester hours .....	<b>34</b>

### SOPHOMORE YEAR

	<i>Sem. Hrs.</i>
BME 210 Engineering Biology.....	<b>3</b>
BY 123 Introductory Biology I.....	<b>4</b>
CE 212 Statics and Dynamics .....	<b>3</b>
EE 130 Engineering Computations.....	<b>3</b>
EE 312 Electrical Systems .....	<b>3</b>
MA 227 Calculus III.....	<b>4</b>
MA 252 Differential Equations .....	<b>3</b>
MSE 280 Engineering Materials .....	<b>3</b>
PH 221 General Physics I and Laboratory .....	<b>4</b>
PH 222 General Physics II and Laboratory.....	<b>4</b>
<hr/>	
Total semester hours .....	<b>34</b>

### JUNIOR YEAR

	<i>Sem. Hrs.</i>
BME 310* Biomaterials .....	<b>3</b>
BME 312* Biocomputing .....	<b>3</b>
BME 313* Bioinstrumentation .....	<b>3</b>
BME 330* Biomechanics.....	<b>3</b>
BME 340* Bioimaging.....	<b>3</b>
CE 220 Mechanics of Solids .....	<b>3</b>
CE 221 Mechanics of Solids Laboratory .....	<b>1</b>
ME 250 Intro. to Thermodynamic Sciences .....	<b>2</b>
Engineering/Math/Science Elective .....	<b>3</b>
Area II Core Curriculum Requirement.....	<b>6</b>

Area IV Core Curriculum Requirement .....	<b>3</b>
Total semester hours .....	<b>30</b>
*BME Core – Students take FOUR of the FIVE choices	
<b>SENIOR YEAR</b>	
	<i>Sem. Hrs.</i>
BME 401 BME Undergraduate Seminar .....	<b>1</b>
BME 4XX BME Elective .....	<b>3</b>
BME 4XX BME Elective .....	<b>3</b>
BME 4XX BME Elective .....	<b>3</b>
BME 405 BME Product Development.....	<b>2</b>
BME 499 Senior Design.....	<b>3</b>
EE 300 Engineering Problem Solving .....	<b>3</b>
Engineering/Science Electives .....	<b>3</b>
Area II Core Curriculum Requirement.....	<b>3</b>
Area IV Core Curriculum Requirement .....	<b>6</b>
Total semester hours .....	<b>30</b>

**ENGINEERING/SCIENCE ELECTIVES<sup>4</sup>**

<b>BY 210</b>	Genetics
<b>BY 216</b>	Pathophysiology
<b>BY 261</b>	Introduction to Microbiology
<b>BY 309</b>	Mammalian Physiology
<b>CH 235/236</b>	Organic Chemistry I
<b>CH 237/238</b>	Organic Chemistry II
<b>EE 233</b>	Engineering Programming Methods
<b>EE 333</b>	Engineering Programming Using Objects
<b>MA 260</b>	Introduction to Linear Algebra
<b>MA 444</b>	Vector Analysis
<b>MA 455</b>	Partial Differential Equations I
<b>ME 360</b>	Controls and Automation
<b>ME 364</b>	Linear Algebra and Advanced Programming
<b>ME 371</b>	Machine Design I
<b>ME 468</b>	Design Reliability
<b>MSE 380</b>	Thermodynamics of Materials
<b>MSE 484</b>	Electronic, Magnetic and Thermal Properties of Materials

(4) Other electives may be selected in consultation with the primary BME advisor.

**Course Descriptions**  
*Biomedical Engineering (BME)*

- 101. Undergraduate BME Seminar**—Freshman seminar. 1 hour.
- 201. Undergraduate BME Seminar**—Sophomore seminar. 1 hour.
- 202. Ethical Issues for Biomedical Engineers I**—Ethical considerations related to biomedical engineering research. Animal and human research ethics. *Prerequisite:* Acceptance in BME Honors Program. Pass/fail. 1 hour.

**203. Ethical Issues for Biomedical Engineers II**—Ethical considerations related to medical device industry. Clinical research and product liability issues. *Prerequisite:* Acceptance in BME Honors Program. Pass/fail. 1 hour.

**210. Engineering Biology**—Application of engineering to the study of biology on the cellular and molecular level. Engineering solutions in genomics, proteomics, and nanotechnology to investigate cellular and molecular process. *Prerequisites:* By 116 and BY 123. 3 hours.

**301. Undergraduate BME Seminar**—Junior seminar. 1 hour.

**310. Biomaterials**—Wide range of materials used for biomedical applications. Physical, chemical, and mechanical properties of biomaterials. Lecture and lab. *Prerequisite:* MSE 280. 3 hours.

**312. Biocomputing**—A survey course in practical computational techniques used in biomedical engineering. Lecture and laboratory. *Prerequisites:* EE 130 and MA 252. 3 hours.

**313. Bioinstrumentation**—Introduction to principles and design of measurement instruments used in medicine and biology. Signal transduction, conditioning and acquisition, data analysis, biological and medical imaging. Lecture and laboratory. *Prerequisites:* MA 252, EE 312, or equivalent. 3 hours.

**330. Biomechanics**—Application of solid and fluid mechanics to biomedical engineering problems, statics, dynamics, and mechanics of solids and fluids. Stress-strain of bone; viscoelasticity of tissues; Non-Newtonian behavior of blood. Lecture and laboratory. *Prerequisites:* CE 220, ME 250, MA 252. 3 hours.

**340. Introduction to Medical Imaging**—Provides an overview of diagnostic imaging examining the major imaging modalities such as x-ray/CT, nuclear imaging, ultrasound, and magnetic resonance. Discusses physical principles of image formation, image interpretation, and patient safety. *Prerequisite:* EE 312 or equivalent. 3 hours.

**401. Undergraduate BME Seminar**—Senior seminar. 1 hour.

**405. Biomedical Product Development**—Design and development issues for the medical-products industry. Consideration of the impact of legal regulatory issues and marketing issues will be addressed. Business ethics and economics will also be covered. *Prerequisite:* Senior standing in BME. 2 hours.

**406. Biosensors-Concepts to Application**—Development of biosensors for medical applications. Specific actions of enzymes, antibodies, and membrane receptors offer the potential of developing sensors. *Prerequisite:* BME 310. 3 hours.

**408. Biofluids**—Unsteady fluid mechanics of the cardiovascular system. Non-Newtonian character of blood. Viscoelastic properties of blood vessels. *Prerequisite:* ME 250 or equivalent. 3 hours.

**411. Polymers I**—Overview and classification of biomedical polymers, interaction between polymers and biological systems, polymers for biomedical application. Selection and molecular design of polymers for drug delivery, hard and soft-tissue restorations, bioimplants and tissue engineering. *Prerequisite:* CH 237 or permission of instructor, CH 480 and MSE 280 are suggested. 3 hours.

**412. Biomechanical Measurements**—Observation, measurement, and analysis of basic biomechanical variables such as stress, strain, pressure, and flow. Emphasis on basic experimental examples and using the computer for data acquisition, processing, analysis, and preparation of laboratory reports. Lecture and laboratory. *Prerequisites:* ME 250, CE 220. 3 hours.

## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

**Chair:** Fouad H. Fouad

**Faculty:** Chen, Davidson, Jones, Lalor, Peters, Rizk, Sisiopiku, Uddin

The Department of Civil and Environmental Engineering offers a broad-based program in civil engineering, which covers mechanics and structures, soils, surveying, transportation, water supply, sanitary engineering, and environmental engineering. Computer applications are emphasized in all areas. The program is based on a strong foundation of mathematics, physical sciences, humanities, and social sciences and is supported by a series of basic courses from other engineering disciplines. The primary objective of the program is to prepare students for entry into the civil engineering profession as a design engineer.

Electives in the academic program may be selected from courses in structural engineering, environmental engineering, geotechnical engineering, and transportation engineering. These courses allow students to emphasize a particular area in their undergraduate academic program. Judicious selection of these electives may be used as additional preparation for a specific design career or for entry into a specialized civil engineering or environmental engineering graduate program.

Qualified, motivated undergraduate students may also participate in the Departmental Honors Program.

### VISION

The Department of Civil and Environmental Engineering of the University of Alabama at Birmingham will be a nationally and internationally recognized leader in civil and environmental engineering education and research.

### MISSION

The mission of the Department of Civil and Environmental Engineering is to provide high quality, innovative, and globally competitive engineering education that will prepare our students for their engineering career with state-of-the-art knowledge and will give them the ability and motivation to acquire new knowledge for continued career success. Our mission also includes conducting basic and applied research to further enhance engineering education and to support the needs of industry and governments of the Birmingham region, the State of Alabama, and the nation.

### GOALS

- Provide high-quality civil and environmental engineering education;
- Prepare students to take their place in a globally competitive environment;
- Educate engineers so that they can compete in new and emerging technologies and markets by teaching them to think critically, plan strategically, communicate effectively, practice ethically, and to be adaptable to societal changes and life-long learning;
- Conduct basic and applied research with the ultimate goal of

**417. Engineering Analysis**—Advanced ordinary differential equations, Laplace transform, power series solutions, Bessel functions, Legendre polynomials; Fourier series and Sturm-Liouville problems; Fourier integral and transforms; separation of variables and transform techniques for solution of partial differential equations. *Prerequisite:* MA 252. 3 hours.

**420. Implant-Tissue Interactions**—Basic concepts and principles of implant biocompatibility. *Prerequisite:* MSE 280. 3 hours.

**431. Joint Mechanics**—Mechanics of joint tissues and structures; determinate and indeterminate force systems, viscoelasticity, contact problems, lubrication and wear; joint replacement design and analysis. *Prerequisites:* MA 252, CE 220. 3 hours.

**442. Principles of Medical Imaging**—For medical imaging energies: principles and physics of interaction of ionizing radiation with matter, bremsstrahlung, attenuation coefficients, Compton scatter, nuclear disintegration of radionuclides, and generation of medical radionuclides. *Prerequisite:* MA 252, PH 222, EE 312, or equivalent. 3 hours.

**443. Medical Image Processing**—A lab-based introduction to processing, analysis, and display techniques for medical imaging. *Prerequisite:* MA 252, PH 222, EE 312, or equivalent. 3 hours.

**446. Principles of MRI**—Technical fundamentals of NMR imaging and applications. Physical fundamentals, MR imaging techniques, and clinical role of MR imaging. *Prerequisites:* MA 252, PH 222, and EE 300. 3 hours.

**461. Bioelectric Phenomena**—Quantitative methods in electrophysiology of neural, cardiac, and skeletal muscle systems. *Prerequisites:* MA252, PH 222, and PH 232. 3 hours.

**462. Cardiac Electrophysiology**—Semi-quantitative methods in cardiac electrophysiology. Analysis of the electrocardiogram (ECG), cellular dynamics, propagation in the heart including spiral waves, and the effect of electric fields on the heart. *Prerequisites:* MA252, PH 222, and PH 232. 3 hours.

**471. Continuum Mechanics of Solids**—Tensor mathematics, stress and momentum fundamentals. Cauchy and Piola-Kirchhoff stresses, Lagrangian formulations for large deformations, constitutive equations, 2-D elasticity, viscoelasticity. *Prerequisites:* MA 252 and CE 220. 3 hours.

**473. Friction and Wear**—Fundamentals of friction, Hertz contact, wear mechanisms and lubrication theories with application to total-joint arthroplasty. *Prerequisites:* CE 220, ME 250, and MA 252. 3 hours.

**490. Special Topic in BME**—3 hours.

**491. Individual Study in BME**—1-6 hours.

**495. Honors Research**—Research opportunities for undergraduate students in the Biomedical Engineering Honors Program. Research areas include cardiac electrophysiology, brain imaging, and biomedical implants. *Prerequisite:* Must be enrolled in BME Honors Program or permission of instructor. Pass/fail. 1 to 6 hours.

**499. Senior Design**—Capstone design project; interdisciplinary design team; ethics; materials selection; design process; development of proposal; project planning and scheduling; project execution and resource scheduling; communication of design; interim and final design reviews with oral and written reports. Lecture and laboratory. *Prerequisites:* BME 405 and senior standing in BME. (*Note: Senior standing based on UAB credit hours is not the same as senior standing based on department curriculum.*) 3 hours.

technology transfer for the betterment of mankind;

- Provide exemplary service to the University, the Birmingham metropolitan community, the State of Alabama, business and industrial organizations, and the engineering profession;
- Build relationships to specifically support the education and research needs of the Birmingham area and the State of Alabama; and
- Encourage the engineering, business, and industrial communities to stay abreast of changing technology by providing opportunities for life-long learning.

## EDUCATIONAL OBJECTIVES

- Prepare students to be proficient in mathematics through differential equations, probability and statistics, calculus-based physics, and general chemistry;
- Prepare students to be competent in the fundamentals of design and analysis in the following four areas of civil engineering:
  1. Structural engineering
  2. Environmental engineering
  3. Transportation engineering
  4. Geotechnical engineering
- Provide the knowledge needed to conduct laboratory experiments and analyze/interpret data related to those four areas of civil engineering competency;
- Prepare students to use computers appropriately for civil engineering applications; and
- Provide opportunities and experiences of the overall civil engineering project process including teamwork, communication, presentation, and technical writing.

## CURRICULUM FOR THE BACHELOR OF SCIENCE IN CIVIL ENGINEERING (B.S.C.E.)

### FRESHMAN YEAR

	<i>Sem. Hrs.</i>
EGR 100 Introduction to Engineering .....	2
ME 102 Engineering Graphics .....	2
CH 115 General Chemistry I.....	3
CH 116 General Chemistry I Laboratory .....	1
CH 117 General Chemistry II .....	3
CH 118 General Chemistry II Laboratory.....	1
EH 101 English Composition .....	3
EH 102 English Composition .....	3
MA 125 Calculus I.....	4
MA 126 Calculus II .....	4
PH 221 General Physics I and Laboratory .....	4
Area IV Core Curriculum requirement.....	3
<b>Total semester hours .....</b>	<b>33</b>

### SOPHOMORE YEAR

	<i>Sem. Hrs.</i>
CE 210 Statics .....	3
CE 215 Dynamics .....	3
EE 134 Engineering Computations.....	3
ME 250 Introduction to Thermodynamic Sciences .....	2
ES 120 Geology for Engineers.....	3
MA 227 Calculus III.....	4
MA 252 Introduction to Differential Equations .....	3
PH 222 General Physics II and Laboratory.....	4
Area II Core Curriculum requirement .....	3
Area IV Core Curriculum requirement.....	3
<b>Total semester hours .....</b>	<b>31</b>

### JUNIOR YEAR

	<i>Sem. Hrs.</i>
CE 220 Mechanics of Solids .....	3
CE 221 Mechanics of Solids Laboratory .....	1
CE 222 Civil Engineering Materials Laboratory .....	1
CE 230 Plane Surveying .....	3
CE 236 Environmental Engineering .....	3
CE 332 Soil Engineering .....	4
CE 337 Hydraulics.....	3
CE 344 Civil Engineering Analysis I .....	3
CE 360 Structural Analysis .....	3
EE 312 Electrical Systems .....	3
Area II Core Curriculum requirement .....	3
Area IV Core Curriculum requirement.....	3
<b>Total semester hours .....</b>	<b>33</b>

### SENIOR YEAR

	<i>Sem. Hrs.</i>
CE 345 Transportation Engineering .....	3
CE 430 Water Supply & Drainage .....	3
or	
CE 480 Water & Wastewater Treatment.....	3
CE 450 Structural Steel Design .....	3
CE 455 Reinforced Concrete Design.....	3
ME 395 Engineering Economics.....	3
CE electives <sup>5</sup> .....	6
EH 300 <sup>6</sup> Engineering Communication .....	2
Area II Core Curriculum requirement .....	3
CE 497 Engineered Construction .....	2
CE 499 Civil Engineering Design Project .....	3
<b>Total semester hours .....</b>	<b>31</b>

### ENVIRONMENTAL ENGINEERING ELECTIVES

The following elective courses are recommended for students who are interested in applications in environmental engineering:

- CE 430\*** Water Supply and Drainage
- CE 480\*** Water and Wastewater Treatment

- CE 433** Solid and Hazardous Wastes
- CE 434** Air Quality Modeling and Monitoring
- CE 437** Environmental Experimental Design and Field Sampling
- CE 485** Engineering Hydrology<sup>7</sup>

\*Either of these courses will fulfill required course.

- (5) Must be selected from the appropriate departmentally approved list. ABET accreditation guidelines for engineering science and engineering design are fully satisfied through the required courses in this program.
- (6) ME 363 or an acceptable CE course may be substituted.
- (7) This class is strongly encouraged for students who wish to pursue graduate studies in environmental engineering.

### STRUCTURAL ENGINEERING ELECTIVES

The following elective courses are recommended for students who are interested in applications in structural engineering:

- CE 416** Mechanical Vibrations
- CE 420** Advanced Mechanics
- CE 426** Foundation Engineering
- CE 453** Design of Wood Structures
- CE 454** Design of Masonry Structures
- CE 456** Prestressed Concrete Design
- CE 457** Concrete Technology
- CE 460** Structural Mechanics
- CE 461** Introduction to the Finite Element Method
- CE 462** Advanced Structural Analysis
- CE 464** Structural Dynamics I
- CE 467** Wind and Seismic Loads
- CE 468** Bridge Engineering

### TRANSPORTATION ENGINEERING ELECTIVES

The following elective courses are recommended for students who are interested in applications in transportation engineering:

- CE 442** Highway Materials and Construction
- CE 443** Pavement Design and Construction
- CE 444** Civil Engineering Analysis II
- CE 457** Concrete Technology

### GEOTECHNICAL ENGINEERING ELECTIVES

The following elective courses are recommended for students who are interested in applications in geotechnical engineering:

- CE 390** Computer Methods in Civil Engineering
- CE 426** Foundation Engineering
- CE 442** Highway Materials and Construction
- CE 457** Concrete Technology

## CERTIFICATE PROGRAMS IN CIVIL AND ENVIRONMENTAL ENGINEERING

The Department of Civil and Environmental Engineering offers four Category A Certificates in the following areas:

- Certificate in Structural Engineering

- Certificate in Environmental Engineering
- Certificate in Transportation Engineering
- Certificate in Geotechnical Engineering
- Certificate in Construction Engineering Management

### REQUIREMENTS FOR CEE CERTIFICATES

- Students must be admitted to the department as either undergraduate or graduate students in civil and environmental engineering.
- Elective courses taken may be applied to a certificate as well as a MSCE degree; however, only one undergraduate course may be counted toward a certificate.
- Certificates require a minimum of 15 semester hours consisting of one required course (which will also count toward the BSCE degree at UAB) and four elective courses at the 500 or 600 level as listed below.
- One course, up to three semester hours, may be transferred from another institution. This may be the required course or one of the graduate level courses.
- Only one course listed with an asterisk (\*) may be applied to a certificate. As an example, for the transportation certificate, students may apply either CE 549 or CE 558.
- Courses taken from UA and UAH by IITS may be applied to certificates.
- Elective course may be taken at the 500, 600, or 700 level.

### CERTIFICATE IN STRUCTURAL ENGINEERING

- Required course (3 semester hours): CE 360 Structural Analysis
- Select electives<sup>8</sup> from the following list to earn 12 semester hours

#### *Structural Analysis Electives (Minimum 3 hours)*

- CE 516** Mechanical Vibrations
- CE 520** Advanced Mechanics
- CE 561** Introduction to the Finite Element Method
- CE 564** Structural Dynamics
- CE 612** Theory of Elasticity
- CE 615** Theory of Elasticity
- CE 617** Theory of Plates and Shells
- CE 660** Structural Mechanics
- CE 662** Advanced Structural Analysis
- CE 663** Finite Element Methods

#### *Structural Design Electives (Minimum 3 hours)*

- CE 526** Foundation Engineering
- CE 554** Design of Masonry Structures
- CE 556** Prestressed Concrete Design
- CE 567** Wind and Seismic Loads
- CE 568** Bridge Engineering
- CE 650** Advanced Structural Steel Design
- CE 655** Advanced Reinforced Concrete

(8) Refer to the UAB Graduate Catalog for course descriptions.

Other Electives (Maximum 3 hours)

- CE 557** Concrete Technology\*
- CE 642** Highway Materials and Construction\*
- CE 644** Civil Engineering Analysis II\*
- CE 649** Engineering Liability\*
- CE 658** Engineering Management\*

\*Only one course listed with an asterisk may be applied to this certificate.

### CERTIFICATE IN ENVIRONMENTAL ENGINEERING

- Required course (3 semester hours): CE 236 Introduction to Environmental Engineering
- Select electives<sup>9</sup> from the following list to earn 12 semester hours
- CE 533** Solid and Hazardous Wastes
- CE 534** Air Quality Modeling and Monitoring
- CE 537** Environmental Experimental Design and Field Sampling
- CE 631** Environmental Law
- CE 632** Industrial Water and Wastewater Treatment
- CE 636** Stormwater Pollution Management
- CE 638** Water and Wastewater Chemistry
- CE 639** Sediment Sources and Controls
- CE 640** Wastewater Treatment Engineering
- CE 644** Civil Engineering Analysis II
- CE 649** Engineering Liability\*
- CE 658** Engineering Management\*
- CE 681** Environmental Chemistry
- CE 682** Water Treatment Engineering
- CE 683** Water and Wastewater Treatment Unit Processes
- CE 685** Engineering Hydrology
- CE 686** Engineering Hydrogeology
- CE 687** Stormwater Detention Pond Design

\*Only one course listed with an asterisk may be applied to this certificate.

### CERTIFICATE IN TRANSPORTATION ENGINEERING

- Required course (3 semester hours): CE 345 Transportation Engineering
- Select electives<sup>10</sup> from the following list to earn 12 semester hours
- CE 557** Concrete Technology
- CE 568** Bridge Engineering
- CE 622** Traffic Flow Theory
- CE 623** Non-motorized Transportation Design and Planning
- CE 624** Simulation Models for Transportation Applications
- CE 625** Intelligent Transportation Systems\*
- CE 642** Highway Materials and Construction
- CE 643** Pavement Design and Construction
- CE 644** Civil Engineering Analyses II
- CE 645** Traffic Engineering Characteristics

- CE 646** Traffic Engineering Operations
- CE 647** Engineering Optimization and Modeling
- CE 648** Urban and Transportation Planning
- CE 649** Engineering Liability\*
- CE 658** Engineering Management\*

\*Only one course listed with an asterisk may be applied to this certificate.

### CERTIFICATE IN GEOTECHNICAL ENGINEERING

- Required course (3 semester hours): CE 332 Soil Engineering
- Select electives<sup>11</sup> from the following list to earn 12 semester hours
- CE 526** Foundation Engineering
- CE 557** Concrete Technology
- CE 642** Highway Materials and Construction
- CE 644** Civil Engineering Analysis II
- CE 649** Engineering Liability\*
- CE 658** Engineering Management\*
- CE 690** Special Topics in Advanced Geotechnical Engineering

\*Only one course listed with an asterisk may be applied to this certificate.

### CERTIFICATE IN CONSTRUCTION ENGINEERING MANAGEMENT

- Required course (Total of 3 semester hours): CE 497 Engineered Construction
- Select electives<sup>12</sup> from the following list to earn 12 semester hours
- CE 671** Techniques of Project Planning and Control
- CE 672** Construction Management
- CE 673** Construction Contracting, Bidding, and Estimating
- CE 674** Construction Accounting and Finance
- CE 675** Construction Internship
- CE 649** Engineering Liability\*
- CE 658** Engineering Management\*

\*Only one course listed with an asterisk may be applied to this certificate.

(9) Refer to UAB Graduate Catalog for course descriptions.

(10) Refer to UAB Graduate Catalog for course descriptions.

(11) Refer to UAB Graduate Catalog for course descriptions.

(12) Refer to UAB Graduate Catalog for course descriptions.

## Course Descriptions

### Civil Engineering (CE)

Note: S, D, M, and O refer to the Accreditation Board for Engineering and Technology curricular content of engineering science (S), engineering design (D), mathematics (M), and other (O), respectively.

**120. Engineering the Environment**—Introduction to environmental engineering issues, structural engineering, and other civil engineering disciplines. Laboratories conducted to compliment lectures and introduce practical hands-on research aspects of civil

engineering. Not available for credit toward engineering major. 3 hours. (3.0 O)

**210. Statics**—Newton's laws of motion. Vector algebra. Concepts of position and moment vector. Equivalent force systems. Free body concept. Equations of equilibrium. Analysis of pin-connected trusses. Friction. Properties of surfaces. *Prerequisites:* MA 126 and PH 221. 3 hours. (3.0 S)

**212. Statics and Dynamics**—Newton's law of motion, concepts of position, force, and movement vectors. Equivalent force systems. Equations for equilibrium. Areas and centroids. Kinematics of particles. Simple relative motion. Newton's second law applications. Work and energy principles. Impulse and momentum principles for particles and rigid bodies in plane motion. *Prerequisites:* MA 126 and PH 221. 3 hours. (3.0 S)

**215. Dynamics**—Kinematics of particles in Cartesian, cylindrical, and path coordinates. Simple relative motion. Second law application in rectilinear translation. Projectile motion. Energy and momentum principles for particles and for rigid bodies in plane motion. *Prerequisite:* CE 210. 3 hours. (3.0 S)

**220. Mechanics of Solids**—Variation of stress at a point. Equilibrium requirements and body force concepts. Variation of strain at a point. Strain gages and rosettes. Stress-strain relationships. Analysis of axially loaded bars, circular shafts in torsion, bending of beams, buckling of columns, and stability of rotating shafts. Analysis of simple, statically determinate and indeterminate structures. *Prerequisite:* CE 210 or CE 212. 3 hours. (2.0 S, 1.0 D)

**221. Mechanics of Solids Laboratory**—Strain gage installation and applications. Standard tensile, torsion, bending, and column tests. Measurement of forces, displacements, strains, and other variables. *Prerequisite or corequisite:* CE 220. 1 hour. (1.0 S)

**222. Civil Engineering Materials Laboratory**—Materials testing laboratory evaluating properties of materials of construction such as cement, concrete, masonry, and asphalt. Design of Portland cement concrete and asphaltic concrete mixes. *Corequisite:* CE 220. 1 hour. (1.0 S)

**230. Plane Surveying**—Care and use of surveying instruments, surveying methods, error theory, traversing, stadia, mapping techniques, circular and parabolic curves, areas, and volumes. *Prerequisite:* MA 125. Lecture and laboratory. 3 hours. (2.0 S, 1.0 D)

**236. Environmental Engineering**—Air and water pollution and solid waste. Quality of environment. Environmental health. Regulations and legal considerations. *Prerequisites:* MA 105 or equivalent and CH 117. 3 hours. (3.0 S)

**330. Land Surveying**—U.S. system of public land surveys as applied to Alabama; urban and rural surveys and resurveys; land survey problems; legal aspects of land surveying; land records, descriptions, and titles. *Prerequisite:* CE 230. Lecture and laboratory. 3 hours. (1.0 S, 2.0 D)

**332. Soil Engineering**—Soil identification and properties, stress concepts, permeability settlement analysis, soil compaction, bearing capacity, shear strength of soil. *Prerequisites:* ES 120 and CE 220. Lecture and laboratory. 4 hours. (2.0 S, 2.0 D)

**337. Hydraulics**—Fundamentals of hydraulics including properties of water; hydrostatic forces and pressures; flow, head losses, and related phenomena in pipes; river hydrograph routing; statistical hydrology; flow in open channels; culvert design; applied hydraulic modeling. *Prerequisite:* MA 126. 3 hours. (1.0 S, 2.0 D)

**344. Civil Engineering Analysis I**—Inspection and treatment of data using exploratory data analysis. Introduction to probability. Basic data analysis using comparisons and regression. Quality control and reliability analyses. *Prerequisite:* MA 126. 3 hours. (3.0 M)

**345. Transportation Engineering**—Function, influence, characteristics, and operation of transportation systems and facilities. *Prerequisite:* CE 230. 3 hours. (1.0 S, 2.0 D)

**360. Structural Analysis**—Reactions, shears, moments, and axial forces in determinate and indeterminate structures. Influence lines; moment area and energy methods of computing deflections; methods of truss and frame analysis. Computer applications. *Prerequisite:* CE 220. 3 hours. (3.0 S)

**390. Computer Methods in Civil Engineering**—Selected electronic computer techniques for solution of problems in geotechnical engineering, structural engineering, surveying, and transportation. *Prerequisite:* MA 227. 3 hours. (2.0 S, 1.0 D)

**395. Engineering Economics**—Selection, investment, and replacement problems of industrial enterprise. Benefits and cost analysis, future planning, and operations research concepts for engineering projects. Introduction to linear programming and transportation and distribution optimization and queuing theory. *Prerequisite:* MA 125. 3 hours. (2.0 S, 1.0 D)

**416. Mechanical Vibrations**—Free and forced single-degree-of-freedom systems. Damped, forced two-degree-of-freedom systems. Multi-degree-of-freedom systems. Simple continuous systems. *Prerequisites:* CE 212 or CE 215, CE 220, and MA 252. 3 hours. (2.5 S, 0.5 D)

**420. Advanced Mechanics**—Variation of stress at point including determination of principal and maximum shear stresses. Basic problems involving symmetrical deformation; thickwall cylinders, spheres, and rotating disks. Torsions of noncircular sections. Curved beams. Theories of failure. Unsymmetrical bending and shear center. *Prerequisite:* CE 220. 3 hours. (1.5 S, 1.5 D)

**421. Transportation Engineering Seminar**—Seminar on student research and guest presentations of various topics of interest to transportation engineering students. *Prerequisite:* Permission of instructor. 1 hour. (1.0 S)

**426. Foundation Engineering**—Application of principles of soil mechanics to: determination of bearing capacity and settlement of spread footings, mats, single piles and pile groups; site investigation, evaluation of data from field and laboratory tests; estimation of stresses in soil masses; lateral resistance of piles and pile group; retaining walls, sheetpiles, and coffer-dams. *Prerequisites:* CE 332 and CE 455. 3 hours. (1.0 S, 2.0 D)

**430. Water Supply and Drainage Design**—Water requirements; wastewater characteristics. Hydraulics and design of sewers; distribution and reuse of water. Development of water supplies; design considerations. *Prerequisite:* CE 337. 3 hours. (1.0 S, 2.0 D)

**433. Solid and Hazardous Wastes**—Overview of waste characterizations, regulations, and management options. 3 hours. (2.0 S, 1.0 D)

**434. Air Quality Modeling and Monitoring**—Atmospheric pollution phenomena including transport and mixing, chemistry of gases and particles, and deposition. Methods for air-quality management, including modeling and monitoring. *Prerequisite:* ME 250. 3 hours. (2.0 S, 1.0 D)

**437. Environmental Experimental Design and Field**

**Sampling**—Experimental design, sensitivity analyses, water sampling, and flow monitoring. Fate of pollutants in receiving water. Field investigations. Lecture and laboratory. *Prerequisite:* CE 344. 3 hours. (1.0 S, 1.0 D, 1.0 M)

**440. CEE Honors Research**—Departmental honors students work closely with faculty researchers and graduate students in departmental concentration specialties to develop research skills. 1-3 hours.

**441. CEE Honors Seminar**—Seminar on student research and guest presentations of various topics of interest to civil and environmental engineering students. *Prerequisite:* Enrollment in this course is limited to undergraduate students enrolled in the CEE Honors Program or permission of instructor. 1 hour. (1.0 S)

**442. Highway Materials and Construction**—Properties of materials used in highway construction. Construction methods and management. *Prerequisites:* CE 332 and CE 345. 3 hours. (3.0 D)

**443. Pavement Design and Construction**—Analysis of stresses and strains in pavement systems. Design of flexible and rigid pavements, base courses, and subgrades. Effects of loading on pavement life. *Prerequisite:* CE 345. 3 hours. (1.0 S, 2.0 D)

**444. Civil Engineering Analysis II**—Sampling and experimental design. Hypothesis testing, decision analysis, multiple regression analysis; nonparametric methods. *Prerequisite:* CE 344. 3 hours. (3.0 M)

**447. Engineering Optimization and Modeling**—Mathematical techniques associated with analysis of systems. Project scheduling, optimization, and simulation as applied to civil engineering system analysis. Use of pre-programmed computer solutions in system analysis. *Prerequisites:* EE 130 or EE 134 and CE 344. 3 hours. (1.0 S, 2.0 D)

**450. Structural Steel Design**—Tension members, columns, beams, and beam columns. Simple connections. Allowable Stress Design (ASD) and Load Resistance Factor Design (LRFD) approaches. *Prerequisite:* CE 360. 3 hours. (3.0 D)

**453. Design of Wood Structures**—Design and detailing of timber structures. Properties and specifications for dimension and glulam timber. Design of beams, columns, beam-columns, connections (nail and bolts), roof diaphragms, and shear walls. Design of timber structures to meet the requirements of the National Design Specification standards. *Prerequisite:* CE 360. 3 hours. (3.0 D)

**454. Design of Masonry Structures**—Design and detailing of masonry structures. Nomenclature, properties, and specifications for components. Design of assemblages, simple masonry structures, unreinforced and reinforced elements, and complex masonry structures. *Prerequisite:* CE 360. 3 hours. (3.0 D)

**455. Reinforced Concrete Design**—Beams, slabs, columns, and beam columns. Frames and footings. *Prerequisite:* CE 360. 3 hours. (3.0 D)

**456. Prestressed Concrete Design**—Principles and concepts of design in prestressed concrete including elastic and ultimate strength analyses for flexural, shear, bond, and deflection. Principles of concordancy and linear transformation for indeterminate prestressed structures. *Prerequisite:* CE 455. 3 hours. (3.0 D)

**457. Concrete Technology**—Properties of concrete in relation to specifying, purchasing, and evaluating concrete materials. Fresh and

hardened concrete properties. Concrete mix design procedures. Effects of finishing, curing, weather conditions, and various construction procedures. Ready mix concrete production and field placement techniques. Specification writing to ensure good quality concrete and field inspection procedures. Case studies of problems in concrete construction. *Prerequisite:* CE 222. 3 hours. (1.0 S, 2.0 D)

**460. Structural Mechanics**—Elastic beam deflections, beam columns, lateral torsional buckling, column stability, plastic design, plate bending, and yield line theory. *Prerequisite:* CE 360. 3 hours. (2.0 S, 1.0 D)

**461. Introduction to the Finite Element Method**—Concepts and applications of finite element method. Development and application of basic finite elements. Software use. *Prerequisite:* CE 220. 3 hours. (2.0 S, 1.0 D)

**462. Advanced Structural Analysis**—Analysis of indeterminate structures utilizing both classical and matrix methods. Utilization of large-scale computer programs. *Prerequisite:* CE 360. 3 hours. (3.0 S)

**464. Structural Dynamics I**—Closed form and numerical solutions to single-degree-of-freedom structural models. Analysis of multistory frames. Computer applications and seismic analysis. Techniques of modal analysis. *Prerequisites:* CE 215 and CE 360. 3 hours. (2.0 S, 1.0 D)

**467. Wind and Seismic Loads**—Methods for calculating loads on structures due to extreme winds and earthquakes. Calculation of wind loads on various types of structures according to theory and codes. Determination of earthquake loads on structures using structural dynamics and codes. *Prerequisite:* CE 360. 3 hours. (1.0 S, 2.0 D)

**468. Bridge Engineering**—Bridge loads, steel beam bridges, composite beam bridges, bridge bearings, reinforced and prestressed concrete slab and T-beam bridges, bridge evaluations and ratings, and upgrade methodologies; computer applications. *Prerequisites:* CE 450 and CE 455. 3 hours. (3.0 D)

**480. Introduction to Water and Wastewater Treatment**—Physical unit operations and chemical and biological unit processes for water and wastewater treatment. Design of facilities for treatment. Treatment and disposal of sludge. *Corequisite:* CE 236. 3 hours. (1.0 S, 2.0 D)

**485. Engineering Hydrology**—Hydrologic principles including hydrologic cycle, precipitation data, stream-flow measurements and application of stream-flow data, runoff, evaporation, transpiration, and groundwater. Applications to engineering problems related to groundwater yield, stream-flow analysis, watershed management, and probability as basis for design. *Prerequisite:* CE 236. 3 hours. (2.0 S, 1.0 D)

**490. Special Topics in (Area)**— 3 hours. (S or D)

**491. Individual Study in (Area)**— 3 hours. (S or D)

**497. Engineered Construction**—Concepts of design of construction process; formwork, scaffolds, etc. Includes field trips to sites of construction in progress. *Prerequisite:* Senior standing in department. 2 hours. (1.0 D, 1.0 O)

**499. Civil Engineering Design Project**—Team design of project. Normally taken during last term before graduation. *Prerequisites:* CE 332, CE 337, CE 345, CE 430 or CE 480, CE 450 or CE 455. *Prerequisite or corequisite:* CE 497. 3 hours. (3.0 D)

# DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

**Chair:** Gregg L. Vaughn

**Faculty:** Callahan, Green, Grimes, Jannett, Nelson, Smith, Tanik

The Electrical Engineering program in the Department of Electrical and Computer Engineering at UAB embodies a curriculum of 128 semester hours that is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. In addition to courses in mathematics, calculus-based physics, chemistry, and the humanities/social sciences, students take a core of fundamental engineering coursework outside of electrical engineering; a core of courses in the breadth of electrical engineering; and electrical engineering elective courses. A bachelor's degree in electrical engineering (B.S.E.E.) can provide the foundation that a student will need in any of the areas of electrical engineering, including advanced analog and digital electronics, microprocessor applications, biomedical instrumentation, digital computer systems, software systems, electric utility power systems, industrial power systems, digital control, industrial electronics, and machinery control.

Students can specialize their coursework by choosing three upper-level elective courses from the following list (the department chair may approve substitutes):

- EE 418** Wireless Communications
- EE 423** Digital Signal Processing
- EE 427** Industrial Controls
- EE 432** Introduction to Computer Networking
- EE 433** Engineering Software Solutions
- EE 438** Intermediate Microprocessors
- EE 446** Industrial Control Projects for the Information Age
- EE 447** Internet/Intranet Application Development
- EE 448** Software Engineering Projects
- EE 452** VHDL Digital Systems Design
- EE 458** Medical Instrumentation
- EE 461** Machinery II
- EE 471** Power Systems I
- EE 472** Power Systems II
- EE 473** Protective Relaying of Power Systems
- EE 498** Team Design Project I

Each student must also complete a senior design project.

## VISION

The Department of Electrical and Computer Engineering at the University of Alabama at Birmingham will offer selected sub-disciplines in the field of electrical and computer engineering, excel in teaching and service, and be recognized regionally and nationally.

## MISSION

The department's primary mission is to contribute to the economic well-being and quality of life of the Birmingham metropolitan community, the State of Alabama, and the nation.

## GOALS

- Deliver high quality electrical and computer engineering education;
- Prepare students to take their place in a globally competitive technical environment;
- Educate engineers who can compete in new and emerging technologies and markets by presenting aspects of critical thinking, techniques of strategic planning, methodologies of effective communication, and information concerning societal issues;
- Conduct applied research with the ultimate goal of technology transfer for the betterment of mankind;
- Provide exemplary service for the benefit of the University, the Birmingham metropolitan community, the State of Alabama, business and industrial organizations, and the engineering profession;
- Encourage students to avail themselves of available opportunities for life-long learning.

## EDUCATIONAL OBJECTIVES

- Graduates will have a broad education necessary to understand the impact of electrical engineering solutions in the context of relevant societal issues.
- Graduates will have an ability to analyze and solve electrical engineering problems in practice by applying fundamental knowledge of mathematics, science, and engineering using modern engineering techniques, skills, and tools.
- Graduates will have an ability to identify, formulate, and solve electrical engineering problems through a process that includes the steps of planning, specification development, design, implementation, and verification to meet performance, cost, time, safety, and quality requirements.
- Graduates will have an ability (1) to design and conduct scientific and engineering experiments and (2) to analyze and interpret the resulting data.
- Graduates will have an ability to function and communicate, both individually and within multidisciplinary teams.
- Graduates will have (1) an understanding of professional and ethical responsibility and (2) a recognition of the need for, and ability to engage in, life-long learning.
- Graduates will have experienced an academic environment that facilitated and encouraged learning.
- Graduates will have an understanding of recent developments in the sub-disciplines of electrical engineering emphasized in the program.

## CURRICULUM FOR THE BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.)

### FIRST YEAR

	<i>Sem. Hrs.</i>
EE 130 Engineering Computations.....	<b>3</b>
EE 210 Digital Logic .....	<b>3</b>
EGR 100 Introduction to Engineering .....	<b>2</b>

ME 102 Engineering Graphics .....	2
CH 115 Chemistry I .....	3
CH 116 Chemistry I Laboratory .....	1
EH 101 English Composition I .....	3
EH 102 English Composition II .....	3
MA 125 Calculus I.....	4
MA 126 Calculus II .....	4
PH 221 Physics I and Laboratory .....	4
Total semester hours .....	32

**SECOND YEAR**

	<i>Sem. Hrs.</i>	
CE 212 Statics and Dynamics .....	3	
EE 233 Engineering Programming Methods .....	3	
EE 314 Electrical Circuits .....	3	
EE 316 Electrical Networks.....	4	
ME 250 Introduction to Thermodynamic Sciences .....	2	
MA 227 Calculus III .....	4	
MA 252 Introduction to Differential Equations .....	3	
PH 222 Physics II and Laboratory .....	4	
Area II Core Curriculum requirement .....	3	
Area IV Core Curriculum requirement.....	3	
Total semester hours .....	32	

**THIRD YEAR**

	<i>Sem. Hrs.</i>	
EE 300 Engineering Problem Solving .....	3	
EE 318 Methods of Systems Analysis .....	3	
EE 333 Engineering Programming Using Objects .....	3	
EE 337 Introduction to Microprocessors .....	4	
EE 351 Electronics .....	4	
EE 361 Machinery I.....	4	
EE 431 Analog Integrated Electronics.....	4	
EE 485 Engineering Operations .....	3	
Area II Core Curriculum requirement .....	3	
Area IV Core Curriculum requirement.....	3	
Total semester hours .....	34	

**FOURTH YEAR**

	<i>Sem. Hrs.</i>	
EE 341 Electromagnetics .....	3	
EE 421 Communication Systems .....	3	
EE 426 Control Systems .....	3	
EE 497 Team Design Project .....	3	
or		
EE 499 Team Design Project II <sup>13</sup> .....	3	
EE Upper-level elective <sup>14</sup> .....	3	
EE Upper-level elective .....	3	
EE Upper-level elective .....	3	
EE Upper-level elective .....	3	
Area II Core Curriculum requirement .....	3	

Area IV Core Curriculum requirement.....	3
Total semester hours .....	30

- (13) Each student must complete a senior design project of either EE 497 or EE 499. EE 498 is allowed as an elective only if EE 499 is used to fulfill the senior design project requirement.
- (14) Refer to list cited on page 148.

**Course Descriptions**

**Electrical Engineering (EE)**

Note: S, D, M, and O refer to the Accreditation Board for Engineering and Technology curricula content of engineering science (S), engineering design (D), mathematics (M), and other (O), respectively.

**130. Engineering Computations**—Organization of problems for solution on computer. Familiarization with computer concepts. Discussion of algorithms. Individual software projects. *Prerequisite:* MA 125. 3 hours. (3.0 O)

**134. Engineering Computer Methods**—Organization of problems for solution by computer methods. Familiarization with computer concepts, algorithm, data manipulation and presentation. Individual software projects. *Prerequisite:* MA 106. This course is not for ECE or BME majors. 3 hours. (3.0 O)

**210. Digital Logic**—Number systems and codes. Boolean algebra and combinational logic. Arithmetic and logical circuits. Memory elements. Synchronous and asynchronous sequential logic. Classroom lab activities. 3 hours. (2.0 S, 1.0 D)

**233. Engineering Programming Methods**—Program design techniques, data structures, coding and documentation standards, product design, life cycle, data structures, file I/O, testing, database, software tools, and features of department computers. Students design, code, and test medium-size programs individually. Group project. Lecture and laboratory. *Prerequisites:* Grade of C or better in EE 130 and sophomore standing. 3 hours. (1.5 S, 1.5 D)

**300. Engineering Problem Solving**—Selected mathematical and computational topics appropriate to solution of engineering problems. *Prerequisite:* MA 252. 3 hours. (3.0 M)

**305. Fundamentals of Electrical Engineering**—Survey of topics fundamental to field of electrical engineering. For non-engineering majors. Not available for credit toward engineering major. *Prerequisite:* MA 109. 2 hours.

**312. Electrical Systems**—Introduction to DC circuit analysis, AC steady-state analysis, and AC polyphase machines. *Prerequisite:* MA 126. 3 hours. (3.0 S)

**314. Electrical Circuits**—Application of circuit analysis techniques to DC and AC circuits; circuit solution using PSpice. *Prerequisite:* MA 126. 3 hours. (3.0 S)

**316. Electrical Networks**—Polyphase circuits, analysis of circuits using classical differential/integral techniques and Laplace Transforms; two-port network parameters. Lecture and laboratory. *Prerequisite:* Grade of C or better in EE 314. *Corequisite:* MA 252. 4 hours. (4.0 S)

**318. Methods of System Analysis**—Signal analysis, system representations, and system simulation. Transient responses; discrete-time systems. Application of Laplace and Z transform methods to systems. *Prerequisites:* EE 300 and Grade of C or better in EE 316. 3 hours. (3.0 S)

**333. Engineering Programming Using Objects**—Software development emphasizing object-oriented methods. Students design and develop programs using existing classes and create their own classes using Java programming language. Java graphical user interface framework will be used as extensive example of Object Oriented System. *Prerequisite:* EE 233. 3 hours. (2.0 S, 1.0 D)

**337. Introduction to Microprocessors**—Application of microcomputers to engineering problems such as data acquisition and control. Topics include CPU architecture and assembly language, serial and parallel I/O devices, system architecture, and bus interfacing. Lecture and laboratory. *Prerequisites:* Grade of C or better in EE 210 and EE 316 and EE 233. 4 hours. (2.5 S, 1.5 D)

**341. Electromagnetics**—Mathematical techniques used to solve electromagnetic problems. Concepts fundamental to dynamic electromagnetic problems. Application of concepts to static problems. Techniques used to solve dynamic problems. Transmission, reflection, and refraction of uniform plane waves. Transient analysis, steady-state analysis, and tuning of transmission lines for harmonic waves. *Prerequisites:* Grade of C or better in EE 316 and PH 222. 3 hours. (2.5 S, 0.5 D)

**351. Electronics**—Solid-state electronics. Bipolar junction and field-effect transistor (FET) properties; biasing and Q point determination in elementary amplifier circuits; frequency response; single and multistage amplified circuits. Lecture and laboratory. *Prerequisites:* Grade of C or better in EE 210 and EE 316. 4 hours. (2.5 S, 1.5 D)

**361. Machinery I**—Fundamentals of magnetic circuits; analysis of transformers; rotating magnetic fields. Synchronous machine operation and performance analysis using equivalent circuits and characteristic curves. Analysis of induction motors using equivalent circuits. Calculation of motor speed, torque, power, and efficiency; starting compensators. Lecture and laboratory. *Prerequisite:* Grade of C or better in EE 316. 4 hours. (3.0 S, 1.0 D)

**411. Facilities Engineering**—General engineering project planning, apply codes and standards, preliminary design, economic forecasting, environmental planning reports, site selection, population displacement, cash flow, specifications plans. 3 hours. (3.0 D)

**418. Wireless Communications**—Wireless communication system topics such as propagation, modulation techniques, multiple access techniques, channel coding, speech and video coding, and wireless computer networks. *Prerequisite:* Permission of instructor. 3 hours

**421. Communication Systems**—Signal and system representation in time and frequency domains. Fourier transform and spectral density; amplitude and angle modulation; sampling and pulse modulation. *Prerequisite:* EE 318. 3 hours. (3.0 S)

**423. Digital Signal Processing**—Digital filter analysis and design. FFT algorithms. Applications of DSPs in engineering problems such as data acquisition, control, and I/O. *Prerequisite:* EE 318. 3 hours. (2.0 S, 1.0 D)

**426. Control Systems**—Theory of linear, continuous-feedback control systems using complex frequency techniques. Block diagram manipulation, performance measures, stability, root locus, construction and locating roots (positive and negative feedback), gain adjustment, and altering dynamic properties. Discrete transforms using z-transform and z-plane root locus. *Prerequisites:* EE 318 and CE 212. 3 hours. (2.0 S, 1.0 D)

**427. Industrial Control**—Power control devices and applications. Relay logic and translation to other forms. Programmable logic controllers. Proportional-integral-derivative (PID) control techniques. Modern laboratory instrumentation and man-machine interface software. Lecture and laboratory. *Prerequisites:* EE 233 and EE 351. 3 hours. (1.5 S, 1.5 D)

**431. Analog Integrated Electronics**—Advanced analysis and design using op-amps, with emphasis on error analysis and compensation. Applications include signal conditioning for instrumentation, instrumentation amplifiers, nonlinear and computational circuits, Butterworth and Chebyshev filter design, power amplifier design, voltage regulator design, and oscillators. A-to-D and D-to-A conversion methods. Laboratory exercises emphasize design techniques. *Prerequisites:* EE 351 and Grade of C or better in EE 316. 4 hours. (2.0 S, 2.0 D)

**432. Introduction to Computer Networking**—Computer networking and engineering standards related to networking. Network hardware, Ethernet, token ring, ISDN, ATM, networking protocols including TCP/IP protocol suite. Internetworking, LANs, and typical applications. Required use of computer laboratory's networking. Lecture and laboratory. *Prerequisites:* EE 130 and grade of C or better in EE 210. 3 hours. (2.0 S, 1.0 D)

**433. Engineering Software Solutions**—Project planning, specification, design, implementation, and testing of software solutions for engineers. Design techniques based on state machines, object-oriented techniques, database, and multi-tasking. Use of software tools. Three projects. *Prerequisite:* EE 333. 3 hours. (1.0 S, 2.0 D)

**438. Intermediate Microprocessors**—Application of specialized microcomputers (digital signal processors) in computationally intensive engineering problems, such as data acquisition, control, and real-time input/output. Lecture and laboratory. *Prerequisite:* EE 337. 3 hours. (1.5 S, 1.5 D)

**442. Computer Networking Protocols**—Hands-on laboratory course covering topics in networking. TCP/IP, routing, LAN configurations, windows and Linux configurations, protocol analysis. Lecture and laboratory. *Prerequisite:* EE 432. 3 hours. (1.5 S, 1.5 D)

**446. Industrial Control Projects for the Information Age**—In-depth group and individual projects in industrial control with emphasis on information systems applications. Projects in areas such as programmable logic controllers, distributed control systems, factory automation, man-machine interface software and hardware, intelligent control, real-time systems, database applications, and distributed computing. *Prerequisite:* EE 427 or permission of instructor. 3 hours. (3.0 D)

**447. Internet/Intranet Application Development**—Development of applications and models using Internet/Intranet technologies such as Java, JavaScript, conferencing systems, Dynamic HTML, server side scripting, multi-tier models, and XML. *Prerequisite:* EE 233 or permission of instructor. 3 hours. (1.0 S, 2.0 D)

**448. Software Engineering Projects**—Builds on the Object-Oriented concepts and Java covered in EE 333. Coverage for Unified Modeling Language is expanded and Java Design Patterns are incorporated. Provides a project environment for implementation of systems using Object-Oriented techniques. *Prerequisite:* EE 333. 3 hours. (3.0 D)

**451. Digital Electronics**—Basics of semiconductor physics and switching behavior of bipolar and MOS transistors. Properties of

CMOS, TTL, and ECL logic families. Semiconductor memory. IC fabrication. State machine and large-scale project techniques. Manual layout of small ICs using LSI Edit. Laboratory involves measuring device characteristics and designing and implementing several types of sequential circuits. Lecture and laboratory. *Prerequisites:* EE 337 and EE 351. 3 hours. (1.5 S, 1.5 D)

**452. VHDL Digital Systems Design**—Computer Design Automation using VHDL. Architectural, behavioral, and logical descriptions of digital systems. Logic verification and simulation. Projects involve designing complex integrated circuits using modern DA tools. Lecture and laboratory. *Prerequisite:* Grade of C or better in EE 210. 3 hours. (1.5 S, 1.5 D)

**458. Medical Instrumentation**—Fundamental operating principles, applications, and design of electronic instrumentation used in measurement of physiological parameters. Class design project. *Prerequisite:* EE 351. 3 hours. (1.5 S, 1.5 D)

**461. Machinery II**—Physical principles of DC machines. Mathematical analysis of generator designs using equivalent circuits and magnetization curves. Calculation of motor speed, torque, power, efficiency, and starting requirements. Solid-state speed control systems. *Prerequisite:* EE 361. 3 hours. (2.5 S, 0.5 D)

**471. Power Systems I**—Components of power systems. Performance of modern interconnected power system under normal and abnormal conditions. Calculation of inductive and capacitive reactances of three-phase transmission lines in steady state. *Prerequisite:* EE 361. 3 hours. (2.0 S, 1.0 D)

**472. Power Systems II**—Modeling of generators, transformers, and transmission lines for system studies. Introduction to symmetrical components. Calculation of short-circuit currents due to balanced and unbalanced faults. Determination of interrupting ratings of circuit breakers. Transient stability of power systems. Derivation of swing equation and solution by numerical method. Equal area criterion. Power system design project required. *Prerequisite:* EE 471. 3 hours. (1.0 S, 2.0 D)

**473. Protective Relaying of Power Systems**—Operating principles of protective relays. Protection of transmission lines, generators, motors, transformers, and buses. *Prerequisite:* EE 472. 3 hours. (1.0 S, 2.0 D)

**474. Industrial Power Systems**—One-line diagrams/load analysis. Medium and low voltage feeder design, voltage regulation, and short-circuit analysis. Selection of protective devices. Grounding and lightning protection. Term project. *Prerequisite:* EE 472. 3 hours. (3.0 D)

**485. Engineering Operations**—Economic, procedural, planning, and control aspects of engineering projects. *Prerequisite:* Permission of instructor. 3 hours. (3.0 O)

**490. Special Topics in (Area)**—Topic assigned with course. 1 to 3 hours. (S or D)

**491. Special Problems in (Area)**—Topic assigned with course. 1 to 3 hours. (S or D)

**497. Team Design Project**—Senior Design Team Project Course. Analysis, design, and implementation of assigned team project, including design documentation and design review. *Prerequisites:* EE 485 and approved Application for Degree. Student must be in final year of his/her program. 3 hours. (3.0 D)

**498. Team Design Project I**—Senior Design Team Project Course Part I. Analysis and design of assigned team project,

including design documentation and design review. *Prerequisites:* EE 485, approved Application for Degree, and permission of instructor. Student must be in final year of his/her program. 3 hours. (3.0 D)

**499. Team Design Project II**—Senior Design Project Course Part II. Design and implementation of assigned team project, including design review, demonstration, and documentation. *Prerequisite:* EE 498. 3 hours. (3.0 D)

## DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING

**Chair:** J. Barry Andrews

**Faculty:** Bates, Chawla, Dean, Dwyer, Griffin, Janowski, Patterson, Scripa, Vaidya

Materials engineering involves the development, production, modification, and application of engineering materials to meet the specific needs of society. It is based on an understanding of the structures and forces that control the engineering properties of metals, ceramics, polymers, and composites. Through the development of this understanding, the student learns how to control the properties of materials through various industrial manufacturing processes, how to select the optimum material and predict its behavior under various environmental and service conditions, and how to alter this behavior through materials design, research, and development. Materials engineers are employed in every major industry, including aerospace, chemical, automotive, metals casting, biomedical, and microelectronics.

The Materials Engineering program at UAB has a curriculum of 128 semester credit hours that is accredited by ABET (Accreditation Board for Engineering and Technology, Inc.). In addition to courses in mathematics, calculus-based physics, chemistry, and the humanities/social sciences, students take a core of fundamental engineering course work and a sequence of materials engineering courses. The required materials engineering courses address ceramics, polymers, composite materials, and metals. They emphasize the relationships between properties, structure, processing, and performance. Materials engineering elective courses are also offered to introduce students to leading-edge materials engineering topics. With additional course work, the materials engineering program can also be utilized as a pre-health curriculum. Biomaterials applications can be studied through this mechanism. The curriculum prepares graduates to directly enter the professional practice of materials science and engineering or to pursue graduate studies in materials science and engineering.

The department also offers courses of study leading to the master of science and doctor of philosophy degrees in materials engineering. These programs are described in the UAB Graduate School Catalog.

## VISION

To be an internationally recognized research-oriented Department of Materials Science and Engineering – a first choice for undergraduate and graduate education.

## MISSION

To excel in research for the benefit of society while educating students at all levels to be immediately productive.

## GOALS

- **Undergraduate Education**—Provide an excellent educational experience for a community of highly capable students that reflect the diversity of our society.
- **Graduate Education**—Develop an educational and research program that fosters the development of a community of scholars capable of defining and solving problems to benefit society.
- **Research and Scholarship**—Develop an internationally recognized research program focused in distinct multidisciplinary areas.

## EDUCATIONAL OBJECTIVES

- To produce graduates who are able to apply and integrate the principles of mathematics, science, and engineering;
- To produce graduates who have current knowledge about a variety of engineering materials (including metals, ceramics, polymers, and composites), and the relationships among processing, structure, properties, and performance;
- To produce graduates who are able to define and solve problems using sound technical approaches with a focus on materials selection and design;
- To produce graduates who are able to communicate effectively and who demonstrate the ability to function on multi-disciplinary teams;
- To produce graduates who are skilled at using experimentation and modern engineering tools for analysis, design, and communication; and
- To produce graduates who are able to understand their ethical responsibility to their profession and society in a global context and who are prepared for and realize the importance of life-long learning.

## CURRICULUM FOR THE BACHELOR OF SCIENCE IN MATERIALS ENGINEERING (B.S.Mt.E.)

### FRESHMAN YEAR

	<i>Sem. Hrs.</i>
EGR 100 Introduction to Engineering .....	<b>2</b>
ME 102 Engineering Graphics .....	<b>2</b>
ME/EE 130 <sup>17</sup> Engineering Computations .....	<b>3</b>
or	
EE 134 Engineering Computer Methods	
CH 115 Chemistry I .....	<b>3</b>
CH 116 Chemistry I Laboratory .....	<b>1</b>
CH 117 Chemistry II .....	<b>3</b>
CH 118 Chemistry II Laboratory .....	<b>1</b>
EH 101 English Composition I .....	<b>3</b>
EH 102 English Composition II .....	<b>3</b>
MA 125 Calculus I .....	<b>4</b>

MA 126 Calculus II .....	<b>4</b>
PH 221 General Physics I and Laboratory .....	<b>4</b>
Total semester hours .....	<b>33</b>

### SOPHOMORE YEAR

	<i>Sem. Hrs.</i>
CE 212 Statics and Dynamics .....	<b>3</b>
CE 220 Mechanics of Solids .....	<b>3</b>
EE 312 Electrical Systems .....	<b>3</b>
MSE 280 Engineering Materials .....	<b>3</b>
MSE 281 Physical Materials I .....	<b>3</b>
MA 227 Calculus III.....	<b>4</b>
MA 252 Introduction to Differential Equations .....	<b>3</b>
PH 222 General Physics II and Laboratory.....	<b>4</b>
Area II Core Curriculum requirement .....	<b>3</b>
Area IV Core Curriculum requirement.....	<b>3</b>
Total semester hours .....	<b>32</b>

### JUNIOR YEAR

	<i>Sem. Hrs.</i>
CE 344 Civil Engineering Analysis I .....	<b>3</b>
ME 250 Introduction to Thermodynamic Sciences .....	<b>2</b>
ME 405 Manufacturing Processes .....	<b>3</b>
MSE 310 Materials Engineering Laboratory II .....	<b>2</b>
MSE 380 Thermodynamics of Materials.....	<b>3</b>
MSE 381 Physical Materials II .....	<b>3</b>
MSE 382 Mechanical Behavior of Materials .....	<b>3</b>
MSE 465 Characterization of Materials.....	<b>4</b>
MSE 470 Ceramic Materials .....	<b>3</b>
Area II Core Curriculum requirement .....	<b>3</b>
Area IV Core Curriculum requirement.....	<b>3</b>
Total semester hours .....	<b>32</b>

### SENIOR YEAR

	<i>Sem. Hrs.</i>
MSE 498 Design Project I .....	<b>2</b>
MSE 499 Design Project II.....	<b>3</b>
MSE 410 Materials Engineering Laboratory III.....	<b>2</b>
MSE 413 Composite Materials .....	<b>3</b>
MSE 430 Polymeric Materials .....	<b>3</b>
MSE 464 Metals and Alloys.....	<b>3</b>
MSE 484 Electronic, Magnetic, and Thermal Properties of Materials.....	<b>3</b>
MSE Elective <sup>18</sup> .....	<b>3</b>
Mathematics, science, or engineering elective <sup>19</sup> .....	<b>3</b>
Area II Core Curriculum requirement .....	<b>3</b>
Area IV Core Curriculum requirement.....	<b>3</b>
Total semester hours .....	<b>31</b>

(17) MSE students may take EE/ME 130 or EE 134.

(18) MSE electives include MSE 401, MSE 402, MSE 403, MSE 490, and MSE 491.

(19) Course must be approved by MSE Chair.

## BIOMATERIALS CURRICULUM

The materials engineering program provides an avenue for students who wish to study applications in biomaterials. Students must comply with the curriculum for B.S.Mt.E., except that appropriate electives are selected in consultation with the MSE advisor.

### Course Descriptions

#### Materials Science and Engineering (MSE)

Note: S, D, M, and O refer to the Accreditation Board for Engineering and Technology curricula content of engineering science (S), engineering design (D), mathematics (M), and other (O), respectively.

**280. Engineering Materials**—Fundamentals of materials engineering, including terminology, mechanical testing and behavior, heat treating, and processing of metals, ceramics, polymers, and composites. Degradation of materials and criteria for materials selection. *Prerequisites:* MA 109 or MA 125 and 4 credits of Area III Science. CH 105 or CH 115 recommended. 3 hours. (2.5 S, 0.5 D)

**281. Physical Materials I**—Structure of metals; ceramics and polymers crystal bonding; dislocations, phase diagrams, diffusion, and grain boundaries. Free energy of phases and behavior of solid solutions. Applications to the iron-carbon system, including heat treatment. Lecture and laboratory. *Prerequisite:* MSE 280. *Corequisite:* MSE 281L. 3 hours. (2.5 S, 0.5 D)

**310. Materials Engineering Laboratory II**—Processing of metals, ceramics, and composites. Thermal, mechanical, and elastic properties and their measurement. Laboratory. *Prerequisite:* MSE 381. *Corequisites:* MSE 382 and MSE 470. 2 hours. (1.0 S, 1.0 D)

**350. Introduction to Materials**—Concepts and applications, crystal structure of materials, formation of microstructures, and selected structure-property relationships. Not available for credit toward engineering major. For non-engineering majors only. 3 hours.

**380. Thermodynamics of Materials**—First, second, and third laws of thermodynamics. Gibbs free energy, heat capacity, enthalpy, entropy, and relationships between thermodynamic functions. Free energy versus composition relationships; behavior of ideal and non-ideal solutions; concept of thermodynamic activity of components in solution. Applications to materials systems. *Prerequisites:* MSE 280, CH 117, and CH 118. 3 hours. (2.0 S, 1.0 D)

**381. Physical Materials II**—Microstructural changes in response to temperature and time; vacancies, annealing, diffusion, nucleation and growth kinetics. Equilibrium and non-equilibrium microstructures. Applications to precipitation hardening and solidification of metals. *Prerequisite:* MSE 281. 3 hours. (2.0 S, 1.0 D)

**382. Mechanical Behavior of Materials**—Microscopic deformation mechanisms in materials leading to macroscopic properties of fatigue; creep; ductile, transitional, and brittle fracture; friction; wear. *Prerequisite:* MSE 281. CE 220 is recommended. 3 hours. (1.8 S, 1.2 D)

**401. Materials Processing**—Processing of metals, glasses, ceramics, and composites. Powder processing, casting, welding, rapid solidification, and other advanced methods. *Prerequisite:* MSE 281. 3 hours. (2.0 S, 1.0 D)

**402. Frontiers of Materials**—Recent advances in materials technology and application. Novel processing, structures, properties, and performance issues. *Prerequisite:* MSE 281. 3 hours. (2.0 S, 1.0 D)

**403. Degradation of Materials**—Issues in long-term utilization of materials. Corrosion, high-temperature oxidation, creep, fatigue, and their interactions. *Prerequisite:* MSE 281. 3 hours. (2.0 S, 1.0 D)

**404. Ferrous Casting**—Production and evaluation of cast ferrous metals (gray iron, ductile iron, carbon steel). Course will cover major casting techniques, gating, risering, solidification, phase formation, and inspection. Inspection techniques include x-ray, ultrasonic, and dye penetrant. Lecture and laboratory. *Prerequisite:* MSE 280 or permission of instructor. *Corequisite:* MSE 404L. 3 hours.

**406. Aluminum Casting**—Production and evaluation of cast aluminum, especially alloys 319, 356, and 357 and 380. Course will cover major casting techniques, gating and risering, degassing, pouring, solidification, phase formation, and inspection. Inspection techniques include x-ray, ultrasonic, and dye penetrant. Lecture and laboratory. *Prerequisite:* MSE 280 or permission of instructor. *Corequisite:* MSE 406L. 3 hours.

**410. Materials Engineering Laboratory III**—Design of experiments. Processing of steels, cast irons, and aluminum alloys. Structure-property relationships in composites. *Prerequisite:* MSE 310. 2 hours. (0.5 S, 1.5 D)

**413. Composite Materials**—Processing, structure, and properties of metal-, ceramic-, and polymer-matrix composite materials. Roles of interfacial bond strength, reinforcement type and orientation, and matrix selection in physical and mechanical properties of composite materials. *Prerequisite:* MSE 281. MSE 382 is recommended. 3 hours. (2.0 S, 1.0 D)

**430. Polymeric Materials**—Processing methods, structure/engineering property relationships, and applications of polymeric materials. Lecture and laboratory. *Prerequisites:* MSE 281, CH 117, and CH 118. *Corequisite:* MSE 430L. 3 hours. (2.0 S, 1.0 D)

**433. NDE of Materials**—Principles, applications, and limitation of ultrasonic vibrations, acoustic emission, radiographic, magnetic particle, eddy current, and other nondestructive testing methods. Intelligent sensors and health monitoring of real structures. *Prerequisite:* MSE 465. 3 hours. (2.0 S, 1.0 D)

**464. Metals and Alloys**—Microstructures, properties, heat treatment, and processing of ferrous and nonferrous materials. *Prerequisite:* MSE 281. 3 hours. (2.0 S, 1.0 D)

**465. Characterization of Materials**—Theory and practice of materials characterization, with emphasis on optical metallography, quantitative metallography, scanning electron microscopy, crystallography, and x-ray diffraction. Specific applications in metals and ceramics considered. Lecture and laboratory. *Prerequisite:* MSE 281. *Corequisite:* MSE 465L. 4 hours. (2.5 S, 1.5 D)

**470. Ceramic Materials**—Structure, processing, properties, and uses of ceramic compounds and glasses. Mechanical, thermal, and electrical behavior of ceramic materials in terms of microstructure and processing variables. *Prerequisites:* MSE 281, CH 117, and CH 118. 3 hours. (2.0 S, 1.0 D)

**484. Electronic Magnetic and Thermal Properties of Materials**—Mechanisms behind rectifying junctions, transistors, paramagnetism, diamagnetism, and ferromagnetism. *Prerequisites:* MSE 280 and PH 222. 3 hours. (2.5 S, 0.5 D)

**490. Special Topics in (Area)**—1 to 6 hours. (S or D)

**491. Individual Study in (Area)**—1 to 6 hours. (S or D)

**498. Senior Design Project I**—Capstone design project: interdisciplinary design teams, ethics, materials selection, design

process, development of proposal, project planning and scheduling, project execution and resource scheduling, and communication of design. Prerequisite: Senior standing in department.

Corequisite: ME 405 2 hours. (2.0 D)

**499. Senior Design Project II**—Continuation of MSE 498.

Interim and final design reviews with written and oral reports.

Prerequisite: MSE 498. 3 hours. (3.0 D)

## DEPARTMENT OF MECHANICAL ENGINEERING

**Chair:** Bharat K. Soni

**Faculty:** Ban, Cheng, Eleftheriou, Gopalsamy, Kim, Koomullil, A. McClain, S. McClain, Oliver, Nichols, Noack, Shih, Stephens, P. Walsh

Mechanical engineering is a broad-based discipline that embraces two major topic areas—mechanical systems and thermal systems. With an understanding of the phenomena associated with these topics, mechanical engineers conceive and design a wide variety of devices, machines, and systems to meet the needs and desires of a modern economy. Mechanical engineers also engage in other engineering functions such as applied research, development, and management. During the next decade and beyond, mechanical engineers will have a primary role in addressing the problems relating to manufacturing, productivity and safety in the workplace, supply and efficient utilization of energy, transportation, enhancement of the environment, and human rehabilitation.

The Mechanical Engineering program is accredited by ABET (Accreditation Board for Engineering and Technology, Inc.) and embodies a curriculum of 128 semester credit hours. In addition to courses in mathematics, calculus-based physics, chemistry, humanities, and social sciences, the mechanical engineering curriculum also includes a core of fundamental engineering coursework and advanced courses in thermodynamics, fluid mechanics, heat transfer, mechanics of machinery, and mechanical design. Laboratory experiences are provided in each area to illustrate the application of theory in engineering practice. During the senior year, the curriculum provides for electives that allow specializations in the areas of mechanical systems or energy systems. With additional coursework, the mechanical engineering program can also be utilized as a pre-health curriculum.

### VISION

The Department of Mechanical Engineering in the University of Alabama at Birmingham School of Engineering will be a premier department offering specialties in thermal systems and mechanical systems that will be recognized regionally, nationally, and internationally and will excel in teaching, research, and service.

### MISSION

The primary mission of the Mechanical Engineering Department is to provide a high-quality engineering education; conduct basic and applied research; and contribute to the well-being of the Birmingham metropolitan community, the State of Alabama, and the nation.

## GOALS

- Deliver high quality engineering education;
- Prepare students to take their place in a globally competitive environment;
- Educate students who can compete in new and emerging technologies and markets by teaching them to think critically, plan strategically, communicate effectively, be aware of the need for life-long learning, and be adaptable to societal changes;
- Encourage the engineering, business, and industrial communities to stay abreast of changing technology by providing opportunities for life-long learning;
- Conduct basic and applied research for the betterment of humankind; and
- Provide service to the university; civic, business, governmental, industrial, and professional organizations; and the engineering profession.

## EDUCATIONAL OBJECTIVES

- To produce graduates who are able to apply the principles of mathematics, science, and engineering;
- To produce graduates who are knowledgeable in thermal systems and mechanical systems, including relationships among processes, process equipment, integrated design, and performance;
- To produce graduates who are able to define problems involving design in both thermal systems and mechanical systems, and are capable of developing and evaluating alternate designs as well as implementing design solutions;
- To produce graduates who are able to communicate effectively and who demonstrate the ability to function on multi-disciplinary teams;
- To produce graduates who are skilled at using modern engineering tools for analysis, design, and communication; and
- To produce graduates who are able to understand their responsibility to their profession and society in a global context and who are prepared for and realize the importance of life-long learning.

## CURRICULUM FOR THE BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (B.S.M.E.)

### FRESHMAN YEAR

	<i>Sem. Hrs.</i>
EGR 100 Introduction to Engineering .....	<b>2</b>
ME 102 Engineering Graphics .....	<b>2</b>
ME 130 Engineering Computations .....	<b>3</b>
CH 115 Chemistry I .....	<b>3</b>
CH 116 Chemistry I Laboratory .....	<b>1</b>
CH 117 Chemistry II .....	<b>3</b>
CH 118 Chemistry II Laboratory .....	<b>1</b>
EH 101 English Composition I .....	<b>3</b>
EH 102 English Composition II .....	<b>3</b>
MA 125 Calculus I .....	<b>4</b>

MA 126 Calculus II .....	4
PH 221 General Physics I and Laboratory .....	4
Total semester hours .....	33

### SOPHOMORE YEAR

	<i>Sem. Hrs.</i>
CE 210 Statics .....	3
CE 215 Dynamics .....	3
CE 220 Mechanics of Solids .....	3
ME 241 Thermodynamics I.....	3
ME 242 Thermodynamics II .....	3
ME 261 Mechanical Engineering Laboratory I .....	1
MA 227 Calculus III.....	4
MA 252 Introduction to Differential Equations .....	3
PH 222 General Physics II and Laboratory.....	4
Area II Core Curriculum requirement .....	3
Area IV Core Curriculum requirement.....	3
Total semester hours .....	33

### JUNIOR YEAR

	<i>Sem. Hrs.</i>
EE 312 Electrical Systems .....	3
ME 321 Introduction to Fluid Mechanics.....	3
ME 322 Introduction to Heat Transfer .....	3
ME 360 Controls and Automation .....	3
ME 361 Mechanical Engineering Laboratory II .....	1
ME 363 Engineering Tools, Analysis, & Communication .....	2
ME 370 Kinematics and Dynamics of Machinery .....	3
ME 371 Machine Design I.....	3
ME 405 Manufacturing Processes .....	3
MSE 280 Engineering Materials .....	3
Area II Core Curriculum requirement .....	3
Area IV Core Curriculum requirement.....	3
Total semester hours .....	33

### SENIOR YEAR

	<i>Sem. Hrs.</i>
ME 395 Engineering Economics .....	3
ME 455 Thermal Systems Design .....	3
ME 461 Mechanical Engineering Laboratory III.....	1
ME 472 Machine Design II .....	3
ME 498 Design Project I .....	2
ME 499 Design Project II.....	2
ME 4XX Elective <sup>20</sup> .....	6
MA/ENG Mathematics/Engineering Elective <sup>21</sup> .....	3
Area II Core Curriculum requirement .....	3
Area IV Core Curriculum requirement.....	3
Total semester hours .....	29

(20) ME electives include ME 406, 407, 408, 411, 414, 415, 420, 421, 445, 446, 447, 448, 449, 455, 464, 466, 468, 472, 473, 479, 490, and 491.

(21) To be selected from the departmentally approved list of courses.

## Course Descriptions

### Mechanical Engineering (ME)

Note: S, D, M, and O refer to the Accreditation Board for Engineering and Technology curricula content of engineering science (S), engineering design (D), mathematics (M), and other (O), respectively.

**101. Drawing for Industrial Distribution**—Technical sketching and reading of engineering drawings for non-engineering majors. *Corequisite:* MA 109. 1 hour. (1.0 O)

**102. Engineering Graphics**—Basic concepts in technical sketching, computer-aided drawing and design, projections, sections, and dimensioning. Lecture and laboratory. *Corequisite:* MA 105, MA 106, MA 107, or MA 125. 2 hours. (2.0 O)

**130. Engineering Computations**—Organization of problems for solution by computer methods. Familiarization with computer concepts and algorithms. Individual software projects in MathCAD and FORTRAN. *Corequisite:* MA 106. 3 hours. (3.0 O)

**241. Thermodynamics I**—Thermodynamic definitions, properties of a pure substance, ideal, and real gases, work, and heat. Fundamental laws of thermodynamics, entropy, reversible power and refrigeration cycles, irreversibility, and exergy. *Prerequisites:* PH 222 or CH 117 and CH 118. *Corequisite:* MA 126. 3 hours. (3.0 S)

**242. Thermodynamics II**—Application of thermodynamic principles to engineering systems; vapor power cycles; gas turbine cycles; Otto and Diesel cycles; refrigeration cycles; mixtures of ideal gases; psychrometrics; combustion; chemical equilibrium. *Prerequisite:* ME 241. *Corequisite:* MA 227. 3 hours. (2.0 S, 1.0 D)

**250. Introduction to Thermodynamic Sciences**—Introduction to thermodynamics and transport phenomena for non-mechanical engineering majors. *Prerequisites:* PH 221 and EE/ME 130 or EE 134. *Corequisite:* MA 126. 2 hours. (2.0 S)

**261. Mechanical Engineering Laboratory I**—Introductory mechanical engineering laboratory experience. Basic concepts, statistical and uncertainty analyses, survey of measurement devices. *Prerequisites:* ME 102 and PH 222. *Corequisites:* ME 242 and CE 220. 1 hour. (1.0 S)

**301. Design, Measurement, and Enhancement of Work Systems: A Survey**—Systems involving human performance. For non-engineering majors. Not available for credit toward engineering major. *Prerequisite:* Permission of instructor. 2 hours.

**302. Overview of Mechanical Components**—Transformation of energy, thermodynamics, heat transfer, and fluid mechanics. For non-engineering majors. Not available for credit toward engineering major. 3 hours.

**321. Introduction to Fluid Mechanics**—Fluid properties, fluid statics, fluid in motion (control volume method), pressure variation in flowing fluids (Bernoulli equation), principles of momentum and energy transport, dimensional analysis and similitude, surface resistance, flow in conduits. *Prerequisites:* ME 241 and MA 252. 3 hours. (2.5 S, 0.5 D)

**322. Introduction to Heat Transfer**—Basic concepts of thermodynamics and heat transfer, steady heat conduction, transient heat conduction, numerical methods in heat conduction, forced convection, natural convection, and introduction to radiation. *Prerequisite:* ME 321. 3 hours. (2.5 S, 0.5 D)

**360. Controls and Automation**—Control systems, feedback, and transfer function concepts. Signal flow graphs and Mason's

gain rule. Sensitivity and performance criteria. Laplace transform of mechanical and electrical systems. Stability, steady state, and transient response. Root locus and Nyquist and Bode plots. Introduction to automation. *Prerequisite:* MA 252. 3 hours. (2.0 S, 1.0 D)

**361. Mechanical Engineering Laboratory II**—Continuation of the mechanical engineering laboratory series. Advanced study of measurement techniques. Application of measurement techniques to engineering systems. *Prerequisites:* ME 242 and ME 261. *Corequisites:* ME 321, ME 363, and ME 370. 1 hour. (0.75 S, 0.25 D)

**363. Engineering Tools, Analysis, and Communication**—Subjects covered include managing and producing professional reports and proposals; communicating ethically in the workplace; and presenting ideas to multiple audiences in both written and oral formats. Resume writing, job searching, and interview skills are also addressed. Exposure to engineering tools for analysis and presentation of technical content included. *Prerequisites:* EH 102, ME 130, MA 252, and CE 220 or permission of instructor. 2 hours. (1.0 S, 1.0 O)

**364. Linear Algebra and Advanced Programming**—Integration of ideas, concepts, and fundamentals of linear algebra together with advanced programming. Methods presented for mathematical modeling of engineering systems. *Prerequisites:* ME 130 and MA 125. 3 hours. (2.0 M, 1.0 S)

**368. Introduction to Design Reliability**—Introduction to probability and statistics. *Prerequisite:* MA 227. 3 hours. (2.0 M, 1.0 D)

**370. Kinematics and Dynamics of Machinery**—Displacement, velocity, acceleration, and force analysis using vectors. Kinematic and dynamic analysis of cams, rolling contact and mechanisms, gears. *Prerequisites:* ME 102, CE 210, and CE 215. 3 hours. (2.0 S, 1.0 D)

**371. Machine Design I**—Strength and stiffness of machine components including statistical considerations. Static and fatigue strength of machine elements. *Prerequisites:* ME 102 and CE 220. 3 hours. (1.5 S, 1.5 D)

**395. Engineering Economics**—Selection, investment, and replacement problems of industrial enterprise. Benefits and cost-analysis future planning, and operations research concepts for engineering projects. Introduction to linear programming, transportation, and distribution optimization and queuing theory. *Prerequisite:* MA 125. 3 hours. (2.0 S, 1.0 D)

**405. Manufacturing Processes**—Industrial practices and principles of major manufacturing processes, including casting, metal cutting, and metal forming by plastic deformation; joining by welding, brazing, and cementing. *Prerequisites:* MSE 280, CE 210, and CE 215 or CE 212. 3 hours. (2.0 S, 1.0 D)

**406. Tooling Design**—Design of tooling, jigs, and fixtures. Economics of cutting, shearing, punching, and bending tools. Design for plastics and simulation of the injection molding process. Fundamentals of machine and work setup, direct and indirect measurement methods, foolproofing, alignment, force equalization, template design, CNC machining of tracer paths. *Prerequisite:* Permission of instructor. *Corequisite:* ME 405. 3 hours. (1.0 S, 2.0 D)

**408. Metrology and Quality Control**—Aspects of precision measurement, inspection and gauging, and reverse engineering,

lectures, laboratory experiences, and student projects. *Prerequisite:* Permission of instructor. 3 hours. (2.0 S, 1.0 D)

**411. Applied Fluid Mechanics**—Applications of fluid dynamic principles to engineering flow problems such as turbo-machinery flow and one-dimensional compressible flow. Vorticity and viscosity, potential flow, viscous flow, Navier-Stokes, solutions and boundary layers. *Prerequisite:* ME 321. 3 hours. (2.5 S, 0.5 D)

**414. Introduction to Computational Fluid Dynamics**—Review of governing equations of fluid dynamics, mathematical behavior of partial differential equations, basic aspects of discretization, basic CFD techniques, basic grid generation, coordinate transformations, advanced numerical schemes, future CFD methodology. *Prerequisites:* ME 130 and ME 321. 3 hours. (2.5 S, 0.5 D)

**415. Compressible Flow**—Conservation equations in integral and differential forms, one-dimensional flow, oblique shock and expansion waves, nozzles and diffusers, unsteady wave motion, velocity potential equation, linearized flow, conical flow, and introduction to numerical techniques for supersonic flow. *Prerequisite:* ME 321. 3 hours. (2.0 S, 1.0 D)

**421. Fluid Machinery**—Theory and performance of axial and centrifugal pumps and compressors, reaction and impulse turbines, diffusers, volutes, fans, blowers, lawn sprinklers, jet and rocket engines. *Prerequisite:* ME 321. 3 hours. (1.5 S, 1.5 D)

**422. Experimental Design and Uncertainty Analysis**—Introductory statistics, general, and detailed uncertainty analysis, design of experiments, instrumentation, data acquisition, correlation and evaluation of results. *Prerequisites:* ME 321 and ME 361. 3 hours. (2.0 S, 1.0 D)

**445. Combustion**—Theory and applications of combustion. Thermochemistry, mass transfer, chemical kinetics, analysis of reacting systems, conservation equations, premixed flames, diffusion flames, droplet combustion, solid-fuel combustion, pollutant emissions, and detonations. *Prerequisites:* ME 242, ME 321, and ME 322. 3 hours. (2.0 S, 1.0 D)

**446. Heating, Ventilating, and Air Conditioning**—Components of residential and commercial systems, psychrometrics, comfort conditions, calculation of heating and cooling loads, sizing of equipment, energy usage estimating. *Prerequisites:* ME 242 and ME 322. 3 hours. (2.0 S, 1.0 D)

**447. Solar Energy**—Applications of solar energy to heating, cooling, and power generation. Solar radiation effects and thermodynamic and heat transfer effects in solar power equipment. *Prerequisite:* ME 322. 3 hours. (2.0 S, 1.0 D)

**448. Internal Combustion Engines**—Fundamentals of reciprocating internal combustion engines: engine types, engine design and operating parameters, thermochemistry of fuel-air mixtures, properties of working fluids, ideal models of engine cycles, engine operating characteristics, gas-exchange processes, fuel metering, charge motion within the cylinder, combustion in spark-ignition and compression ignition engines. *Prerequisite:* ME 242. 3 hours. (2.0 S, 1.0 D)

**449. Power Generation**—Application of thermodynamics, fluid mechanics, and heat transfer to conversion of useful energy. Includes terrestrial and thermodynamic limitations, fossil fuel power plants, renewable energy sources, and direct energy conversion. *Prerequisite:* ME 242. 3 hours. (2.0 S, 1.0 D)

**451. Applied Heat Transfer**—Heat transfer theory and applications; boiling and condensation heat transfer, thermal radiation properties, radiation heat transfer of surfaces, heat exchanger calculation and design, and introduction of mass transfer.

*Prerequisites:* ME 242 and ME 322. 3 hours. (2.0 S, 1.0 D)

**455. Thermal Systems Design**—Comprehensive design problems requiring engineering decisions and code/Standard compliance. Emphasis on energy system components: piping networks, pumps, heat exchangers. Includes fluid transients and system modeling. *Prerequisite:* ME 322. 3 hours. (2.0 S, 1.0 D)

**461. Mechanical Engineering Laboratory III**—Continuation of the mechanical engineering laboratory series. Application of measurement techniques to engineering systems. Design of experiments and data acquisition/control systems. *Prerequisite:* ME 361.

*Corequisites:* ME 322 and ME 360. 1 hour. (0.75 S, 0.25 D)

**464. Introduction to the Finite-Element Method**—Concepts and applications of finite-element method. Development and applications of basic elements used in engineering mechanics. Use of finite-element analysis software. Application of finite-element concept to several areas of mechanics. *Prerequisite:* CE 220. 3 hours. (2.0 S, 1.0 D)

**465. Computer Methods in Mechanical Engineering**—Applications of digital computers to solution of problems in mechanical engineering, matrices, roots of equations, solution of simultaneous equations, curve fitting by least squares, differentiation and integration, differential and partial differential equations. *Prerequisites:* ME 130 and MA 252 or permission of instructor. 3 hours. (2.0 S, 1.0 D)

**468. Design Reliability**—Application of probability and statistics in design reliability and quality control. *Prerequisite:* MA 227. 3 hours. (2.0 M, 1.0 D)

**472. Machine Design II**—Design of machine elements. Threaded fasteners, keys, pins, welded joints, springs, shafts, bearings, gears, brakes, couplings, flexible elements, and shafts. *Prerequisite:* ME 371. 3 hours. (1.5 S, 1.5 D)

**473. Friction and Wear**—Friction and wear mechanisms, bearing analysis and design, lubrication theory and applications, and damage analysis. *Prerequisite:* Senior standing in engineering. 3 hours. (2.0 S, 1.0 D)

**475. Mechanical Vibrations**—Free and forced single-degree-of-freedom systems. Multi-degree-of-freedom systems. Simple continuous systems. Acoustics and noise control. *Prerequisites:* CE 212 or CE 215 and MA 252. 3 hours. (2.5 S, 0.5 D)

**476. Failure Analysis**—Procedures for failure analysis, failure mechanisms, examples of service failures, and methods to prevent failures. Independent study via video. *Prerequisites:* MSE 280 and CE 220. 3 hours. (2.0 S, 1.0 D)

**479. Advanced Mechanics**—Variation of stress at a point, including determination of principal and maximum shear stresses. Basic problems involving symmetrical deformation; thickwall cylinders, spheres, and rotating disks. Torsion of noncircular sections; curved beams. Theories of failure. Unsymmetrical bending and shear center. *Prerequisite:* CE 220. 3 hours. (1.5 S, 1.5 D)

**483. Computer Aided Engineering**—Computer aided engineering concepts including geometry design, solid modeling and computer aided design (CAD) systems. Their applications to mechanical engineering problems in design and mechanical, thermal, power,

and energy systems, and computational field simulations explored. *Prerequisites:* ME 130, ME 321, and CE 220. 3 hours. (2.0 S, 1.0 D)

**485. Uncertainty Analysis, Verification, and Validation**—Terminology, taxonomies, and definitions, error estimation for quantification of uncertainty, grid convergence studies, uncertainties of experiments, code quality assurance and certification. *Prerequisites:* ME 130 and ME 361. *Corequisite:* ME 414. 3 hours. (2.0 S, 1.0 D)

**490. Special Topics in (Area)**—1 to 4 hours. (S or D)

**491. Individual Study in (Area)**—1 to 4 hours. (S or D)

**498. Senior Design Project I**—Capstone design project: interdisciplinary design teams, ethics, materials selection, design process, development of proposal, project planning and scheduling, project execution and resource scheduling, and communication of design. *Prerequisites:* Senior standing in the department and application for degree filed. *Corequisite:* ME 405. Students must take ME 499 the following term unless permission is obtained in advance from department. 2 hours. (2.0 D)

**499. Senior Design Project II**—Continuation of ME 498. Interim and final design reviews with written and oral reports. *Prerequisite:* ME 498 taken the previous term. 2 hours. (2.0 D)





## **The School of Health Related Professions (SHRP)**

offers more than 20 health career programs and diplomas. As part of UAB's world renowned Medical Center, SHRP allows students to complete their academic and clinical education in a medical setting with state-of-the-art technology.

Programs are offered at several levels: baccalaureate, postbaccalaureate certificate, master's, and doctorate. All programs that have professional accrediting agencies are fully accredited by those associations. Such accreditation means that graduates are eligible to take state licensure or national certification/registration examinations that may be required to practice in specific professions.

Requirements for admission vary by program. A separate catalog is available from the School of Health Related Professions and can be viewed at the following Web address: [www.uab.edu/shrp/catalog](http://www.uab.edu/shrp/catalog). Information can be obtained by contacting the SHRP Office of Student Services. Telephone (205) 934-4194; E-mail [shrps@uab.edu](mailto:shrps@uab.edu).

## **BACCALAUREATE PROGRAMS**

The School of Health Related Professions awards the Bachelor of Science degree for the following programs:

- Cytotechnology
- Health Information Management
- Health Sciences
- Medical Technology
- Nuclear Medicine Technology
- Radiation Therapy/Radiologic Sciences
- Radiography/Radiologic Sciences
- Respiratory Therapy
- Surgical Physician Assistant

Students who wish to pursue one of these programs initially apply for admission to the UAB Office of Undergraduate Admissions as a "pre-SHRP" student (pre-professional) to complete the Program Core Curriculum. Transfer students may com-

plete most of the Program Core Curriculum at other accredited colleges or universities. Students apply to the School of Health Related Professions during the year preceding the expected entrance date for the professional phase of the program. Admission to UAB does not guarantee admission to the professional phase of any SHRP program.

Academic advising for selection of appropriate courses to meet the Program Core Curriculum is provided by the SHRP Student Services Office: telephone (205) 934-4194; or e-mail [shrps@uab.edu](mailto:shrps@uab.edu). Students who are undecided about which program they wish to pursue may obtain information on career options in health care from the SHRP Student Services Office. Students should seek advice from an advisor as early as the freshman year and should maintain contact with the advisor on a regular basis for proper scheduling of requirements.

General requirements and admission information for the baccalaureate programs are listed in this catalog. For other information, including course descriptions for the professional phase of these programs and other policies governing programs in the School of Health Related Professions, see the current UAB School of Health Related Professions Catalog (Web address: [www.uab.edu/shrp/catalog](http://www.uab.edu/shrp/catalog)).

## **GRADUATE AND POST-BACCALAUREATE CERTIFICATE PROGRAMS**

In addition to the undergraduate programs included in this catalog, the School of Health Related Professions offers the following graduate-level programs:

- Administration-Health Services (Doctor of Philosophy) in conjunction with the UAB School of Business
- Clinical Laboratory Sciences (Master of Science)
- Clinical Nutrition (Master of Science)
- Dietetic Internship (Postbaccalaureate Certificate)
- Health Administration [Master of Science (residential and executive formats), joint MSHA/MBA with the UAB School of Business, joint MSHI/MSHA]
- Health Informatics (Master of Science, joint MSHI/MSHA)
- Nurse Anesthesia (Master of Nurse Anesthesia)
- Nutrition Sciences (Doctor of Philosophy)
- Occupational Therapy (Master of Science, Low Vision Rehabilitation Certificate)
- Physical Therapy (Doctor of Science in Physical Therapy, Doctor of Physical Therapy)

For more information on the application and admission requirements for these programs, contact the specific graduate program office. Applicants to these programs must also be admitted to the university by the UAB Graduate School Admissions Office.

## GENERAL REGULATIONS GOVERNING REQUIREMENTS FOR BACCALAUREATE DEGREES

The student, in consultation with his/her advisor, is responsible for selecting and registering for courses which are needed for reasonable progress toward a degree and which will enable the student to satisfy requirements by the expected time of graduation. To earn a Bachelor of Science degree, a student must satisfy the Program Core Curriculum listed for each program. A minimum of 120 semester hours is required for a baccalaureate degree. Most SHRP programs require more than 120 credit hours.

All courses must be acceptable toward the requirements of the specific major/program of study, and at least 40 semester hours must be 300 level or above. The student must have a cumulative grade point average of at least 2.0 (C) in all credit hours attempted at any institution and an average of at least 2.0 in all credit hours attempted at UAB. No more than 14 semester hours in clinical education can be accepted toward degree requirements. Students may transfer (from a two-year college) a maximum of one-half of the required number of credit hours for a degree.

Certain courses may not satisfy specific program requirements. Each student should obtain a formal evaluation of completed and approved coursework from his or her advisor. Further, the program in which a student is applying may require repetition or compensation for any course required in which a grade below C has been earned.

### HEALTH RELATED ELECTIVE COURSES AVAILABLE TO PRE- AND NON-SHRP STUDENTS

Pre-professional SHRP students and students in other UAB majors who are interested in health care may also take courses offered by SHRP as electives. Information on course offerings and registration information can be obtained from SHRP programs, the SHRP Student Services Office, or the *UAB Class Schedule*.

See the current *UAB Class Schedule* for course availability. See the current *UAB School of Health Related Professions Catalog* for course descriptions (Web address: [www.uab.edu/shrp/catalog/courses](http://www.uab.edu/shrp/catalog/courses)).

**AHS 300. Survey of Health Professions**—2 hours.

**AHS 318. Law for Health Care Professionals**—3 hours.

**AHS 320. Microcomputer Applications for Health Care Professionals**—3 hours.

**AHS 330. Health Care Systems**—3 hours.

**AHS 350. Medical Terminology for Health Professionals**—3 hours.

**AHS 411. Bio-Psycho-Social Issues of Aging**—3 hours.

**HIM 405. Interpretation of Clinical Information**—  
*Prerequisites:* BY 115-116. 4 hours.

**HIM 440. ICD-9-CM Coding**—*Prerequisites:* HIM 405, BY 115-116. 3 hours.

**HIM 460. Coding/Classification Systems**—*Prerequisites:* HIM 405, BY 115-116. 3 hours.

**MT 300. Biological and Chemical Weapons: Detectors/Response**—2 hours.

**MT 302. Body Fluid Analysis**—*Prerequisite:* MT 400. 3 hours.

**MT 320. Clinical Chemistry I**—*Prerequisite:* MT 400, CH 235/236. 5 hours.

**MT 325. Immunology**—*Prerequisite:* MT 400, BY 271. 5 hours.

**MT 340. Hematology I**—*Prerequisite:* MT 400, BY 123. 5 hours.

**MT 400. Health and Safety Management**—1 hour.

**NMT 304. Physics for Technologists**—8 hours.

**NTR 220. Contemporary Issues in Nutrition**—3 hours.

**NTR 222. Nutrition and Health**—*Prerequisite:* CH 105/106. 3 hours.

## CYTOLOGY, BACHELOR OF SCIENCE IN

Interim Program Director: Blair

Medical Director: Eltoun

Faculty: Pijuan-Thompson, Blair

Cytotechnology, the study of cells from various organs of the body, is one of the most successful means of detecting cancer at an early stage when it can be cured. The cytotechnologist (CT) is a health care professional who assists the pathologist by performing microscopic evaluation of cellular samples from virtually all organs of the body to detect microorganisms, infectious lesions, cancer, and related diseases. Cytotechnologists also perform various specialized techniques used in collecting, preparing, and staining cellular samples.

Graduates are employed throughout the United States as cytotechnologists in state, federal, private, or hospital-based laboratories. With experience, opportunities are also available in administration, teaching, industry, and research. Graduates may obtain an advanced degree in an area of special interest to further their knowledge and opportunity for advancement.

**Accreditation**—The program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Cytotechnology Programs Review Committee of the American Society of Cytopathology.

**Credentials Conferred: Diploma**—The Bachelor of Science degree and a baccalaureate certificate of completion are awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates are eligible to apply for the cytotechnologist certification examination of the Board of Registry of the American Society of Clinical Pathologists.

**Length of Study: Preprofessional Phase**—Six semesters (approximately three years); **Professional Phase in SHRP**—Three semesters (12 months).

**Program Entrance Date**—Fall semester.

**Application Deadline**—Completed applications received by April 15 preceding the expected date of enrollment are given first priority. Applications received after April 15 are considered on a space-available basis.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-cytotechnology as the major, and application fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-cytotechnology as the major; form available from the Office of Registration and Academic Records); and
- official transcripts from each college or university attended.

To the Cytotechnology Program Office, School of Health Related Professions:

- completed application to the professional phase of the Cytotechnology Program (form available from the program office).

**Requirements for Admission**—The student usually will have completed 70 semester hours before enrolling in SHRP for three semesters of professional courses. Acceptance will be based upon the student's academic ability and aptitude for a career as a cytotechnologist. The candidate is expected to satisfy the following requirements:

- have a minimum cumulative grade point average of 2.4 in Area I: Written Composition, Area II: Humanities and Fine Arts, and Area IV: History, Social, and Behavioral Sciences Core Curriculum prerequisites;
- have a minimum GPA of 2.4 in Natural Sciences and Mathematics prerequisites in Area III and Area V of the Core Curriculum, calculated on all hours attempted;
- have a minimum grade of C in each course in the Program Core Curriculum;
- complete an interview with the selection committee; and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

**Early Acceptance**—The program offers an early acceptance for entering UAB freshman and sophomore students with good academic records. Interested students should contact the Cytotechnology Program for further information and application.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the core curriculum.

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition (EH 101, 102) .....	<b>6</b>

<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	<b>3</b>
Fine Arts elective .....	<b>3</b>
Electives <sup>1</sup> .....	<b>6</b>

<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Precalculus Trigonometry (MA 106) .....	<b>3</b>
General Chemistry—2 course sequence (BY CH 115/116 Lab) (4) (CH 117/118 Lab (4) .....	<b>8</b>

<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
History <sup>1</sup> .....	<b>3</b>
Electives (psychology and sociology recommended) <sup>1</sup> .....	<b>9</b>

<b>Area V. Preprofessional, Major, and Elective Courses</b>	
Human Anatomy and Human Physiology (BY 115, 116) .....	<b>8</b>
Microbiology (BY 271) <sup>2</sup> .....	<b>3-4</b>
Computing Fundamentals (CS 101) .....	<b>3</b>
General Biology (BY 123) .....	<b>4</b>
Cell Biology (BY 330) .....	<b>3</b>
Genetics (BY 210) .....	<b>3</b>
Statistics (MA 180) .....	<b>3</b>

A person who holds a baccalaureate degree and wishes to become a cytotechnologist will be considered for admission to the professional phase. Prerequisites for such persons include the equivalent of the courses in Natural Sciences and Mathematics under Area III and Area V of the Program Core Curriculum and the other admission requirements. Upon graduation, a baccalaureate certificate of completion will be awarded by the University of Alabama at Birmingham.

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.
- (2) Courses must be those required for a major and include laboratory.

## TYPICAL PROGRAM

### Professional Phase

#### SENIOR YEAR

	<i>Sem. Hrs.</i>
<b>FALL</b>	
CT 401 Gynecologic Cytopathology I .....	<b>5</b>
CT 402 Gynecologic Cytopathology II .....	<b>5</b>
CT 403 Laboratory Operations .....	<b>2</b>
MT 400 Health and Safety Management .....	<b>1</b>
CT 421 Gynecologic Cytopathology I Laboratory .....	<b>2</b>
CT 422 Gynecologic Cytopathology II Laboratory .....	<b>3</b>

#### SPRING

CT 411 Non-Gynecologic Cytopathology I .....	<b>5</b>
CT 412 Non-Gynecologic Cytopathology II .....	<b>5</b>
CT 424 Non-Gynecologic Cytopathology I Laboratory .....	<b>2</b>

CT 425 Non-Gynecologic Cytopathology II Laboratory .....	3
CT 416 Molecular Diagnostics .....	3 or 4
RAS 485 Research Methods.....	3

**SUMMER**

CT 490 Clinical Practicum I .....	4
CT 491 Clinical Practicum II.....	4
CT 492 Clinical Practicum III .....	4

**For further information, contact:**

Program Director  
 Cytotechnology Program  
 School of Health Related Professions  
 University of Alabama at Birmingham  
 Birmingham, Alabama 35294-1270  
 Telephone: (205) 934-4863  
 E-mail: bscyto@uab.edu  
 Web address: www.uab.edu/ct

**Course Descriptions**  
**Cytotechnology (CT)**

**401. Gynecologic Cytopathology I**—Cytology as a health profession; historical development, purpose, and ethics of cytology; proper use of the microscope; classification of cells and tissue; cell activity, injury, adaptation, degeneration, and death; cytogenetics; inflammation and repair; basic immunology; blood and hemodynamic disorders; anatomy, histology, and normal cytology of the female genital tract; cyclic changes in vaginal, cervical, and endometrial epithelium; histology and cytology of pregnancy and menopause; vaginal flora and parasites; hormonal cytology and endocrinopathies; and cytologic effects of parasites, viruses, bacteria, and fungi. *Prerequisite:* admission to program. 5 hours.

**402. Gynecologic Cytopathology II**—Neoplasia and general criteria of malignancy; cytology of precancerous lesions and malignant tumors of the female genital tract with reference to clinical aspects, degrees, and types of tumors; effects of radiation and chemotherapy; reporting systems; rare/unusual diagnostic entities; liquid-based cytology; and seminar and journal club on related topics. *Prerequisites:* CT 401 and 421. 5 hours.

**403. Laboratory Operations**—Gynecologic and non-gynecologic specimen handling; routine and special preparatory techniques; Papanicolaou staining principles and procedure; special stains; record keeping and filing of slides and requisitions; adjuvant technologies: IHC, EM, flow cytometry, and molecular techniques; laboratory management; CLIA regulations; and QA/QC. *Prerequisites:* CT 402 and 422. 2 hours.

**411. Non-Gynecologic Cytopathology I**—Anatomy, histology, and normal and abnormal cytology of neoplastic and non-neoplastic lesions of the respiratory tract, urinary tract, and GI tract including rare/unusual diagnostic entities, and seminar and journal club on related topics. *Prerequisite:* CT 403. 5 hours.

**412. Non-Gynecologic Cytopathology II**—Anatomy, histology, and normal and abnormal cytology of neoplastic and non-neoplastic lesions of the serous cavities, CNS, and aspiration cytology from all areas of the body including rare/unusual diagnostic entities, and seminar and journal club on related topics. *Prerequisites:* CT 411 and 424. 5 hours.

**421. Gynecologic Cytopathology I Laboratory**—Microscopic evaluation of anatomy, histology, and normal cytology of the female genital tract; cyclic changes in vaginal, cervical, and endometrial epithelium; histology and cytology of pregnancy and menopause; vaginal flora and parasites; hormonal cytology and endocrinopathies; and cytologic effects of parasites, viruses, bacteria, and fungi. *Prerequisite:* concurrent with CT 401. 2 hours.

**422. Gynecologic Cytopathology II Laboratory** Microscopic evaluation of cytology of precancerous lesions and malignant tumors of the female genital tract, degrees, and types of tumors; effects of radiation and chemotherapy; and liquid-based cytology. *Prerequisite:* concurrent with CT 402. 3 Hours.

**424. Non-Gynecologic Cytopathology I Laboratory** Microscopic evaluation of normal and abnormal cytology of neoplastic and non-neoplastic lesions of the respiratory tract, urinary tract, and GI tract, including rare/unusual diagnostic entities. *Prerequisite:* concurrent with CT 411. 2 hours.

**425. Non-Gynecologic Cytopathology II Laboratory** Microscopic evaluation of normal and abnormal cytology of diseases involving serous cavities with particular reference to tumor types and primary site of tumors; anatomy, histology, and normal and abnormal cytology of the central nervous system; aspiration cytology; and rare/unusual diagnostic entities. *Prerequisite:* concurrent with CT 412. 3 hours.

**490, 491, 492. Clinical Practicum I, II, and III** Practice in evaluation of cytologic material and initial diagnostic work-up under close supervision. *Prerequisite:* CT 412 and 425. 4 hours.

**HEALTH INFORMATION  
 MANAGEMENT, BACHELOR  
 OF SCIENCE IN**

**Program Director:** Grostick  
**Faculty:** Clements, Cauley, Grostick, Hicks, Hood, Houser, Ray, Slovensky, Wilson

Health Information Managers (HIMs) work with administrative and clinical staffs in health care facilities to provide the best possible information resources, a necessity for quality health care. HIMs design and maintain health information systems to collect, assess, and disseminate clinical and administrative data. These data are utilized by health care professionals in education, research, utilization management, quality assessment and improvement, and decision making. Health services administrators utilize the data in financial management, facilities planning, and operational and risk management.

Health information managers may find employment in various types of facilities, including hospitals, managed care organizations, ambulatory care centers, insurance companies, local and state governmental agencies, research and education centers, and long-term care facilities.

**Accreditation**— The program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Council on Accreditation of the American Health Information Management Association.

**Credentials Conferred: Diploma**—The Bachelor of Science degree and a baccalaureate certificate of completion are awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates are eligible to apply to write the appropriate credentialing examination given by the American Health Information Management Association.

**Length of Study: Preprofessional Phase**—Four semesters (two years); **Professional Phase in SHRP**— Five semesters (two years). Courses in the professional phase are available online using distance education technology.

**Program Entrance Date**—Fall semester.

**Application Deadline**—Applications may be submitted at any time for the HIM Core Curriculum. Completed applications to the professional phase of the program should be submitted, preferably, by April 1; after April 1, applications are considered on a space-available basis.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-health information management as the major, and application fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-health information management as the major; form available from the Office of Registration and Academic Records); and
- official transcripts from each college or university attended.

To the Health Information Management Program Office, School of Health Related Professions:

- completed application to the professional phase of the program (form available from the program office or from the HIM Program Web page: <http://www.uab.edu/him>); and
- current transcript.

**Requirements for Admission**—Students are eligible for admission to the professional program only in the fall semester of the junior year after completion of the prerequisites with a minimum of 60 semester hours, exclusive of physical education.

All candidates must satisfy the following requirements:

- have a minimum cumulative grade point average of 2.5;
- have a minimum grade of C in each course in the Program Core Curriculum;
- be accepted by the University of Alabama at Birmingham; and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the core curriculum.

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition I, II (EH 101, 102) .....	<b>6</b>
<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	<b>3</b>
Public Speaking (CM 101) .....	<b>3</b>
Fine Arts elective .....	<b>3</b>
Elective <sup>1</sup> .....	<b>3</b>
<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Precalculus Algebra (MA 105) or Finite Mathematics (MA 110) .....	<b>3</b>
Electives in Natural Sciences (with laboratory) from approved Area III science courses .....	<b>8</b>
<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
General Psychology (PY 101) .....	<b>3</b>
History <sup>1</sup> .....	<b>3</b>
Electives <sup>1</sup> .....	<b>6</b>
<b>Area V. Preprofessional, Major, and Elective Courses</b>	
Human Anatomy and Human Physiology (HIM 318* or BY 115, 116) .....	<b>4-8</b>
Principles of Accounting I (AC 200) .....	<b>3</b>
Statistics (QM 214, MA 180, PY 214 or AHS 360*) .....	<b>3</b>
Microcomputer Applications (AHS 320*) .....	<b>3</b>
Health Care Systems (AHS 330*) .....	<b>3</b>
Law for Health Care Professions (AHS 318*) .....	<b>3</b>

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.

\* Courses available online using distance learning technology.

## TYPICAL PROGRAM

### Professional Phase

The following courses, except for clinicals and internship, may be completed at UAB or by Internet by using distance learning technology.

	<i>Sem. Hrs.</i>
<b>FIRST YEAR</b>	
<b>FALL</b>	
AHS 405 Human Resources Management in Health Care Organizations .....	<b>4</b>
HIM 405 Interpretation of Clinical Information .....	<b>3</b>
HIM 415 Introduction to Health Information Management .....	<b>3</b>
HIM 416 Health Data Concepts .....	<b>3</b>

SPRING

AHS 416 Financial Management in Health Care Organizations ..3  
 AHS 435 Survey of Clinical/Administrative Information Systems .....3  
 HIM 410 Clinical Information II.....3  
 HIM 440 ICD-9-CM Coding.....4

SUMMER

AHS 403 Operations Management in Health Care Organizations .....4  
 HIM 430 Clinical Experience I .....1  
 HIM 460 Coding/Classification.....3  
 HIM 425 Epidemiology/Applied Statistics in Health Care Organizations .....3

SECOND YEAR

FALL

HIM 431 Clinical Experience II .....1  
 HIM 450 Clinical Research Methods .....3  
 HIM 455 Reimbursement/Regulatory Requirements .....3  
 HIM 465 Clinical Evaluation and Outcomes Research.....3  
 HIM 470 Data Management .....3

SPRING

HIM 443 Information Resource Management .....3  
 HIM 480 Internship.....6  
 HIM 481 Issues in Health Information Management .....3

**For further information, contact:**

Program Director  
 B.S. in Health Information Management  
 School of Health Related Professions  
 University of Alabama at Birmingham  
 Birmingham, Alabama 35294-3361  
 Telephone: (205) 934-5173 or 934-1678  
 E-mail: bshim@uab.edu  
 Web address: www.uab.edu/him

**Course Descriptions**

**Health Information Management (HIM)**

**318. Survey of Human Anatomy and Physiology for Coding**—Survey course on the structure and function of the body. A systems approach emphasizing physiology of the whole body. 4 hours.

**405. Clinical Information I**—Study of diseases with emphasis on medical terminology relevant to clinical documentation in inpatient and outpatient health care settings. Course content includes manifestation of disease, diagnostic and therapeutic procedures, and pharmacology for selected body systems. *Prerequisites:* HIM student or permission of instructor, Human Anatomy and Physiology. Course also offered via Internet. 3 hours.

**410. Clinical Information II**—Study of diseases with emphasis on medical terminology relevant to clinical documentation in inpatient and outpatient health care settings. Course content

includes manifestation of disease, diagnostic and therapeutic procedures, and pharmacology for selected body systems.

*Prerequisite:* HIM student or permission of instructor, Human Anatomy and Physiology. Course also offered via Internet. 3 hours.

**415. Introduction to Health Information Management**—Study of HIM profession and employment opportunities; functions of a HIM department and ancillary hospital departments; professional ethics; HIM professional associations; applications of principles of management to the efficient administration of health information services; numbering, filing, and preservation of records; master patient index; and the role of JCAHO and other accrediting agencies. *Prerequisite:* HIM student. Course also offered via Internet. 3 hours.

**416. Health Data Concepts**—Study of the origin, uses, content, and format of health care data across the continuum of health care, including both paper and electronic health records; accreditation, certification, and licensure standards applicable to health care data; qualitative and quantitative analysis of health care data; forms and screen design and control. *Corequisite:* HIM 415. Course also offered via Internet. 3 hours.

**425. Epidemiology and Applied Statistics in Health Care Organizations**—Concepts of epidemiology; basic biostatistics; vital statistics; data collection; and data presentation; study designs. *Prerequisite:* HIM student. Course also offered via Internet. 3 hours.

**430, 431. Clinical I, II**—Supervised projects/assignments at approved clinical sites where student applies theory taught concurrently in classroom; emphasis on development of role competencies and professional conduct. *Prerequisite:* HIM student. 1 hour each.

**440. ICD-9-CM Coding**—Diagnostic and procedural coding, including the principles of ICD-9-CM coding and UHDDS guidelines. *Prerequisites:* HIM student or permission of instructor, HIM 405, Anatomy and Physiology. Course also offered via Internet. 4 hours.

**443. Information Resource Management**—Overview of information management functions related to obtaining, managing, and using information to improve patient outcomes and health care facility performance in patient care, governance, management, and support processes. *Prerequisite:* HIM student. Course also offered via Internet. 3 hours.

**450. Clinical Research Methods**—Study of design concepts and information systems to support clinical and health services research and investigation, e.g. drug companies, genetic engineering firms, academic institutions, and individual researchers; major national research policy-making bodies, their research protocols, and their management of information. Students will perform statistical analysis and display of data and results and will critically evaluate published reports of clinical and epidemiological studies. *Prerequisite:* HIM 425. Course also offered via Internet. 3 hours.

**455. Reimbursement and Regulatory Requirements for HIM**—Financial aspects of health care involving prospective reimbursement; managing the coding function in health care organization; quality assurance of coded data; DRGs and other case mix systems; security issues under HIPAA. *Prerequisites:* HIM 440 and 460. Course also offered via Internet. 3 hours.

**460. Coding/Classification Systems**—Ambulatory care coding CPT 4, HCPCS, ICPC for outpatient facilities and physician offices

and secondary nomenclatures and classifications schemes, including Systematized Nomenclature of Human and Veterinary Medicine (SNOMED); International Classification of Disease Oncology (ICD 0); Diagnostic and Statistical Manual for Mental Disorders (DSM IV); and Federal Coding and reporting requirements for ambulatory care. *Prerequisites:* HIM 405 and 415; *Corequisite:* HIM 410. Course also offered via Internet. 3 hours.

**465. Clinical Evaluation and Outcomes Research**—Review of current approaches to measuring, evaluating, and reporting clinical outcomes in health care organizations. *Prerequisite:* HIM student. Course also offered via Internet. 3 hours.

**470. Data Management**—Data collection for enterprise; reportable and specialized databases; data mining of healthcare data; data information; file structures; data security; and data retrieval. *Prerequisites:* AHS 435, HIM 415, HIM student. Course also offered via Internet. 3 hours.

**480. Internship**—Focused internship in approved health care facility; emphasis on evaluation of managerial organization of facility and Health Information Management Department (HIM), and management responsibilities of director of HIM services. *Prerequisites:* HIM student. Must have completed all didactic HIM courses. *Corequisite:* HIM 481. 6 hours.

**481. Issues in HIM Seminar**—Current developments in HIM, emphasizing managerial implications. *Prerequisites:* HIM student. Must have completed all didactic HIM courses. *Corequisite:* HIM 480. Course also offered via Internet. 3 hours.

## HEALTH SCIENCES, BACHELOR OF SCIENCE IN

**Program Director:** Slovensky

**Faculty:** Dowd, Fritsma, Granger, Greenup, Newcomer, Paustian, Perkins, Ray, Robertson, Powell

The Bachelor of Science in Health Sciences Program prepares graduates for mid-level management positions in all types of health care organizations, including hospitals, ambulatory care centers, long term care facilities, and home health care agencies. Graduates also may find employment in consultant or vendor companies serving the health care industry. Admission to the Clinical Manager Track is restricted to graduates of certificate and/or associate degree programs who are credentialed or licensed in a health professions discipline. Graduates of this track are qualified for positions in which their clinical knowledge base is applied in a management context. Undergraduate students who plan to seek admission to health administration, health informatics, occupational therapy, physical therapy, or other graduate-level health professions programs may apply for admission to the Pre-Professional Degree Track. In addition to the Core Curriculum requirements in Areas I-IV, applicants must complete Accounting I, statistics, and other prerequisites for admission to identified graduate program.

**Credentials Conferred: Diploma**—The Bachelor of Science in Health Sciences degree and a baccalaureate certificate of completion are awarded by the University of Alabama at Birmingham.

**Length of Study**—The length of study varies based on the student's previous educational experience. The professional program

provides the junior and senior years of the bachelor's degree. Certain students may require additional coursework at the freshman or sophomore level.

**Program Entrance Date**—Students may enter the program in any academic term.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-SHRP as the school, and application fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-SHRP as the school; form available from the Office of Registration and Academic Records); and
- official transcripts from each college or university attended.

To the B.S. in Health Sciences Program Office, School of Health Related Professions:

- completed application to the professional phase of the B.S. in Health Sciences Program (form available from the program office or from the BSHP Program web page: [www.uab.edu/bshs](http://www.uab.edu/bshs)); and
- if applying for the Clinical Manager track, photocopy of current license, registry, or certification in a health specialty.

The student should request an appointment with a program advisor prior to the term of initial enrollment. It is essential to have transcripts of previous coursework during the enrollment interview.

**Requirements for Admission**—The candidate is expected to satisfy the following requirements:

- for the Clinical Manager track, be a graduate of a certificate and/or associate degree health program or the equivalent, including associate degree or diploma registered nursing program, and be licensed, registered, or certified in the health specialty (not required for the pre-professional degree track);
- for the pre-professional track, have a minimum cumulative grade point average of 2.5; for the Clinical Manager or Advanced EMS tracks, have a minimum cumulative grade point average of 2.3.
- have a minimum grade of C in previous professional course work to be transferred;
- complete the Program Core Curriculum with a minimum grade of C in each course; and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition (EH 101, 102) .....	<b>6</b>
<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	<b>3</b>
Fine Arts .....	<b>3</b>
Public Speaking (CM 101) .....	<b>3</b>
Elective <sup>1</sup> .....	<b>3</b>
<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Precalculus Algebra (MA 105) or Finite Mathematics (MA 110) .....	<b>3</b>
Electives in Natural Sciences (with laboratory) from approved Area III Science Courses .....	<b>8</b>
<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
History <sup>1</sup> .....	<b>3</b>
Electives <sup>1</sup> .....	<b>9</b>
<b>Area V. Preprofessional, Major, and Elective Courses</b>	
Accounting I (AC 200) .....	<b>3</b>

Students in the Clinical Manager Track may apply for up to 23 semester hours of credit for technical courses leading to a license or certification in a health care profession. Students in the Preprofessional Degree Track will complete prerequisites for the graduate program they plan to pursue.

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.

## BSHS PROFESSIONAL CURRICULUM

A minimum grade of C is required in each course in the BSHS Professional Curriculum. A minimum of 120 semester hours are required for graduation, including at least 40 semester hours in courses at the 300-level or above. Courses are available online using distance education technology. No more than 14 semester hours of clinical education (clinical rotations or clinical practice) may be applied toward a baccalaureate degree.

	<i>Sem. Hrs.</i>
<b>Health Care Organization, Financing, and Reimbursement</b>	
AHS 330 Health Care Systems .....	<b>3</b>
AHS 416 Financial Management in Health Care Organizations .....	<b>3</b>
AHS 482 Current Issues Seminar .....	<b>3</b>
<b>Management and Leadership</b>	
AHS 401 Organizational Studies in Health Care .....	<b>4</b>
AHS 403 Operations Management in Health Care Organizations .....	<b>4</b>
AHS 405 Human Resources Management in Health Care Organizations .....	<b>3</b>

AHS 481 Management Internship .....	<b>3-6</b>
(Elective required if 3-hour internship)	
AHS 407 Strategic Management in Health Care Organizations .....	<b>3</b>
<b>Ethics, Law, and Regulation</b>	
AHS 318 Law for Health Care Professionals .....	<b>3</b>
MT 400 Health and Safety Management .....	<b>1</b>
AHS 411 Bio-Psycho-Social Issues of Aging .....	<b>3</b>
AHS 415 Ethics for the Health Professional .....	<b>3</b>
<b>Evaluation and Outcomes</b>	
AHS 460 Research Methods .....	<b>3</b>
AHS 360 Statistics for Managers .....	<b>3</b>
HIM 425 Epidemiology/Applied Statistics in Health Care Organizations .....	<b>3</b>
AHS 450 Quality Improvement for Health Professionals or .....	
HIM 465 Clinical Evaluation and Outcomes Research .....	<b>3</b>
<b>Information Resources</b>	
AHS 320 Microcomputer Applications for Health Care Professionals .....	<b>3</b>
AHS 435 Survey of Clinical and Administrative Information Systems .....	<b>3</b>
<b>Elective Study</b>	
AHS 421 Independent Study .....	<b>3</b>
Electives .....	<b>3-6</b>

## ADVANCED EMERGENCY MEDICAL SERVICES SPECIALIZATION TRACK

Individuals certified as paramedics may apply for admission to the **Advanced Emergency Medical Services (EMS) Specialization Track**. Students in this track are required to complete the UAB baccalaureate Core Curriculum, courses in anatomy and physiology, and specified courses in the BSHS core prior to enrolling in specialization track courses.

## MINOR IN HEALTH SCIENCES

Undergraduate students matriculating in programs in the School of Health Related Professions may earn a minor in Health Sciences that acknowledges completion of 21 semester hours of course work, including 15 hours of health care management courses.

### For further information, contact:

Program Director  
B.S. in Health Sciences Program  
School of Health Related Professions  
University of Alabama at Birmingham  
Birmingham, Alabama 35294-3361  
Telephone: (205) 934-5173  
E-mail: bsah@uab.edu  
Web address: www.uab.edu/bshs

## Course Descriptions

### Allied Health Sciences (AHS)

**300. Survey of Health Professions**—Survey of graduate and undergraduate health professions that provide patient care and other services in health care delivery system; designed to assist undergraduate students in career investigation. Course also offered via Internet. 2 hours.

**318. Law for Health Care Professionals**—Principles of law and U.S. legal system as applied in health care organizations; documentation, privacy, security, and release of health information; liability, consent, and malpractice. Prerequisite: SHRP student or permission of instructor. Course also offered via Internet. 3 hours.

**320. Microcomputer Applications for Health Care Professionals**—Spreadsheet, database, file management, information systems, Internet, and presentation applications in managerial functions. Prerequisite: SHRP student or permission of instructor. Mandatory attendance at orientation session. Course also offered via Internet. 3 hours.

**330. Health Care Systems**—Overview of U.S. health care system; implications of environmental trends and health care policy on health care organizations; introduction to financing of health care. Prerequisite: SHRP student or permission of instructor. Course also offered via Internet. 3 hours.

**350. Medical Terminology for Health Professionals**—Systematic study of medical terminology with emphasis on constructing, pronouncing, understanding, and using medical terms. Includes diseases, symptoms, and signs of disease; diagnostic and clinical procedures; and treatment modalities. Prerequisite: BY 115, BY 116, or BY 123 or permission of instructor. Mandatory attendance at orientation session. Course also offered via Internet. 3 hours.

**401. Organizational Studies in Health Care**—(Also AHS 501.) Behavioral science concepts, including leadership, managing change, negotiating and conflict resolution, team building, organizational assessment, marketing, and entrepreneurship. Prerequisite: SHRP student or permission of instructor. Course also offered via Internet. 4 hours.

**403. Operations Management in Health Care Organizations**—Operational functions of mid-level managers, including work design and re-engineering; systems theory; development, planning, and analysis; ergonomics and work environment; quality improvement techniques. Prerequisites: AHS 401 and basic statistics; permission of instructor. Course also offered via Internet. 4 hours.

**405. Human Resources Management in Health Care Organizations**—Managerial activities related to job descriptions, recruiting, interviewing, hiring, firing, orientation, benefits, appraisal, discipline, and developing clinical and non-clinical personnel. Prerequisite: AHS 401 or permission of instructor. Course also offered via Internet. 4 hours.

**407. Strategic Management in Health Care Organizations**—Overview of strategic management process; strategic planning in health care organizations from perspective of mid-level manager; emphasis on operational level implementation and control. Prerequisites: AHS 401, 403, and 435, or permission of instructor. Course also offered via Internet. 3 hours.

**411. Bio-Psycho-Social Issues of Aging**—(Also GER 411.) Overview of current gerontological-geriatric information; special

needs of the elderly in receiving health care services. Prerequisite: AHS 330 or permission of instructor. Course also offered via Internet. 3 hours.

**415. Ethics for the Health Professional**—Overview of major ethical theories; ethical decision-making models; application to patients rights, confidentiality, informed consent, professional relationships, and allocation of scarce resources. Prerequisites: AHS 318 and AHS 330, or permission of instructor. Course also offered via Internet. 3 hours.

**416. Financial Management in Health Care Organizations**—(Also AHS 516.) Overview of financial management functions at departmental level; budgeting and cost analysis for department-level operations and capital expenditures. Prerequisites: Accounting I, AHS 320, 330; or permission of instructor. Course also offered via Internet. 3 hours.

**421. Independent Study**—Media research to develop paper and oral presentation on approved topic. Prerequisite: BSHS student or permission of instructor. 3 hours.

**435. Survey of Clinical and Administrative Information Systems**—Overview of information systems and applications in health care organizations; issues and challenges in system design and implementation. Prerequisite: AHS 320 or permission of instructor. Course also offered via Internet. 3 hours.

**450. Quality Improvement for Health Professionals**—Interdisciplinary course providing health professionals with tools needed to implement quality measures and outcomes in their institutions. Prerequisite: SHRP student or permission of instructor. Course also offered via Internet. 3 hours.

**460. Research Methods**—Use of statistical methodology in health professions research; overview of research methodologies; guidelines for critiquing published research; development of research proposal. Prerequisite: Basic statistics or permission of instructor. Course also offered via Internet. 3 hours.

**481. Management Internship**—Supervised experience in managerial functions in selected health care organization. Prerequisites: BSHS student, AHS 401, AHS 403, AHS 405, AHS 407; concurrent enrollment in AHS 482 preferred. 3 or 6 hours.

**482. Current Issues Seminar**—Identification of current issues in health care industry, emphasis on analyzing organizational impact. Prerequisite: BSHS student in final term; concurrent enrollment in AHS 481 preferred. Course also offered via Internet. 3 hours.

## MEDICAL TECHNOLOGY, BACHELOR OF SCIENCE IN

Program Director: Skrinska

Faculty: G. Fritsma, M. Fritsma, Greenup, Jeff, Skrinska

In the clinical laboratory the medical technologist (MT) assumes major responsibility for analyzing body fluids and other specimens to aid the physician in the diagnosis of disease and therapeutic monitoring of treatment. The MT assesses, controls, and manages quality laboratory service and information and performs preventive maintenance and trouble-shooting of typical laboratory problems. Graduates are employed throughout the United States as technologists in clinical laboratories and in laboratory management, teaching, industry, and research.

**Accreditation**—The program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415; Telephone 773-714-8880).

**Credentials Conferred: Diploma**—The Bachelor of Science degree and a baccalaureate certificate of completion are awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates are eligible to apply for the certification examinations of the National Certification Agency for Medical Laboratory Personnel and the Board of Registry of the American Society of Clinical Pathologists.

**Length of Study: Preprofessional Phase**—Four semesters;  
**Professional Phase in SHRP**—Five semesters.

**Program Entrance Date**—Fall semester.

**Application Deadline**—Completed applications received by March 15 preceding the expected date of enrollment are given first priority. Applications received by May 15 are given second priority. Applications received after May 15 are considered on a space-available basis.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-medical technology as the major, and application fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-medical technology as the major; form available from the Office of Registration and Academic Records), and
- official transcripts from each college or university attended.

To the Medical Technology Program Office, School of Health Related Professions:

- completed application to the professional phase of the Medical Technology Program (form available from the program office).

**Requirements for Admission**—The student usually will have completed approximately 60 semester hours before transferring to SHRP for five semesters of professional courses. Acceptance will be based upon the student's academic ability and aptitude for a career in laboratory sciences. The candidate is expected to satisfy the following requirements:

- have a minimum cumulative grade point average of 2.3 (A=4.0),
- have a minimum cumulative grade point average of 2.3 in Natural Sciences and Mathematics prerequisites in Area III and Area V, calculated on all hours attempted, and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

**Early Acceptance**—The program offers an early acceptance for entering UAB freshman and sophomore students with good academic records. Interested students should contact the Medical Technology Program for further information and application.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students

requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the core curriculum.

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition (EH 101, 102) .....	<b>6</b>
<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	<b>3</b>
Fine Arts elective .....	<b>3</b>
Public Speaking (CM 101) .....	<b>3</b>
Elective <sup>1</sup> .....	<b>3</b>
<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Precalculus Trigonometry (MA 106) .....	<b>3</b>
General Chemistry sequence (CH 115/116, 117/118) <sup>2</sup> .....	<b>8</b>
<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
History <sup>1</sup> .....	<b>3</b>
Electives <sup>1</sup> .....	<b>9</b>
<b>Area V. Preprofessional, Major, and Elective Courses</b>	
Computing Fundamentals (CS 101) .....	<b>3</b>
Statistics (PY 214 or MA 180) .....	<b>3</b>
Organic Chemistry (CH 235/236) <sup>2</sup> .....	<b>4</b>
Biology (BY 123) <sup>2</sup> .....	<b>4</b>
Microbiology (BY 261 or 271) <sup>2</sup> .....	<b>4</b>
Genetics (BY 210) .....	<b>3</b>

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.

- (2) Courses must be those required for a major and include laboratory.

## TYPICAL PROGRAM

### Professional Phase

#### JUNIOR YEAR

<i>FALL, SPRING, SUMMER</i>	<i>Sem. Hrs.</i>
MT 320 Clinical Chemistry I .....	<b>4</b>
MT 325 Immunology .....	<b>5</b>
MT 336 Clinical Microbiology .....	<b>7</b>
MT 340 Hematology I .....	<b>4</b>
MT 405 Laboratory Management .....	<b>3</b>
MT 430 Immunohematology .....	<b>7</b>
MT 400 Health and Safety Management .....	<b>1</b>
BY 330 Cell Biology <sup>3</sup> .....	<b>3</b>
MT 421 Clinical Chemistry II .....	<b>3</b>

MT 437 Clinical Microbiology II.....	3
CT 415 Introduction to Molecular Diagnostics .....	3

## SENIOR YEAR

### FALL, SPRING

	<i>Sem. Hrs.</i>
MT 302 Body Fluid Analysis.....	3
MT 402 Hemostasis .....	2
MT 407 Chemistry Clinical Practice .....	3
MT 408 Hematology Clinical Practice .....	3
MT 409 Immunohematology Clinical Practice.....	2
MT 410 Immunology Clinical Practice.....	1
MT 411 Microbiology Clinical Practice.....	3
MT 412 Clinical Laboratory Operations.....	3
MT 460 Clinical Correlations .....	3
MT 441 Hematology II .....	4

<sup>3</sup> Students who have not taken genetics and cell biology (BY 311 and BY 330) prior to enrollment in the professional phase must complete these courses during the first two semesters of the program. The genetics and cell biology courses must be upper-level courses.

## ARTICULATION PROGRAM

Certified MLTs who have graduated from a NAACLS accredited program and wish to obtain a baccalaureate degree in medical technology can apply to the Clinical Laboratory Sciences (CLS) Articulation Program. Through this program, students receive credit for their MLT coursework toward a Bachelor of Science degree in medical technology from the UAB School of Health Related Professions.

### For further information, contact:

Program Director  
 Medical Technology Program  
 School of Health Related Professions  
 University of Alabama at Birmingham  
 Birmingham, Alabama 35294-1270  
 Telephone: (205) 934-4863  
 E-mail: bsmt@uab.edu  
 Web address: www.uab.edu/mt

## Course Descriptions

### Medical Technology (MT)

#### 300. Biological and Chemical Weapons:

**Detectors/Response**—Awareness of biological, chemical, and social sciences concepts related to biological and chemical weapons. Identification of competencies needed by individuals, health care practitioners, and researchers to detect and minimize harm to the public's health caused by biological and chemical weapons. 2 hours.

**302. Laboratory Analysis of Body Fluids**—Basic renal physiology, macroscopic and microscopic analysis of urine, renal pathology, and disease correlations. *Prerequisite:* MT 400 or CLS 550 (or concurrent enrollment) and permission of instructor. 3 hours.

**320. Clinical Chemistry I**—Principles and methods of analysis of biochemical metabolites used in medical laboratories; instru-

mentation; automation and instrument problem solving; accreditation; quality control and quality assurance. Metabolism of carbohydrates, proteins, heme, lipids, and enzymes and correlation of laboratory data. Case studies of common diseases and specimen problems. *Prerequisites:* Organic Chemistry, MT 400 or CLS 550 (or concurrent enrollment), and permission of instructor. 4 hours.

**325. Immunology**—Physiology of immune responses to infectious agents, tumors, transplants; abnormal responses—hypersensitivity, autoimmunity, immunoproliferative disorders, and immunodeficiencies; antigen-antibody reactions; complement; application of immunologic tests in infectious and autoimmune diseases. *Prerequisites:* BY 271, BY 212 or 311 (or concurrent enrollment), MT 400 or CLS 550, and permission of instructor. 5 hours.

**336. Clinical Microbiology I**—Procedures and identification techniques for isolation and identification of bacteria, application of microbial characteristics for isolates from clinical specimens; focus on laboratory diagnosis of infectious diseases; data interpretation and clinical correlation and epidemiology of etiologic and iatrogenic agents. *Prerequisites:* BY 261 or 271, MT 400 or CLS 550 (or concurrent enrollment), and permission of instructor. 7 hours.

**340. Hematology I**—Normal maturation, morphology, and function of blood cells; routine and special procedures in clinical laboratory hematology; hematologic disorders; evaluation of laboratory data; quality assurance. *Prerequisites:* BY 123, MT 400 or CLS 550 (or concurrent enrollment), and permission of instructor. 4 hours.

**350. Special Topics: Chemistry**—Designed specifically for individual student to cover topics not covered in MLT curriculum. Taught with MT 320. *Prerequisite:* permission of instructor. 1-3 hours.

**352. Special Topics: Immunology**—Designed specifically for individual student to cover topics not covered in MLT curriculum or for student who previously has had an immunology course. Taught with MT 325. *Prerequisite:* permission of instructor. 1-3 hours.

**353. Special Topics: Microbiology**—Designed specifically for individual student to cover topics not covered in MLT curriculum or topics not covered in previous medical microbiology course. Taught with MT 336. *Prerequisite:* permission of instructor. 1-4 hours.

**402. Hemostasis**—Normal hemostatic mechanisms and disorders of hemostasis; laboratory methods of evaluating and monitoring hemostatic functions. *Prerequisite:* MT 400 or CLS 550 (or concurrent enrollment), BY 123, and permission of instructor. 2 hours.

**405. Laboratory Management**—Behavioral aspects of management; leadership styles and management theory; communication skills; education and training; project management; planning and goal-setting; decision-making and problem-solving; legal issues related to employment; recruitment, interview, and selection of personnel; team leadership; conflict resolution; feedback and negotiation; performance appraisal and management; motivation. *Prerequisite:* permission of instructor. 3 hours.

**407. Chemistry Clinical Practice**—Directed clinical practice: laboratory procedures and methods of evaluating and monitoring organ function, disease presence and progression, therapy; instrumentation, quality assurance practices; safety. *Prerequisites:* MT 320 and permission of instructor. 3 hours.

**408. Hematology Clinical Practice**—Directed clinical practice: laboratory procedures and methods of evaluating and monitoring organ function, disease presence and progression, therapy; instrumentation, quality assurance practices; safety. *Prerequisites:* MT 340 and permission of instructor. 3 hours.

**409. Immunohematology Clinical Practice**—Directed clinical practice: laboratory procedures and methods of evaluating and monitoring organ function, disease presence and progression, therapy; instrumentation, quality assurance practices; safety. *Prerequisites:* MT 430 and permission of instructor. 2 hours.

**410. Immunology Clinical Practice**—Directed clinical practice: laboratory procedures and methods of evaluating and monitoring organ function, disease presence and progression, therapy; instrumentation, quality assurance practices; safety. *Prerequisites:* MT 325 and permission of instructor. 1 hour.

**411. Microbiology Clinical Practice**—Directed clinical practice: laboratory procedures and methods of evaluating and monitoring organ function, disease presence and progression, therapy; instrumentation, quality assurance practices; safety. *Prerequisites:* MT 336 and permission of instructor. 3 hours.

**412. Clinical Laboratory Operations**—Operations management practices for clinical laboratories, including performance management, cost accounting, budgeting, marketing, technology assessment, regulatory and financial compliance, test utilization, emerging technologies, laboratory informatics, and competency-based management practices. *Prerequisite:* MT 405 or CLS 600. 3 hours.

**415. Special Topics-Clinical Practice**—Correlation of laboratory data, principles of testing, quality control, and problem recognition. *Prerequisites:* MT 302, 320, 325, 336, 340, 430 or equivalent; completion of an accredited MLT program; national certification; and permission of instructor. 1 to 4 hours.

**421. Clinical Chemistry II**—Liver function, pancreatic and digestive function, electrolyte and acid/base metabolism, point of care testing, method evaluation, endocrinology, therapeutic drug monitoring, and evaluation of drugs of abuse. *Prerequisite:* MT 320 recommended. 3 hours.

**430. Immunohematology**—Immunogenetics, serological characteristics, and clinical significance of blood group antigens and antibodies; pretransfusion testing; antibody identification; immune hemolytic disorders; transfusion therapy. Advanced techniques in pretransfusion problem solving; parentage testing; transfusion service management; medical/legal, regulatory, and accreditation requirements. *Prerequisites:* MT 400 or CLS 550 (or concurrent enrollment), MT 325, and permission of instructor. 7 hours.

**437. Clinical Microbiology II**—Study of fungal, parasitic, viral, and unusual microbial agents associated with reemerging and emerging infectious diseases; overview of diagnostic methods, services needed, and competencies needed by personnel performing clinical microbiology testing, interpretation, and data management. *Prerequisites:* MT 325, 336. 3 hours.

**441. Hematology II**—Advanced concepts in clinical hematology, including methods, and instrumentation, quality improvement, correlation of results, problem-solving, and management. Abnormal structure and function of peripheral blood, bone marrow cells, and detailed changes in hematological disorders. *Prerequisites:* BY 330 or equivalent, MT 340, and permission of instructor. 4 hours.

**454. Special Topics: Immunohematology**—Designed specifically for individual student to cover topics not covered in MLT curriculum. Taught with MT 430. *Prerequisite:* permission of instructor. 1 to 4 hours.

**460. Clinical Correlations**—Synthesis of clinical, technical, and analytical proficiencies that comprise clinical laboratory science practice. Analysis of illustrative medical cases through selection, application, and interpretation of clinical laboratory protocols. Validity testing of case analysis by identifying sources of uncertainty, analyzing quality assessment data, and reviewing outcomes. *Prerequisites:* MT 407-411 and permission of instructor. 3 hours.

## NUCLEAR MEDICINE TECHNOLOGY, BACHELOR OF SCIENCE IN

**Program Director:** Steves

**Medical Director:** Bender

**Faculty:** Bolus, Harris, Newcomer, Steves, Thompson

The nuclear medicine technologist (NMT) assumes major responsibility for using radioactive drugs to obtain information that will aid the physician in diagnosing disease and monitoring therapy. The NMT has direct patient contact in performing the nuclear medicine procedures and uses a variety of radiation detection equipment and computers to acquire data. The NMT also participates in quality control, preparation of radioactive drugs, and compliance with radioactive materials licensing requirements.

Employment opportunities exist in medical centers; veterans and armed forces medical centers or hospitals; public health institutions; industrial, chemical, and biochemical research laboratories; and atomic power or nuclear instrumentation manufacturing companies. With experience, opportunities are also available in education, commercial sales, and radiation health physics.

**Accreditation**—The program is accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

**Credentials Conferred: Diploma**—The Bachelor of Science degree and a baccalaureate certificate of completion are awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates are eligible to apply for the certification examinations of the Nuclear Medicine Technology Certification Board (NMTCB) and of the American Registry of Radiologic Technologists (ARRT).

**Length of Study: Preprofessional Phase**— Six semesters;  
**Professional Phase in SHRP**— Four or five semesters.

**Program Entrance Date**—Fall semester.

**Application Deadline**—Applications received in the NMT Program office by March 1 preceding the expected date of enrollment are given first priority. Materials should be submitted to the UAB Undergraduate Admissions Office by February 15 to ensure receipt in the program office by the March 1 deadline. Applications received in the program office after March 1 are considered on a space-available basis.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-nuclear medicine technology as the major, and application

fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-nuclear medicine technology as the major; form available from the Office of Registration and Academic Records); and

- official transcripts from each college or university attended.

To the Nuclear Medicine Technology Program Office, School of Health Related Professions:

- completed application to the professional phase of the Nuclear Medicine Technology Program (form available from the program office);
- current transcript; and
- completed clinical tour form.

**Requirements for Admission**—The student usually will have completed approximately 70 semester hours before transferring to SHRP for four or five semesters of professional courses. Acceptance will be based upon the student's academic ability and aptitude for a career in nuclear medicine technology. The candidate is expected to satisfy the following requirements:

- be accepted by UAB;
- have a minimum cumulative overall grade point average of 2.3;
- have a minimum cumulative grade point average of 2.3 in Natural Sciences and Mathematics prerequisite courses in Area III and Area V (under special circumstances and with permission of the faculty, this requirement may be waived);
- have a minimum grade of C in each prerequisite course;
- complete a personal interview with the selection committee; and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the core curriculum.

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition (EH 101, 102) .....	<b>6</b>
<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	<b>3-6</b>
Fine Arts elective .....	<b>3</b>
Electives <sup>1</sup> .....	<b>3-6</b>

## Area III. Natural Sciences and Mathematics (11 hours)

Pre-calculus Trigonometry (MA 106) .....	<b>3</b>
General Chemistry sequence (CH 115/116, 117/118) .....	<b>8</b>

## Area IV. History, Social, and Behavioral Sciences (12 hours)

History <sup>1</sup> .....	<b>3-6</b>
Electives <sup>1</sup> .....	<b>6-9</b>

## Area V. Preprofessional, Major, and Elective Courses

Computing Fundamentals (CS 101) .....	<b>3</b>
Introductory Biology (BY 123, 124) .....	<b>8</b>
Human Anatomy and Human Physiology (BY 115, 116) <sup>2</sup> .....	<b>8</b>
Statistics (MA 180 or PY 214) .....	<b>3-4</b>
Physics (PH 201/201-L, 202/202-L) <sup>3</sup> .....	<b>8</b>
Medical Terminology for Health Professionals (AHS 350) .....	<b>3</b>

A person who holds a baccalaureate degree and wishes to become a nuclear medicine technologist will be considered for the 16-month period of professional study. Prerequisites for such persons include the equivalent of the courses in Natural Sciences and Mathematics under Area III and Area V of the Program Core Curriculum and the other admission requirements. Upon graduation, a baccalaureate certificate will be awarded by the University of Alabama at Birmingham.

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.
- (2) Acceptable substitutes: Comparative Animal Physiology, Mammalian Physiology.
- (3) Physics for Technologists (NMT 304) offered by UAB/SHRP for 8 semester hours may be substituted for the Physics sequence.

## TYPICAL PROGRAM

### Professional Phase

<i>FALL</i>	<i>Sem. Hrs.</i>
NMT 400 Introduction to Clinical Nuclear Medicine Technology .....	<b>1</b>
NMT 404 Patient Care.....	<b>2</b>
NMT 410 Medical Radiation Physics .....	<b>3</b>
NMT 411 Nuclear Radiation Physics Laboratory .....	<b>1</b>
NMT 420 Instrumentation I .....	<b>4</b>
NMT 431 Nuclear Medicine Procedures I .....	<b>2</b>
MT 400 Health and Safety Management .....	<b>1</b>
 <i>SPRING</i>	
NMT 421 Instrumentation II.....	<b>3</b>
NMT 432 Nuclear Medicine Procedures II .....	<b>6</b>
NMT 440 Radiation Protection .....	<b>3</b>
NMT 451 Seminar I.....	<b>1</b>
NMT 491 Clinical Practice I .....	<b>5</b>

## SUMMER

NMT 422 Computer Applications and Advanced Instrumentation .....	3
NMT 432 Nuclear Medicine Procedures II.....	4
NMT 452 Seminar II .....	1
NMT 492 Clinical Practice II.....	4-6
NMT 417 Physics and Instrumentation of Nuclear Magnetic Resonance (elective) <sup>4</sup> .....	3

## FALL

NMT 441 Radiation Biology .....	2
NMT 453 Seminar III .....	1
NMT 493 Clinical Practice III .....	7-10
RAS 442 Magnetic Resonance Scanning (elective) <sup>4</sup> .....	4

## SPRING (OPTIONAL)<sup>4</sup>

RAS 493 Magnetic Resonance Clinical Practicum (elective) ....	4
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(4) Students may elect to extend the NMT curriculum by one term to complete additional courses in magnetic resonance imaging. Admission to these courses is competitive and on a space-available basis. Students who elect the magnetic resonance imaging option will be required to complete NMT 417 Physics and Instrumentation of Nuclear Magnetic Resonance and RAS 442 Magnetic Resonance Scanning.

### For further information, contact:

Program Director  
Nuclear Medicine Technology Program  
School of Health Related Professions  
University of Alabama at Birmingham  
Birmingham, Alabama 35294-1270  
Telephone: (205) 934-2004  
E-mail: bsnmt@uab.edu  
Web address: www.uab.edu/NMTProgram

## Course Descriptions

### Nuclear Medicine Technology (NMT)

**304. Physics for Technologists**—Mechanics, static and dynamic fluids, wave motion, heat, sound, electricity, magnetism, and light; fundamental concepts of physics with mathematical formulation to enhance problem-solving skills. *Prerequisite:* MA 105. 8 hours.

**400. Introduction to Clinical Nuclear Medicine Technology**—Overview of the U.S. health care system; hospital/nuclear medicine department organization and management; professional organizations; medical records; patient positioning/immobilization techniques; professionalism. *Prerequisite:* admission to program. 1 hour.

**404. Patient Care**—(Also RAD 302.) Basic patient care theory and techniques required for radiography and nuclear medicine technology. *Prerequisite:* admission to program. 2 hours.

**410. Medical Radiation Physics**—(Also RAD 401.) Qualitative and quantitative concepts of radiation physics pertaining to medical applications in nuclear medicine, radiology, and radiation therapy; atomic and nuclear structure, radioactive decay, properties of radiation; x-ray production; artificial production; photon interac-

tions in matter and shielding attenuation processes. *Prerequisite:* admission to program. 3 hours.

**411. Nuclear Radiation Physics Laboratory**—Application and demonstration of radiation physics concepts; emphasis on mathematical computations and graphing relevant to nuclear medicine practice. *Prerequisite:* admission to program. 1 hour.

**417. Physics and Instrumentation of Magnetic Resonance**—(Also RAS 417.) Fundamental physical principles of nuclear magnetic resonance phenomenon, including structure of atom, concept of resonance, Larmor frequency, magnetogyric ratio, T1 and T2, and methods of generating magnetic fields; theory of operation of NMR spectrometers and imagers, including function of basic components, effects of linear gradients, signal processing, slice definition, and image reconstruction. *Prerequisites:* PH 201/211 lab, PH 202/212 lab, NMT 304, or permission of instructor. 3 hours.

**420. Instrumentation I**—Theoretical and practical concepts in radiation detection instrumentation; calibration, maintenance standards; practical uses of gaseous detectors, scintillation detectors, and multichannel analyzers; quality assurance testing for nuclear medicine instrumentation including GM detectors, ionization chambers, and scintillation detectors; gamma spectrometry of all commonly used nuclear medicine radionuclides; scintillation cameras. *Prerequisite:* admission to program. 4 hours.

**421. Instrumentation II**—Principles of in vivo and in vitro counting and imaging using probe counters, well counters, and scintillation cameras; introduction to SPECT technology; scintillation camera quality control; types of collimators, their use and function in nuclear medicine; computer fundamentals, software; operating systems. *Prerequisites:* NMT 410, 411, 420. 3 hours.

**422. Computer Applications and Advanced Instrumentation**—Clinical application of data processing techniques; principles of tomographic imaging; SPECT/PET image reconstruction, filtering, and attenuation correction; quality control of tomographic systems. *Prerequisites:* CS 101, NMT 421, and permission of instructor. 3 hours.

**431, 432. Nuclear Medicine Procedures I, II**—Applied anatomy and physiology of cardiovascular, respiratory, gastrointestinal, urinary, skeletal, endocrine, central nervous, and hematopoietic systems; clinical indications for nuclear medicine procedures; technical aspects of performing nuclear medicine examinations; pertinent pathology. *Prerequisites:* admission to program and permission of instructor. 4 hours each.

**440. Radiation Protection**—Principles and methods of radiation protection, health physics units, measurement, and dose-limiting regulations for occupationally and nonoccupationally exposed individuals; radiation surveys; techniques and decontamination methods; monitoring of radioactive waste, radiation dose measurements, and radionuclide accountability; special topics, including precautions with brachytherapy patients, with patients receiving therapeutic amounts of radionuclides, and in management of accidentally contaminated individuals. *Prerequisites:* NMT 410, 411, 420. 3 hours.

**441. Radiation Biology**—(Also RAD 436.) Physical, chemical, and biological mechanisms involved in action of different types of radiations on living cells and their components. *Prerequisite:* NMT 410. 2 hours.

**451. Seminar I**—Patient interaction, communication, and inter-

viewing skills. *Prerequisite:* admission to program. 1 hour.

**452. Seminar II**—Introduction to medical law and ethics; issues and codes of conduct in health facilities. *Prerequisite:* admission to program. 1 hour.

**453. Seminar III**—Review of current literature applied to case study presentation. *Prerequisite:* admission to program. 1 hour.

**460. Radiochemistry and Radiopharmacy**—Fundamental concepts of radiopharmaceutical production; basic radiochemistry; radionuclide generator systems; design criteria of radiopharmaceuticals and mechanism of localization; labeling and quality control of Tc-99m radiopharmaceuticals, radiochemical and radionuclidic purity, sterility, and pyrogenicity. *Prerequisites:* NMT 410, 411, 420, 421, 431, 432, 440. 3 hours.

**491, 492, 493. Clinical Practice I, II, III**—Directed clinical practice: in vivo procedures; instrumentation quality control; radiopharmacy; applied radiation safety procedures. *Prerequisites:* admission to program and permission of instructor. Total credit: 19-20 semester hours (491, 5 hours; 492, 4-6 hours; 493, 7-10 hours). Only 14 semester hours apply toward baccalaureate degree.

## RADIATION THERAPY-B.S. IN RADIOLOGIC SCIENCES

Program Director: Adams  
Medical Director: Spencer  
Faculty: Adams, Cartright

The radiation therapist is a vital member of the health care team who most often works in a radiation therapy department of a hospital or outpatient health care facility. Working under the direction of an oncologist, the radiation therapist is responsible for treating patients with malignant diseases using ionizing radiation. The therapist, interacting regularly with cancer patients, faces special demands and daily challenges. Graduates are employed in hospitals, private radiation oncology centers, research, industry, education, and management.

**Accreditation**—The program is accredited by the Joint Review Committee on Education in Radiologic Technology (20 North Wacker Drive, Suite 900, Chicago, IL 60606-2901, telephone: 312-704-5300).

**Credentials Conferred: Diploma**—The Bachelor of Science degree is awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates are eligible to apply for the certification examination in radiation therapy administered by the American Registry of Radiologic Technologists (ARRT).

**Length of Study: Preprofessional Phase**—Five to six semesters; **Professional Phase in SHRP**—Four semesters (one additional semester if not a Registered Radiographer).

**Program Entrance Date**—Fall semester for Non-Radiographers. Spring semester for Radiographers

**Application Deadline**—Completed applications received by March 15 preceding the term in which admission to the program is desired are given first priority. Applications received after that date will be considered on a space-available basis.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-radiation therapy as the major, and application fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-radiation therapy as the major; form available from the Office of Registration and Academic Records); and

- official transcripts from each college or university attended.<sup>1</sup>

To the Radiation Therapy Program, School of Health Related Professions:

- completed application to the professional phase of the Radiation Therapy Program (form available from the program office or online at [www.uab.edu/rtt](http://www.uab.edu/rtt));
- documentation of tour of clinical facilities; and
- current transcript.

**Requirements for Admission**—Applicants must satisfy the following requirements:

- have completed 60 semester hours of prerequisite course work. All math and science courses must be completed prior to beginning the program. Applicants who are not certified in radiography must take radiography coursework at UAB if accepted into the program.<sup>2</sup> All candidates must:
- complete an interview with the selection committee;
- have a minimum cumulative grade point average in prerequisite courses of 2.5;
- have a minimum grade of C in each prerequisite and previous professional coursework to be transferable; and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

(1) Transcripts will be evaluated individually for transfer credit.

Graduates of accredited hospital-based programs who are certified as required may petition for academic credit by portfolio.

(2) Applicants who are not registered radiographers must complete one term of radiography coursework at UAB prior to the professional phase of the Radiation Therapy Program. Contact program advisor for additional information.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

### PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the Core Curriculum.

*Sem. Hrs.*

Area I. Written Composition (6 hours)  
English Composition (EH 101, 102) .....6

<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature .....	<b>3</b>
Fine Arts elective .....	<b>3</b>
Electives .....	<b>6</b>
<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Pre-calculus Algebra (MA 105) .....	<b>3</b>
Two-semester sequence of College Physics (PH 201/211 lab, 202/212 lab) .....	<b>8</b>
<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
Introduction to Psychology (PY 101) .....	<b>3</b>
History .....	<b>3</b>
Electives .....	<b>6</b>
<b>Area V. Pre-professional, Major, and Elective Courses</b>	
General Biology (BY 123) .....	<b>4</b>
Human Anatomy and Human Physiology (BY115, 116) .....	<b>8</b>
Statistics (PY 214 or MA 180) .....	<b>3</b>
Computing Fundamentals (CS 101) .....	<b>3</b>

## TYPICAL PROGRAM

### Professional Phase

#### FALL—Entry point for Non-Radiographers

	<i>Sem. Hrs.</i>
RAD 301 Introduction to Radiography .....	<b>2</b>
RAD 302 Patient Care .....	<b>2</b>
RAD 401 Medical Radiation Physics .....	<b>3</b>
RAD 336 Radiation Biology .....	<b>2</b>
RTT 300 Imaging in Radiation Therapy .....	<b>2</b>
MT 400 Health and Safety Management .....	<b>1</b>

#### SPRING—Entry point for Radiographers

RTT 301 Introduction to Radiation Therapy .....	<b>3</b>
RTT 330 Radiation Therapy Physics .....	<b>3</b>
RTT 345 Radiation Oncology I .....	<b>3</b>
RAD 360 Cross Sectional Anatomy .....	<b>4</b>
MT 400 Health and Safety Management .....	<b>1</b>
RTT 320 Human Pathophysiology .....	<b>3</b>

#### SUMMER

RTT 302 Simulator Applications .....	<b>3</b>
RTT 410 Treatment Planning .....	<b>4</b>
RTT 440 Radiation Oncology II .....	<b>3</b>
RTT 492 Quality Management in Radiation Therapy .....	<b>3</b>
RTT 350 Clinical Education I .....	<b>4</b>

#### FALL

RTT 497 Advanced Radiotherapy Techniques .....	<b>3</b>
AHS 460 Research Methods .....	<b>3</b>
RTT 351 Clinical Education II .....	<b>10</b>

#### SPRING

RTT 450 Clinical Education III .....	<b>10</b>
RTT 477 Concept Integration .....	<b>2</b>
AHS 401 Organizational Studies in Health Care .....	<b>4</b>

#### For further information, contact:

Program Director  
Radiation Therapy Program—B.S. in Radiologic Sciences  
School of Health Related Professions  
University of Alabama at Birmingham  
Birmingham, Alabama 35294-1270  
Telephone: (205) 934-3443  
E-mail: bsrtt@uab.edu  
Web address: www.uab.edu/rtt

## Course Descriptions

### Radiation Therapy—Radiologic Sciences (RTT)

**300. Imaging in Radiation Therapy**—Provides knowledge of factors that govern and influence the production of images in radiation oncology. All imaging modalities will be introduced, with emphasis given to radiographic and fluoroscopic image production. *Prerequisite:* admission to Radiation Therapy Program. 2 hours.

**301. Introduction to Radiation Therapy**—Overview of radiation therapy history and its role in medicine; academic and administrative structure, key departments, and personnel; psychosocial issues with emphasis on grief and dying process; the profession. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

**302. Simulator Applications**—Geometric application of teletherapy setups to include quality assurance of simulator and treatment machine specification symmetry. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

**320. Human Pathophysiology**—Introduction to basic disease concepts, theories of disease causation, and pathophysiologic disorders most frequently encountered in clinical practice. *Prerequisites:* BY 115, 116. 3 hours.

**330. Radiation Therapy Physics**—Fundamental concepts of radiation interaction, production and measurement, clinical equipment photon and electron beam therapy, and brachytherapy. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

**RTT 345. Radiation Oncology I**—Study of carcinogenesis, natural history of cancer, epidemiology, etiology, pathology, screening and early detection, principles of treatment, prognosis, psychosocial issues, and individual cancers. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

**RTT 350. Clinical Education I**—Clinical practice in radiation oncology; introduction to clinical equipment, techniques, and personnel; orientation to methods of treatment and simulation. *Prerequisite:* admission to Radiation Therapy Program. 1 hour.

**RTT 351. Clinical Education II**—Fundamental clinical practice in radiation oncology; malignant conditions, methods of treatment, simulation, treatment planning, patient prognosis, treatment results. *Prerequisites:* admission to Radiation Therapy Program; successful completion of RTT 350. 10 hours.

**RTT 390. Basic Concepts Review**—Independent study review for students readmitted to the program, including introductory

principles of radiation therapy, oncology, simulator applications, and radiotherapeutic calculations. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

**RTT 410. Treatment Planning**—Concepts of radiotherapeutic dose calculation and planning for optimal delivery of radiation treatment prescription utilizing wide range of external beam techniques; treatment planning considerations for most commonly occurring cancers. *Prerequisite:* admission to Radiation Therapy Program. 4 hours.

**RTT 440. Radiation Oncology II**—Fundamental clinical practice in radiation oncology; continuation of epidemiology, etiology, symptoms, histology, pathology, diagnosis, staging, survival, and treatment setups for specific cancers. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

**RTT 450. Clinical Education III**—Fundamental clinical practice in radiation oncology: malignant conditions, methods of treatment, simulation, treatment planning, patient prognosis, treatment results. *Prerequisites:* admission to Radiation Therapy Program; successful completion of RTT 351. 10 hours.

**RTT 477. Concept Integration**—Integration of principles and tenets of radiation therapy concepts that have been presented throughout curriculum. *Prerequisite:* admission to Radiation Therapy Program. 2 hours.

**RTT 492. Quality Management in Radiation Therapy**—Concepts of quality management program that incorporates operations of radiation therapy facility; quality control activities related to equipment performance. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

**RTT 497. Advanced Radiotherapy Techniques**—Complex topics in treatment planning and treatment delivery, including 3-D conformal treatment, intensity modulated radiation therapy, stereotactic radiosurgery, brachytherapy, and total body irradiation. *Prerequisite:* admission to Radiation Therapy Program. 3 hours.

## RADIOGRAPHY-B.S. IN RADIOLOGIC SCIENCES

**Program Director:** Hall

**Medical Director:** Stanley

**Faculty:** Dowd, Hall, Newcomer, Wilson, Ennis, Harris

Radiographers are health care practitioners who perform diagnostic medical procedures producing accurate images of human anatomy used to diagnose disease and injury. The quality of the radiograph is dependent upon the judgment, knowledge, and skill of the radiographer, who assists the radiologist by safely and efficiently operating complex, highly technical equipment. Imaging specialties found within the radiography profession include mammography, cardiovascular interventional technology (CIT), computed tomography (CT), magnetic resonance imaging (MRI) and ultrasound (US).

Employment opportunities exist in settings such as hospitals, outpatient health care facilities, physician offices, industry, research centers, and governmental agencies. Radiographers with experience and additional education have the opportunity to pursue careers as clinicians, educators, administrators, researchers, and consultants.

**Accreditation**—The program is accredited by the Joint Review Committee on Education in Radiologic Technology (20 North Wacker Drive, Suite 900, Chicago, IL 60606-2901; Telephone (312) 704-5300).

**Credentials Conferred: Diploma**—The Bachelor of Science degree and certificate of completion are awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates will be eligible to apply for the radiographer certification examination administered by the American Registry of Radiologic Technologists (ARRT); completion of advanced imaging courses will assist students in documenting experiences required by the ARRT for advanced certification examinations in magnetic resonance imaging (MRI), computed tomography (CT), cardiovascular interventional technology (CIT), and ultrasonography (US).

**Length of Study: Pre-professional Phase**—Four to six semesters; Professional Phase—Options: Entry-Level for non-radiographers: Program length—seven semesters; or Advanced Standing for ARRT-certified or certification-eligible radiographers—four semesters.

**Program Entrance Date**—Entry-level: Fall semester; Advanced Standing for ARRT-certified or certification-eligible radiographers: Spring, Summer, and Fall.

**Application Deadline**—Completed applications received by March 1 preceding the term in which admission to the program is desired are given first priority. Applications received after this date are considered on a space-available basis.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-radiography as the major, and application fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-radiography as the major; form available from the Office of Registration and Academic Records); and
- official transcripts from each college or university attended.

To the Radiography Program, School of Health Related Professions:

- completed application to the professional phase of the Radiography Program (form available from the program office);
- documentation clinical tour of radiology department; and current transcripts.

**Requirements for Admission**—Acceptance will be based upon the student's academic ability and aptitude for a career as a radiographer. The candidate is expected to satisfy the following requirements:

- accepted by UAB;
- have a minimum cumulative grade point average of 2.3 for all prerequisite courses;
- have a minimum grade of C in each prerequisite course;
- complete personal interview with the selection committee;
- submit documentation of a visit to a hospital radiology department; and
- if accepted, complete the UAB medical history questionnaire

and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

**Advanced Standing Option**—Individuals who have completed a radiography program and are registered or are registry-eligible by the ARRT may apply for advanced standing to complete a B.S. in Radiologic Sciences degree. Such individuals must have completed all program prerequisites prior to admission as well as all other requirements for admission, except for the radiology clinical tour. Academic credit may be granted for collegiate-level radiography courses that have been evaluated by the Radiography Program and approved for the B.S. degree. Graduates of hospital-based programs may submit a credit by portfolio packet to have credit evaluated for acceptance to the B.S. degree. All individuals applying for advanced standing must complete at least 64 semester hours of credit at a four-year institution and at least 32 semester hours in residency at UAB. The professional phase of the program for certified radiographers will be determined by an evaluation of the student's college transcript or the credit by portfolio packet and will be individualized to allow the student to pursue advanced courses in at least one area of interest.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the Core Curriculum.

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition (EH 101, 102) .....	<b>6</b>
<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	<b>3</b>
Fine Arts elective .....	<b>3</b>
Electives <sup>1</sup> .....	<b>6</b>
<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Precalculus Algebra (MA 105) .....	<b>3</b>
Two-semester sequence of College Physics (PH 201/211 lab, 202/212 lab) <sup>2</sup> .....	<b>8</b>
<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
General Psychology (PY 101) .....	<b>3</b>
History <sup>1</sup> .....	<b>3</b>
Electives <sup>1</sup> .....	<b>6</b>
<b>Area V. Preprofessional, Major, and Elective Courses</b>	
Introductory Biology (BY123) <sup>3</sup> .....	<b>4</b>
Human Anatomy and Human Physiology (BY 115, 116) <sup>3</sup> .....	<b>8</b>

Computer Science (CS 101) .....	<b>3</b>
Statistics (PY 214 or MA 180) .....	<b>3</b>

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.
- (2) Physics for Technologists (NMT 304), offered by UAB/SHRP for 8 semester hours, may be substituted for the Physics sequence; additional science courses with laboratory from the approved list for Area III Natural Sciences and Mathematics will be required to meet the state Core Curriculum.
- (3) Introductory Chemistry I (CH 105/106 lab) is a prerequisite to General Biology (BY 123) and Human Physiology (BY 116) if taken at UAB.

## TYPICAL PROGRAM

### Professional Phase

#### FIRST YEAR

##### FALL

	<i>Sem. Hrs.</i>
RAD 301 Introduction to Radiography.....	<b>2</b>
RAD 302 Patient Care .....	<b>2</b>
RAD 330 Basic Radiographic Procedures .....	<b>4</b>
RAD 331 Basic Radiographic Procedures Laboratory.....	<b>1</b>
RAD 401 Medical Radiation Physics.....	<b>3</b>
MT 400 Health and Safety Management .....	<b>1</b>

##### SPRING

RAD 310 Clinical Practicum I .....	<b>4</b>
RAD 324 Imaging: Production of Radiographic Image .....	<b>3</b>
RAD 326 Imaging Laboratory .....	<b>1</b>
RAD 340 Intermediate Radiographic Procedures .....	<b>4</b>
RAD 341 Intermediate Radiographic Procedures Laboratory ..	<b>1</b>

##### SUMMER

RAD 320 Clinical Practicum II .....	<b>6</b>
RAD 362 Quality Assurance .....	<b>2</b>

#### SECOND YEAR

##### FALL

RAD 436 Radiation Biology .....	<b>2</b>
RAD 410 Clinical Practicum III.....	<b>4</b>
RAD 429 Radiographic Pathology.....	<b>3</b>
RAD 455 Image Analysis .....	<b>3</b>

##### SPRING

RAD 460 Cross-Sectional Anatomy.....	<b>4</b>
RAD 412 Clinical Practicum IV.....	<b>4</b>
RAS 440 Radiological Pharmacology and Cardiac Monitoring.....	<b>4</b>
RAD 465 Ethics and Basic Law for Medical Imaging.....	<b>3</b>

##### SUMMER

RAD 414 Clinical Practicum V .....	<b>6</b>
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## FALL

### Elective Phase

A concentration in general radiography, ultrasonography (US), magnetic resonance imaging (MRI), Computed Tomography (CT), or Cardiovascular Interventional Technology (CIT) will be required to complete the degree. Concentrations in MRI, CT, CIT, and US are offered on a space-available basis. Students will select the following courses based on the chosen advanced imaging concentration.

#### General Radiography:

RAD 450 Synthesis Seminar .....	2
RAS 452 Directed Readings in Radiography.....	4
RAS 462 Advanced Radiography Clinical Practicum .....	4

#### Computed Tomography:

RAS 460 Computed Tomography.....	4
RAS 470 Computed Tomography Clinical Practicum .....	4
RAD 450 Synthesis Seminar .....	2

#### Cardiovascular Interventional Technology:

RAS 441 Cardiovascular Interventional Technology .....	4
RAS 451 Cardiovascular Interventional Technology Clinical Practicum .....	4
RAD 450 Synthesis Seminar .....	2

#### Magnetic Resonance Imaging:

RAS 442 Magnetic Resonance Imaging.....	3
RAS 443 MRI Clinical Practicum .....	4
RAD 450 Synthesis Seminar .....	2
RAS 417 Physics and Instrumentation of MR.....	3

#### Ultrasonography:

RAS 480 Essentials of Diagnostic Medical Ultrasound.....	4
RAS 481 Diagnostic Medical Ultrasound Laboratory.....	1
RAS 482 Diagnostic Medical Ultrasound Clinical Practicum....	5
RAD 450 Synthesis Seminar .....	2

#### For further information, contact:

Program Director  
Radiography Program—B.S. in Radiologic Sciences  
School of Health Related Professions  
University of Alabama at Birmingham  
Birmingham, Alabama 35294-1270  
Telephone: (205) 934-3443  
E-mail: bsrad@uab.edu  
Web address: www.uab.edu/radiography

## Course Descriptions

### Radiologic Sciences—Radiography (RAD)

**301. Introduction to Radiography**—Review of radiography program, radiographer as member of health care team, medical terminology. 2 hours.

**302. Patient Care**—(Also NMT 404.) Basic patient care theory and techniques required for radiography and nuclear medicine technology. 2 hours.

**310. Clinical Practicum I**—Supervised clinical practice of radiographic examinations, stressing experience in performing radiography of extremities (upper and lower) and girdles, routine plain radiography of chest and abdomen; image critique sessions, instruction in care and management of patients with indwelling tubes, operation of department equipment, and procedure protocols. 4 hours.

**320. Clinical Practicum II**—Supervised clinical practice of radiographic examinations, stressing experience in performance of remaining examinations of thorax and abdomen, vertebral column, urinary system, and gastrointestinal system; image critique sessions, all types of radiographic examinations, operation of all types of radiographic equipment, and procedure protocols. *Prerequisite:* RAD 310. 6 hours.

**324. Imaging Production of Radiographic Image**—Principles of radiographic exposure techniques and radiographic quality; radiographic and fluoroscopic imaging systems; accessory equipment and effects on image appearance; technical considerations and exposure technique conversions stressed. *Prerequisite:* RAD 401, enrollment in Radiologic Sciences Program, or permission of instructor; *Corequisite:* RAD 326. 3 hours.

**326 Imaging Laboratory**—Performance of practical laboratory exercises specifically pertaining to image production and factors that affect image quality. *Prerequisite:* enrollment in Radiologic Sciences Program; *Corequisite:* RAD 324. 1 hour.

**330. Basic Radiographic Procedures**—Radiographic anatomy, procedures, and positioning of upper and lower extremities; girdles (shoulder and pelvic), thorax, and abdomen; related medical care and medical terminology; trauma and surgical alternative procedures and indications. *Corequisite:* RAD 331. 4 hours.

**331. Basic Radiographic Procedures Laboratory**—Practical applications of related anatomy, procedures, and positioning of extremities and girdles, thorax, and abdomen; alternative trauma and surgical situations. *Corequisite:* RAD 330. 1 hour.

**436. Radiation Biology**—(Also NMT 441.) Genetic and somatic effects of ionizing radiation; mechanisms of interaction from sub-cellular level to organism; risk versus benefit of radiation exposure to occupational workers and to patients; theory of radiobiology and its translation into radiation protection practices. *Prerequisite:* RAD 401. 2 hours.

**340. Intermediate Radiographic Procedures**—Continuation of RAD 330; radiographic anatomy procedures and positioning of bony thorax, spine, gastrointestinal tract; urinary tract, reproductive system, and skull; contrast media; types, indications, contraindications, reactions to and treatment of reactions. *Prerequisites:* RAD 330 and 331; *Corequisites:* RAD 310 and 341. 4 hours.

**341. Intermediate Radiographic Procedures Laboratory**—Practical application of related anatomy, procedures, and positions of bony thorax, spine, gastrointestinal tract, urinary tract, reproductive system, and skull; alternative trauma and surgical situations. *Prerequisites:* RAD 330 and 331; *Corequisites:* RAD 310 and 340. 1 hour.

**401. Medical Radiation Physics**—(Also NMT 410.) Qualitative and quantitative concepts of radiation physics pertaining to medical applications in nuclear medicine, radiology, and radiation therapy; atomic and nuclear structure; radioactive decay; properties of radiation; x-ray production; artificial production; photon interac-

tions in matter and shielding; attenuation processes. 3 hours.

**410. Clinical Practicum III**—Supervised clinical practice of radiographic examinations, stressing experience in performance of head, and specialized studies of previous categories of emphasis; includes image critique sessions, all types of radiographic examinations, operation of all types of radiographic equipment, and procedure protocols. *Prerequisite:* RAD 320. 4 hours.

**412. Clinical Practicum IV**—Supervised clinical practice of radiographic examinations, stressing experience in performance of head, and specialized studies of previous categories of emphasis; includes image critique sessions, all types of radiographic examinations, operation of all types of radiographic equipment, and procedure protocols. *Prerequisite:* RAD 410. 4 hours.

**414. Clinical Practicum V**—Supervised clinical practice of radiographic examinations, stressing experience in performance of head, and specialized studies of previous categories of emphasis; includes image critique sessions, all types of radiographic examinations, operation of all types of radiographic equipment, and procedure protocols. *Prerequisite:* RAD 412. 6 hours.

**429. Radiographic Pathology**—Introduction to disease, its causes and bodily changes that accompany it; general principles of disturbed function and disordered structure in human organism, its systems, organs, and cells; introduction to pathological processes and exposure techniques demonstrating these radiographically. *Prerequisite:* enrollment in Radiologic Sciences Program or permission of instructor. 3 hours.

**450. Synthesis Seminar**—Job-search skills appropriate for entry-level baccalaureate radiographer; review of basic and advanced content; registry preparation. 2 hours.

**455. Image Analysis**—Systematic review and evaluation of radiographic procedures for assessment and improvement of radiographic image quality. 3 hours.

**460. Cross-Sectional Anatomy**—Location and function of anatomical structures within body as identified in cross-section; correlative images using newer imaging modalities (MR, CT, ultrasound) examined within head, neck, thorax, abdomen, pelvis, and extremities, where applicable. *Prerequisite:* enrollment in Radiologic Sciences Program or permission of instructor. 4 hours.

**465. Ethics and Basic Law for Medical Imaging**—History of ethics, ethical theories, and theorists; professional code of ethics/conduct; ethical problems common to medical imaging and other health related professions; legal issues relevant to medical imaging. *Prerequisite:* enrollment in Radiologic Sciences Program or permission of instructor. 3 hours.

## RESPIRATORY THERAPY, BACHELOR OF SCIENCE IN

Program Director: Granger

Medical Director: Young

Faculty: Laken, Perkins, Waugh, Granger

Respiratory therapists work with physicians and allied health professionals to diagnose and treat patients with disorders associated with the respiratory and cardiovascular systems. Therapists may be required to exercise considerable independent clinical judgment under the direct or indirect supervision of a physician

and are trained to act as technical resource persons for both physicians and other health care professionals.

The practice of respiratory care requires extensive knowledge of many technical and physiological concepts. Therapists administer many medical gases and cardiorespiratory drugs. Respiratory care practitioners are often responsible for the evaluation of patients and often assist in the development of the respiratory care plan. Respiratory therapists are trained to perform and evaluate the results of diagnostic tests such as arterial blood gases and pulmonary function studies. The maintenance of mechanical ventilation for critically ill patients is a major responsibility of the therapist. Therapists often assist physicians with procedures such as bronchoscopies, arterial cannula insertions, and heart catheterizations.

Respiratory therapists work in a wide variety of settings. Most therapists work in intensive care units, where they treat critically ill infants, children, or adults. Some therapists work in the general care areas of the hospital giving basic respiratory care. Many therapists work in diagnostic laboratories performing pulmonary function tests, cardiovascular studies, and some neurological diagnostic procedures. Nursing homes, clinics, and patient homes are becoming common sites for the practice of respiratory therapy. Some therapists receive additional training to become department directors or educators.

**Accreditation**—The program is accredited by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Committee on Accreditation for Respiratory Care (CoARC).

**Credentials Conferred: Diploma**—The Bachelor of Science degree is awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates are eligible to apply for the Entry Level Examination administered by the National Board for Respiratory Care (NBRC) and recognition as a Certified Respiratory Therapist (CRT). Upon attainment of the CRT credential, the graduate is eligible to apply for the Advanced Practitioner Examination of the NBRC and recognition as a Registered Respiratory Therapist (RRT).

**Length of Study: Preprofessional Phase**—Four semesters;  
**Professional Phase**—Six semesters.

**Program Entrance Date**—Fall semester.

**Application Deadline**—Applications will be reviewed as they are received all year. Students meeting the program requirements will be interviewed and an acceptance decision will be made immediately afterwards. Applications after June 30th will be considered on a space available basis. Enrollment is limited based on student capacity at clinical education sites.

**Application Procedure**—The following materials must be submitted.

To the UAB Undergraduate Admissions Office:

- completed UAB undergraduate application form, indicating pre-respiratory therapy as the major, and application fee, if applicable (if enrolled at UAB in another major, complete a Change of School/Major Request indicating pre-respiratory therapy as the major; form available from the Office of Registration and Academic Records); and
- official transcripts from each college or university attended.

To the Respiratory Therapy Program, School of Health Related Professions:

- completed application to the professional phase of the Respiratory Therapy Program (form available from the program office); and
- \$25 non-refundable program application fee.

**Requirements for Admission**—Students are eligible for admission to the professional program only after completion of the Program Core Curriculum and program prerequisites with a minimum of 64 semester hours. All candidates must satisfy the following requirements:

- have a minimum grade of C in each prerequisite course;
- have a minimum cumulative grade point average of 2.5;
- have a grade of C or better in each course in the Program Core Curriculum; and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the Core Curriculum.

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition (EH 101, 102) .....	6
<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	6
Public Speaking (CM 101) .....	3
Fine Arts Elective .....	3
<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Precalculus Algebra (MA 105) .....	3
Introductory Chemistry I and II (CH 105/106, 107/108) <sup>2</sup> .....	8
<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
Introduction to Sociology (SOC 100) .....	3
General Psychology (PY 101) .....	3
History <sup>1</sup> .....	3
Elective <sup>1</sup> .....	3
<b>Area V. Preprofessional, Major, and Elective Courses</b>	
Human Anatomy and Human Physiology (BY 115, 116) .....	8
Introductory Biology (BY 123) .....	4
Statistics (MA 180 or PY 214) <sup>3</sup> .....	3
Introduction to Microbiology (BY 261) .....	4

## Physical Science (PHS 101) <sup>4</sup> .....

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.
- (2) Must be a complete sequence of chemistry courses; sequence for science majors may be substituted.
- (3) If Statistics is taken in Psychology, it will NOT apply as the elective in the required 12 hours in the Social and Behavioral Science Area. An additional course will be needed to satisfy that elective requirement.
- (4) Physical Science should include an Introduction to Physics. Geology, Earth Science, and Astronomy are not acceptable.

## TYPICAL PROGRAM

### Professional Phase

#### FIRST YEAR

##### FALL

	<i>Sem. Hrs.</i>
RST 311 Principles of Patient Assessment .....	3
RST 312 Basic Respiratory Care Procedures .....	4
RST 313 Basic Respiratory Care Procedures Laboratory .....	2
RST 314 Respiratory Care Pharmacology .....	2
MT 400 Health and Safety Management .....	1

##### SPRING

RST 321 Clinical Practicum in Respiratory Care I .....	4
RST 322 Cardiopulmonary Anatomy and Physiology .....	3
RST 323 Airway Management .....	2
RST 324 Pulmonary Pathology .....	2
AHS 325 Directed Study in Respiratory Care I .....	1

##### SUMMER

RST 331 Clinical Practicum in Respiratory Care II .....	4
RST 332 Mechanical Ventilation .....	4
RST 333 Mechanical Ventilation Laboratory .....	2
RST 334 Critical Care Monitoring .....	2

#### SECOND YEAR

##### FALL

RST 411 Clinical Practicum in Respiratory Care III .....	4
RST 412 Advanced Mechanical Ventilation .....	3
RST 413 Special Procedures and Pulmonary Function Testing .....	3
RST 414 Special Procedures Laboratory .....	1
RST 415 Directed Study in Respiratory Care II .....	1

##### SPRING

RST 421 Clinical Practicum in Respiratory Care IV .....	4
RST 422 Long Term and Preventive Care .....	2
RST 423 Perinatal/Pediatric Respiratory Care .....	3
RST 424 long Term and Pediatric Laboratory .....	1
RST 425 Laboratory Proficiency Practice .....	1
RST 426 CRT Exam Review .....	1

SUMMER

RST 431 Clinical Internship .....	6
RST 432 Directed Study in Respiratory Care III.....	2
RST 427 Review of Critical Care Concepts.....	1

SELECT ONE OF THE FOLLOWING  
BASED ON CAREER GOALS:

AHS 401 Organizational Studies in Health Care .....	4
AHS 460 Research Methods .....	3

For further information, contact:

Program Director  
Respiratory Therapy Program  
School of Health Related Professions  
University of Alabama at Birmingham  
Birmingham, Alabama 35294-1270  
Telephone: (205) 934-3783  
E-mail: bsrst@uab.edu  
Web address: www.uab.edu/rt

**Course Descriptions**

**Respiratory Therapy (RST)**

**311. Principles of Patient Assessment**—Patient care procedures, physical assessment, laboratory assessment, communication skills and charting, and professionalism in respiratory care.

*Prerequisite:* admission to RST Program or permission of instructor. 3 hours.

**312. Basic Respiratory Care Procedures**—Review of physical concepts and laws governing fluids; composition and percentages of atmospheric gases. Principles, operations, maintenance, and identifying characteristics of primary gas systems. Rationale, indications, contraindications, hazards, and maintenance of common medical gas delivery systems. Humidity and humidifiers; aerosol and nebulizers; administration of aerosolized solutions; gas analysis and analyzers. Incentive spirometry, IPPB, and other hyperinflation techniques. Advanced oxygen and aerosol therapy, bedside patient assessment, postural drainage, and vibropercussion.

*Prerequisite:* admission to RST Program or permission of instructor. 4 hours.

**313. Basic Respiratory Care Procedures Laboratory**—Laboratory practice of respiratory care procedures included in RST 311 and RST 312; airway management techniques and procedures; reinforcement of material covered in RST 314 via audiovisual programs and computer assisted instruction. *Prerequisite:* admission to RST Program. 2 hours.

**314. Respiratory Care Pharmacology**—Legal aspects, terminology, use of pharmacology references, routes of administration, solutions and dosages, pharmacodynamics, autonomic nervous system, alpha and beta receptors, bronchodilators, mucolytics, respiratory stimulants, neuromuscular blocking agents, expectorants, cough and cold medications, steroids, cromolyn sodium and anti-infective agents. *Prerequisite:* admission to RST Program or permission of instructor. 2 hours.

**321. Clinical Practicum in Respiratory Care I**—Practical application of respiratory care performed under supervision at clinical sites and proficiency evaluations of selected respiratory care procedures. *Prerequisite:* admission to RST Program. 4 hours.

**322. Cardiopulmonary Anatomy and Physiology**—Structure of airways, lung parenchyma, chest wall, pulmonary and systemic circulations, diaphragm, heart, and kidneys. Physiology of pulmonary blood flow, ventilation, gas diffusion, gas transport, ventilation/perfusion relationships, control of ventilation, hemodynamics, pressure and flow relationships, arterial blood gases and acid-base balance, electrical properties of heart, contractile properties of heart, cardiac output, regulation of arterial blood pressure, and renal physiology. *Prerequisite:* admission to RST Program or permission of instructor. 3 hours.

**323. Airway Management**—Selection, application, maintenance, and discontinuance of various artificial airways, including intubation, extubation, tracheostomy care, and suctioning. *Prerequisite:* admission to RST Program or permission of instructor. 2 hours.

**324. Pulmonary Pathology**—Diseases affecting respiratory system, including symptoms, signs, laboratory tests, etiology, and treatment; emphasis on diseases commonly encountered by practicing respiratory therapists. *Prerequisite:* admission to RST Program or permission of instructor. 2 hours.

**325. Directed Study in Respiratory Care I**—Study of conditions and therapeutic measures frequently confronting respiratory care practitioner; student case study presentations and discussions. *Prerequisite:* admission to RST Program. 1 hour.

**331. Clinical Practicum in Respiratory Care II**—Clinical refinements of concepts and procedures in cardiopulmonary care with emphasis on advanced procedures in adult and neonatal critical care. *Prerequisite:* Admission to RST Program. 4 hours.

**332. Mechanical Ventilation**—Basic physics and mechanics of artificial ventilation; theory and practical application of manual resuscitators and mechanical ventilators; ventilator classification and general operational characteristics. *Prerequisite:* admission to RST Program; *Corequisite:* RST 333. 4 hours.

**333. Mechanical Ventilation Laboratory**—Laboratory practice of mechanical ventilation procedures and reinforcement of material covered in RST 332. *Corequisite:* RST 332. 2 hours.

**334. Critical Care Monitoring**—Assembly and operation of hemodynamic monitoring systems, safety precautions, quality control, and troubleshooting of equipment; measurement, interpretation, and application of hemodynamic parameters. *Prerequisite:* admission to RST Program or permission of instructor. 2 hours.

**411. Clinical Practicum in Respiratory Care III**—Clinical refinement of concepts and procedures in cardiopulmonary care with emphasis on special procedures; pulmonary rehabilitation; and home respiratory care, diagnostic testing, and advanced adult, pediatric, and neonatal critical care procedures and functions. *Prerequisite:* admission to RST Program. 4 hours.

**412. Advanced Mechanical Ventilation**—Advanced mechanical ventilation techniques, including advanced concepts in adult and neonatal mechanical ventilators, transport, and homecare; overview of advanced mechanical ventilation techniques such as liquid ventilation. *Prerequisite:* admission to RST Program or permission of instructor. 3 hours.

**413. Special Procedures and Pulmonary Function Testing**—Pulmonary function testing procedures, including equipment, spirometric measurement of pulmonary function, lung volume measurements, pulmonary mechanics tests, gas distribution studies, lung

diffusion studies, exercise testing, bronchial provocation testing, interpretation and application of test results, and case studies. Assistant functions in tracheostomy and thoracostomy tube insertion, bronchoscopy, thoracentesis, tracheotomy, and pulmonary artery catheterization; insertion of arterial cannulae; and introduction to neurodiagnostic procedures and sleep studies. *Prerequisite:* admission to RST Program or permission of instructor. 3 hours.

**414. Special Procedures Laboratory**—Laboratory practice in respiratory care practitioner's role in fiberoptic bronchoscopy, thoracentesis, tracheotomy, arterial cannulation, transtracheal catheter placement, and sleep studies; laboratory practice of basic pulmonary function procedures. *Prerequisite:* admission to RST Program. 1 hour.

**415. Directed Study in Respiratory Care II**—Study of conditions and therapeutic measures frequently confronting respiratory care practitioner; student case study presentations and discussions. *Prerequisite:* admission to RST Program. 1 hour.

**421. Clinical Practicum in Respiratory Care IV**—Clinical refinement of concepts and procedures in cardiopulmonary care with emphasis on special procedures, pulmonary function testing, pulmonary rehabilitation, home care therapy, diagnostic testing, hemodynamic monitoring, advanced mechanical ventilation procedures. *Prerequisite:* admission to RST Program. 4 hours.

**422. Long Term and Preventive Care**—Components of rehabilitation programs, patient education and motivation, home care concepts, reimbursement, gerontology, specialized home care procedures, and preventive care procedures. *Prerequisite:* admission to RST Program. 2 hours.

**423. Perinatal/Pediatric Respiratory Care**—Anatomy, physiology, and embryonic development of human fetus, with emphasis on embryonic lung development; transition from fetal to extra-uterine life; prenatal and perinatal history. Etiology, pathophysiology, clinical presentation, radiologic assessment and management of neonatal and pediatric lung diseases. Obstructive airway diseases in infants and children. Congenital heart diseases; sudden infant death syndrome and apnea disorders; Reye's Syndrome and other neurologic/neuromuscular disorders. *Prerequisite:* admission to RST Program or permission of instructor. 3 hours.

**424. Long Term and Pediatric Laboratory**—Laboratory practice of respiratory care procedures and reinforcement of material covered in long term and preventative care and pediatrics. *Prerequisite:* admission to RST Program. 1 hour.

**425. Laboratory Proficiency Practice**—Laboratory course designed to give senior student chance to practice all of laboratory proficiencies taught throughout curriculum prior to taking Laboratory Proficiency Exit Examination. *Prerequisite:* admission to RST Program. 1 hour.

**426. CRT Exam Review**—Review of all respiratory therapy topics covered on CRT Entry Level exam that student must take before graduation. *Prerequisite:* admission to RST Program or permission of instructor. 1 hour.

**427. Review of Critical Care Concepts**—Concepts involved in care of critically ill patients, including hemodynamic monitoring, fluid and electrolyte studies, metabolic studies, and mechanical ventilation concepts. *Prerequisite:* admission to RST Program or permission of instructor. 1 hour.

**431. Clinical Internship**—Final clinical experience before graduation; student will choose specialization area, such as neonatal,

adult critical care, pediatrics, and pulmonary function. *Prerequisite:* admission to RST Program. 6 hours.

**432. Directed Study in Respiratory Care III**—Study of conditions and therapeutic measures frequently confronting respiratory care practitioner; student case study presentations and discussions. *Prerequisite:* admission to RST Program. 2 hours.

## SURGICAL PHYSICIAN ASSISTANT, BACHELOR OF SCIENCE IN

**Program Director:** Rapp

**Medical Director:** Gleysteen

**Faculty:** Harrelson, Drace, Jennings, Rapp, Ridings

Duties of the surgical physician assistant vary and may include tasks such as assisting at surgery, taking histories and physical examinations on patients, venipuncture, inserting nasogastric and urinary tract tubes, and wound care. Virtually all surgical physician assistants are employed in medium to large cities.

**Accreditation**—The program is accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc.

**Credentials Conferred: Diploma**—The Bachelor of Science degree and a baccalaureate certificate of completion are awarded by the University of Alabama at Birmingham.

**Professional Certification**—Graduates are required to apply for the certification examination sponsored by the National Commission on Certification of Physician Assistants.

**Length of Study: Preprofessional Phase**—Four semesters minimum; **Professional Phase in SHRP**—Six semesters (24 months).

**Program Entrance Date**—Fall semester.

**Application Deadline**—Completed applications must be received by the Central Application Service for Physician Assistants (CASPA) by October 15. Applicant processing by CASPA begins the May 1st prior to the October 15 deadline.

**Application Procedure**—The following materials must be submitted to the indicated offices:

To CASPA: An online or optional paper application, any available standardized test scores, transcripts, and recommendations/evaluations. CASPA will then photocopy and distribute the application to each member school an applicant designates. CASPA may be contacted online by visiting <http://secure.caspaonline.org>.

To the Surgical Physician Assistant Program Office, if admitted:

- completed application to the UAB Office of Undergraduate Admissions (form available from the Surgical Physician Assistant Program office), along with a \$25 check payable to UAB.

To the UAB Office of Registration and Academic Records:

- if enrolled at UAB in another major, complete a Change of School/Major Request indicating Surgical Physician Assistant as the major (form available from the Office of Registration and Academic Records).

**Requirements for Admission**—The student will have completed a minimum of 60 semester hours before transferring to SHRP for six semesters (24 months) of professional courses.

Enrollment is limited and acceptance will be based upon the student's academic ability and aptitude for a career as a surgical physician assistant. Successful completion of these admission requirements does not guarantee admission into the program. The candidate is expected to satisfy the following requirements:

- have a minimum cumulative grade point average of 2.75 (4.0 scale);
- have a minimum cumulative grade point average of 2.75 in the Natural Sciences and Mathematics, complete all prerequisite course work (for a full description of required prerequisite courses, please visit our Web site at [www.uab.edu/surgicalpa](http://www.uab.edu/surgicalpa);
- complete a personal interview with the selection committee; and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

NOTE: We anticipate that a baccalaureate degree and a GPA of 3.0 will be required for the class entering in Fall 2005.

**Essential Requirements**—Fundamental tasks, behaviors, and abilities necessary to successfully complete the academic and clinical/residency requirements of the program and to satisfy licensure/certification requirements, if any, have been outlined and are available upon request from the academic program office. Students requesting disability accommodations must do so by filing a disability accommodation request in writing with the academic program office.

## PROGRAM CORE CURRICULUM (UAB EQUIVALENTS)

The following courses must be completed prior to the beginning of the professional phase of the program. Contact the program advisor for details regarding the Core Curriculum.

	<i>Sem. Hrs.</i>
<b>Area I. Written Composition (6 hours)</b>	
English Composition (EH 101, 102) .....	<b>6</b>
<b>Area II. Humanities and Fine Arts (12 hours)</b>	
Literature <sup>1</sup> .....	<b>3</b>
Fine Arts elective .....	<b>3</b>
Electives <sup>1</sup> .....	<b>6</b>
<b>Area III. Natural Sciences and Mathematics (11 hours)</b>	
Precalculus Algebra (MA 105) .....	<b>3</b>
General Chemistry (complete sequence) (CH 115/116 lab, 117/118 lab) .....	<b>8</b>
<b>Area IV. History, Social, and Behavioral Sciences (12 hours)</b>	
History <sup>1</sup> .....	<b>3</b>
Electives (psychology recommended) <sup>1</sup> .....	<b>9</b>
<b>Area V. Preprofessional, Major, and Elective Courses</b>	
Introductory Biology (BY 123, 124) .....	<b>8</b>
Microbiology (BY 261 or 271) .....	<b>3-4</b>
Human Anatomy and Human Physiology (BY 115, 116).....	<b>8</b>
Electives from approved list in Areas II-IV .....	<b>3-4</b>

- (1) A 6-semester-hour sequence either in literature or in history is required. If a second literature is chosen, it will apply as 3 of the elective hours in Area II: Humanities and Fine Arts; if a second history is chosen, it will apply as 3 of the elective hours in Area IV: History, Social, and Behavioral Sciences.

## TYPICAL PROGRAM

### Professional Phase

#### JUNIOR YEAR

##### FALL

	<i>Sem. Hrs.</i>
SA 302 Medical Physiology .....	<b>6</b>
SA 303 Anatomy .....	<b>4</b>
SA 310 Surgical Care Techniques I .....	<b>2</b>
SA 322 Laboratory Medicine. ....	<b>4</b>
SA 332 Clinical Medicine I .....	<b>3</b>
SA 337 Physical Diagnosis I .....	<b>3</b>

##### SPRING

SA 311 Surgical Care Techniques II .....	<b>2</b>
SA 313 Orthopedics.....	<b>1</b>
SA 314 Electrocardiography .....	<b>1</b>
SA 315 Respiratory Therapy .....	<b>1</b>
SA 326 Surgical Diseases I.....	<b>3</b>
SA 333 Clinical Medicine II.....	<b>7</b>
SA 335 Pharmacology I.....	<b>3</b>
SA 338 Physical Diagnosis II.....	<b>3</b>

##### SUMMER

SA 312 Operating Room Techniques .....	<b>2</b>
SA 317 Risk Management .....	<b>1</b>
SA 327 Surgical Disease II .....	<b>2</b>
SA 334 Clinical Medicine III .....	<b>8</b>
SA 336 Pharmacology II .....	<b>3</b>
SA 340 Applied Behavioral Sciences.....	<b>2</b>
SA 350 Fundamentals of Clinical Research .....	<b>2</b>

#### SENIOR YEAR

The senior year consists of (required and elective) medical and surgical clinical service rotations (see below). Senior-year students complete 48 weeks of clinical education comprised of 12 four-week rotations. Of these, 28 weeks are completed in surgical specialties and 20 weeks are required rotations in internal medicine, pediatrics, obstetrics/gynecology, family medicine, and emergency medicine. Four clinical service rotations are taken each semester. Each clinical service rotation is awarded 4 semester credit hours (SA 431-442). There is also a weekly senior seminar that provides 3 semester hours credit for each term (SA 421-423).

#### Required General Medicine and Surgical Rotations:

General Surgery  
Emergency Medicine  
Cardiovascular Surgery

#### Elective Rotations:

Thoracic Surgery  
Neurosurgery  
Renal Transplantation

Orthopedics	Surgical Oncology
Outpatient Medicine	Trauma Surgery
Inpatient Medicine	Urology
Pediatrics	Plastic Surgery
Obstetrics and Gynecology	Outpatient Surgery Clinic

**For further information, contact:**  
Program Director  
Surgical Physician Assistant Program  
School of Health Related Professions  
University of Alabama at Birmingham  
Birmingham, Alabama 35294-1270  
Telephone: (205) 934-4605  
E-mail: [bsspa@uab.edu](mailto:bsspa@uab.edu)  
Web address: [www.uab.edu/surgicalpa](http://www.uab.edu/surgicalpa)

## **Course Descriptions**

### *Surgical Physician Assistant (SA)*

**302. Medical Physiology**—This course emphasizes the normal function and control of various systems within the human body. The principles taught will serve as a foundation for understanding the etiology, management, and prevention of disease processes. 4 hours.

**303. Human Gross Anatomy and Neuroanatomy**—This course provides a comprehensive survey of the gross anatomy of the human along with functional and applied anatomy as it relates to common clinical findings. It utilizes a lecture format and cadaver dissection laboratory sessions. 6 hours.

**310, 311, 312. Surgical Care Techniques I, Surgical Care Techniques II, Operating Room Techniques**—These are three in a series of courses providing didactic instruction and applied technical skills in surgical techniques and various invasive medical procedures. An animal surgery laboratory, using live pigs, is an essential component of SA 310 and SA 311. SA 312 places students in operating rooms in Birmingham-area hospitals, where they are taught the basics in surgical first assisting. 2 hours each.

**313. Orthopedics**—This course provides an introduction to the etiology, patho-physiology, diagnostic workup, and management of common orthopedic diseases. 1 hour.

**314. Electrocardiography**—This course presents the basic concepts needed to interpret the electrocardiogram and will provide opportunities to develop interpretive skills through analysis of rhythm strips and 12-lead electrocardiograms. Upon completion of the course, students will be able to systematically interpret basic rhythm strips and 12-lead electrocardiograms. 1 hour.

**317. Risk Management**—This course provides an introduction to the legal, political, and professional issues affecting physician assistant practice. 2 hours.

**322. Clinical Laboratory Medicine**—An introduction to laboratory diagnostics with an emphasis on pathology, microbiology, hematology, and clinical chemistry. This course utilizes a lecture format, specimen handling in a clinical laboratory as well as cost effective diagnostic algorithms in problem-based case scenarios. 4 hours.

**326. Introduction to Surgical Diseases I**—This course introduces students to common surgical disorders with early emphasis on physiologic changes, medical requirements, and evaluation of patients before, during, and after surgery. It also provides basic

instruction in the diagnosis, management, and complications associated with common surgical gastrointestinal and urogenital disorders. 4 hours.

**327. Introduction to Surgical Diseases II**—This course is delivered via didactic instruction and focuses on the preoperative evaluation and diagnosis, and post-operative management and treatments of common disorders of the heart, lungs, and vascular systems. 2 hours.

**332. Clinical Medicine I**—This is an introductory course in human disease and is designed to describe the pathologic processes involved in common disorders and diseases. It introduces students to the principles of clinical medicine and clinical problem-solving, and provides them with the background needed for the clinical courses taught later in the curriculum. 3 hours.

**333, 334. Clinical Medicine II, III**—These courses present the diagnosis and management of the most common clinical problems seen by primary care practitioners. The last two courses employ an organ systems approach incorporating relevant anatomy, physiology, pharmacology, pathology, radiology, and nutrition into each section. 7 and 8 hours respectively.

**335, 336. Pharmacology I, II**—These courses provide students with the pharmacologic knowledge needed to begin practice as primary care physician assistants. They are delivered via classroom lecture and supplemented with intermittent case studies requiring students to critically evaluate medical conditions and choose safe and effective medications in treating those conditions. 3 hours each.

**337, 338. History and Physical Diagnosis I, II**—These courses provide students with the skills necessary to elicit a comprehensive medical history, perform a complete physical examination and systematically report their findings. A variety of teaching formats are utilized, including lectures, small-group activities, video productions, and simulated patients. 3 hours each.

**340. Applied Behavioral Medicine**—This course introduces students to human behavior, strategies, and issues surrounding health education and theoretical models of how to change human behavior. This knowledge will enable students to incorporate health promotion and disease prevention strategies in their daily clinical practice to the benefit of their patients. 2 hours.

**350. Fundamentals of Clinical Research**—This course provides students with the foundation of epidemiologic measures, the reasons for patterns of disease occurrence, the principles of medical surveillance, the methods for investigating disease outbreaks, and the principles of diagnostic tests. Students will review study designs, the roles of variability and bias in the interpretation of scientific literature, and the principles of clinical decision-making based on medical literature. 3 hours.

**421, 422, 423. Senior Seminar Series**—These courses focus on a review of primary care medicine topics to prepare students for the PA National Certification Examination (PANCE). They also require students to orally present two 30-minute presentations to the class on pre-assigned topics and prepare an accompanying one-page outline summarizing important points. Student presentations may be supplemented by cases seen on rotations or information gained from professional development seminars. 3 hours each.

**431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442. Clinical Services I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII**—The 12-month clinical phase is composed of nine required and three elective rotations lasting four weeks each. Required rotations

include: ob-gyn, emergency medicine, pediatrics, internal medicine, family practice, psychiatry/geriatrics, orthopedics, general surgery, and cardiovascular thoracic surgery. Students must successfully complete the end-of-rotation exam at the conclusion of all required rotations. Clinical year students return to campus each week to participate in a seminar series and evaluation exercises. 4 hours each.

## SCHOOL OF HEALTH RELATED PROFESSIONS

### PRE-OCCUPATIONAL THERAPY

The Occupational Therapy Program is offered by the School of Health Related Professions for the Master of Science degree. Applicants must have a baccalaureate degree from a regionally accredited college or university and have completed the program prerequisites listed below. Applicants may choose any major for the baccalaureate degree. Students enrolled in the professional program have the opportunity to apply to the Low Vision Rehabilitation Certificate Program. This certificate provides students with specialized knowledge and skills to evaluate and treat patients with visual loss.

**Requirements for Admission:** The applicant must hold a baccalaureate degree from an accredited college or university. Acceptance will be based on the student's academic ability and aptitude for a career as an occupational therapist. The candidate is expected to satisfy the following requirements:

- a minimum GRE score of 1,000 (500 in each verbal and quantitative) or MAT of 50 (note: GRE scores must be within the last five years),
- a minimum grade point average of 3.0 (A=4.0) on the last 60 semester hours of undergraduate coursework,
- a minimum grade point average of 3.0 in the natural sciences prerequisites,
- a minimum grade point average of 3.0 in the social and behavioral sciences,
- meet the non-academic eligibility requirements for certification to practice occupational therapy upon completion of the program,
- a personal interview with the members of the faculty of the Department of Occupational Therapy,
- completed applications to the UAB Graduate School and the Occupational Therapy Program, and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

Variations in these requirements are considered. In cases where applicants do not meet the principle requirements for admission, they may be admitted on probation with approval of the Graduate School.

### PROGRAM PREREQUISITES (UAB EQUIVALENTS)

The applicant must have completed successfully the following prerequisites in addition to, or in conjunction with, the baccalaureate degree:

	<i>Sem. Hrs.</i>
Arts and Humanities (18 hours) to include	
English Composition .....	3
Expressive Arts/Media (e.g., theatre, art, music, dance, or photography) .....	3
Electives (e.g., writing for publications, public speaking, English, foreign languages, and philosophy) .....	12
Social and Behavioral Sciences (15 hours) to include	
*Abnormal Psychology (PY 218) .....	3
*Developmental Psychology (PY 212) .....	3
Electives (e.g., psychology, sociology, and anthropology) .....	9
Natural Sciences and Mathematics (14-16 hours) to include	
*Human Anatomy and Physiology (BY 115 and 116) .....	8
*Statistics (MA 180, PY 214, or SOC 110) .....	3-4
Electives (e.g., chemistry, biology, mathematics, physics, or computer science) .....	9
Other	
Medical Terminology .....	-3

\* *Must be completed within the last 5 years.*

Applicants should contact the Department of Occupational Therapy for an annual update of prerequisites and admission requirements or check the Occupational Therapy Web site at [www.uab.edu/occupationaltherapy](http://www.uab.edu/occupationaltherapy)

The entry-level master's degree program begins only in the fall semester of each year. The curriculum, an application, and admission information are available from the Occupational Therapy Program Office. Applications, including all required transcripts, test scores, etc., are accepted up until July 15 preceding the expected date of enrollment. Early submission of application for admission is recommended. Late applications will be reviewed and admitted on a space-available basis.

Advising for the student's undergraduate major is provided by the department of the student's major. Freshmen and sophomores needing information on the pre-occupational therapy curriculum should contact the School of Health Related Professions Student Services Office. (205) 934-4194.

Juniors and seniors should contact the Occupational Therapy Program for advising and application information:

#### **Department of Occupational Therapy**

Richard M. Scrusby Building, Room 353  
1530 3rd Avenue South  
University of Alabama at Birmingham  
Birmingham, AL 35294-2030  
Telephone: (205) 934-3568  
Fax: (205) 975-7787  
E-mail: [msot@uab.edu](mailto:msot@uab.edu)  
Web address: [www.uab.edu/ot](http://www.uab.edu/ot)

*For course descriptions of this program, see the School of Health Related Professions Catalog (Web address: [www.uab.edu/shrp/catalog/courses](http://www.uab.edu/shrp/catalog/courses)).*

## PRE-PHYSICAL THERAPY

The Physical Therapy Program is offered by the School of Health Related Professions for the Doctor of Physical Therapy degree. Applicants must have a baccalaureate degree from a regionally accredited college or university and have completed the program prerequisites listed below. Applicants may choose any major for the baccalaureate degree.

Requirements for Admission: The applicant must hold a baccalaureate degree from an accredited college or university. Acceptance will be based on the student's academic ability and aptitude for a career as a physical therapist. The candidate is expected to satisfy the following requirements:

- a minimum GRE score of 1,100 (minimum 550 verbal and minimum 550 quantitative) sections,
- completion of the GRE writing assessment with a minimum 3.5 score,
- a minimum 3.0 (A=4.0) overall grade point average or a minimum 3.0 on the last 60 semester hours of coursework,
- minimum academic average performance of 3.0 in the biological sciences, 3.0 in the physical sciences, 3.0 in six semester hours of English composition, and at least a C in each of the other prerequisite courses,
- a personal interview with the Department of Physical Therapy faculty, and
- if accepted, complete the UAB medical history questionnaire and physical, provide proof of required immunizations, and receive satisfactory screening by the UAB Medical Center Student Health Service.

Because state law regulates the practice of Physical Therapy, applicants are encouraged to review the non-academic eligibility requirements for licensure to practice physical therapy upon completion of the program. These may be obtained from each individual state Board of Licensure for Physical Therapy.

### PROGRAM PREREQUISITES (UAB EQUIVALENTS) (1)

	<i>Sem. Hrs.</i>
Arts and Humanities	
English Composition (EH 101, 102) .....	6
Social and Behavioral Sciences	
Any psychology courses are acceptable .....	9
Natural Sciences and Mathematics	
Biology, including Human or Mammalian Physiology (BY 116 or 309), to total 16 hours .....	16
General Chemistry—two-semester or three-quarter sequence for science majors with laboratories (CH 115/116, 117/118) .....	8
Pre-calculus Trigonometry (MA 106), (Calculus [MA 125 and 126] required if PH 221/231, 222/232 are taken) .....	3-4
Physics sequence for science majors with laboratories [PH 201/211, 202/212 (acceptable) or PH 221/231, 222/232 (preferred)] (2) .....	8
Statistics (MA 180, PY 214, or SOC 110) .....	3-4
Current certification in CPR for health providers	

- (1) For all prerequisite courses, credit older than 10 years from the application deadline must be validated by examination or other appropriate mechanism.
- (2) The physics course must be designed for science majors and include laboratory sessions. The following topics must be studied: mechanics, heat, electricity and magnetism, wave motion and sound, and light.

The professional phase of the doctoral program begins only in the spring semester of each year. The curriculum, application, and admission information are available from the Physical Therapy Program office or from the program Web address: [www.uab.edu/physicaltherapy](http://www.uab.edu/physicaltherapy). The application deadline, including all required transcripts, test scores, etc., is January 15 preceding the expected spring term of enrollment.

Advising for the student's undergraduate major is provided by the department of the student's major. Freshmen and sophomores needing information on the pre-physical therapy curriculum should contact the School of Health Related Professions Student Services Office. (205) 934-4194.

Juniors and seniors should contact the Physical Therapy Program for advising and application information:

#### **Doctor of Physical Therapy**

School of Health Related Professions  
University of Alabama at Birmingham  
Birmingham, AL 35294-2030  
Telephone: (205) 934-3566  
E-mail: [mspt@uab.edu](mailto:mspt@uab.edu)  
Web address: [www.uab.edu/physicaltherapy](http://www.uab.edu/physicaltherapy)

*For course descriptions of this program, see  
the School of Health Related Professions Catalog  
(Web address: [www.uab.edu/shrp/catalog/courses](http://www.uab.edu/shrp/catalog/courses)).*





## The School of Natural Sciences and Mathematics

offers programs of study leading to the Bachelor of Science, Master of Science, and Doctor of Philosophy degrees (<http://www.uab.edu/hsm>).

At the undergraduate level, the school offers a general major in natural science and specific majors and minors in biology, chemistry, computer and information sciences, mathematics, and physics. The school also offers a minor in environmental science and course offerings in astronomy, earth science, and geology, although there are no separate degrees in these fields. Unless specified otherwise in the description of a major, all majors in the School of Natural Sciences and Mathematics require a minor.

At the graduate level, programs of study lead to the degrees of Master of Science in mathematics and Master of Science and Doctor of Philosophy in biology, chemistry, computer and information sciences, applied mathematics, and physics. Further information on these graduate programs may be obtained from the respective department offices, the UAB Graduate School Catalog, or on the Web (<http://www.uab.edu/hsm>).

## SCHOOL-WIDE REQUIREMENTS

In addition to fulfilling the Core Curriculum (see page 49-51), students with majors in the School of Natural Sciences and Mathematics must satisfy the requirements of two of the following three tracks, for a maximum of 6 semester hours.

### A. Foreign Language/Foreign Culture (3 hours)

*Students satisfy this track by either:*

1. Completing a foreign language course at or above the 102 level or
2. Completing a course that either considers social, economic, or political issues from a comparative and specifically international perspective or explores a single large region of the world (outside of the United States and Canada) from a holistic perspective.

A student may not use the same course to satisfy this requirement and the Humanities (Area II) requirement or Social Science (Area IV) requirement.

All foreign language courses numbered 102 and above may be used to fulfill this track except for:

- 190, 290, 390 (study abroad courses);
- 399, 499 (independent study);
- 333 (internship);
- all 400-level and above courses.

*In addition, the following courses may be used to fulfill this track:*

- ANTH 101** Introductory Cultural Anthropology
- ANTH 106** Introductory Archaeology
- ANTH 120** Language and Culture
- ANTH 241** Peoples of the World: Caribbean
- ANTH 243** Peoples of the World: Southeast Asia
- ANTH 244** Peoples of the World: Africa
- ANTH 245** Peoples of the World: Middle East
- ANTH 247** Peoples of the World: Oceania
- ANTH 248** Peoples of the World: Latin America
- ANTH 249** Peoples of the World: Greece and Eastern Mediterranean
- ARH 203** Survey History of Ancient and Medieval Art
- ARH 205** African, Native American and Oceanic Art
- ARH 206** Survey of Asian Art
- HY 245** Introduction to Latin American History
- HY 247** Colonial Latin America
- HY 248** Modern Latin America
- HY 257** The Celtic Fringe: Ireland, Scotland, Wales
- HY 258** Britain and the Third World
- HY 263** History of Russia to the Twentieth Century
- HY 265** History of the Soviet Union, 1917-1991
- JS 115** Comparative Criminal Justice Systems
- PSC 102** Introduction to Comparative Politics
- PSC 103** Introduction to International Relations
- PSC 250** African Politics
- PSC 251** European Political Systems
- PSC 252** Latin/South American Political Systems
- PSC 253** Asian Political Systems
- PSC 254** East European Political Systems
- PSC 262** Global Policy Issues
- PY 213** Cross-Cultural Perspectives on Child Development
- PY 319** Psychopathology and Culture
- SOC 200** Social Change
- SOC 325** Sociology of Russia

## B. Critical Reasoning/Philosophy (3 hours)

*Students satisfy this track by either:*

1. Completing a course that provides training in critical reasoning and analysis about the ethical dimensions of society, or
2. Completing a course that provides an understanding of fundamental philosophical questions and issues, including those associated with the disciplines that comprise the arts and sciences.

A student may not use the same course to satisfy this requirement and the Humanities (Area II) requirement.

All philosophy courses may be used to fulfill this track **except** for

**PHL 120, 220, 320** (logic courses)

**PHL 290, 291, 292** (special topics)

all philosophy courses numbered **400** and above.

*In addition, the following courses may be used to fulfill this track:*

**CM 103** Professional Conduct and  
Communication Ethics

**PSC 104** Introduction to Political Theory

## C. Computer Science/Technology (0-4 hours)

*Students satisfy this track by either:*

1. Completing a minimum of a 3-semester-hour course dealing with a computer language or application of computers,
2. Completing a minimum of 3 semester hours of coursework dealing with the relationship of machines and people in modern industrial society and/or the interplay of technological change and societal development from ancient to modern times, or
3. Successfully completing a computer technologies competency examination, where permissible.

*The following courses fulfill this track:*

ARS 103 Introduction to Computer Graphics/ Drawing  
and Layout

BY 245 Fundamentals of Scientific Investigation

CS 101 Computing Fundamentals

CS 201 Introduction to Object-Oriented Programming

HY 125 Technology and Society

MA 263 Elementary Microcomputer Programming  
and Numerical Analysis

MU 115 Making Music with Microcomputers

For the most up-to-date list of courses that satisfy each track, students should consult their advisor. Courses that fulfill each track are also designated in the current UAB Class Schedule.

## AFRICAN AMERICAN STUDIES

### MAJOR AND MINOR

For a complete description of the interdisciplinary African American Studies Program, sponsored jointly by the School of Arts and Humanities, the School of Natural Sciences and Mathematics, and the School of Social and Behavioral Sciences, see page 54 of this catalog.

## NATURAL SCIENCE

The purpose of the Natural Science degree is to enable students to receive a general science education based on a course of study which is broader, but less in-depth in a single area, than a typical departmental major in the School of Natural Sciences and Mathematics.

Requirements are successful completion of 30 semester hours approved and offered by one department (designated the major) and 27 semester hours approved and offered by a second department (designated the minor) within the School of Natural Sciences and Mathematics. At least 9 semester hours of the major must be at the 400 level or above.

Because departments within the school offer a variety of courses for diverse purposes, not every course listed in this catalog can be counted toward the natural science degree. Students must obtain approval of a plan of study leading toward this degree from the department chair of both the major and minor departments. It is advisable to do this as soon as possible to avoid taking courses that might not be approved toward the degree.

In addition to the number of hours, there is a requirement of at least a C average in courses counted toward the major and also in courses counted toward the minor. At least one-third of the hours in both the major and minor must be completed at UAB, and at least a C average must be maintained in these courses. Individual departments may be contacted for specific listings of courses required or recommended for the major or minor in that department for the natural science degree or for information about particularly effective major/minor pairings.

## TEACHER CERTIFICATION

UAB offers baccalaureate level (Class B) secondary (grades 6-12) teacher certification in biology, chemistry, mathematics, and physics. To obtain certification, students must double major in their teaching field and in secondary education. Requirements for the major in the School of Natural Science and Mathematics may be found in the appropriate department listing. Because of specific Alabama Teacher Certification requirements, students seeking certification should consult with the School of Education Office of Student Services (Room 100, Education Building) early in their academic careers. UAB also offers non-traditional fifth year masters level (Class A) certification in the above disciplines. Students majoring in one of the above fields should contact the Office of Student Services in the School of Education for more information about program admission requirements.

## ENVIRONMENTAL SCIENCE

The minor in environmental science enables students to receive a broad background both in the sciences and in the application of scientific principles to environmental problems.

Requirements for the minor in environmental science are: BY 123 and 124, CH 115 and 116, ENV 108 and 109, ES 101 and 102, and 9 semester hours selected from BY 260, 370, 397, 435, 452, or 465; CE 433 or 434; CH 355 or 297; GL 311 or 404; and MESC 302, 411, 412, or 417.

Note that students majoring in biology or chemistry may not use, respectively, BY or CH courses numbered 200 or above to ful-

fill the requirements of the environmental science minor.

All students with minors in environmental science must maintain at least a C average in coursework comprising the minor.

Students may pursue a major in environmental science through an individually designed major. Call Academic Programs and Policy for information about individually designed majors, (205) 934-5503.

## Course Descriptions

### Environmental Science (ENV)

#### 108. Human Population and the Earth's Environment—

Influence of human population on Earth's environment: ecological principles, population dynamics, climate change, water and energy resources, pollution, climate change, water and energy resources, pollution, waste disposal, plant and animal extinctions, and food resources. Lecture and films. 3 hours.

**109. Laboratory in Environmental Science**—Experiments on topics essential to study of environment and which reveal complexity of solving environmental problems. *Prerequisite:* ENV 108 (or concurrent enrollment). 1 hour.

## DEPARTMENT OF BIOLOGY

**Chair:** Ken R. Marion

**Faculty:** Amsler, Andrews, Angus, Bej, Cusic, Gauthier, Ghanta, Gilchrist, Jenkins, Kraus, McClintock, Thacker, Tollefsbol, Watson, Watts, Wibbels

The curriculum in biology provides general course offerings for non-majors and prepares the major for graduate study in biology; the professional schools of medicine, dentistry, optometry, and allied health sciences; teaching in the secondary schools; and other careers dependent upon basic training in the biological sciences. A student majoring in biology is not required to have a minor. The Department of Biology Web site ([www.uab.edu/uabbio](http://www.uab.edu/uabbio)) summarizes information about departmental programs.

## MAJOR

### MINIMUM REQUIREMENTS

#### I. General Track Requirements:

A. Minimum of 40 semester hours in biology, including the following:

1. Eight semester hours of Introductory Biology (BY 123, 124)
2. Three semester hours of Genetics (BY 210)
3. One course from each of the following four areas:
  - a. Ecology/Evolution  
BY 350, 370, 407, or 435
  - b. Organismal  
BY 255, 256, 260, 271, or 342
  - c. Physiology/Development  
BY 309, 314, 405, 410, or 450
  - d. Cellular/Molecular  
BY 311 or 330

Additional courses to total 40 semester hours selected after consultation with an advisor and consideration of interests and career goals. At least 9 hours must be 400 level or above.

B. Chemistry: CH 115, 116, 117, 118, 235, 236, 237, and 238

C. Physics: PH 201 and 202 or PH 221 and 222.

D. Mathematics: MA 125 (a course in statistics is highly recommended)

#### II. Marine Science Concentration Requirements:

A. Minimum of 40 semester hours in biology, including the following:

1. Eight semester hours of Introductory Biology (BY 123 and 124)
2. Three semester hours of Genetics (BY 210)
3. Four courses from the four area requirements in the General Track
4. Marine Technical Methods (MESC 417) and at least four marine science courses that allow credit towards the biology major. Approval must be obtained through the academic advisor. For further information on marine science courses, see "Marine Science" on page 189.

B. Chemistry: CH 115, 116, 117, 118, 235, 236, 237, and 238

C. Physics: PH 201 and 202 or PH 221 and 222

D. Mathematics: MA 125 (a course in statistics is highly recommended)

#### III. Molecular Track requirements:

A. Minimum of 40 semester hours in biology, including the following:

1. Eight semester hours of Introductory Biology (BY 123 and 124)
2. Three semester hours of Genetics (BY 210)
3. BY 245, 271, 311, and 330
4. Three of the following four courses: BY 416, 431, 433, and 440
5. Electives in biology to total 40 semester hours

B. Chemistry: CH 115, 116, 117, 118, 235, 236, 237, 238, and 461

C. Physics: PH 201 and 202 or PH 221 and 222

D. Mathematics: MA 125 (a course in statistics is highly recommended)

## MINOR

The biology minor requires a minimum of 17 semester hours of biology courses approved for majors or minors, including BY 123, 124, and 210, and at least 6 additional semester hours in courses numbered 200 or higher. Not more than a total of 3 semester hours in BY 397, 398, and 399 may be counted toward the minor.

### GRADE POINT AVERAGE (MAJORS AND MINORS)

A student must have at least a 2.0 average in all biology courses attempted and a 2.0 average in all biology courses taken at UAB. The current UAB course repeat policy will be used in calculating the grade point average.

## TRANSFER CREDIT

Biology courses in which a grade of D is earned at another institution cannot be applied toward requirements for the major or minor. Students will not be given more credit (semester hours) toward the major or minor than awarded for equivalent courses at UAB, nor more than 8 semester hours of credit in any introductory sequence or combination of courses. Excess hours in these courses may, however, be applied as electives toward the 120 semester hours necessary to satisfy the general degree requirements.

A minimum of 9 semester hours in the major and 6 semester hours in the minor in biology must be taken at UAB.

## HONORS PROGRAM IN BIOLOGY

### PURPOSE

The Biology Honors Program offers motivated students the opportunity to develop research and communication skills in preparation for a graduate or professional career.

### ELIGIBILITY

To be accepted into the Biology Honors Program, a student must:

- have earned a 3.5 GPA in biology courses attempted;
- have earned a 3.0 GPA overall;
- have completed 18 semester hours in biology courses;
- have enrolled in BY 398 (Undergraduate Research) for at least one semester hour; and
- have arranged with a faculty sponsor in biology to do a research project.

### REQUIREMENTS

Students in the Biology Honors Program will be required to have the following:

- six semester hours in BY 399 (Honors Research), with each semester hour per term requiring a minimum of four hours of laboratory work per week;
- a formal research proposal, submitted by the end of the first semester of Honors Research, including an introduction, proposed methods, and relevant literature citation;
- a formal written report in the form of a scientific paper; and
- an oral or poster presentation at Biology Research Day.

In some instances, it will be recommended that biology honors students give a formal presentation of their work at a scientific meeting. Funds may be provided to support participation at such a meeting.

### BENEFITS

In addition to the educational and career benefits of participation in the Biology Honors Program, students who complete the program will be honored at the annual Biology Honors Research Day and will graduate "With Honors in Biology."

### CONTACT

For more information and/or admission to the Biology Honors Program, contact Dr. Thane Wibbels, Campbell Hall, Room 255A, Birmingham, AL 35294-1170; Telephone (205) 934-4419; E-mail twibbels@uab.edu.

## ACCELERATED UNDERGRADUATE PROGRAM IN NEUROSCIENCE OR CELL AND MOLECULAR BIOLOGY

Students interested in completing a B.S. degree in biology with a minor in psychology or chemistry in preparation for graduate study in neuroscience or cell and molecular biology may apply for admission to a selective accelerated training program. Students in this program receive substantial research experience throughout their undergraduate training. In the fourth year of study, qualified students enroll in the graduate core curriculum in neuroscience or cell and molecular biology. Please contact the departmental office at (205) 934-4290 to obtain an application for this program.

### GRADUATE PROGRAMS

The Department of Biology offers graduate study leading to the degrees of Master of Science and Doctor of Philosophy. Further information may be found in the UAB Graduate School Catalog.

### ACCELERATED MASTER OF SCIENCE PROGRAMS

**Fifth Year M.S. Program**—The Department of Biology offers an opportunity to earn a B.S. and an M.S. degree in a total of five years. This program offers qualified students mentorship during undergraduate study and supplements professional degrees such as medicine, dentistry, and optometry. It also prepares one for a Doctorate of Philosophy degree and builds teaching skills for academic careers. Admission to the program requires a minimum 3.25 grade point average, three letters of recommendation, an interview with the admissions committee, and a satisfactory score on the Graduate Record Examination by fall of the senior year. For additional information, please contact Dr. Stephen Watts, Graduate Program Director, at (205) 934-2045.

**Bioinformatics Specialization**—Through a collaborative program with the Department of Computer and Information Sciences, biology majors have an opportunity to complete a B.S. degree in Biology and an M.S. degree in Computer and Information Sciences with a specialization in Bioinformatics. This program prepares individuals for a career in the high-demand bioinformatics job market. Biology undergraduate majors can satisfy the undergraduate background in computer science required by taking the following computer science courses (equivalent to a minor): CS 201, CS 250, CS 302, CS 303, CS 330, CS 350, and CS 505. At least one course in molecular biology is highly recommended. Biology majors are then qualified to begin the bioinformatics specialization within the M.S. in Computer and Information Sciences degree. This program normally allows biology majors to complete a specialization in bioinformatics in approximately 5.5 years. For additional information, contact Ms. Amanda Horton at (205) 934-8308.

### Course Descriptions

#### Biology (BY)

*A schedule of courses that will be offered each term is available in the department office. Please note: General elective credit refers to courses chosen to complete the minimum 120 hours for a degree in addition to the major, minor, core, and school-wide requirements.*

**101. Topics in Contemporary Biology**—Selected topics in modern biology, with emphasis on human biology. Only general elective credit for biology major or minor. Not for biology majors or minors (with BY 102, CORE AREA III). 3 hours.

**102. Topics in Contemporary Biology Laboratory**—Experiments and demonstrations in contemporary biology. Only general elective credit for biology major or minor. *Prerequisite:* BY 101 or concurrent enrollment (with BY 101, CORE AREA III). 1 hour.

**107. Trials of Life**—Animal form and function, behavior, ecology, and evolution, based on video series “The Trials of Life.” Classes include video viewing, lecture, and discussion. Only general elective credit for biology major or minor. 3 hours.

**111. Extended Topics in Contemporary Biology**—Selected topics in contemporary biology of interest to students with minimal background in biology. Topics presented in interactive lecture/discussion format. Only general elective credit for biology major or minor. *Prerequisite:* BY 101 (with BY 112, CORE AREA III). 3 hours.

**112. Extended Topics in Contemporary Biology Laboratory**—Further examination, interpretation, and discussion of topics in BY 111. Independent and group projects. Only general elective credit for biology major or minor (with BY 111, CORE AREA III). 1 hour.

**115. Human Anatomy**—Principles of vertebrate structure with emphasis on gross and microscopic human anatomy. Survey of human embryology and evolution. Lecture and laboratory. 4 hours.

**115L. Human Anatomy Laboratory**—Human Anatomy Lab required with BY 115 lecture. 0 hours.

**116. Human Physiology**—Integrated functions of human cells, tissues, and organ systems. Only general elective credit for biology majors or minors. Lecture and laboratory. *Prerequisites:* BY 115 and CH 105 and CH 106. 4 hours.

**116L. Human Physiology Laboratory**—Human Physiology Lab required with BY 116 lecture. 0 hours.

**123. Introductory Biology I**—Basic chemistry, cell structure and function, metabolism, genetics, evolution, bacteria, and protists. For major in biology and related fields. Completion of, or concurrent enrollment in, CH 115 and 116 or equivalent advised. Lecture and laboratory. 4 hours.

**123L. Introductory Biology I Laboratory**—Introductory Biology I Lab required with BY 123 lecture. 0 hours.

**124. Introductory Biology II**—Survey of fungi, plant, and animal kingdoms. Anatomy and physiology of higher plants. Major organ systems of animals with emphasis on humans. For major in biology or related fields. Lecture and laboratory. *Prerequisite:* BY 123. 4 hours.

**124L. Introductory Biology II Laboratory**—Introductory Biology II Lab required with BY 124 lecture. 0 hours.

**210. Genetics**—Principles of inheritance and gene expression; molecular genetics. *Prerequisite:* BY 123. 3 hours.

**216. Pathophysiology**—Normal function of systems in human body followed by discussion of common alterations in function and how these are manifested in disease states. Only general elective credit for biology majors or minors. *Prerequisites:* BY 116 or equivalent, CH 107 and CH 108. 3 hours.

**245. Fundamentals of Scientific Investigation**—Methods of scientific process, experimental design, data interpretation and presentation, and scientific writing (alternate years). *Prerequisite:* BY 124 (A&S TRACK C). 3 hours.

**255. Invertebrate Zoology**—Invertebrate phyla, emphasizing

evolutionary relationships, biological principles demonstrated by invertebrates, and significance of invertebrates in total ecology. Lecture and laboratory. *Prerequisite:* BY 124. 4 hours.

**255L. Invertebrate Zoology Laboratory**—Invertebrate Zoology Lab required with BY 255 lecture. 0 hours.

**256. Vertebrate Zoology**—Comparative approach to the structure, function, ecology, life history, and conservation of vertebrates. Lecture and laboratory. *Prerequisites:* BY 124, CH 115, and CH 116. 4 hours.

**256L. Vertebrate Zoology Laboratory**—Vertebrate Zoology Lab required with BY 256 lecture. 0 hours.

**260. Botany**—Development, structure, physiology, and diversity of plants, emphasizing vascular plants. Lecture and laboratory (alternate years). *Prerequisites:* BY 124, CH 115 and 116. 4 hours.

**260L. Botany Laboratory**—Botany Lab required with BY 260 lecture. 0 hours.

**261. Introduction to Microbiology**—Cell structure and function, microbial genetics, viruses, and epidemiology and infectious disease. Cannot be applied toward requirements for a biology major. Lecture and laboratory. *Prerequisites:* BY 116, CH 107 and 108. 4 hours.

**261L. Introduction to Microbiology Laboratory**—Introduction to Microbiology Lab required with BY 261 lecture. 0 hours.

**267. Tropical Ecology**—Major tropical ecotypes; ecology of terrestrial, aquatic, and marine tropical organisms. Major portion conducted at tropical field station in Caribbean. Lecture and field trips (May session, alternate years). *Prerequisites:* BY 124 and permission of instructor. 3 hours.

**269. Rain Forest Ecology**—Physical and environmental factors that structure rain forest, biodiversity of life, and interactions of its organisms. Prominent biota. Major portion of course taught at tropical field station in Costa Rica. Lecture and field trips (May session, alternate years). *Prerequisites:* BY 124 and permission of instructor. 3 hours.

**271. Biology of Microorganisms**—Microbiology with emphasis on molecular aspects of microbial cell structure, function, and diversity. Host defense mechanisms, infectious disease, and microbial ecology. Preparation for advanced courses in biology. Lecture and laboratory. *Prerequisites:* BY 210, CH 117 and 118. 4 hours.

**271L. Biology of Microorganisms Laboratory**—Biology of Microorganisms Lab required with BY 271 lecture. 0 hours.

**280. Biology of Aging**—(Also GER 280.). Current understanding of aging, measurement of aging changes, theories of aging, and aging changes in various human systems. *Prerequisite:* BY 123 or permission of instructor. 3 hours.

**307. Core Principles of Modern Science**—Review for preparation for Medical College Admissions Test. Only general elective credit for biology major or minor. *Prerequisites:* BY 210, CH 237 and 238. 1 hour.

**309. Mammalian Physiology**—Physiological processes occurring at cell, tissue, organ, and system levels in mammals. *Prerequisites:* BY 210, CH 237 and 238, PH 201 or PH 221. Foundation in anatomy recommended (BY 115 or BY 256). Lecture and laboratory. 4 hours.

**309L. Mammalian Physiology Laboratory**—Mammalian Physiology Lab required with BY 309 lecture. 0 hours.

**311. Molecular Genetics**—Prokaryotic and eukaryotic gene structure and function. *Prerequisites:* BY 210, 271 or 330, CH 235 and 236. 3 hours.

**314. Embryology**—Descriptive and experimental studies of vertebrate development at the molecular, cellular and tissue levels. *Prerequisites:* BY 256, CH 117 and 118. 3 hours.

**327. Histology**—Microscopic anatomy of cells, tissues, and organs of animals; correlation of structure and function. Techniques and methodology. *Prerequisite:* BY 256. Lecture and laboratory. 4 hours.

**327L. Histology Laboratory**—Histology Lab required with BY 327 lecture. 0 hours.

**330. Cell Biology**—Biological molecules and metabolic processes; energetics; synthesis and regulation of macromolecules; differential gene expression; membranes and organelles; cytoskeleton; cell cycle and growth of normal and neoplastic cells. *Prerequisites:* BY 210, CH 235 and 236 (or concurrent enrollment) and junior standing. 3 hours.

**342. Experimental Phycology**—Algae as model systems; experimental approaches to assessing productivity. Lecture and laboratory (alternate years). *Prerequisites:* BY 210, CH 117 and 118. 4 hours.

**342L. Experimental Phycology Laboratory**—Experimental Phycology Lab required with BY 342 lecture. 0 hours.

**350. Evolution & Population Biology**—Factors influencing evolution and populations dynamics (alternate years). *Prerequisite:* BY 210. 3 hours.

**362. Neurobiology**—Biological basis of nervous system function. Comparative approach applying molecular, cellular, and systems concepts to nervous system function to examine electrical and chemical signaling, neural circuitry, and cellular basis of behavior and neural development (irregular offering). *Prerequisites:* BY 309, CH 235 and 236, and PH 201. 3 hours.

**370. Ecology**—Ecosystems and population biology. Lecture. *Prerequisites:* BY 124 and BY 255 or BY 256. 3 hours.

**371. Ecology Laboratory**—Laboratory in ecosystems and population biology. *Prerequisite:* BY 370 or concurrent enrollment. 1 hour.

**397. Advanced Directed Readings**—(Also GER 397.) Reading and independent study in selected areas under supervision of faculty sponsor. May be repeated for total of three semester hours credit. *Prerequisites:* Completion of 12 semester hours in BY with GPA of 3.0 in BY and permission of instructor. 1 to 3 hours.

**398. Undergraduate Research**—Research project under supervision of faculty sponsor. May be repeated for a total of 3 semester hours credit. *Prerequisites:* 12 semester hours of BY with GPA of 3.0 and permission of instructor. 1 to 3 hours.

**399. Honors Research**—Research project for students admitted to Honors Research Program. Two or three terms required during which minimum of 6 semester hours must be earned. Grade assigned at completion of program. *Prerequisites:* 18 hours of biology with minimum GPA of 3.5 in biology classes and admission to Honors Research Program. 1 to 6 hours.

**405. Microbial Physiology**—Microbial structure and function, growth, metabolism, and regulation of cellular activity (alternate years). *Prerequisites:* BY 271, CH 235 and 236. 3 hours.

**407. Microbial Ecology**—Microorganisms in nature; interactions with each other and with environment (alternate years).

*Prerequisite:* BY 271. 3 hours.

**410. Comparative Animal Physiology**—Comparative examples to illustrate general principles of physiology; study of how animals function in their environment (alternate years). *Prerequisite:* BY 256 or permission of instructor. 3 hours.

**416. Cellular Physiology**—Biochemical and thermodynamic aspects of cellular energy metabolism (alternate years). *Prerequisites:* BY 330, CH 237 and 238 (CH 237 and 238 may be taken concurrently with BY 416). Foundation in physiology recommended (BY 124, 116, 309 or 410). 3 hours.

**419. Reproductive Physiology**—Comparative reproductive physiology in mammals, with emphasis on humans. *Prerequisites:* BY 256, CH 235 and 236. 3 hours.

**420. General Endocrinology**—Roles of endocrine and neuroendocrine chemical messengers in the control of physiological processes (alternate years). *Prerequisite:* BY 309 or 410 or permission of instructor. 3 hours.

**426. Evolutionary Medicine**—An evolutionary approach to issues relating to human health and disease. *Prerequisites:* BY 116 or 309 and BY 330. 3 hours.

**428. Instruction of Biology Laboratory: Teaching Techniques**—Student will be assistant in introductory biology laboratory. Preparatory session each week, assist laboratory instructor, and assist in preparation of quizzes and practicals (alternate years). Completion of two classes in biology at 200 or above level and permission of instructor. 3 hours.

**431. Recombinant DNA Technology**—Manipulation of genes and their regulation; techniques used in recombinant DNA technology. Lecture. *Prerequisites:* BY 311, CH 237 and 238. 3 hours.

**433. Advanced Molecular Genetics**—Molecular genetics of eukaryotic organisms, including analysis of the features and nature of eukaryotic genomes, genes, nucleosomes, and chromosomes; processes involved, such as transcription, splicing, transposition, and signal transduction. The role of molecular biology in cell growth and cancer. Lecture. *Prerequisite:* BY 311. 3 hours.

**435. Natural History of the Vertebrates**—Lecture and field study of adaptations of vertebrate classes for survival in particular environments. Survey and classification of local vertebrates. Lecture and laboratory (alternate years). *Prerequisite:* BY 210 or permission of instructor. 4 hours.

**435L. Natural History of the Vertebrates Laboratory**—Natural History of the Vertebrates Lab required with BY 435 lecture. 0 hours.

**440. Immunology**—Immune system and functions of host humoral and cellular immune responses. Mechanisms of antigen and antibody reactions and basic immunological methods. *Prerequisites:* BY 271, BY 330, CH 235 and 236. 3 hours.

**448. Psychoneuroimmunology**—How neuroendocrine and immune systems communicate with each other. Regulatory processes mediated by interactions between these systems and application to diseases (alternate years). *Prerequisite:* BY 440 or permission of instructor. 3 hours.

**450. Plant Physiology**—Metabolic activities and growth processes of plants, with emphasis on photosynthesis, respiration, germination, dormancy, and hormones; physiological phenomena associated with phases of development. Lecture and laboratory (alternate years). *Prerequisites:* BY 260, CH 235 and 236. 4 hours.

- 450L. Plant Physiology Laboratory**—Plant Physiology Lab required with BY 450 lecture. 0 hours.
- 452. Field Botany**—Plant identification and classification; consideration of phylogenetic systems (alternate years). *Prerequisite:* BY 260 or permission of instructor. 4 hours.
- 452L. Field Botany Laboratory**—Field Botany Lab required with BY 452 lecture. 0 hours.
- 453. Mycology**—Fungi, including morphology, development, physiology, taxonomy, and phylogeny. Lecture and laboratory (irregular offering). *Prerequisite:* BY 260 or BY 271, CH 235 and 236. 4 hours.
- 453L. Mycology Laboratory**—Mycology Lab required with BY 453 lecture. 0 hours.
- 460. Advanced Invertebrate Zoology**—Selected topics. Lecture and student projects (irregular offering). *Prerequisite:* BY 255 or permission of instructor. 3 hours.
- 465. Limnology**—Chemical and physical principles of lakes and streams; biology of freshwater and estuarine organisms. Lecture and laboratory. *Prerequisite:* BY 210, BY 370 or permission of instructor. 4 hours.
- 465L. Limnology Laboratory**—Limnology Lab required with BY 465 lecture. 0 hours.
- 475. Mammalian Development**—Mechanisms of mammalian development with emphasis on humans, from gametogenesis through completion of embryogenesis (irregular offering). *Prerequisite:* BY 314. 3 hours.
- 499. Seminar in Biology**—Student presentations and discussions. Subject matter varies by term. See current class schedule for topic. *Prerequisites:* Senior standing and permission of instructor. 1 hour.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## MARINE SCIENCE

The University of Alabama at Birmingham is a member of the Marine Environmental Sciences Consortium (MESC). The following courses are taught at the Dauphin Island Sea Lab, Dauphin Island, Alabama, and most are offered during the summer. For further information and registration procedures, consult the MESC representative, Dr. Ken Marion, Chair, Department of Biology, UAB.

### Course Descriptions

#### *Marine Environmental Science (MESC)*

- 106. Introduction to Oceanography**—General introduction to the physics, chemistry, geology, and biology of the ocean. Only general elective credit for biology major or minor. Lecture, laboratory, and field trips. 4 hours
- 128. Ocean Science**—Marine environment and relation of ocean to man. Lecture, laboratory, and field work. For non-science majors. Only general elective credit for biology major or minor. 4 hours.
- 201. Oceanology of the Gulf of Mexico**—Descriptive study of the oceanology of the Gulf of Mexico and adjacent waters, including coastal zone, continental shelf, and deep ocean. Only general elective credit for biology major or minor. 2 hours.

- 204. Coastal Geomorphology**—Shape and land forms along coast; factors determining formation. Only general elective credit for biology major or minor. Lecture and laboratory. 2 hours.
- 204L. Coastal Geomorphology Laboratory**—Coastal Geomorphology Lab required with MESC 204 lecture. 0 hours.
- 206. Marine Biology**—Invertebrates, vertebrates, and marine plants. Lecture, laboratory, and field work. Only general elective credit for biology major or minor. *Prerequisites:* BY 124 and permission of instructor. 4 hours.
- 207. Commercial Marine Fisheries of Alabama**—Biology, harvest techniques, processing, and economic value of local commercial species. Only general elective credit for biology major or minor. 2 hours.
- 302. Coastal Zone Management**—Ecological features and set of physical management policies for coastal communities, with description of relevant federal and state programs. Only general elective credit for biology major or minor. 2 hours.
- 303. Coastal Climatology**—Physical factors resulting in climatic conditions of coastal regions, with emphasis on northern Gulf of Mexico. Only general elective credit for biology major or minor. 2 hours.
- 304. Marine Geology**—Geology of ocean basins, with emphasis on continental shelves, sediments, and sedimentary processes. Only general elective credit for biology major or minor. *Prerequisites:* ES 101 and 102 and permission of instructor. 4 hours.
- 305. Dolphins and Whales**—Classification, anatomy, and ecology of cetaceans. Lecture and laboratory. *Prerequisite:* BY 256. 2 hours.
- 402. Marine Vertebrate Zoology**—Marine fishes, reptiles, and mammals (systematics, zoogeography, and ecology). Lecture, laboratory, and field work. *Prerequisite:* 12 semester hours biology. 4 hours.
- 402L. Marine Vertebrate Zoology Laboratory**—Marine Vertebrate Zoology Lab required with MESC 402 lecture. 0 hours.
- 407. Marine Botany**—Marine algae and vascular and non-vascular plants (distribution, identification, structure, ecology, and reproduction). Lecture, laboratory, and field work. *Prerequisite:* 12 semester hours biology. 4 hours.
- 407L. Marine Botany Laboratory**—Marine Botany Lab required with MESC 407 lecture. 0 hours.
- 411. Marsh Ecology**—Habitat analysis, natural history studies, and population dynamics of selected organisms. Lecture, laboratory, and field work. *Prerequisites:* MESC 412 or BY 370 and permission of instructor. 4 hours.
- 411L. Marsh Ecology Laboratory**—Marsh Ecology Lab required with MESC 411 lecture. 0 hours.
- 412. Marine Ecology**—Bioenergetics, community structure, population dynamics, predation, competition, and speciation in marine ecosystems. Lecture, laboratory and field work. *Prerequisites:* BY 255 or 256, PH 202, CH 117 and 118 and permission of instructor. 4 hours.
- 412L. Marine Ecology Laboratory**—Marine Ecology Lab required with MESC 412 lecture. 0 hours.
- 413. Marine Invertebrate Zoology**—Natural history, systematics, and morphology of marine invertebrates. Lecture, laboratory and field work. *Prerequisite:* BY 124. 4 hours.

**413L. Marine Invertebrate Zoology Laboratory**—Marine Invertebrate Zoology Lab required with MESC 413 lecture. 0 hours.

**415. Coastal Ornithology**—Coastal and pelagic birds, with emphasis on ecology, taxonomy, and distribution. Lecture, laboratory, and field work. *Prerequisite:* BY 256. 2 hours.

**415L. Coastal Ornithology Laboratory**—Coastal Ornithology Lab required with MESC 415 lecture. 0 hours.

**417. Marine Technical Methods**—Hardware of marine science, sampling procedures, processing station location, and field equipment maintenance and operation. *Prerequisite:* 12 semester hours in a science discipline. 2 hours.

**428. Oceanography**—Physics, chemistry, biology, and geology of oceans. Only general elective credit for biology major or minor. *Prerequisites:* CH 117 and 118, PH 202 and MA 106. 4 hours.

**472. Marine Aquaculture**—Science, techniques, and economics of marine aquaculture. Lecture and laboratory. *Prerequisites:* BY 256 or 435; BY 255 recommended. 2 hours.

**473. Marine Fish Diseases**—Introduction to aquatic animal diseases, specifically for fish and shellfish. *Prerequisites:* BY 271 and BY 255 or 256. Lecture and laboratory. 4 hours.

**475. Marine Behavioral Ecology**—Behavior of marine organisms as it relates to survival in their environment. Lecture, laboratory, and field trips. *Prerequisite:* BY 255 or 256. 4 hours.

**478. Advanced Anatomy and Evolution of Marine Fishes**—Anatomical studies of marine fishes with emphasis on function and structure; evolutionary and taxonomic relationships. Lecture and laboratory. *Prerequisite:* BY 256 or 435. 3 hours.

**491. Research on Special Topics**—Enrollment by special arrangement in any subject listed. *Prerequisite:* Permission of MESC representative, Department of Biology. 1 to 6 hours.

**492. Special Topics: Lecture**—Lectures on selected marine-related topics. Course content varies. 2 to 4 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## DEPARTMENT OF CHEMISTRY

**Chair:** David E. Graves

**Faculty:** Atigadda, Borgford, Brouillette, Gray, Hamilton, March, Muccio, Nikles, Nonidez, Summerlin, Velu, Vyazovkin, Watkins

The Department of Chemistry provides general course offerings for non-majors and several undergraduate degree programs for chemistry majors. These programs prepare students for graduate study in chemistry and related disciplines; professional training in medicine, dentistry, and the allied health sciences; and careers dependent upon a broad background in chemistry. Consult the department office and the Department of Chemistry's Web site at <http://www.chem.uab.edu>.

### MAJOR

**ACS-certified B.S. degree:** The curriculum for this degree follows the general recommendations of the American Chemical

Society (ACS) Committee on Professional Training, is accredited by the ACS, and leads to the ACS-certified B.S. degree. Students desiring to become professional chemists or to do graduate work in chemistry are urged to complete this program. Requirements for this major are completion of all required courses, CH 440, CH 450, and 6 semester hours of Senior Research (CH 497).

**B.S. in chemistry:** Students can obtain a B.S. degree in chemistry through completion of 13 required and three elective chemistry courses and the required computer science, mathematics, and physics courses. Introductory German (GN 102) is recommended. Specializations in biochemistry/biotechnology, polymer/materials science, information sciences, and business are available by following prescribed chemistry and designated minor curricula. Brochures that delineate the required curricula and career opportunities associated with the B.S. degree in chemistry, an annual schedule of courses, and a suggested program of study are available from the department office and the Web site. Information on Chemistry Scholarships is available on the Web site, <http://www.chem.uab.edu>.

The required courses consist of the following:

- CH 115, 116, 117, 118, 235, 236, 237, 238, 325, 326, 345, 355, 461;
- CS 101;
- PH 201 and 202 or PH 221 and PH 222 with laboratories;
- MA 125, 126.

The elective courses are CH 440, 450, 463, 464, 465, 466, 480, 481. Some of these electives are recommended or required for particular degree options.

CH 100, 105, 106, 107, 108, 370, 371, 372, 373, and 374 cannot be applied toward a major. Every chemistry major is required to meet with an advisor prior to initial registration. Chemistry majors are urged to participate in senior research, although this is required only for the ACS degree. An active ACS student affiliate organization (SACS) is available for chemistry students. For further information, contact the department office.

No minor is required for students majoring in chemistry.

A B.S. in chemistry with a chemical education option is also available. Please contact Dr. Christie Borgford, the Chemistry Undergraduate Advisor, for details at (205) 934-8095.

### MINOR

Minimum requirements: 18 semester hours, including CS 101, CH 115, 116, 117, 118, 235, 236, 237, and 238 or the equivalent. CH 100, 105, 106, 107, 108, 370, 371, 372, 373, and 374 cannot be applied toward a minor.

### GRADE POINT AVERAGE

At least a 2.0 average in all chemistry courses and a 2.0 average in all chemistry courses taken at UAB are required for either a major or minor in chemistry. The current UAB course repeat policy will be used in calculating the grade point average.

### TRANSFER CREDIT

Chemistry courses in which a grade of D is earned at another institution cannot be applied toward requirements for the major or

minor. Students will not be given more semester-hours credit toward the major or minor than awarded for equivalent courses at UAB. A minimum of 9 semester hours in the major and 6 semester hours in the minor must be taken in the UAB Department of Chemistry. Courses taken under the Cooperative Exchange Program must be approved in advance and in writing by the department chair in order for those courses to be accepted for credit.

## HONORS PROGRAM IN CHEMISTRY

### PURPOSE

The Chemistry Honors Program is designed for outstanding chemistry majors. Through a mentored research program format, students' problem solving, critical thinking, and communication skills are developed to provide excellent preparation for graduate school or professional careers.

### ELIGIBILITY

Acceptance into the Chemistry Honors Program requires the student to:

- have earned a 3.25 GPA in chemistry courses attempted;
- have earned a 3.0 GPA overall;
- have completed 27 semester hours in chemistry, including CH 325;
- have arranged with a faculty mentor to do a research project in chemistry; and
- have submitted the Honors Program Application Form, including a formal research proposal for senior thesis research.

### REQUIREMENTS

Students in the Chemistry Honors Program will be required to have the following:

- approval of the Chemistry Honors Director;
- enrollment in a minimum of 6 semester hours of CH 497 while senior thesis research is being carried out;
- selection of an Honors Committee;
- enrollment in Honors Thesis, CH 499, when the senior thesis is written in the format of a scientific paper in an ACS journal; and
- an oral presentation of the thesis before a faculty Committee.

Where appropriate, the Honors Committee may recommend that chemistry honors students make a formal presentation of their work at the annual meeting of the Alabama Academy of Science or a regional American Chemical Society meeting. Funds will be provided for travel and subsistence for participation in such a meeting.

### BENEFITS

In addition to the benefits associated with a mentoring program that fosters a spirit of inquiry, independence, and initiative and integrates the student's prior course work into a working knowledge of chemistry in the laboratory, the student who completes the program will graduate "With Honors in Chemistry."

### CONTACT

For more information and/or admission to the Chemistry Honors Program, contact Dr. Gary Gray, Chemistry Building,

Room 201, Birmingham, AL 35294-1240; Telephone (205) 934-8094; E-mail gmgray@uab.edu.

## GRADUATE PROGRAMS

The Department of Chemistry offers graduate study leading to the degrees of Master of Science and Doctor of Philosophy. Further information may be obtained from the department chair, the UAB Graduate School Catalog, and the Web site.

### Course Descriptions Chemistry (CH)

**100. Chemical Problem Solving**—Chemical Problem Solving. 3 hours.

**105. Introductory Chemistry I**—Fundamental facts, principles, theory, and applications of chemistry. Qualitative in nature; for non-science majors and nursing students with no previous background in chemistry. *Prerequisite:* MA 102 (CORE AREA III). 3 hours.

**106. Introductory Chemistry I Laboratory**—Emphasizes development of lab skills and demonstration of phenomena covered in CH 105. *Prerequisite:* CH 105 or concurrent enrollment (CORE AREA III). 1 hour.

**107. Introductory Chemistry II**—Organic and biological chemistry. Second part of chemistry sequence for non-science majors and nursing students. Stereochemistry of organic molecules and its importance in vital life processes. *Prerequisite:* CH 105 (CORE AREA III). 3 hours.

**108. Introductory Chemistry II Laboratory**—Emphasizes development of lab skills and demonstration of phenomena covered in CH 107. *Prerequisite:* CH 107 or concurrent enrollment (CORE AREA III). 1 hour.

**115. General Chemistry I**—Stoichiometry, quantum theory, atomic structure, chemical bonding, acids-bases and colligative properties, and periodicity. Laboratory emphasizes quantitative analysis. *Prerequisites:* CH 100 or high school chemistry with a C or higher, concurrent enrollment in CH 116 and MA 106 or 125 (CORE AREA III). 3 hours.

**116. General Chemistry I Laboratory**—Emphasizes development of lab skills and quantitative analyses related to CH 115. *Prerequisite:* CH 115 or concurrent enrollment. (CORE AREA III). 1 hour.

**117. General Chemistry II**—Solutions, chemical kinetics, chemical thermodynamics, chemical equilibrium, and special topics (organic, biochemistry, descriptive chemistry). *Prerequisites:* CH 115 with C or higher and concurrent enrollment in CH 118. 3 hours.

**118. General Chemistry II Laboratory**—Emphasizes development of lab skills and quantitative analyses related to CH 117. *Prerequisite:* CH 117 or concurrent enrollment. 1 hour.

**235. Organic Chemistry I**—Structure, nomenclature, properties, and reactivity of compounds with various organic functional groups: alkanes, alkenes, alkynes, alkyl halides, and alcohols. Emphasis on the mechanisms of organic reactions and problem solving. *Prerequisites:* CH 117 and concurrent enrollment in CH 236. 3 hours.

**236. Organic Chemistry I Laboratory**—Techniques of organic chemistry. Synthesis, purification, and characterization of organic compounds. *Prerequisite:* CH 235 or concurrent enrollment. 1 hour.

- 237. Organic Chemistry II**—Reactions of aromatic compounds and carbonyl containing functional groups: aldehydes, ketones, acids, esters and amides. Molecules of biological interest, such as proteins and carbohydrates. *Prerequisites:* CH 235 and concurrent enrollment in CH 238. 3 hours.
- 238. Organic Chemistry II Laboratory**—Synthesis, purification, and characterization of organic compounds using instrumental analysis and identification of unknowns. *Prerequisite:* CH 237 or concurrent enrollment. 1 hour.
- 291. Cooperative Education in Chemistry**—Cooperative Education in Chemistry. *Prerequisites:* Sophomore standing and minimum GPA of 2.5 or above, requires permission of and evaluation by appropriate faculty advisor. 2 to 3 hours.
- 297. Directed Studies**—Independent study in selected areas under supervision of faculty sponsor. *Prerequisite:* Completion of 14 hours in CH, including CH 235, GPA of 2.5 in CH, and permission of instructor. 1 to 3 hours.
- 307. Core Principles of Modern Science**—Core Principles of Modern Science. Designed for pre-med., pre-dent., pre-opt. students. 1 hour.
- 325. Thermodynamics and Chemical Kinetics**—Thermodynamics, chemical equilibria, and chemical kinetics. Lecture and laboratory. *Prerequisites:* MA 126, PH 202, and CH 117. 4 hours.
- 325L. Thermodynamics and Chemical Kinetics Laboratory**—Thermodynamics and Chemical Kinetics Lab required with CH 325 lecture. 0 hours.
- 326. Structure/Bonding and Molecular Spectroscopy**—Quantum mechanics, chemical bonding, and molecular spectroscopy. Laboratory work correlated with lecture material. *Prerequisites:* CH 117, MA 126, and PH 202. 4 hours.
- 326L. Structure/Bonding and Molecular Spectroscopy Laboratory**—Structure/Bonding and Molecular Spectroscopy Lab required with CH 326 lecture. 0 hours.
- 345. Principles and Applications of Chemical Periodicity**—Systematic coverage of descriptive chemistry. Chemical reactivity using structural and electronic parameters. Development of chemical understanding and intuition of elements and their compounds, as well as industrial and environmental applications. Lecture and laboratory. *Prerequisite:* CH 117. 4 hours.
- 345L. Principles and Applications of Chemical Periodicity Laboratory**—Principles and Applications of Chemical Periodicity Lab required with CH 345 lecture. 0 hours.
- 355. Analysis Techniques**—Principles of analytical measurements, gravimetric analysis, spectrophotometric analysis, and chromatography, with emphasis on equilibrium and applications. Lecture and laboratory. *Prerequisite:* CH 117. 4 hours.
- 355L. Analysis Techniques Laboratory**—Analysis Techniques Lab required with CH 355 lecture, emphasizing quantitative analysis. 0 hours.
- 361. Concepts in Biochemistry**—Concepts in Biochemistry. 3 hours.
- 371. Chemistry and the Rise of Technology**—Chemistry and the Rise of Technology. 3 hours.
- 372. International Aspects of Science and Technology**—International Aspects of Science and Technology. 3 hours.
- 373. History of Organic Chemistry**—History of Organic Chemistry. 3 hours.
- 374. Industrial Chemistry**—Industrial Chemistry. 3 hours.
- 391. Cooperative Education in Chemistry**—Cooperative Education in Chemistry. *Prerequisite:* Junior or senior standing and minimum GPA of 2.5 or above. Requires permission of and evaluation by appropriate faculty advisor. 2 to 3 hours.
- 416. Chemical Demonstrations I**—At least 50 demonstrations will be performed. Focus is on safe, practical, and effective experiments suitable for middle/high school students. *Prerequisite:* permission of instructor. 3 hours.
- 417. Chemical Demonstrations II**—At least 50 demonstrations will be performed. Focus is on safe, practical, and effective experiments suitable for middle/high school students. *Prerequisite:* permission of instructor. 3 hours.
- 429. Special Topics in Physical Chemistry**—Special Topics in Physical Chemistry. *Prerequisite:* permission of instructor. 1 to 3 hours.
- 439. Special Topics in Organic Chemistry**—Special Topics in Organic Chemistry. *Prerequisite:* permission of instructor. 3 hours.
- 440. Transition Metal Chemistry**—Relationship between bonding, structure, and properties of compounds including reactions, mechanisms, and catalysis of organometallic and bioinorganic chemistry. *Prerequisite:* CH 345 (CH 326 recommended). 3 hours.
- 449. Special Topics in Inorganic Chemistry**—Special Topics in Inorganic Chemistry. *Prerequisite:* Permission of instructor. 1 to 3 hours.
- 450. Instrumental Analysis**—General operating principles and quantitative applications of commonly used analytical instruments. Laboratory correlated with lecture material. *Prerequisite:* CH 355. 4 hours.
- 450L. Instrumental Analysis Laboratory**—Instrumental Analysis Lab required with CH 450 lecture. 0 hours.
- 451. Ion Selective Electrodes**—Ion Selective Electrodes. 3 hours.
- 455. Electroanalytical Chemistry**—Electroanalytical Chemistry. *Prerequisite:* CH 450 or permission of instructor. 3 hours.
- 456. Analytical Separations**—Advanced treatment of physical and chemical methods of separations as applied to analytical chemistry, including distillation, extraction, gas chromatography, capillary electrophoresis, HPLC, TLC, and GC-MS. Laboratory correlated with lecture material. *Prerequisite:* CH 450 or permission of instructor. 4 hours.
- 459. Special Topics in Analytical Chemistry**—Special Topics in Analytical Chemistry. 1 to 3 hours.
- 461. Biochemistry I**—Biochemistry I. *Prerequisite:* CH 237. 3 hours.
- 462. Biochemistry II**—Biochemistry II. *Prerequisite:* CH 461. 3 hours.
- 463. Biochemistry Laboratory**—Biochemistry Lab. *Prerequisites:* CH 355 and CH 461. Restricted to chemistry majors. 3 hours.
- 464. Physical Biochemistry**—Physical Biochemistry. 3 hours.
- 465. Structural Biology**—Principles of macromolecular structure, emphasizing proteins, nucleic acids, and macromolecular assemblies. Molecular graphics used to teach principles and modeling software used for construction of computer models of pro-

teins and nucleic acids. *Prerequisites:* CH 325 and CH 461. Lecture and computer laboratory. 3 hours.

**466. Molecular Biology**—Use of molecular biology as tool in biochemistry through team projects that manipulate genes to transform wild-type proteins to various mutants using site-directed mutagenesis. *Prerequisites:* CH 325 and CH 461. 3 hours.

**469. Special Topics in Biochemistry**—Special Topics in Biochemistry. *Prerequisite:* CH 462 or permission of instructor. 1 to 3 hours.

**470. History of Chemistry**—History of Chemistry. 3 hours.

**480. Introduction to Polymer Chemistry I**—(Also MSE 430.) Structure and properties of crystalline and amorphous polymers; polymer processing; correlation of polymer structure with processability and performance. *Prerequisite:* CH 237, CH 325 or MSE 254. Lecture and Laboratory. Lab is on a TBA basis. 4 hours.

**480L. Introduction to Polymer Chemistry I Laboratory**—Introduction to Polymer Chemistry I Lab required with CH 480 lecture. 0 hours.

**481. Introduction to Polymer Chemistry II**—Synthesis and characterization of polymers; polymerization reaction kinetics and mechanisms; polymer solution properties. *Prerequisite:* CH 480. 4 hours.

**481L. Introduction to Polymer Chemistry II Laboratory**—Introduction to Polymer Chemistry Lab required with CH 481. 0 hours.

**491. Seminar**—Seminar given by students on current chemical literature topics. *Prerequisites:* CH 237 and permission of instructor. 1 hour.

**496. Research Skills in Chemistry**—Research Skills in Chemistry. *Prerequisite:* Junior standing or permission of instructor. 1 to 3 hours.

**497. Senior Research**—Research project under supervision of chemistry faculty sponsor. Two or three terms required for minimum accumulation of 6 semester hours. Written research paper submitted and grades assigned upon completion of 6 semester hours. *Prerequisites:* CH 237, GPA of 2.5 or greater in CH and permission of instructor. 2 to 3 hours.

**499. Honors Thesis**—Honors Thesis. *Prerequisites:* 6 hours of CH 497, admission to Chemistry Honors Program, and approved research proposal on file in department office. 3 hours.

## DEPARTMENT OF COMPUTER AND INFORMATION SCIENCES

**Chair:** Anthony Skjellum

**Associate Chair:** Barrett R. Bryant

**Faculty:** Bangalore, Gray, Hyatt, Johnstone, Ranelli, Reilly, Sloan, Sprague, Zhang

The Department of Computer and Information Sciences (CIS) offers a major and a minor in computer science. The major is designed to give students a broad background in the structure and theory of information, programming methodologies, and the hardware and software of computer systems. There is also an opportunity for specialization in computer networking. Minors are avail-

able for students who are not computer and information sciences majors but who expect to use the computer in the application area of their major field. For more information, see the CIS department Web site at <http://www.cis.uab.edu>.

## MAJOR IN COMPUTER AND INFORMATION SCIENCES (CS)

### ACCEPTANCE AS A CS MAJOR

Prior to acceptance as computer science majors, students will be classified as pre-computer science until they fulfill the requirements described below. Failure to meet these requirements will result in removal from the program. Readmission consideration will be contingent on making a grade of C or better in both CS 201 and MA 106.

1. Acceptance to UAB as a regular, degree-seeking student;
2. Successful completion of an introductory computer science course such as CS 101 or equivalent background. The credit hours for this course may be counted as a free elective, but will not count for credit toward the major;
3. Completion of MA 125 Calculus I (or equivalent) with grade of C or better and MA 126 Calculus II with grade of C or better;
4. Completion of CS 201, CS 250, and CS 302 with grades of C or better;

After acceptance as a major, these courses will be counted toward the major;

5. A grade point average of 2.0 out of 4.0 at UAB and a grade point average of 2.0 out of 4.0 in all CS courses attempted at UAB.

### COMPLETION OF MAJOR

The major in computer science requires 43 semester hours of CS courses at the 200 level or above with a grade point average of at least 2.0 and a grade of C or better in each of the 10 required computer science courses. CS courses taken at another institution for which a grade of D was received cannot be counted toward the major or the minor. At least 12 semester hours of CS courses at the 300 level or above must be taken at UAB.

In addition to the courses required for admission to this major, computer science majors must complete two courses from the following list with a grade of C or better: MA 227 (Calculus III), MA 260 (Linear Algebra), MA 180 (Introduction to Statistics) or QM 214 (Quantitative Methods I), MA 252 (Differential Equations), MA 270 (Geometry), MA 434 (Algebra I), MA 440 (Advanced Calculus I), MA 444 (Vector Analysis), MA 445 (Complex Analysis), MA 463 (Operations Research I), MA 470 (Differential Geometry I), MA 474 (Topology I), and MA 485 (Probability Theory). A two-course sequence in a laboratory science is also required.

**CS required courses (31 semester hours):** CS 201, CS 250, CS 302, CS 303, CS 330, CS 350, CS 405, CS 440, CS 442, and CS 499.

**CS elective courses (12 semester hours):** Any CS course at the 300 level or above. A maximum of 3 semester hours credit may be obtained in 399 and 496. Although not required, computer science majors have the option to structure these 12 semester hours of program electives as a specialization in Computer

Networking. Course substitutions may be made within this specialization with advisor approval.

Students who fail to meet the minimum grade requirements in CS courses will be placed on probation within the major.

### SPECIALIZATION

#### Computer Networking

This specialization is shaped by the campus medical community and local industry relationships. Students may complete any four of the following courses to qualify for this specialization: CS 434, CS 435, CS 437, CS 438, or CS 480.

### PRE-HEALTH

Students wishing to enter the Schools of Medicine, Dentistry, or Optometry after completing their undergraduate degree in computer science should complete the following sequence of courses in chemistry, biology, and physics: CH 115, 116, 117, 118, 235, 236, 237, and 238; BY 123 and 124; PH 201 and 202 or PH 221 and 222. These courses should be completed prior to taking the MCAT examination at the end of the junior year. The chemistry sequence will satisfy the requirement for a minor.

### MINOR

A computer science minor requires the completion of 24 semester hours of CS courses at the 200 level or above, including 15 semester hours above the 300 level. A minimum of 6 semester hours in CS at the 200 level or above must be taken at UAB. A student must have a C average in all courses presented for the minor. The 24 semester hours may be concentrated in the Computer Networking specialization. The courses making up this minor specialization are CS 201, CS 250, CS 302, CS 303, CS 426, CS 434, and CS 480. Minors in CS may take MA 109 (Survey of Calculus) to satisfy CS calculus requirements.

## SUGGESTED COMPUTER SCIENCE CURRICULUM

### FRESHMAN

	<i>Sem. Hrs.</i>
CS 101 Computing Fundamentals.....	<b>3</b>
MA 125, 126 Calculus I-II .....	<b>8</b>
MA 180 Introduction to Statistics.....	<b>3</b>
EH 101, 102 .....	<b>6</b>
Core, minor, or elective courses .....	<b>10</b>
<b>Total .....</b>	<b>30</b>

### SOPHOMORE

	<i>Sem. Hrs.</i>
Literature in English .....	<b>6</b>
CS 201 Introduction to Object Oriented Programming .....	<b>4</b>
CS 250 Discrete Structures .....	<b>3</b>
CS 302 Foundations of Computer Science .....	<b>4</b>
MA 227 Calculus III .....	<b>4</b>
MA 260 Introduction to Linear Algebra.....	<b>3</b>
Core, minor, or elective courses .....	<b>6</b>
<b>Total .....</b>	<b>30</b>

### JUNIOR

	<i>Sem. Hrs.</i>
CS 303 Algorithms and Data Structures .....	<b>4</b>
CS 330 Computer Organization and Assembly Language Programming .....	<b>3</b>
CS 350 Automata and Formal Language Theory .....	<b>3</b>
Core, minor, or elective courses .....	<b>20</b>
<b>Total .....</b>	<b>30</b>

### SENIOR

	<i>Sem. Hrs.</i>
CS 405 Programming Languages .....	<b>3</b>
CS 440 Operating Systems .....	<b>3</b>
CS 442 Software Engineering .....	<b>3</b>
CS 400-level electives .....	<b>9</b>
CS 499 Senior Capstone .....	<b>1</b>
Core, minor, or elective courses .....	<b>11</b>
<b>Total .....</b>	<b>30</b>

## HONORS PROGRAM: COMPUTER AND INFORMATION SCIENCES (CS)

### PURPOSE

The Computer and Information Sciences Honors Program offers outstanding, highly motivated students the opportunity to develop research skills in preparation for graduate work or a professional career.

### ELIGIBILITY

In order to be accepted into the Computer and Information Sciences Honors program, a student must:

- have earned a 3.5 GPA in computer and information sciences (CS) courses;
- have earned a 3.0 GPA overall;
- have completed 18 semester hours in CS courses;
- have enrolled in CS 398 (Honors Research) for at least 1 semester hour; and
- have arranged with a faculty sponsor in Computer and Information Sciences to do a research project.

### REQUIREMENTS

Students in the Computer and Information Sciences Honors Program will be required to have the following:

- a minimum of 3 semester hours in CS 398 (Honors Research) with each semester hour involving a minimum of three hours of laboratory work per week during the semester of enrollment;
- a formal research proposal submitted by the end of the first term of Honors Research, including an introduction, proposed methods, and relevant literature citation;
- a formal written report in the form of a scientific paper; and
- an oral or poster presentation at a Computer and Information Sciences departmental seminar.

In some instances, it will be recommended or required that Computer and Information Sciences Honors students give a formal presentation of their work at a scientific meeting.

## BENEFITS

In addition to the educational and career benefits of participating in the Computer and Information Sciences Honors program, students who complete the program will graduate "With Honors in Computer and Information Sciences."

## CONTACT

For more information and/or admission to the Computer and Information Sciences Honors program, contact Dr. Barrett Bryant, Room 115A, Campbell Hall, Birmingham, AL 35294-1170; Telephone (205) 934-2213; E-mail bryant@cis.uab.edu. Web site: <http://www.cis.uab.edu/undergrad>.

## GRADUATE PROGRAMS

The Department of Computer and Information Sciences offers graduate study leading to the Master of Science and Doctor of Philosophy degrees. Further information may be obtained from the department or the UAB Graduate School Catalog.

### Course Descriptions

#### Computer and Information Sciences (CS)

A schedule of courses that will be offered each term is available in the department office.

**101. Computing Fundamentals**—Basics of computer hardware and software with specific application to personal computers. Software includes word processing, spreadsheet, database systems, internet, HTML and JavaScript. This class has a laboratory component. *Prerequisite:* none. 3 hours.

**101L. Computing Fundamentals Laboratory**—Computing Fundamentals Laboratory. *Prerequisite:* Mandatory first day attendance. 0 hours.

**102L. Web-Based Technologies Laboratory**—Internet technologies as they relate to Web site development in a combination lecture and laboratory environment. *Prerequisite:* CS 101 or equivalent. 3 hours.

**199. Special Topics in Computer Science**—Special Topics in Computer Science. 1 to 3 hours.

**201. Introduction to Object-Oriented Programming**—Fundamental concepts of object oriented programming. Syntax and semantics of Java, an object oriented programming language. Principles of program design and algorithm development strategies. Classes, abstract data types, arrays, flow control, functions, overloading, exception handling, debugging, I/O, applets. This class has a laboratory component. *Prerequisites:* CS 101 or equivalent; Math 106; grades of C or better in both. 4 hours.

**201L. Introduction to Object-Oriented Programming Laboratory**—Introduction to Computer Science I Lab. 0 hours.

**250. Discrete Structures**—Discrete structures for computer science, including sets, functions, elementary propositional and predicate logic, Boolean algebra, elementary graph theory combinatorics and proof techniques including induction and contradiction. *Prerequisites:* CS 201 and MA 125 (with grades of C or better in both). 3 hours.

**299. Special Topics in Computer Science**—Special Topics in Computer Science. 1 to 3 hours.

**302. Foundations of Computer Science**—CS 302 is a continu-

ation of CS 201 and emphasizes concepts of object oriented software design. Topics include inheritance, recursion algorithm analysis, sorting algorithms, graphs, hash tables, and linked list data structures such as stacks, queues, and binary trees. This class has a laboratory component. *Prerequisites:* CS 201 and MA 125 with a grade of C or better in both. 3 hours.

**302L. Foundations of Computer Science Laboratory**—Foundations of Computer Science Lab. 0 hours.

**303. Algorithms and Data Structures**—Efficient design of data structures, recursive algorithms, algorithms for sorting and searching, complexity analysis of algorithms, applications of algorithms and data structures in problems, state spaces, and search strategies in artificial intelligence. This class has a laboratory component. *Prerequisites:* CS 250 and CS 302 with grades of C or better. 4 hours.

**303L. Algorithms and Data Structures Laboratory**—Algorithms and Data Structures Lab. 0 hours.

**304. Object-Oriented Programming in C++**—Syntax, semantics, and concepts of C++ programming, templates, parametrized classes, generic programming, standard template library. *Prerequisite:* CS 303 with a grade of C or better. 1 hour.

**306. Object-Oriented Programming in Perl**—Management of scripts and systems, closures, objects, scooping, program composition. *Prerequisite:* CS 303 with a grade of C or better. 1 hour.

**330. Computer Organization and Assembly Language**—Register-level architecture of modern digital computer systems, digital logic, machine-level representation of data, assembly-level machine organization, and alternative architectures. Laboratory emphasizes machine instruction execution, addressing techniques, program segmentation and linkage, macro definition and generation, and computer solution of problems in assembly language. *Prerequisites:* CS 250 and CS 302 (with grades of C or better). 4 hours.

**330L. Computer Organization & Assembly Language Laboratory**—Computer Organization & Assembly Language Lab. Mandatory first day attendance. 0 hours.

**344. Unix Operating System Fundamentals**—Unix architecture, concepts, and principles; shell concepts and principles, filters, I/O redirection, environment, process management, runtime architecture. *Prerequisite:* CS 330 with a grade of C or better. 1 hour.

**350. Automata and Formal Language Theory**—Finite-state automata and regular expressions, context-free grammars and pushdown automata, Turing machines, computability and decidability, and complexity classes. *Prerequisites:* CS 250 and CS 302 (with grades of C or better). 3 hours.

**391. Special Topics**—Special Topics. 1 to 3 hours.

**392. Special Topics**—Special Topics. 1 to 3 hours.

**393. Special Topics**—Special Topics. 1 to 3 hours.

**394. Special Topics**—Special Topics. 1 to 3 hours.

**395. Special Topics**—Special Topics. 1 to 3 hours.

**398. Honors Research**—Research project under supervision of faculty sponsor. *Prerequisites:* 18 semester hours in computer science with grade point average of 3.5 in computer science and permission of instructor. 1 to 3 hours.

**399. Directed Readings**—*Prerequisite:* permission of instructor. 1 to 3 hours.

**405. Programming Languages**—Formal syntax and semantics; compilers and interpreters; virtual machines; representation of data types; sequence and data control; type checking; run-time storage management; functional, logic, and object-oriented programming paradigms; concurrency and multi-threading. *Prerequisites:* CS 303 and CS 350 with grades of C or better. 3 hours.

**426. Database Systems**—Relational model of databases, structured query language, normalized structure of database management systems based on relational model, and security and integrity of databases. *Prerequisite:* CS 303. 3 hours.

**430. Computer Architecture**—Introduction to computer architecture, including memory subsystems; direct-mapped and set-associative cache and multi-level cache subsystems; direct-access devices including RAID and SCSI disk drives; processor pipelining, including super-scalar and vector machines; parallel architectures, including SMP, NUMA and distributed memory systems; interrupt mechanisms; and future microprocessor design issues. *Prerequisite:* permission of instructor. 3 hours.

**434. Internetworking and Intranets**—Underlying network technology. Interconnecting networks using bridges and routers. IP addresses and datagram formats. Static and dynamic routing algorithms. Control messages. Subnet and supernet extensions. UDP and TCP. File transfer protocols. E-mail and the World Wide Web. Network address translation and firewalls. Mandatory weekly Linux-based lab. *Prerequisite:* CS 330. 3 hours.

**434L. Internetworking and Intranets Laboratory**—Internetworking and Intranets Laboratory. Mandatory first day class attendance. 0 hours.

**435. Network Programming**—Introduction to Unix network programming. This course is a programming course using the Unix operating system. The course covers TCP/IP programming, UDP programming and RPC programming. Programming projects include simple client-server applications, multiple-client/single-server applications, threaded server applications, and finally distributed computing using multiple servers on multiple hosts to make a program run faster than when using a single computer. *Prerequisite:* CS 434. 3 hours.

**437. Computer Network Security**—Conventional and public-key cryptography. Message encryption and authentication. Secure communication between computers in a hostile environment, including E-mail (PGP), virtual private networks (IPSec) and the World Wide Web (SSL). Firewalls. Mandatory weekly Linux-based lab. *Prerequisite:* thorough knowledge of TCP/IP protocol suite, for example from CS 434. 3 hours.

**437L. Computer Network Security Laboratory**—Computer Network Security Laboratory. 0 hours.

**438. Distributed Object Systems**—Object-oriented distributed systems design, distributed software architecture client-server programming, multi-tier architecture, service oriented architecture, Web and enterprise technologies. *Prerequisite:* CS 201. 3 hours.

**440. Operating Systems**—Introduction to operating systems. This course looks at the internal design and operation of a modern operating system. Topics include interrupt handling, process scheduling, memory management, virtual memory, demand paging, file space allocation, file and directory management, file/user

security and file access methods. Several comparisons among current operating systems are used, with attention to Windows and Unix in particular. *Prerequisites:* CS 303 and CS 330. 3 hours.

**441. Parallel Processing**—Overview of parallel computing hardware, architectures, and programming paradigms; parallel programming using MPI, Pthreads, and OpenMP; design, development, and analysis of parallel algorithms for matrix computations, FFTs, and sorting. *Prerequisite:* CS 440 (Operating Systems). 3 hours.

**442. Software Engineering**—Design and implementation of large-scale software systems, software development life cycle, software requirements and specifications, software design and implementation, verification and validation, project management, and team-oriented software development. *Prerequisites:* CS 303 and 350. 3 hours.

**462. Artificial Intelligence**—Problem-solving methods in artificial intelligence and heuristic programming; models of memory and cognition. *Prerequisites:* CS 303 and CS 350. 3 hours.

**477. Computer Graphics**—Computer graphics and geometric modeling. Bezier and B-spline curves and surfaces. Rendering, shading, color, object transformations, and interactive design. *Prerequisite:* CS 303. 3 hours.

**480. Modeling and Simulation**—Random number and process generation; probability and frequency distributions; software for general purpose simulation, especially discrete systems, e.g., GPSS and PLX; simulation environments; animation. *Prerequisite:* CS 330 or 434. 3 hours.

**496. Research Seminar**—Participation in research seminar directed by a faculty member. *Prerequisite:* permission of instructor. 1 hour.

**497. Competitive Programming Techniques**—Problem-solving techniques and algorithms, designed to prepare students for ACM programming contest, three-course sequence starting in Spring. *Prerequisite:* permission of instructor. 1 hour.

**499. Directed Readings**—*Prerequisite:* permission of instructor. 1 to 3 hours.

### *Courses from Other Departments*

The following courses from other departments may be applied toward CS elective credit. Only two electives can be applied to CS major.

<b>EE 337</b>	Introduction to Microprocessors
<b>EE 432</b>	Introduction to Computer Networking
<b>EE 447</b>	Internet/Intranet Application Development
<b>MA 360</b>	Scientific Programming
<b>MA 468-469</b>	Numerical Analysis I-II
<b>NBL 454</b>	Minding the Brain
<b>PHL 372</b>	Minds and Machines

See the *UAB Graduate School Catalog* for descriptions of graduate courses.

## EARTH SCIENCE AND GEOLOGY

Faculty: Brande

### Course Descriptions

#### Earth Science (ES)

**101. Physical Geology**—Study of the earth, its materials and natural resources, processes of change, natural hazards to mankind. Lecture. 3 hours.

**102. Physical Geology Laboratory**—Study of properties and uses of rocks and minerals. Study of landscapes and various types of maps. *Prerequisite:* ES 101 (or concurrent enrollment). One laboratory session per week. 1 hour.

**103. History of the Earth**—Interpretation of earth's history through geologic time. Study of life on earth through the fossil record. Lecture. 3 hours.

**104. History of the Earth Laboratory**—Sedimentary materials and environments of formation. Fossil identification. Geologic time and principles of age-dating. *Prerequisite:* ES 103 (or concurrent enrollment). One laboratory session per week. 1 hour.

**105. Physical Geography**—Atmosphere, weather, climate and climatic regions, and soils. Lecture. 3 hours.

**109. Planet Earth**—Major topics and problems in modern earth science. Nature of solid earth and its atmosphere, climatic change, earth's resources, interaction of earth with sun, and planetary geology. Selected readings and videotapes. 3 hours.

**110. The Geography of Alabama**—The physical geography of Alabama: geologic setting, landscape, climate and weather, soils and vegetation, natural resources. Lecture. 3 hours.

**120. Geology for Engineers**—The solid earth, the nature of the earth's crust, surficial processes. Lecture. 3 hours.

## DEPARTMENT OF MATHEMATICS

**Chair:** Rudi Weikard

**Associate Chair:** John C. Mayer

**Faculty:** Blokh, Buckley, Chernov, Dale, Griesemer, Hutchison, Johnson, Karpeshina, Knowles, Kravchuk, Lewis, Nkashama, Oversteegen, Saito, Simanyi, Stolz, Vaughan, Wailes, Ward, Weinstein, Zeng, Zou

The Department of Mathematics offers courses in pure and applied mathematics and a major and minor in mathematics leading to employment in education, government, business, and industry. In addition, mathematics courses are offered to support programs in the physical, social, biological, and health sciences and in engineering, business, and education. Students considering a major or minor in mathematics should consult Dr. Hutchison, Undergraduate Advisor, to arrange for counseling on career and academic objectives and program planning. (205) 934-2154.

For the major there are three distinct tracks that can be pursued: (a) mathematics (traditional track), (b) mathematics with honors, and (c) applied mathematics and scientific computation.

## MAJOR

### (a) Mathematics (traditional track)

Requirements for this track are 39 semester hours in mathematics, including:

1. MA 125, 126, 227, 252, 434, 440, 441.
2. One of the following courses: MA 261, 360, 461, 468 (Completion of MA 261 automatically satisfies Track C of the school-wide requirements).
3. One of the following two-term sequences: MA 434-435, 454-455, 455-461, 463-464, 470-471, 474-475, or 485-486.
4. Two or three electives selected from MA 261, 270, 305, 306, 360, or any course numbered MA 420 or above.
5. A minimum grade of C in each of the 12 mathematics courses applied toward the major.
6. Track C (Computer Science/Technology) of the school-wide requirements must be satisfied by mathematics majors (in addition to either Track A or Track B).
7. A minor is required for this degree.

General Physics with lab (PH 221 and PH 222) is recommended for mathematics majors.

### SUGGESTED CURRICULUM

	FALL	SPRING
Freshman	MA 125	MA 126
Sophomore	MA 227	MA 252 MA 261
Junior	MA 434 MA sequence or elective	MA elective MA sequence
Senior	MA 440 MA elective	MA 441

### (b) Mathematics with Honors

The department offers an Honors Program for qualified mathematics majors. See page 202 for details of this program.

### (c) Applied Mathematics and Scientific Computation

Requirements for this track are 39 semester hours in mathematics, including:

1. MA 125, 126, 227, 252, 360.
2. MA 260 or 434.
3. Four electives selected from MA 444, 455, 461, 463, 464, 465, 468, 485, 486; the electives must include one of the following two-term sequences: MA 455-461, 463-464, or 485-486.
4. Two additional electives selected from MA 261, 270 or any course numbered MA 420 or above.
5. A minimum grade of C in each of the 12 mathematics courses applied toward the major.

6. Track C (Computer Science/Technology) of the school-wide requirements must be satisfied by mathematics majors (in addition to either Track A or Track B).
7. A minor in the sciences, engineering, or business is required.

General Physics with lab (PH 221 and PH 222) is recommended for mathematics majors.

### SUGGESTED CURRICULUM

	FALL	SPRING
Freshman	MA 125	MA 126
Sophomore	MA 227	MA 252
	MA 360	MA 444
Junior	MA 434	MA 468
	MA sequence or elective	MA sequence
Senior	MA 440	MA 441
	MA elective	

### MATHEMATICS FAST-TRACK PROGRAM

The Department of Mathematics has an accelerated program for qualified students. Through this fast-track option, a mathematics major can earn a BS degree and an MS degree in mathematics in four to five years (depending upon whether summer terms are included). As another option, students can pursue a BS in mathematics and an MS in biostatistics by choosing the biostatistics track at the end of the third year. Each individual fast-track student works with a mentor from the graduate faculty on a mathematics research project during every term. Fast-track students will usually begin taking graduate mathematics courses after the third year, and are automatically admitted to the graduate program in the fourth year, if performing satisfactorily. Students who complete this program will be prepared for continued graduate work in mathematics and the sciences, or for careers in industry. Fast-track scholarships are available. For more information, contact Dr. Mayer, the Undergraduate Program Director.

### MINOR

Requirements for the minor are 21 semester hours in mathematics including:

1. MA 125, 126, and 227;
2. Nine semester hours in mathematics courses numbered above 249, other than MA 400–419 (MA 260 and 434 cannot both be counted);
3. A minimum grade of C in each of the six mathematics courses applied toward the minor;
4. A minimum of 6 semester hours in mathematics above calculus completed at UAB.

### HONORS IN MATHEMATICS

#### PURPOSE

The Mathematics Honors Program is designed for advanced, motivated students. Through a mentored research program format

and seminars, research and communication skills are developed in preparation for a graduate or professional career.

#### ELIGIBILITY

Acceptance into the Mathematics Honors Program requires the student to:

- be a mathematics major;
- have earned a 3.5 GPA in mathematics courses attempted;
- have earned a 3.0 GPA overall;
- have arranged with one or more faculty mentors to work on undergraduate research projects for three terms (MA 498, Special Topics in Mathematics, 2 semester hours per term) or the equivalent; and
- have filled out and submitted the Mathematics Honors Program application form to the Undergraduate Program Director.

#### REQUIREMENTS

The Mathematics Honors Program requires:

- approval of the Undergraduate Program Director;
- completion of a minimum of six semester hours of MA 498 and three semester hours of approved seminars in addition to the requirements of the mathematics major;
- completion of MA 440 and 441;
- a formal written report of work done with mentors;
- an oral or poster presentation at a meeting of a mathematical or scientific society or the UAB Mathematics Department; and
- maintenance of a 3.5 GPA in mathematics courses and a 3.0 overall GPA.

#### BENEFITS

The Mathematics Honors Program fosters a spirit of inquiry, independence, and initiative along with providing an overview of the relationships among the branches of mathematics studied. The student will have an early opportunity to tackle a mathematical research project while interacting one-on-one with faculty members in a research setting. The mentoring, written report, and oral presentation should all contribute to the student's development. Upon completion of the program, the student will graduate "With Honors in Mathematics."

#### CONTACT

For more information and/or admission to the Mathematics Honors Program, contact the Mathematics Undergraduate Program Director, Dr. John C. Mayer, UAB Department of Mathematics, Campbell Hall, Room 452, Birmingham, AL 35294-1170; Telephone (205) 934-2154; E-mail mayer@math.uab.edu.

### GRADUATE PROGRAMS

The Department of Mathematics offers graduate study leading to the degrees of Master of Science in mathematics (thesis or non-thesis option) and Doctor of Philosophy in applied mathematics. Further information may be obtained from Dr. Weikard, Graduate Program Director, or the UAB Graduate School Catalog.

## COURSE NUMBERING SYSTEM

Mathematics course numbers indicate both the level and area of the course. The first digit (0, 1, 2, 3, or 4) indicates developmental (no degree credit), freshman, sophomore, junior, or senior level, respectively. The second and third digits indicate area, according to this scheme:

- 00–10—pre-calculus and terminal
- 11–19—mathematics education
- 20–29—logic and foundations
- 30–39—algebra
- 40–49—analysis
- 50–59—differential equations
- 60–69—applications-oriented courses
- 70–79—geometry and topology
- 80–89—probability and statistics
- 90–99—special topics, seminars, and independent research

For example, MA 454 (Intermediate Differential Equations) is an advanced-level differential equations course; MA 270 (Geometry) is a sophomore-level course in geometry. Calculus courses (MA 125, 126, and 227) are exceptions to the area numbering scheme.

### Course Descriptions Mathematics (MA)

All prerequisite courses must be passed with a grade of C or better. Students who do not meet the prerequisite requirement(s) in any course may be administratively withdrawn from that course.

**096. Basic Algebra**—Arithmetic of integers, rational numbers, real numbers, polynomial algebra, factoring, rational functions, linear and quadratic equations, radicals and roots, elementary geometry, verbal problems. *Corequisite:* MA 096L. May not be used to fulfill any degree requirements. 5 hours.

**096L. Basic Algebra Recitation**—Basic Algebra Recitation. *Corequisite:* MA 096. 0 hours.

**097. Elementary Algebra**—Review of arithmetic of integers, fractions, real numbers, polynomial algebra, factoring, rational functions, linear and quadratic equations, radicals and roots, elementary geometry, verbal problems. May not be used to fulfill any degree requirements. 3 hours.

**102. Intermediate Algebra**—Intermediate algebraic techniques, factoring and divisibility, complex fractions, negative and fractional exponents, completing squares, linear and quadratic models, equation solving, quadratic formula, verbal problems, Cartesian coordinate system, midpoint and distance formulas, graphs of linear equations. *Prerequisite:* a grade of C or better in MA 096 or MA 097. 3 hours.

**105. Pre-Calculus Algebra**—Functions from algebraic, geometric (graphical), and numerical points of view, including polynomial, rational, logarithmic, and exponential functions; inverse functions; systems of equations and inequalities; quadratic and rational inequalities; complex and real roots of polynomials; applications and modeling, both scientific and business. *Prerequisite:* a grade of C or better in MA 102 (CORE AREA III). 3 hours.

**106. Pre-Calculus Trigonometry**—Trigonometric functions (circular functions) and their inverses, graphs, and properties; right triangle trigonometry and applications; analytical trigonometry, trigonometric identities and equations; polar coordinates, vectors, complex numbers, and De Moivre's theorem; laws of sines and cosines; conic sections. Computer lab component. *Prerequisite:* a grade of C or better in MA 105 (CORE AREA III). 3 hours.

**107. Pre-Calculus Algebra and Trigonometry**—Functions, their graphs and applications, including polynomial, rational, algebraic, exponential, logarithmic, and trigonometric functions. A fast-paced course designed as a review of the algebra and trigonometry needed in calculus. Computer laboratory component. *Prerequisite:* a grade of C or better in MA 102. Satisfies Core Curriculum requirement in mathematics (CORE AREA III). 4 hours.

**109. Survey of Calculus**—An overview of calculus and its applications for students majoring in business: limits, differentiation and integration of algebraic, logarithmic, and exponential functions; applications to business and economics; functions of several variables; partial derivatives, extrema, and multiple integration. *Prerequisite:* a grade of D or better in MA 105 (or MA 107). 3 hours.

**110. Finite Mathematics**—An overview of topics of finite mathematics and applications of mathematics for the liberal arts student. Topics include counting, permutations, combinations, basic probability, conditional probability, descriptive statistics, binomial and normal distributions, statistical inference, and additional selected topics. *Prerequisite:* a grade of C or better in MA 096 or MA 097, or D or better in MA 102 (CORE AREA III). 3 hours.

**113. Mathematics for Elementary Teachers I**—Problem-solving techniques; patterns and functions; set properties and relationships; properties of integers, rational numbers, and real numbers; informal geometry, including properties of polygons, areas, and volumes. *Prerequisites:* completion of MA 102 or higher, enrollment in School of Education. 3 hours.

**114. Mathematics for Elementary Teachers II**—Topics in probability, data analysis, and statistics; coordinate and transformational geometry. Elementary concepts such as graphing, fractions, decimals, and percents will be reviewed in the contexts of probability and statistics. *Prerequisites:* completion of MA 102 or higher, enrollment in School of Education. 3 hours.

**120. Introduction to Symbolic Logic**—Modern theory of deductive inference. Emphasis on recognizing valid forms of reasoning. Truth-function theory and some concepts of one-variable quantification theory. May not be used to satisfy Core Curriculum requirement in mathematics. 3 hours.

**125. Calculus I**—Limit of a function; continuity, derivatives of algebraic, trigonometric exponential, and logarithmic functions, application of derivative to extremal problems, related rates problems, and graphing; Newton's method; the definite integral and its application to area problems. Computer lab component. *Prerequisite:* a grade of C or better in MA 106 or MA 107 (CORE AREA III). 4 hours.

**126. Calculus II**—Fundamental theorem of integral calculus; techniques of integration; applications in integration such as volume, arc length, work, and average value; infinite series; polar coordinates; parametric equations; plane and space vectors; lines and planes in space. Computer lab component. *Prerequisite:* MA 125 with a grade of C or better (CORE AREA III). 4 hours.

**180. Introduction to Statistics**—Descriptive and inferential statistics, probability distributions, estimation, hypothesis testing. *Prerequisite:* MA 102 with a grade of C or better or equivalent. 3 hours.

**224. Intermediate Symbolic Logic**—(Also PHL 320.) Full development of quantification theory, including identity and definite description, and soundness and completeness proofs. Skill in formal proof emphasized, as well as ability to express arguments from natural language in artificial language. *Prerequisite:* MA 120 (PHL 220) with a grade of C or better or permission from instructor. 3 hours.

**227. Calculus III**—Vector functions, functions of two or more variables, partial derivatives, quadric surfaces, multiple integration and vector calculus, including Green's Theorem, curl and divergence, surface integrals, and Stokes' Theorem. Computer lab component. *Prerequisite:* MA 126 with a grade of C or better (CORE AREA III). 4 hours.

**252. Introduction to Differential Equations**—First order equations, separation of variables, exact equations, integrating factors, initial value problem; second order linear differential equations with constant coefficients, Euler equations, undetermined coefficients, variation of parameters; applications and modeling; additional selected topics. Computer lab component. *Prerequisite:* MA 227 with a grade of C or better (CORE AREA III). 3 hours.

**260. Introduction to Linear Algebra**—Linear equations and matrices; real vector spaces, basis, diagonalization, linear transformations; determinants, eigenvalues, and eigenvectors; inner product spaces, matrix diagonalization; applications and selected additional topics. Computer lab component. *Prerequisite:* MA 126 with a grade of C or better (CORE AREA III). MA 260 and MA 434 may not both be counted toward the minor. 3 hours.

**261. Introduction to Mathematical Modeling**—Introduction to mathematical modeling using computer software, including spreadsheets, systems dynamics software, and computer algebra systems. *Prerequisite:* MA 125 with a grade of C or better. 3 hours.

**270. Geometry**—Topics may include foundations of Euclidean and non-Euclidean geometry, construction problems, elementary theory of area projective geometry, Klein's Erlanger Programme. *Prerequisite:* MA 125 with a grade of C or better or permission from instructor. 3 hours.

**305. History of Mathematics I**—Development of mathematical principles and ideas from an historical viewpoint, and their cultural, educational and social significance. *Prerequisites:* MA125 and MA126 with a grade of C or better. 3 hours.

**306. History of Mathematics II**—Development of mathematical principles and ideas from an historical viewpoint, and their cultural, educational and social significance. *Prerequisite:* MA 305. 3 hours.

**360. Scientific Programming**—This course is designed to provide the computational skills needed to attempt serious scientific computational tasks. Computers and floating point arithmetic; the GNU/Linux operating system and an introduction to the compiled programming languages FORTRAN (including FORTRAN 95) and C++ in the context of solving systems of linear equations and differential equations arising from practical situations; use of debuggers and other debugging techniques, and profiling; use of callable subroutine packages like LAPACK and differential equation routines; parallel programming a Beowulf system with MPI; introduction to Matlab. *Corequisite:* Linear Algebra (MA 260 or 434). 3 hours.

**413. Geometry for Teachers**—Topics may include foundations of Euclidean and non-Euclidean geometry, construction problems, elementary theory of area, projective geometry, Klein's Erlanger Programme. *Prerequisite:* MA 125 with a grade of C or better or permission from instructor. 3 hours.

**414. Real Number System**—Axiomatic development of properties of real number system for development of mathematical maturity. *Prerequisite:* MA 125 with a grade of C or better or permission from instructor. 3 hours.

**415. Set Theory and Logic**—Basic principles of elementary logic and naive set theory. *Prerequisite:* MA 125 with a grade of C or better or permission of instructor. 3 hours.

**417. Theory of Equations**—Existence, properties, and methods of finding solutions to polynomial equations. *Prerequisite:* MA 126 with a grade of C or better or permission of instructor. 3 hours.

**418. Statistics for Teachers**—Descriptive and inferential statistics, probability distributions, estimation, hypothesis testing. *Prerequisite:* MA 102. 3 hours.

**419. Special Topics for Teachers**—With permission of instructor, may be used as continuation of any MA 413 through MA 418 course. May be repeated for credit when topics vary. *Prerequisite:* permission of instructor. 3 hours.

**434. Algebra I: Linear**—Abstract vector spaces, subspaces, dimension bases, linear transformations, matrix algebra, matrix representations of linear transformations, determinants. *Prerequisite:* MA 126 with a grade of C or better. MA 260 and MA 434 may not both be counted toward the minor. 3 hours.

**435. Algebra II: Modern**—Groups, homomorphisms, quotient groups, isomorphism theorems, rings and ideals, integral domains, fields. As time permits, Galois theory, semi-groups, modules, or other areas of algebra may be included. *Prerequisite:* MA 434 with grade of C or better. 3 hours.

**440. Advanced Calculus I**—Introduction to real numbers, sequences and series of real numbers; functions and continuity; differentiation. This course is taught as a do-it-yourself course and will meet 4 hours per week. *Prerequisite:* MA 227 or permission of instructor. 3 hours.

**441. Advanced Calculus II**—Introduction to real numbers, sequences and series of real numbers, continuity, differentiation, the Mean Value Theorem, the Riemann Integral, the Fundamental Theorem of Calculus, sequences and series of functions, uniform vs. pointwise convergence, some elementary and special functions. *Prerequisite:* a grade of C or better in MA 440. 3 hours.

**444. Vector Analysis**—Review and application of multiple integrals; Jacobians and change of variables in multiple integrals; line and surface integrals; Green, Gauss, and Stokes theorems, with applications to physical sciences and computation in spherical and cylindrical coordinates. *Prerequisite:* MA 227 with grade of C or better. 3 hours.

**445. Complex Analysis**—Analytic functions, complex integration and Cauchy's theorem, Taylor and Laurent series, calculus of residues and applications, conformal mappings. *Prerequisite:* MA 227 with a grade of C or better. 3 hours.

**453. Transforms**—Theory and applications of Laplace and Fourier transforms. *Prerequisite:* MA 252 with a grade of C or better. 3 hours.

**454. Intermediate Differential Equations**—Topics from among Frobenius series solutions, Sturm-Liouville systems, nonlinear equations, and stability theory. *Prerequisite:* MA 252 with a grade of C or better. 3 hours.

**455. Partial Differential Equations I**—Classification of second order partial differential equations; background on eigenfunction expansions and Fourier series; integrals and transforms; solutions of the wave equations, reflection of waves; solution of the heat equations in bounded and unbounded media; Laplace's equation, Dirichlet and Neumann problems. *Prerequisite:* MA 252 with a grade of C or better. 3 hours.

**456. Partial Differential Equations II**—Classification of second order partial differential equations; background on eigenfunction expansions and Fourier series; integrals and transforms; solution of the wave equations, reflection of waves; solution of the heat equation in bounded and unbounded media; Laplace's equation, Dirichlet and Neumann problems. *Prerequisite:* MA 440 or MA 540 with a grade of C or better. *Corequisite:* MA 441. 3 hours.

**461. Modeling with Partial Differential Equations**—Practical examples of partial differential equations; derivation of partial differential equations from physical laws; introduction to Matlab and its PDE Toolbox, and other PDE packages such as Femlab using practical examples; brief discussion of finite difference and finite element solution methods; introduction to continuum mechanics and classical electrodynamics; parallel programming using MPI and the mathematics department Beowulf system; specialized modeling projects in topics such as groundwater modeling, scattering of waves, medical and industrial imaging, fluid mechanics, and acoustic and electromagnetic applications. *Prerequisites:* MA 360/560 and MA 455/555. 3 hours.

**463. Operations Research I**—Mathematical techniques and models with application in industry, government and defense. Topics usually chosen from dynamic, linear, and nonlinear programming; decision theory; Markov chains; queuing theory; inventory control; simulation; network analysis; and selected case studies. *Prerequisite:* MA 227 with a grade of C or better or permission from instructor. 3 hours.

**464. Operations Research II**—Mathematical techniques and models with application in industry, government, and defense. Topics usually chosen from dynamic, linear, and nonlinear programming; decision theory; Markov chains; queuing theory; inventory control; simulation; network analysis; and selected case studies. *Prerequisite:* MA 463 with a grade of C or better. 3 hours.

**465. Partial Differential Equations: Finite Difference Methods**—Review of difference methods for ordinary differential equations, including Runge-Kutta, multi-step, adaptive stepsizing, and stiffness; finite difference versus finite element; elliptic boundary value problems, iterative solution methods, self-adjoint elliptic problems; parabolic equations, including consistency, stability, and convergence, Crank-Nicolson method, method of lines; first order hyperbolic systems and characteristics, Lax-Wendroff schemes, method of lines for hyperbolic equations. *Prerequisite:* MA 360, MA 455, or permission of instructor.

**468. Numerical Analysis**—Introduction to Matlab, integration, interpolation, rational approximation, splines, numerical methods for ordinary differential equations, ordinary differential equation modeling, minimization of functions. *Prerequisite:* MA 252 and knowledge of C or Fortran. 3 hours.

**470. Differential Geometry I**—Theory of curves and surfaces: Frenet formulas for curve, first and second fundamental forms of surface; global theory; abstract surfaces, manifolds, Riemannian geometry. *Prerequisite:* MA 227 with a grade of C or better or permission from instructor. 3 hours.

**471. Differential Geometry II**—Theory of curves and surfaces: Frenet formulas for curve, first and second fundamental forms of surface; global theory; abstract surfaces, manifolds, Riemannian geometry. *Prerequisite:* MA 470 with a grade of C or better. 3 hours.

**474. Introduction to Topology I**—Essence and consequences of notion of continuous function developed. Topics include metric spaces, topological spaces, compactness, connectedness, and separation. *Prerequisite:* MA 227 with a grade of C or better or permission of instructor. 3 hours.

**475. Introduction to Topology II**—Essence and consequences of notion of continuous function developed. Topics include metric spaces, topological spaces, compactness, connectedness, and separation. *Prerequisite:* MA 474 with a grade of C or better. 3 hours.

**485. Probability**—Sample spaces; combinations, absolute and conditional probability; discrete and continuous random variables; probability distributions and density functions. *Prerequisite:* MA 126 with a grade of C or better or permission of instructor. 3 hours.

**486. Mathematical Statistics**—Confidence intervals, hypothesis testing, analysis of variance and covariance, maximum likelihood estimates, linear regression, tests of fit, robust estimates and tests. *Prerequisite:* MA 485 with a grade of C or better. 3 hours.

**490. Math Seminar**—Topics vary; may be repeated for credit. 1 to 3 hours.

**491. Special Topics in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**492. Special Topics in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**493. Special Topics in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**494. Special Topics in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**495. Special Topics in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**496. Special Topics in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**497. Special Topics in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**498. Research in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

**499. Research in Mathematics**—Topics vary; may be repeated for credit. *Prerequisites:* vary with topics. 1 to 6 hours.

See the UAB Graduate School Catalog for descriptions of graduate courses.

## DEPARTMENT OF PHYSICS

Chair: David L. Shealy

Faculty: Camata, DeVore, Gerakines, Harrison, Kawai, Lawson, Martin, Mirov, Mohr, Nordlund, Stanishevsky, Vohra, Wills, Zvanut

The Department of Physics offers courses in astronomy, physical science, and physics for non-majors; several undergraduate program options, including a biophysics track for physics majors planning an interdisciplinary career; and graduate programs. Students considering a physics major or minor are encouraged to contact the department for current information about career opportunities and planning.

### MAJOR

#### PHYSICS TRACK REQUIREMENTS

This track is designed to prepare students for research and high-tech careers and for graduate study in the physical sciences.

1. 40 semester hours in physics, including PH 221, 222, 351-352, 445-446, 450-451, 461-462, and approved electives, including 3 semester hours selected from PH 425-428.
2. CH 115/116, 117/118.
3. 18 or more semester hours in mathematics, including MA 125, 126, 227, and 252.

A grade of C or better must be earned in each required course.

#### SUGGESTED CURRICULUM

	FALL	SPRING
Freshman	PH 221	PH 222
	CH 115/116	CH 117/118
	MA 125	MA 126
Sophomore	PH 351	PH 352
	CH 325	MA 252
	MA 227	
Junior	PH 461	PH 462
	PH 425	PH 426
Senior	PH 445	PH 446
	PH 450	PH 451

#### BIOPHYSICS TRACK REQUIREMENTS

This interdisciplinary track of the physics major is designed to place students in medical school, graduate school in biophysics or other biosciences, teaching positions, high-tech enterprises, or science writing.

1. 29 semester hours in physics, including PH 221, 222, 351-352, and approved electives.
2. 16 semester hours in chemistry.
3. 18 semester hours in mathematics.
4. 8 semester hours in biology.

A grade of C or better must be earned in each required course. A biophysics track student who has taken all or part of the PH 201-202 sequence before declaring a physics major may petition to have those courses substitute for the corresponding PH 221-222 course. Students seeking physics teaching certification should plan for 32 semester hours in physics courses.

#### SUGGESTED BIOPHYSICS TRACK CURRICULUM

	FALL	SPRING
Freshman	BY 123	BY 124
	MA 125	MA 126
	CH 115/116	CH 117/118
Sophomore	PH 221/231	PH 222/232
	MA 227	MA 252
	CH 235/236	CH 237/238
Junior	PH 351	PH 352
	PH 475	BY 210
Senior	PH 445	PH 476
	PH 461	PH 491

### MINOR

Requirements for the minor are a minimum of 18 semester hours in physics, including PH 221, 222, 351, and approved electives. A transfer student must complete at least two courses in physics at UAB to qualify for a minor. A grade of C or better must be earned in each required science and mathematics course.

### HONORS PROGRAM IN PHYSICS

#### PURPOSE

The Physics Honors Program offers the motivated and capable physics major enhanced opportunities to develop the research, problem solving, and communication skills necessary for a dedicated effort in the scientific enterprise. By designing, describing, and defending a research project, the honors graduate will have a documented capacity for success in graduate school or in any career where scientific critical thinking, motivation, and accomplishment are valued.

#### ELIGIBILITY

Acceptance into the Physics Honors Program requires the student to:

- have earned a 3.25 GPA in physics courses attempted;
- have earned a 3.0 GPA overall;
- have completed 16 semester hours in physics, including PH 351-352 (enrollment in 352 is adequate);
- have arranged with a faculty sponsor to do a physics research project satisfying expectations for 6 semester hours of Honors Research (PH 495); and
- have submitted the Honors Program Application Form.

## REQUIREMENTS

Students in the Physics Honors Program are required to have the following:

- approval of the Undergraduate Program Director and selection of an Honors Committee;
- committee approval of a written research proposal by the end of the first term of Honors Research;
- completion of six semester hours of Honors Research, PH 495;
- maintenance of a 3.25 GPA in physics courses and an overall 3.0 GPA;
- a written report in the format required by an appropriate journal; and
- an oral or poster presentation of the research project to the Honors Committee.

Where appropriate, the Honors Committee may recommend that the physics honors student present the work at an appropriate regional or national scientific meeting.

## BENEFITS

The goal of the Physics Honors Program is to train capable undergraduates for uncommon accomplishment in academic research. The physics honors graduate will have documented experience and productivity commonly found in second- or third-year graduate students. Ideally, the research project will result in publication and presentation at a national conference, giving the honors graduate strong credentials for graduate or medical/professional school, for industrial research, for science writing, and for teaching. Contacts made through publication and conferences and informed references written by mentor and committee members give the honors graduate a significant edge in the job market. The successful honors student will graduate "With Honors in Physics."

## CONTACT

For information regarding the Physics Honors Program and physics course options, contact Dr. Thomas Nordlund, Undergraduate Program Director; Telephone (205) 934-4736; E-mail nordlund@uab.edu.

## GRADUATE PROGRAMS

The Department of Physics offers graduate study leading to the degrees of Master of Science and Doctor of Philosophy in physics. The department participates in an interdisciplinary Ph.D. degree program in materials science. Further information may be obtained from the graduate director or the UAB Graduate School Catalog.

### Course Descriptions

#### Astronomy (AST)

**101. Astronomy of the Universe**—Survey of the universe of matter and energy. Interpretation of observations to develop a self-consistent view of the universe, basic physical law and structures, cosmic history and evolution. Lecture and laboratory. *Corequisite:* AST 111 laboratory. 3 hours.

**102. Astronomy of Stellar Systems**—Mechanisms and processes of universe and interrelationships as systems, including nature of stars and galaxies: formation, interior processes, including ener-

gy generation, evolution, and galaxies as systems. Lecture and laboratory. *Corequisite:* AST 112 laboratory. 3 hours.

**103. Astronomy of the Solar System**—Descriptive and interpretive approach to solar and interplanetary phenomena, comets, and cometary/meteor relationships, asteroids and planetesimals, planetary surfaces, atmospheres, and interior structures. Physical law governing the solar system and quest for understanding its history and evolution, including formation. Lecture. *Corequisite:* AST 113 laboratory. 3 hours.

**104. Gravitational Astronomy**—Use of microcomputer in studying Newtonian gravitation. Rudiments of BASIC, coordinate systems, finite difference methods, and computer graphics. Students compute orbit from scratch. *Prerequisite:* high school or college algebra. 3 hours.

**105. Extraterrestrial Life**—Interdisciplinary treatment (astronomy, chemistry, biology, planetary science, communications, and information sciences) of the universe as habitat, cosmic chemistry of molecules and evolution, environmental requirements, origin and occurrence of life, search for evidence, intelligence, communication, and contact. Lecture and laboratory. *Corequisite:* AST 115 laboratory. 3 hours.

**111. Astronomy of the Universe Laboratory**—Laboratory experience demonstrates how astronomy is practiced through observation experiences, laboratory experiments, and exercises involving analysis of data. Specific experiences illuminate topics presented in AST 101. Must take with AST 101 to receive credit. *Corequisite:* AST 101 lecture. 1 hour.

**112. Astronomy of Stellar Systems Laboratory**—Laboratory experience demonstrates how astronomy is practiced through observation experiences, laboratory experiments, and exercises involving analysis of data. Specific experiences illuminate topics presented in AST 102. Must take AST 102 to receive credit. *Corequisite:* AST 102 lecture. 1 hour.

**113. Astronomy of the Solar Systems Laboratory**—Laboratory experience demonstrates how astronomy is practiced through observation experiences, laboratory experiments, and exercises involving analysis of data. Specific experiments illuminate topics presented in AST 103. Must take AST 103 to receive credit. *Corequisite:* AST 103 lecture. 1 hour.

**115. Extraterrestrial Life Laboratory**—Laboratory experience illuminates topics presented in AST 105. Must take AST 105 to receive credit. *Corequisite:* AST 105 lecture. 1 hour.

**241. Fundamentals of Astrophysics**—Physical processes and models of current astrophysics and astronomy. Advanced physics elective requiring junior-level background in physics and mathematics. *Prerequisite:* permission of instructor. 3 hours.

### Course Descriptions

#### Physical Science (PHS)

**101. Physical Science**—Scientific method and hands-on experience with integrated laboratory, discussion, and lecture. For non-science majors. Lecture and laboratory. *Prerequisite:* Completion of Core Curriculum mathematics requirement (Core Area III). *Corequisite:* PHS 101L laboratory. 4 hours.

**101L. Physical Science Laboratory**—*Corequisite:* PHS 101 lecture. 0 hours.

**110. Overview of Space Exploration**—Descriptive approach to comparative planetology for non-science majors. Analysis of recent, ongoing, and planned space missions with regard to scientific objectives and experiment design. 3 hours.

**141. Musical Acoustics**—Scientific method and hands-on experience with integrated laboratory, discussion, and lecture, emphasizing physical principles and experiences important for understanding musical tones. For non-science majors. See MU 141. *Prerequisite:* completion of Core Curriculum mathematics requirement. 3 hours.

**150. Science Writing**—Scientific writing skills for science, mathematics, and engineering. Identification of audience and purpose, generation of ideas, organization of information and construction of arguments. *Prerequisite:* permission of instructor. 3 hours.

**211. Discussion on the Nature of Matter**—Honors seminar. Evolution of science and scientific method from early Greek origins in context of the study of matter. Non-mathematical, descriptive, and pictorial approach to understanding basic structure of matter and materials of technological interest. See HON 211. *Prerequisite:* permission of instructor or admission to Honors Program. 3 hours.

**495. Philosophy and Physics in the 21st Century**—Philosophy and physics in the 21st Century. 3 hours.

## Course Descriptions

### Physics (PH)

**100. Preparatory Physics**—Vectors, kinematics, and dynamics, including conservation laws. Problem solving utilizing basic algebra and trigonometry. May not be used to satisfy Area III of Core Curriculum. *Prerequisite:* MA 106 or equivalent. 3 hours.

**191. Co-Op Work Program**—Co-Op Work Program. 2 to 3 hours.

**201. College Physics I**—First term of non-calculus based physics. Linear and planar motion, Newton's Laws, work and energy, gravitation, momentum, rigid body motion, statics, elasticity, oscillations, waves, sound, fluids, ideal gases, heat, and thermodynamics. Lecture and laboratory. *Prerequisite:* PH 100 or successful completion of Physics Placement Test. *Corequisite:* PH 201L. 4 hours.

**201L. College Physics Laboratory I**—(Also PH 221L.) Laboratory for PH 201. *Corequisite:* PH 201. 0 hours.

**202. College Physics II**—Second term of non-calculus based physics. Electricity and magnetism, optics, and modern physics. Lecture and laboratory. *Prerequisite:* PH 201. *Corequisite:* PH 202L. 4 hours.

**202L. College Physics Laboratory II**—Laboratory for PH 202. *Corequisite:* PH 202. 0 hours.

**221. General Physics I**—First term of introductory, calculus-based general physics sequence covering classical mechanics. Measurements, kinematics, vectors, translational and rotational dynamics, work, energy, momentum, statics, oscillatory motion, fluid dynamics, wave motion, sound, thermodynamics, and kinetic theory. Lecture and laboratory. *Prerequisite:* MA 125; PH 100 or successful completion of the Physics Placement Test. *Corequisite:* PH 221L. 4 hours.

**221L. General Physics Laboratory I**—(Also PH 201L.) Laboratory for PH 221. *Corequisite:* PH 221. 0 hours.

**222. General Physics II**—Second term of introductory, calculus-based general physics sequence covering electricity and magnetism, Coulomb's Law, electric fields, Gauss' Law, potential, capacitors and dielectrics, Ohm's Law, DC circuits, magnetic fields, Ampere's Law, Biot-Savart Law, Faraday's Law, inductance, AC circuits, geometrical and physical optics. Lecture and laboratory. *Prerequisite:* PH 221 and MA 126. *Corequisite:* PH 222L. 4 hours.

**222L. General Physics Laboratory II**—Laboratory for PH 222. *Corequisite:* PH 222. 0 hours.

**301. Classical and Modern Physics**—Classical and Modern Physics. *Corequisite:* PH 301L. 4 hours.

**301L. Classical and Modern Physics Laboratory**—Laboratory for PH 301. *Corequisite:* PH 301. 0 hours.

**302. Classical and Modern Physics**—Classical and Modern Physics. *Corequisite:* PH 302L. 3 hours.

**302L. Classical and Modern Physics Laboratory**—Laboratory for PH 302. *Corequisite:* PH 302. 0 hours.

**304. Studies in Physics Teaching I**—Development of new techniques to present concepts in physics, including lecture and laboratory demonstrations and supervised practice in pedagogical methods related to teaching physics. *Prerequisite:* permission of instructor. 2 to 3 hours.

**305. Studies in Physics Teaching II**—Development of new techniques to present concepts in physics, including lecture and laboratory demonstrations and supervised practice in pedagogical methods related to teaching physics. *Prerequisite:* permission of instructor. 2 to 3 hours.

**331. Classical Thermodynamics**—Classical Thermodynamics. *Prerequisites:* PH 222 and Math 227. 3 hours.

**351. Modern Physics I**—Atomic, molecular, solid-state physics; quantum mechanics, lasers and nanotechnology. Theoretical and experimental studies to understand observable properties of matter in terms of microscopic constituents. Lecture and laboratory. *Prerequisite:* PH 222. *Corequisite:* PH 351L laboratory. 4 hours.

**351L. Modern Physics I Laboratory**—Laboratory for PH 351. *Corequisite:* PH 351 lecture. 0 hours.

**352. Modern Physics II**—Statistical mechanics and thermodynamics, semiconductors, nuclear and particle physics, special and general relativity, cosmology. Includes student presentations. Lecture and laboratory. *Prerequisite:* PH 351. *Corequisite:* PH 352L laboratory. 4 hours.

**352L. Modern Physics II Laboratory**—Laboratory for PH 352. *Corequisite:* PH 352 lecture. 0 hours.

**397. Directed Reading in Physics I**—Tutorial studies in physics offered by special arrangement. *Prerequisite:* permission of instructor. See HON 397. 2 to 3 hours.

**398. Directed Reading in Physics II**—Tutorial studies in physics offered by special arrangement. *Prerequisite:* permission of instructor. 2 to 3 hours.

**420. Mathematical Methods of Physics I**—Vector calculus. Curvilinear coordinate systems. Commonly encountered ordinary differential equations and special functions. Complex variables and contour integration. Partial differential equations, including solutions by Green function methods. *Prerequisite:* Permission of instructor. 3 hours.

- 421. Mathematical Methods of Physics II**—Vector calculus. Curvilinear coordinate systems. Commonly encountered ordinary differential equations and special functions. Complex variables and contour integration. Partial differential equations, including solutions by Green function methods. *Prerequisites:* PH 420 and permission of the instructor. 3 hours.
- 425. Applications of Contemporary Optics I**—Applied geometrical and wave optics. Paraxial ray optics, optical matrix theory, aberrations, optical imaging systems, and computer-based optical design. Optical interferometry, diffraction, holography, polarization phenomena, coherence theory, lasers, and Gaussian beam propagation. *Prerequisite:* PH 222. 3 hours.
- 426. Applications of Contemporary Optics II**—Applied geometrical and wave optics. Paraxial ray optics, optical matrix theory, aberrations, optical imaging systems, and computer-based optical design. Optical interferometry, diffraction, holography, polarization phenomena, coherence theory, lasers, and Gaussian beam propagation. *Prerequisite:* PH 425. 3 hours.
- 427. Geometrical Optics**—Properties of optical systems. Lenses, mirrors, and stops. Aberrations. Rays and wave fronts. Optical instruments. Aspheric components. Lecture and laboratory. *Prerequisite:* PH 222 or equivalent. *Corequisite:* PH 427L laboratory. 4 hours.
- 427L. Geometrical Optics Laboratory**—Laboratory for PH 427. *Corequisite:* PH 427 lecture. 0 hours.
- 428. Physical Optics**—Interference and diffraction phenomena. Emission, propagation, and absorption of radiation. Polarization and dispersion. Stimulated emission. Lecture and laboratory. *Prerequisite:* PH 222 or equivalent. *Corequisite:* PH 428L laboratory. 4 hours.
- 428L. Physical Optics Laboratory**—Laboratory for PH 428. *Corequisite:* PH 428 lecture. 0 hours.
- 429. Applications of Contemporary Optics III**—Optical interactions with materials, including nonlinear optical effects, such as birefringence, electro-optics, photoelasticity, crystal optics, acousto-optics, and phase conjugation. Optical spectroscopies, such as spectroscopic instrumentation, lasers as spectroscopic light sources, fluorescence and Raman laser spectroscopy, and applications of laser spectroscopy in chemistry, environmental research, materials science, biology, and medicine. *Prerequisites:* PH 425 and 426. 3 hours.
- 432. Statistical Thermodynamics I**—Statistical basis of laws of thermodynamics. Ensembles and partition functions. Quantum statistics of ideal gases, including photons and electrons. Applications to solids, real gases, liquids, and magnetic systems. Transport theory. *Prerequisites:* PH 352 and permission of instructor. 3 hours.
- 433. Statistical Thermodynamics II**—Statistical basis of laws of thermodynamics. Ensembles and partition functions. Quantum statistics of ideal gases, including photons and electrons. Applications to solids, real gases, liquids, and magnetic systems. Transport theory. *Prerequisites:* PH 432 and PH 450. 3 hours.
- 445. Electromagnetic Theory I**—Electromagnetic theory approached from the standpoint of fields and using Maxwell's equations. *Prerequisites:* PH 222 and MA 444 or equivalent. 3 hours.
- 446. Electromagnetic Theory II**—Electromagnetic theory approached from the standpoint of fields and using Maxwell's equations. *Prerequisite:* PH 445. 3 hours.
- 450. Introductory Quantum Mechanics I**—Principles of quantum mechanics and their application to particle waves, angular momentum, tunneling, radiation, and selection rules. Perturbation and variational methods. *Prerequisites:* PH 351 and PH 462. PH 352 recommended. 3 hours.
- 451. Introductory Quantum Mechanics II**—Principles of quantum mechanics and their application to particle waves, angular momentum, tunneling, radiation, and selection rules. Perturbation and variational methods. *Prerequisite:* PH 450. PH 352 recommended. 3 hours.
- 453. Introductory Solid State Physics I**—Properties of crystal lattices, lattice dynamics, lattice imperfections, and bonding energies. Electronic properties of dielectrics, semiconductors, and metals. Ferroelectric, magnetic, and optical properties of solids. *Prerequisite:* PH 451 or equivalent. 3 hours.
- 454. Introductory Solid State Physics II**—Properties of crystal lattices, lattice dynamics, lattice imperfections, and bonding energies. Electronic properties of dielectrics, semiconductors, and metals. *Prerequisites:* PH 453 and PH 451 or equivalent. 3 hours.
- 455. Molecular Spectroscopy**—Molecular Spectroscopy. 3 hours.
- 461. Classical Mechanics I**—Kinematics and dynamics, including central forces, rotating coordinate systems, and generalized coordinates. Lagrangian, Hamiltonian, and other equivalent formulations of mechanics. *Prerequisites:* PH 222 and MA 252. 3 hours.
- 462. Classical Mechanics II**—Kinematics and dynamics, including central forces, rotating coordinate systems, and generalized coordinates. Lagrangian, Hamiltonian, and other equivalent formulations of mechanics. *Prerequisite:* PH 461. 3 hours.
- 467. Special Relativity**—Principles and foundations of special relativity with applications to mechanics and electrodynamics. *Prerequisites:* PH 446 and PH 462. 3 hours.
- 468. General Relativity**—Gravitational phenomena associated with and resulting from linear field equations. Equivalence principle, its implications of non-linear field, and physical consequences. *Prerequisite:* permission of instructor. 3 hours.
- 475. Introduction to Biophysics I**—Physics of biological systems: proteins, lipids, nucleic acids, supramolecular structures, and molecular motors; structure, function, energetics, thermodynamics, and bio-nanotechnology. Emphasis on systems that are best understood in physical and molecular detail. Systems will direct study, with modern physical methods introduced as needed. *Prerequisite:* permission of instructor. 3 hours.
- 476. Introduction to Biophysics II**—Physics of biological systems: proteins, lipids, nucleic acids, supramolecular structures, and molecular motors; structure, function, energetics, thermodynamics, and bio-nanotechnology. Emphasis on systems that are best understood in physical and molecular detail. Systems will direct study, with modern physical methods introduced as needed. *Prerequisites:* PH 475 and permission of instructor. 3 hours.
- 481. Laser Physics I**—Physical principles of laser operation and design. Spontaneous and stimulated emission, population inversion, light amplification, laser resonators, Q-switching, mode-locking, pulse shortening techniques, spectral narrowing, and tunable lasers. Individual types of lasers such as gas, solid state, dye, color

center, and semiconductor. Practical applications of lasers as well as modern techniques and instrumentation in laser spectroscopy. *Prerequisite:* PH 222. *Corequisite:* PH 481 laboratory. 3 hours.

**481L. Laser Physics I Laboratory**—Laboratory for PH 481. *Corequisite:* PH 481 lecture. 0 hours.

**482. Laser Physics II**—Physical principles of laser operation and design. Spontaneous and stimulated emission, population inversion, light amplification, laser resonators, Q-switching, mode-locking, pulse shortening techniques, spectral narrowing, and tunable lasers. Individual types of lasers such as gas, solid state, dye, color center, and semiconductor. Practical applications of lasers as well as modern techniques and instrumentation in laser spectroscopy. *Prerequisite:* PH 481. *Corequisite:* PH 482L laboratory. 3 hours.

**482L. Laser Physics II Laboratory**—Laboratory for PH 482. *Corequisite:* PH 482 lecture. 0 hours.

**485. Laser Spectroscopy**—Fundamental principles, experimental techniques, instrumentation, and practical applications of laser spectroscopy. *Prerequisite:* permission of instructor. 3 hours.

**486. Semiconductor Materials in Modern Technology**—Brief review of electronic materials with emphasis on traditional and cutting edge Silicon technology. Competing and complementary semiconductors covered in standard lecture and seminar style. Materials: compound and tertiary semiconductors, organic semiconductors, and wide bandgap semiconductors. Applications: optical and chemical sensors, microwave electronics, high power electronics, and lasers. Specific applications and materials determined by student interests. *Prerequisite:* PH 352 or equivalent (ME 483/583, EE 351, CH 326) or permission of instructor. 3 hours.

**487. Nanoscale Science and Applications**—Physics of electronic, mechanical, and biological properties of materials at the nanoscale level approaching one billionth of a meter. The applications of nanoscale materials in electronic, mechanical, and biomedical systems will be emphasized. Special tools in synthesis and characterization of nanomaterials will be discussed. *Prerequisite:* PH 221/222 or CH 115/117. 3 hours.

**491. Advanced Physics Laboratory I**—Laboratory investigation of topics of modern physics. *Prerequisite:* permission of instructor. 1 to 4 hours.

**492. Advanced Physics Laboratory II**—Laboratory investigation of topics of modern physics. *Prerequisite:* permission of instructor. 1 to 4 hours.

**493. Advanced Physics Laboratory III**—Laboratory investigation of topics of modern physics. *Prerequisite:* permission of instructor. 1 to 4 hours.

**495. Honors Research**—Research in an area of active research, under the direction of a faculty sponsor and the Honors Committee. *Prerequisite:* admission to the Physics Honors Program. May be repeated. 3 hours.

**498. Directed Research**—Directed Research. 1 to 6 hours.

See the *UAB Graduate School Catalog* for descriptions of graduate courses.



Baccalaureate preparation in nursing is the basic educational level for entry into professional nursing practice. This foundational education offers both academic and professional nursing courses that provide a base for clinical competence and informed judgments about health care situations and patient care needs in a variety of settings, including, but not limited to, home/community agencies, outpatient/ambulatory care, and hospital-based practice ranging from chronic to high acuity. Baccalaureate nursing education builds upon knowledge from the humanities and biological, physical, social, and behavioral sciences. In addition to information that prepares the nurse to care for families and individuals of all ages, principles of nursing research and principles of leadership and management assist the graduate to function as an informed member of an interdisciplinary health team. Graduates of the program are eligible to write the national licensing examination (NCLEX-RN) to become a registered nurse (RN).

## GOALS OF THE BSN PROGRAM

The curriculum leading to the degree of Bachelor of Science in Nursing is designed to prepare graduates who are able to:

- synthesize theoretical and empirical knowledge from nursing, scientific and humanistic disciplines and make professional practice decisions;
- provide professional nursing care that includes health promotion and maintenance, illness care, restoration, rehabilitation, health counseling and education based on knowledge derived from theory and research;
- demonstrate the ability to independently and/or collaboratively apply the nursing process in a variety of settings to facilitate clients' adaptation to multiple and/or complex environmental variables for the purpose of achieving maximum health;
- engage in critical inquiry and incorporate patient findings into the practice of professional nursing;
- collaborate with clients, health care providers, and members of the general public to promote the achievement of health care goals;
- use leadership and managerial skills to provide quality nursing

care in a variety of settings;

- engage in professional role behaviors that serve to improve nursing and health care delivery and meet the changing needs of society;
- incorporate professional, ethical, legal, and institutional standards into nursing practice; and
- demonstrate responsibility and accountability for own and selected others' nursing practice decisions, interventions, and outcomes.

## ADMISSION TO THE SCHOOL OF NURSING

All students interested in pursuing the Bachelor of Science in Nursing degree at the University of Alabama at Birmingham must first meet the UAB's admission requirements for regular status and be admitted to the university as a pre-nursing student. To find out more about these requirements, go to the Admissions section.

Additionally, students must be admitted to the School of Nursing. The application for admission to the School of Nursing's BSN program is obtained from the student's assigned UAB Pre-Nursing advisor (Division of General Studies). Applications will be distributed to students when appropriate pre-nursing prerequisite courses have been completed and they have attained the designated GPA. Admission to the BSN program is available for Fall, Spring and Summer terms.

## ADMISSION REQUIREMENTS FOR BSN DEGREE

Minimum eligibility requirements for admission to the School of Nursing are:

- admission to UAB as a regular pre-nursing student;
- advisement by a UAB Pre-Nursing advisor in the Division of General Studies;
- completion and submission of the Application for Admission to the School of Nursing, and supporting documents, no later than the posted application deadlines;
- completion of all pre-nursing courses and a minimum of 65 semester hours.
- a grade of at least C in all 65 semester hours of specified BSN pre-nursing courses;
- a grade point average (GPA) of no less than 2.5, without rounding, on 38 semester hours of specified BSN foundation courses. If a course is repeated, only the final grade assigned to the second attempt will be calculated in the GPA for admission purposes; and
- prior to enrollment in the School of Nursing, undergraduate students must have successfully completed a Nursing Assistant Skills Course, be certified to perform CPR as a health professional and have received medical clearance from Student Health Services at UAB.

**Meeting minimum School of Nursing admission requirements does not guarantee admission to the program.**

Admission is based upon the academic record and space available. When the number of applicants who meet minimum requirements exceeds the number of student spaces available, the best-qualified applicants will be admitted. Attendance at orientation is required of all BSN students entering the program.

**BSN Application Deadlines**

**Fall Term:** 2nd Friday in June

**Spring Term:** 2nd Friday in October

**Summer Term:** 2nd Friday in February

**OUR MISSION**

The University of Alabama School of Nursing (UASON), an of an internationally renowned research university and Academic Health Center, exists to educate nurse leaders as clinical scholars, researchers, and service providers/participants, who will advance knowledge and deliver quality, holistic care in a variety of settings to the people of Alabama, the nation, and the world.

**OUR PHILOSOPHY**

The School of Nursing, as a constituent of the University of Alabama at Birmingham, accepts responsibility for promoting the University's general purposes of teaching, research, and service. The School of Nursing philosophy builds upon the concepts of human, society, health, nursing, and learning.

We believe that:

- \* The human is a wholistic being who develops through continuous interaction with the environment.
- \* Society, composed of individuals, families, groups, communities, and other population aggregates, possesses structure, values, and beliefs that influence human responses.
- \* Health is a dynamic, multidimensional, measurable state of being that is influenced by the internal and external environment.
- \* Nursing is a profession and an academic discipline possessing a scientific body of knowledge
- \* Learning is a dynamic, life-long interactive process involving sensory perception, conceptualization, and critical thinking.
- \* Nursing education guides the learner to attain competencies required to practice professional nursing.
- \* Nursing education at the baccalaureate level is the basis for professional practice as a nurse generalist, and should be accessible to individuals with diverse cultural, experiential, and academic backgrounds.
- \* Nursing education at the master's level focuses on preparation for advanced practice through the integration of selected theoretical formulations and expansion of knowledge and skills through critical inquiry.

\* The foundation for doctoral education in nursing is a professional degree in nursing.

\* Nurses prepared at each of the three academic levels are responsible for continuing their professional development to promote constructive, effective, ethical, and societally relevant modifications within the discipline of nursing.

• NUR 470 Nursing of Childrearing Families .....	6
• NUR 472 Nursing of the Mental Health Client .....	6
• NUR 476Q Community Health Nursing .....	6
• NUR 480Q Leadership and Management in Professional Nursing Practice .....	7

\*\* Effective Fall Semester 2004, all BSN applicants must have successfully completed (with a grade of C or better) BY 216 Pathophysiology (3 hours) and BY 261 Introduction to Microbiology (4 hours) within five years prior to first-term enrollment in to the School of Nursing.

## BSN COURSE REQUIREMENTS

### BSN FOUNDATION COURSES

Grades for these courses will be used to calculate the admission grade point average, and a minimum grade of C is required in each course.

	<i>Sem. Hrs.</i>
• BY 115 Human Anatomy .....	4
• BY 116 Human Physiology .....	4
• BY 216 Pathophysiology.....	3
• BY 261 Introduction to Microbiology .....	4
• CH 105 and 106 Lab Introductory Chemistry I, Inorganic .....	4
• CH 107 and 108 Lab Introductory Chemistry II, Organic.....	4
• EH 101 English Composition .....	3
• EH 102 English Composition .....	3
• MA 105 Precalculus I or MA 110 Finite Mathematics .....	3
• PY 212 Developmental Psychology .....	3
• Descriptive Statistics.....	3

### ADDITIONAL GENERAL STUDIES COURSES

• Ethical Reasoning.....	3
• Fine Arts.....	3
• Cultural Anthropology.....	3
• Literature I and II (sequential).....	6
• Nutrition.....	3
• Psychology .....	3
• History, Social and Behavioral Sciences.....	3
• Western Civilization.....	3

### PROFESSIONAL NURSING COURSES

• NUR 350 Foundations of Professional Nursing .....	7
• NUR 351 Pathophysiologic Basis for Drug Therapy .....	3
• NUR 353Q Nursing and Health Care .....	3
• NUR 360 Adult Health Nursing in Secondary and Community Settings .....	7
• NUR 361Q Nursing Research .....	3
• NUR 362 High Acuity Adult Health Nursing .....	7
• NUR 364 Nursing of Childbearing Families .....	6
• Nursing Elective.....	2
• Nursing Elective.....	2

## ADMISSIONS REQUIREMENTS FOR THE RN-BSN MOBILITY PROGRAM

All students interested in pursuing the RN-BSN Mobility program must first meet UAB undergraduate admission requirements for regular student status and be admitted as a pre-mobility student.

The application for admission to the School of Nursing's RN-BSN Mobility program is obtained from the student's assigned UAB pre-nursing advisor (Office of General Studies). Applications will be distributed to students when they have completed pre-RN mobility prerequisite courses and have attained the appropriate GPA. Admission into the RN-BSN option is available in the fall, spring, and summer terms.

### REQUIREMENTS FOR ADMISSION INCLUDE THE FOLLOWING:

- admission to UAB as a regular pre-RN mobility student;
- advisement by a UAB pre-nursing advisor in the Division of General Studies;
- completion and submission of the Application for Admission to the School of Nursing, and supporting documents, no later than the posted application deadlines. RN Mobility applicants must submit their applications no later than one month prior to the requested term of School of Nursing enrollment;
- a grade point average of not less than 2.5, without rounding, on 38 semester credits of specified BSN foundation courses. If a course is repeated, only the final grade assigned to the **second attempt** will be calculated in the GPA for admission to the SON;
- a grade of at least C in all 65 semester credits of BSN pre-nursing courses;
- Evidence of successful completion of an accredited diploma or associate degree nursing program and a current license to practice as a Registered Nurse;
- submission of a portfolio describing work experiences (required prior to development of the student's individual program of study); and
- a valid CPR certificate and medical clearance from UAB Student Health Services must be in-hand prior to enrollment in the School of Nursing.

### Meeting minimum School of Nursing admission requirements does not guarantee admission to the program.

Admission is based upon the academic record and space available. When the number of applicants who meet minimum requirements exceeds the number of student spaces available, the best-

qualified applicants will be admitted. Attendance at orientation is required of all BSN students entering the program

**RN Mobility application deadline:** no later than one month prior to the beginning of the first term of enrollment.

## RN-BSN MOBILITY COURSE REQUIREMENTS

### BSN FOUNDATION COURSES

Grades for these courses will be used to calculate the admission grade point average, and a minimum grade of C is required in each course.

	<i>Sem. Hrs.</i>
• BY 115 Human Anatomy .....	4
• BY 116 Human Physiology .....	4
• BY 216 Pathophysiology .....	3
• BY 261 Introduction to Microbiology.....	4
• CH 105 and 106 Lab Introductory Chemistry I, Inorganic .....	4
• CH 107 and 108 Lab Introductory Chemistry II, Organic .....	4
• EH 101 English Composition.....	3
• EH 102 English Composition.....	3
• MA 105 Precalculus I or MA 110 Finite Mathematics.....	3
• PY 212 Developmental Psychology .....	3
• Descriptive Statistics .....	3

\*\* Effective Fall Semester 2004, all BSN applicants must have successfully completed (with a grade of C or better) BY 216 Pathophysiology (3 hours) and BY 261 Introduction to Microbiology (4 hours) within five years prior to first-term enrollment in to the School of Nursing.

### ADDITIONAL GENERAL STUDIES COURSES

• Ethical Reasoning .....	3
• Fine Arts .....	3
• Cultural Anthropology .....	3
• Literature I and II (sequential) .....	6
• Nutrition .....	3
• Psychology.....	3
• History, Social and Behavioral Sciences .....	3
• Western Civilization .....	3

### SCHOOL OF NURSING NONCLINICAL NURSING COURSES

• NUR 353Q Nursing and Health Care .....	3
• NUR 361Q Nursing Research.....	3
• Nursing Elective .....	2
• Nursing Elective .....	2

### RN-BSN MOBILITY TRANSITION NURSING COURSE

• NUR 474 Role Transition in Professional Nursing Practice.....	10
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(32 hours of validated credit awarded upon successful completion of this course)

### UNDERGRADUATE CLINICAL NURSING COURSES

• NUR 476Q Community Health Nursing.....	6
• NUR 482Q Leadership and Management in Professional Nursing Practice .....	7

**RN-BSN-MSN application deadline:** no later than one month prior to the beginning of the first term of enrollment.

For additional information, contact the School of Nursing Office of Student Affairs at 205-975-7529.

### ADMISSION REQUIREMENTS FOR THE RN-BSN-MSN MOBILITY PROGRAM

Concurrent admission in good standing to both the BSN and MSN programs is required. All students interested in pursuing the RN-BSN-MSN Mobility program must first meet the University's undergraduate admission requirements and be admitted as a pre-mobility student. Admission to the RN-BSN-MSN option is available in the Fall, Spring, and Summer terms.

The application for admission to the School of Nursing's RN-BSN-MSN Mobility program is obtained from the student's assigned UAB pre-nursing advisor (Office of General Studies). Applications will be distributed to students when they have completed pre-RN mobility prerequisite courses and have attained the appropriate GPA.

Requirements for admission to the RN-BSN-MSN option include the following:

#### FOR STUDY LEADING TO THE RN-BSN-MSN DEGREE:

- admission to UAB as a regular pre-RN Mobility student;
- advisement by a UAB pre-nursing Advisor in the Division of General Studies;
- completion and submission of both RN Mobility and MSN Application for Admission to the School of Nursing, and supporting documents, no later than the posted application deadlines. RN Mobility applicants must submit their applications no later than one month prior to the requested term of School of Nursing enrollment;
- a GPA of not less than 2.5, without rounding, on 38 semester hours of specified BSN foundation courses. If a course is repeated, only the final grade assigned to the second attempt will be calculated in the GPA for admission purposes;
- a grade of at least a C in all 65 semester credits of specified BSN pre-nursing course;
- evidence of successful completion of an accredited diploma or associate degree nursing program and a current license to practice as a registered nurse in Alabama; and
- a valid CPR certificate and medical clearance from UAB Student Health Services must be in-hand prior to enrollment in the School of Nursing.

#### FOR ADMISSION IN GOOD STANDING TO THE MSN PROGRAM:

- cumulative grade point average of no less than 3.0 on the last 60 semester credits of college coursework;

- combined score of 1,000 on verbal and quantitative sections of the GRE, score of 50 on the MAT, or score of 480 on the GMAT;
  - letters of professional reference attesting to the applicant's potential for graduate study; and
  - pre-admission interview with graduate faculty.
- Probational admission to the MSN program is available.

**Meeting minimum School of Nursing admission requirements does not guarantee admission to the program.**

Admission is based upon the academic record and space available. When the number of applicants who meet minimum requirements exceeds the number of student spaces available, the best-qualified applicants will be admitted. Attendance at orientation is required of all BSN students entering the program

## RN-BSN-MSN COURSE REQUIREMENTS

### BSN FOUNDATION COURSES

Grades for these courses will be used to calculate the admission grade point average, and a minimum grade of C is required in each course.

	<i>Sem. Hrs.</i>
• BY 115 Human Anatomy .....	4
• BY 116 Human Physiology .....	4
• BY 216 Pathophysiology.....	3
• BY 261 Introduction to Microbiology .....	4
• CH 105 and 106 Lab Introductory Chemistry I, Inorganic .....	4
• CH 107 and 108 Lab Introductory Chemistry II, Organic.....	4
• EH 101 English Composition .....	3
• EH 102 English Composition .....	3
• MA 105 Precalculus I or MA 110 Finite Mathematics .....	3
• PY 212 Developmental Psychology .....	3
• Descriptive Statistics .....	3

### ADDITIONAL GENERAL STUDIES COURSES

• Ethical Reasoning.....	3
• Fine Arts.....	3
• Cultural Anthropology .....	3
• Literature I and II (sequential).....	6
• Nutrition.....	3
• Psychology .....	3
• History, Social and Behavioral Sciences.....	3
• Western Civilization.....	3

### SCHOOL OF NURSING NONCLINICAL NURSING AND SUPPORT COURSES

• NUR 353Q Nursing and Health Care .....	3
• NUR 361Q Nursing Research .....	3
• NUR 606 Nursing Science, Phenomena and Therapeutics .....	2
• NUR 607 Professional Role Development for Advanced Practice .....	2

- NUR 608 Management and Leadership  
for Advanced Practice .....
- NUR 6\_\_ Advanced Support Course .....

### RN-BSN TRANSITION NURSING COURSE

- NUR 474Q Role Transition in Professional Nursing Practice ..10  
(32 hours of validated credit awarded upon successful completion of this course)

### UNDERGRADUATE CLINICAL NURSING COURSES

- NUR 476Q Community Health Nursing .....
- NUR 480Q Leadership and Management  
in Professional Nursing Practice .....

Additional graduate courses are required to complete the MSN, specific courses are dependent upon program of study selected. For additional information, contact the School of Nursing Office of Student Affairs, (205) 975-7529.

## DEPARTMENTAL HONORS PROGRAM: NURSING

### PURPOSE

Develop additional skills in research or clinical practice in preparation for a career as a professional nurse and/or graduate study in nursing.

### ELIGIBILITY

Acceptance into the Nursing Honors Program requires the student to have:

- earned a 3.25 GPA in pre-nursing courses;
- earned a 3.00 GPA overall;
- submitted the Honors Program Application form;
- completed the interview process with the SON Honors Committee; and
- been admitted into the School of Nursing.

### REQUIREMENTS

Maintenance of a 3.0 GPA (UAB) and a 3.25 GPA in nursing courses through graduation.

#### Option I: Clinical Option

- completion of 6 credit hours of honors-designated clinical courses/seminars: NUR353QH-Nursing and Health Care-Honors Section (3 hours) and NUR 351H-Nursing Research;
- participation in NUR 492 and 494: Honors Seminars I and II: Clinical;
- submission of a written report in the form of a scholarly paper related to a clinical issue or problem;
- an oral or poster presentation at a designated professional meeting

#### Option II: Research Option

- completion of 6 credit hours of honors-designated courses/seminars: NUR 353H-Nursing & Health Care-Honors Section (3 hours) and NUR 351H-Nursing Research;

- participation in NUR 493 and 495 Honors Seminar I and II: Research;
- a formal research proposal submitted by the end of NUR 494;
- a written report of the process/outcome of the research project in the form of a scientific paper;
- an oral or poster presentation at a designated meeting or scientific session.

### **BENEFITS**

Expanding one's clinical and/or research focus fosters inquiry, initiative, independence, and integration of prior knowledge into the role of the professional nurse. Students who successfully complete the program graduate "With Honors in Nursing." Students who participate in both the UAB Honors Program and the School of Nursing Honors program will graduate "With University Honors in Nursing."

### **CONTACT**

Dr. Ellen Buckner, Honors Program Coordinator,  
or Dr. Barbara C. Woodring, Associate Dean,  
University of Alabama School of Nursing at Birmingham;  
Telephone (205) 934-6799; E-mail bucknere@son.uab.edu  
or bcw13@uab.edu.

## **SECOND DEGREE POLICY FOR THE SCHOOL OF NURSING**

The UAB Second Degree Policy is as follows: A student may earn a second baccalaureate degree by completing in residence, with an average of C or better, at least 30 semester hours of work over and above the work done for the first degree, including a new major. Work done for the second degree must include any necessary prerequisites for the new major and all major requirements. The first degree, whether earned at UAB or another regionally accredited institution, must be based on at least 120 semester hours of accredited work. No minor is required for the second degree. A student interested in earning a second degree is required to have the program of study approved by the school in advance.

In response to the recent change (February 3, 2003) in policy regarding undergraduate students seeking a second degree, the School of Nursing has established guidelines to facilitate this policy and better serve the second-degree student.

## **SCHOOL OF NURSING IMPLEMENTATION GUIDELINES FOR SECOND DEGREE POLICY**

Individuals who have completed an undergraduate degree, outside the field of nursing, and who have met the UAB criteria for admission, may be considered for admission to the Bachelor of Science in Nursing (BSN) at the University of Alabama School of Nursing at UAB.

### **SECOND-DEGREE APPLICANT REQUIREMENTS:**

1. Have at least a bachelor's degree in a major other than nursing.
2. The first degree must have been earned at UAB or another regionally accredited institution.

3. The first degree must be based on at least 120 semester hours of accredited work.

Applicants who meet all of these requirements may have 10 courses (30 credit hours) of the required pre-nursing curriculum waived.

The following prerequisite courses (35 credit hours) **must be successfully completed** (with a grade of C or better) prior to the student being considered for admission to the undergraduate program in the School of Nursing:

- BY 115 Human Anatomy (4 hours)
- BY 116 Human Physiology (4 hours)
- BY 216 Pathophysiology (3 hours \*\*)
- BY 261 Introduction to Microbiology (4 hours \*\*)
- CH 105 and 106 Lab Introductory Chemistry I, Inorganic (4 hours)
- CH 107 and 108 Lab Introductory Chemistry II, Organic (4 hours)
- MA 105 Pre-Calculus I or MA 110 Finite Mathematics (3 hours)
- PY 212 Developmental Psychology (3 hours)
- Descriptive Statistics (3 hours)
- Nutrition (3 hours)

\*\* Effective Fall Semester 2004, all BSN applicants must have successfully completed (with a grade of C or better) BY 216 Pathophysiology (3 hours) and BY 261 Introduction to Microbiology (4 hours) within five years prior to first-term enrollment in to the School of Nursing.

### **Second-degree applicants must submit all materials, follow the same processes, and adhere to the same deadlines and requirements as all other undergraduate BSN applicants**

The upper-division nursing course requirements (65 credit hours) and the length of the program (five semesters) for second-degree applicants/students is the same as for the basic BSN applicants/students.

## **FIVE-YEAR TIME LIMIT POLICY ON SPECIFIC COURSEWORK**

Effective Fall Semester of 2004, all BSN applicants must have successfully completed (with a grade of C or greater) BY 216 Pathophysiology (3 hours) and BY 261 Introduction to Microbiology (4 hours) within five years prior to first-term enrollment in the School of Nursing.

All students enrolled at UAB as of Summer 2003 as an undergraduate student, will be "grandfathered" and will not have to meet this requirement until Fall Semester 2008. Nevertheless, it is strongly recommended that BY 216 Pathophysiology (3 hours) and BY 261 Introduction to Microbiology (4 hours) be completed within five years prior to admission to the School of Nursing.

**For information related to programs of study and/or nursing course descriptions please refer to the School of Nursing catalog at [www.uab.edu/son](http://www.uab.edu/son).**

## Course Descriptions

Q = electronic, online course offerings

### Nursing (NUR)

**350. Foundations of Professional Nursing**— This beginning clinical course is designed to provide the student with content essential for implementing the professional nursing role.

Communication theory, interpersonal relationships and therapeutic communication, nursing process, theoretical foundations related to the role of the professional nurse, and selected practice skills are included in this course. Clinical learning experiences occur with the adult client in diverse clinical settings. *Prerequisites:* completion of all prenursing courses and admission to the School of Nursing. *Corequisites:* NUR 351 and NUR 353 are prerequisites or corequisites. 7 credits; Fall, Spring, Summer.

**351. Pathophysiologic Basis for Drug Therapy**— Focuses on pharmacologic principles, specific considerations for drug administration, and the pathophysiologic basis for drug therapy. Students are introduced to drug classifications and prototypes and client assessments that need to be made prior to, during, and after drug therapy. *Prerequisite:* admission to the School of Nursing or permission of the instructor. *Pre- or corequisite:* NUR 350. 3 credits; Fall, Spring, Summer.

**353Q. Nursing and Health Care**—This course provides an overview of nursing and a dynamic health care delivery system. Students are introduced to basic theoretical concepts of nursing as a profession as well as theories and concepts in health care and health care delivery. Content related to epidemiology, environmental health promotion, and disease prevention is introduced. *Prerequisite:* admission to the School of Nursing. 3 credits; Fall, Spring, Summer.

**360. Adult Health Nursing in Secondary & Community Settings**—This clinical course will focus on nursing process and common internal and external environmental variables that affect health issues for adults across the life span. The role of the nurse in assisting the client to achieve maximum level of wellness is emphasized. The course will focus on chronic and long term care in both primary and secondary health care settings. *Prerequisites:* NUR 350, NUR 351, and NUR 353. *Pre- or corequisite:* NUR 361. 7 credits; Fall, Spring, Summer.

**361Q. Nursing Research**—Provides an introduction to the research process and prepares students to be beginning consumers of nursing research. Students will critically evaluate nursing research studies. *Prerequisites:* NUR 350, 351, 353. *Pre- or corequisite:* NUR 360. 3 credits; Fall, Spring, Summer.

**362. High Acuity Adult Health Nursing**— Content of this clinical course emphasizes the nursing process and internal and external environmental variables that affect health issues for adults across the life span. The role of the nurse in assisting the client to achieve maximum level of wellness is emphasized. The course will focus on acute episodic care. Clinical experiences are in high-acuity health care settings. *Prerequisites:* NUR 360 and NUR 361. 7 credits; Fall, Spring, Summer.

**364. Nursing of Childbearing Families**—A clinical course that provides the opportunity to utilize the nursing process and critical thinking skills with the parent-newborn dyad. Focus is on nursing interventions that promote, maintain, and restore the health of well and high-risk clients. Internal and external environmental

variables affecting the health of the family during the antepartal, intrapartal, and postpartal phases of childbearing and the neonatal period are introduced. Clinical experiences are in primary and secondary settings. *Prerequisites:* NUR 360 and NUR 361. *Pre- or corequisite:* NUR 362. 6 credits; Fall, Spring, Summer.

**371Q. Health Teaching Across the Lifespan**— This elective course emphasizes the choice of appropriate teaching strategies, which are specific to learning needs identified in clients across the lifespan. Principles of client teaching in a variety of health care settings will be discussed. Approaches to writing behavioral objectives, development of teaching materials that match selected teaching methods/techniques, and methods of evaluation will be examined. Economic, social, political, and cultural issues related to health teaching will be discussed. *Prerequisite:* NUR 350. 3 credits; Summer.

**372. Camp Nursing**—The purpose of this elective course is to provide the opportunities to apply the nursing process in a camp setting. Focus is on integrating health history, medication administration and provision of nursing care to children who are adapting in a camp setting. Course content includes readings on health and safety standards, common health problems, treatment of common illnesses occurring in camp population, and exploration of developmental considerations. Students gain knowledge of the role of professional nursing through clinical experiences in a camp setting. *Prerequisite:* NUR 350. 2 credits; Summer.

**373. Peri-Operative Nursing**—This elective course allows application of nursing process in a peri-operative setting. Emphasis is placed on mastery of aseptic technique and hemodynamic monitoring of patients experiencing surgery. *Prerequisite:* NUR 360. 3 credits; Spring and/or Summer.

**375. Critical Care Nursing of the Adult I**—This elective course provides theoretical concepts for students to understand essential information related to nursing care of adults with critical or life-threatening health conditions. Students will analyze patient care situations related to nursing diagnoses, therapeutic interventions, and factors associated with achievement of desired clinical outcomes in clients with high acuity, critical health situations. *Prerequisites:* NUR 362 and permission of the instructor. 2 credits; Fall and/or Spring.

**377. Anthropology and the Health Professional**—The importance of similarities and differences among groups of humans from various cultures and the influence of these variances for the health care professional is the focus of this elective course. *Prerequisite:* ANTH 101 or permission of the instructor. 3 credits; Fall.

**390. Independent Study in Nursing**—Individually designed learning experiences. *Prerequisite:* must be a junior-year nursing student and have a written Independent Study contract signed by the Associate Dean. 1 to 4 credits.

**391. Independent Study in Nursing**—Individually designed clinical learning experiences. *Prerequisites:* must be a junior-year nursing student and have a written Independent Study contract signed by the Associate Dean. 1 to 4 credits.

**436Q. Family and Individual Development Across Lifespan**—The focus of this elective course helps the student better understand theories related to individuals and family dynamics, influences of culture, spirituality and social policies across the lifespan. *Prerequisite:* admission to the School of Nursing or permission of instructor. 2 credits; Summer.

**437. Principles of Genetics**—This elective course provides the foundation to examination, integration, and evaluation of genetic principles to future advances in genetic health and counseling. Opportunity is given to apply ethical principles in decision making related to nursing care of families with genetic health patterns or problems. *Prerequisite:* must be enrolled in the School of Nursing. 3 credits; term TBA.

**439Q. Complementary Therapies and Integrative Health Care**—In this elective course, concepts of integrative health care and major complementary therapies will be considered in light of the emerging paradigms and utilization within health care. *Prerequisite:* completion of NUR 350. 3 credits; Spring.

**441Q. Herbs and Nutritional Supplements**—In this elective course, focus is placed upon the safe, effective use of herbal remedies and nutritional supplements. *Prerequisite:* completion of NUR 350 or permission of instructor. 3 credits; Summer.

**442. Health, Education and Social Welfare in Guatemala**—This course focuses upon the assessment of health, health care delivery systems, educational availability, and social policy that effects each within the country of Guatemala. International travel is required. *Prerequisites:* Junior or senior standing and permission of instructor. 3 credits; Summer.

**443Q. Introduction to Nursing Informatics**—The organizing framework for this elective course is based on the concepts that form the basis of nursing informatics: data, information and knowledge. Students will explore how data can be organized into information for the generation of knowledge through the design, selection, and implementation of clinical information systems. *Prerequisite:* NUR 361Q. 2 credits; Summer.

**461. Nursing Management of Donor and Transplant Client and Family**—This elective course is designated to provide basic theoretical knowledge related to nursing care of the donor and transplant client and their families. Content focuses on historical and current issues in donor/transplant nursing, including the impact of legal, ethical, political, economic, socio-cultural, and spiritual issues. Students will examine the role of the professional nurse and the interdisciplinary team in the management of care for donor/transplant clients and their families. *Prerequisite:* completion of the junior year of nursing. 2 credits; Spring.

**462. Neonatal Behavior Assessment in Clinical Nursing Practice**—The purpose of this elective course is to provide students with the knowledge and skills of neonatal behavioral assessment. Focus is placed upon concepts underlying the Brazelton Neonatal Behavioral Assessment Scale, behavioral characteristics of newborns, and cultural differences and assessment of low and high risk neonates. *Prerequisite:* NUR 364. 2 credits; term TBA.

**465Q. Concepts of Management of the High Risk Neonate**—This elective course will examine legal, historical, political, socio-cultural, ethical, technological, and economic issues related to care of high risk neonates and their families and the biophysical, psychological, sociocultural, spiritual, developmental, and educational needs of the neonate with complex stressors. The focus of the course will be on the concepts of health promotion, maintenance, and restoration of the high risk neonate and family as they adapt to complex stressors. In addition, students will analyze current research and the role of the professional nurse in providing care to high risk neonates and families. *Prerequisites:* successful completion of NUR 362, NUR 364. 2 credits; Fall, Spring, Summer.

**466. Camp Nursing of Special Populations**—This elective course allows the application of nursing process in a camp setting with clients who have special needs. Focus is on caring for campers and provision of nursing care to children who are adapting to special internal and external environmental variables. *Prerequisite:* NUR 362 or permission of the instructor. 3 credits; Summer.

**470. Nursing of Childrearing Families**—A clinical course providing the opportunity to utilize nursing process and critical thinking skills in the provision of professional nursing care to families with children from infancy through adolescence. Content includes health promotion, maintenance, and restoration in families adapting to common and/or complex internal and external environmental variables that affect children. Clinical experiences are in primary and secondary settings. *Prerequisites:* NUR 362 and NUR 364. 6 credits; Fall, Spring, Summer.

**472. Nursing of the Mental Health Client**—A clinical course focused on promotion, maintenance, and restoration of the mental health of individuals and families. Emphasis is placed on communication and therapeutic nursing intervention for clients adapting to internal and external environmental variables affecting mental health and psychopathology. Experiences in the therapeutic use of self, critical thinking and nursing process with clients in primary and secondary clinical settings. *Prerequisites:* NUR 362 and 364. *Pre- or Corequisite:* NUR 470. 6 credits; Fall, Spring, Summer.

**474Q. Role Transition in Professional Nursing Practice**—A clinical course assisting students to validate, update, and increase knowledge and skills necessary to facilitate transition into professional nursing practice at the baccalaureate level. Emphasis is on socialization into professional nursing roles, assessment of clients of various ages, issues affecting client families and multicultural diversity, teaching/learning principles, and individual case analysis. Clinical experiences are individually negotiated. *Prerequisites or Corequisites:* admission to RN Mobility Program, NUR 361, and NUR 353. 10 credits; Fall, Spring, Summer.

**476Q. Community Health Nursing**—A clinical course with emphasis on professional role development for nursing care focused on illness and injury prevention, health promotion, health maintenance, health education, and coordination of care for aggregate groups in urban and rural communities. Provides students the opportunity to analyze theories, processes, issues, and trends that affect the community as a whole. *Pre- or corequisite:* NUR 472.

**478. Sexuality Issues in Health and Illness: A Lifespan Approach**—This elective course includes the ethical, social, biological and psychological concepts of human sexuality. Open to non-nursing majors. *Prerequisite:* admission to School of Nursing or permission of instructor. 3 credits; Fall.

**480Q. Leadership and Management in Professional Nursing Practice**—A clinical course focused on leadership and management methodologies, resource management, delegation, conflict resolution, legal implications for practice, managed care, quality improvement, and evaluation practices. Provides opportunities to strengthen professional nursing role behaviors in selected areas of practice. Emphasis is placed on the integration of all professional role behaviors, application of research, and leadership-management of care for clients in both direct and indirect provider roles. *Prerequisite:* NUR 476. 7 credits; Fall, Spring, Summer.

**482Q. Leadership and Management Practicum for Professional Nursing Practice**—RN Mobility students only. This

clinical course focuses on the application of leadership and management theories and models, including concepts of resource allocation and management, delegation, conflict resolution, legal implications and practice, managed care, evaluation of practice, continuous quality improvement, the accreditation process for health care systems, and contemporary issues in the workplace. Emphasis is placed on the integration of all professional role behaviors, application of research, and leadership-management of care issues in selected areas of practice. *Prerequisite:* NUR 474; NUR 482 may be taken as a corequisite with the NUR 607 and NUR 608 requirement. 3 credits; Fall, Spring, Summer.

**490. Independent Study in Nursing**—*Prerequisite:* must be a senior-year nursing student and have a written Independent Study contract signed by the Associate Dean. 1 to 4 credits.

**491. Independent Study in Nursing**—*Prerequisites:* must be a senior-year nursing student and have a written independent study contract signed by the Associate Dean. *Corequisite:* NUR 491L. 1 to 4 credits.

**492. Honors Seminar I: Clinical Option**—Content focuses on the development of a clinical problem. *Pre- and corequisite:* admission to the School of Nursing Departmental Honors Program, successful completion of NUR 353 Honors, or permission of the instructor. 2 credits; Fall, Spring, Summer.

**493. Honors Seminar I: Research Option**—Content focuses on the development of a researchable project. *Pre- and corequisite:* admission to the School of Nursing Departmental Honors Program. *Pre- or corequisite:* NUR 361 Honors. 2 credits; Fall, Spring, Summer.

**494. Honors Seminar II: Clinical Option**—Content focuses on the solution to clinical project development in NUR 492. *Pre- and corequisite:* admission to the School of Nursing Departmental Honors Program, successful completion of NUR 492 Honors Seminar I: Clinical and permission of course instructor. 2 credits; Fall, Spring, Summer.

**495. Honors Seminar II: Research Option**—Content focuses on the completion of the research project developed in NUR 493. *Pre- and corequisite:* Continuation in the School of Nursing Departmental Honors Program, successful completion of NUR 493 Honors Seminar I: Research and permission of course instructor. 2 credits; Fall, Spring, Summer.

**499. Living with Loss**—This elective course includes loss, grief, body-image changes, loss due to chronic conditions, and loss of life in childhood and adulthood, explored from the viewpoint of health-care professionals. *Prerequisite:* admission to the School of Nursing or permission of the instructor. 3 credits; Fall, Spring.



**The School of Social and Behavioral Sciences** provides coursework leading to the Bachelor of Arts degree with majors available in anthropology, economics, history, international studies, political science, and sociology. The Bachelor of Science degree is awarded to majors in criminal justice, psychology, and social work. The school also shares responsibility for programs in African American studies, American studies, digital community studies, environmental studies, gerontology, urban affairs, and women's studies, as well as coursework in geography. Unless specified otherwise in the description of a major, all majors in the School of Social and Behavioral Sciences require a minor.

The School of Social and Behavioral Sciences offers the Master of Arts degree in history and in sociology; the Master of Science degree in criminal justice and in forensic science; the Master of Public Administration degree; and the Doctor of Philosophy degree in psychology, medical sociology, and forensic science. Consult the UAB Graduate School Catalog for details.

## SCHOOL-WIDE REQUIREMENTS FOR GRADUATION

In addition to fulfilling Core Curriculum (see page 49-51), students with majors in the School of Social and Behavioral Sciences must satisfy the requirements of two of the following three tracks for a maximum of six semester hours.

### A. Foreign Language/Foreign Culture (3 hours)

*Students satisfy this track by either:*

1. Completing a foreign language course at or above the 102 level, or
2. Completing a course which either considers social, economic, or political issues from a comparative and specifically international perspective or explores a single large region of the world (outside of the United States and Canada) from a holistic perspective.

A student may not use the same course to satisfy this requirement and the Humanities (Area II) requirement or Social Science (Area IV) requirement.

All foreign language courses numbered 102 and above may be used to fulfill this track except for

**190, 290, 390** (study abroad courses)

**399, 499** (independent study)

**33** (internship)

all **400-level** and above courses.

*In addition, the following courses may be used to fulfill this track:*

- ANTH 101** Introductory Cultural Anthropology
- ANTH 106** Introductory Archaeology
- ANTH 120** Language and Culture
- ANTH 241** Peoples of the World: Caribbean
- ANTH 243** Peoples of the World: Southeast Asia
- ANTH 244** Peoples of the World: Africa
- ANTH 245** Peoples of the World: Middle East
- ANTH 247** Peoples of the World: Oceania
- ANTH 248** Peoples of the World: Latin America
- ANTH 249** Peoples of the World: Greece and Eastern Mediterranean
  
- ARH 203** Survey History of Ancient and Medieval Art
- ARH 205** African, Native American and Oceanic Art
- ARH 206** Survey of Asian Art
- HY 245** Introduction to Latin American History
- HY 247** Colonial Latin America
- HY 248** Modern Latin America
- HY 257** The Celtic Fringe: Ireland, Scotland, Wales Britain and the Third World
- HY 258** Britain and the Third World
- HY 263** History of Russia to the Twentieth Century
- HY 265** History of the Soviet Union, 1917-1991
- JS 115** Comparative Criminal Justice Systems
- PSC 102** Introduction to Comparative Politics
- PSC 103** Introduction to International Relations
- PSC 250** African Politics
- PSC 251** European Political Systems
- PSC 252** Latin/South American Political Systems
- PSC 253** Asian Political Systems
- PSC 254** East European Political Systems
- PSC 262** Global Policy Issues
- PY 213** Cross-Cultural Perspectives on Child Development
- PY 319** Psychopathology and Culture
- SOC 200** Social Change
- SOC 325** Sociology of Russia

## B. Critical Reasoning/ Philosophy (3 hours)

Students satisfy this track by either:

1. Completing a course that provides training in critical reasoning and analysis about the ethical dimensions of society, or
2. Completing a course that provides an understanding of fundamental philosophical questions and issues, including those associated with the disciplines that comprise the arts and sciences.

A student may not use the same course to satisfy this requirement and the Humanities (Area II) requirement.

All philosophy courses may be used to fulfill this track **except** for

**PHL 120, 220, 320** (logic courses)  
**PHL 290, 291, 292** (special topics)  
all philosophy courses numbered **400** and above.

In addition, the following courses may be used to fulfill this track:

**CM 103** Professional Conduct and  
Communication Ethics  
**PSC 104** Introduction to Political Theory

## C. Computer Science/Technology (0-4 hours)

Students satisfy this track by either:

1. Completing a minimum of a 2-semester-hour course dealing with a computer language or application of computers,
2. Completing a minimum of 3 semester hours of coursework dealing with the relationship of machines and people in modern industrial society and/or the interplay of technological change and societal development from ancient to modern times, or
3. Successfully completing a computer technologies competency examination, where permissible.

The following courses fulfill this track:

**ARS 103** Introduction to Computer Graphics/ Drawing  
and Layout  
**BY 245** Fundamentals of Scientific Investigation  
**CS 101** Computing Fundamentals  
**CS 201** Introduction to Object-Oriented Programming  
**HY 125** Technology and Society  
**MA 263** Elementary Microcomputer Programming  
and Numerical Analysis  
**MU 115** Making Music with Microcomputers

For the most up-to-date list of courses that satisfy each track, students should consult their advisor. Courses that fulfill each track are also designated in the current UAB Class Schedule.

## OTHER REQUIREMENTS

Departments within the school have policies on the grade level of acceptable work that may be applied toward the major and minor. Consult the appropriate department section of this catalog for this information. Duplicated courses will be credited toward degree requirements only once. This applies to courses determined by departments to have essentially similar content. Courses counted toward one major or minor may not be applied to meet the requirements of another major or minor.

Credit will be allowed for job-training instructional programs that have been evaluated and approved by an agency of the American Council on Education, or comparable evaluating agency, and when the work in question is germane to the student's program. Students may earn credit by examination for courses designated by the department concerned.

The School of Social and Behavioral Sciences does not allow credit for orientation courses. A student may present for elective credit a combined total not exceeding four semester hours for work in physical education activity courses. Courses taken principally for gaining experience, or which involve technology to a large degree (such as typing), will not be credited toward requirements for a degree in this school. Students who have questions about policies of the school regarding degree credit for work already completed should consult an academic advisor in the School of Social and Behavioral Sciences, Room 337, Ullman Building.

## TEACHER CERTIFICATION

UAB offers baccalaureate level (Class B) secondary (grades 6-12) teacher certification in History/Social Science. To obtain certification, students must major in their teaching field and education. Requirements for the major in the School of Social and Behavioral Sciences may be found in the appropriate department listing. Because of specific Alabama Teacher Certification requirements, students seeking certification should consult with the School of Education Student Services Office (Room 100, Education Building) early in their academic careers. UAB also offers non-traditional fifth year masters level (Class A) certification in the above disciplines. Students majoring in one of the above fields should contact the Student Services Office for more information about program admission requirements.

## INTERDISCIPLINARY AND SPECIAL PROGRAMS

### AFRICAN AMERICAN STUDIES

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#### MAJOR AND MINOR

For a complete description of the interdisciplinary African American Studies Program, sponsored jointly by the School of Arts and Humanities, the School of Natural Sciences and Mathematics, and the School of Social and Behavioral Sciences, see page 54 of this catalog.

### AMERICAN STUDIES

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#### MINOR

For a complete description of the interdisciplinary American Studies Program, sponsored jointly by the School of Social and Behavioral Sciences and the School of Arts and Humanities, see page 56 of this catalog.

## DIGITAL COMMUNITY STUDIES

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**Director:** Dr. Robert Corley (Center for Urban Affairs)

The Digital Community Studies (DCS) minor, housed in the Department of History in the School of Social and Behavioral Sciences, is an interdisciplinary program for students interested in opportunities for hands-on research in local communities. The minor provides students a solid grounding in the theory, method, and practice of community studies as it is employed as an interdisciplinary unit of analysis across the social and behavioral sciences. The core courses are team-taught by members of the SBS faculty and the Art and Art History faculty, offering students instruction in both primary research techniques and digital modes of documentation and dissemination of their research.

The DCS minor will teach students technical proficiency in new media modes of documentation that are now employed in a wide range of social and behavioral science research. In essence, the term “digital community studies” indicates the dual focus on the community as an analytic unit and the new digital technology as the methodological means to represent the community-based research. Students have opportunities for active participation in local communities through service learning and internships.

**Requirements:** The DCS minor will require 21 semester hours, including three courses in the core curriculum (12 hours), one additional advanced digital community studies course (3 hours), and two electives (6 hours). At least 9 credit hours must be taken at the 300 level or higher. The two electives will be drawn from a number of relevant courses already existing in the curriculum of the School of Social and Behavioral Sciences involving technology, media, and/or community studies. The two electives for the minor are to be taken in different disciplines (e.g., history and sociology, political science and anthropology, but not two anthropology electives). No grade below C will be counted as credit for the minor.

### Course Descriptions

#### *Digital Community Studies (DCS)*

**101. Introduction to Digital Community Studies**—This course will explore the place of community in human social organization and group identity in areas including ethnicity, culture, history, religion, political economy, common interest groups, and popular culture. The course will include an introduction to methods for community research with an emphasis on technology and digital modes of representation. 3 hours.

**201. Representing Reality: The Language of Documentary Images**—This course will provide a history of the documentary tradition by studying the major stylistic movements, works, and filmmakers of non-fiction film and photography in the 20th century. The course will explore the technological, narrative, thematic, theoretical, and ethical concerns of representing reality through the close analysis of specific films and photo essays. 3 hours.

**402. Community Filmmaking**—This course combines the methodologies of documentary filmmaking, ethnography, and history as a way to represent people and their cultures. Students will make a short (5-7 minute) documentary film about a community or subculture in Birmingham during the course. 6 hours.

**450. Advanced Film Production**—This course will serve as a continuation of the community filmmaking course involving collab-

orative student work. Students will have the opportunity to develop more in-depth film projects and will receive instruction in advanced technical skills for film production. *Prerequisite:* DCS 402. 3 hours.

**460. Independent Digital Community Studies**—This course will provide an opportunity for advanced students to pursue individual projects in multimedia studies. *Prerequisite:* DCS 402. 3 hours.

**470. Internship in Digital Community Studies**—Internships will provide students with the opportunity for hands-on experience in the application of digital technology in a social-science workplace setting. The community partner will be determined in consultation with the instructor based on the student's interest. *Prerequisite:* DCS 402. 3 hours.

## ECONOMICS

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The School of Social and Behavioral Sciences, in cooperation with the Department of Economics in the School of Business, offers coursework leading to the Bachelor of Arts degree with a major or minor in economics. Students pursuing the Bachelor of Arts degree in the School of Social and Behavioral Sciences must satisfy the general education requirements (Core Curriculum/minor) of the School of Social and Behavioral Sciences.

### MAJOR

**Requirements:** 30 semester hours, including EC 210, 211, 304, and 305, and 18 semester hours in courses numbered 300 or above. Students pursuing the major must complete MA 109. Students also must take 12 semester hours of economics courses numbered 300 or above at UAB. An overall C average (2.0) in EC 210 and 211 is required to attempt upper level EC classes. In addition, a student must have an overall C average (2.0) in all economics courses attempted in order to complete the major.

### MINOR

**Requirements:** 18 semester hours, including EC 210, 211, 304, and 305 and six semester hours in courses numbered 300 or above. Students must complete MA 109 for the minor. Students must take nine semester hours of economics courses numbered 300 or above at UAB. An overall C average (2.0) in EC 210 and 211 is required to attempt upper-level EC classes. In addition, a student must have an overall C average (2.0) in all economics courses attempted in order to complete the minor.

### Course Descriptions

For full course descriptions, refer to course listings in the Department of Economics, page 103. Students majoring or minor-ing in economics will pursue the economic analysis and policy track of the B.S. degree program within the School of Business. Note that the quantitative-methods track is not open to economics majors within the School of Social and Behavioral Sciences.

#### *Economics (EC)*

##### LOWER LEVEL

**110 Economics and Society**—3 hours.

**210 Principles of Microeconomics**—3 hours.

**211. Principles of Macroeconomics**—3 hours.

## UPPER LEVEL

- 301 Money and Banking**—3 hours.  
**303 Labor Economics**—3 hours.  
**304 Microeconomics**—3 hours.  
**305 Macroeconomics**—3 hours.  
**310. Managerial Economics**—3 hours.  
**358 Business and Society**—(Also MG 358.) 3 hours.  
**401 Mathematical Approach in Economics and Business**—3 hours.  
**403. Monetary Economics**—3 hours.  
**404 Topics in Public Policy**—3 hours.  
**405. Economic Development and Growth**—3 hours.  
**407. International Economics**—(Also IB 407.) 3 hours.  
**408. Topics in the History of Economic Theory**—1 to 6 hours.  
**409. Survey of Econometrics**—3 hours.  
**411. Public Finance**—3 hours.  
**413. Urban Economics**—(Also UA 413.) 3 hours.  
**420. Applied Forecasting**—(Also QM 420.) 3 hours.  
**425. Applied Regression Analysis**—(Also QM 425.) 3 hours.  
**440. Economics for Educators**—3 hours.  
**490. Advanced Topics in Economics**—3 hours.  
**499. Directed Readings in Economics**—1 to 3 hours.

## ENVIRONMENTAL STUDIES

Interim Director: Loretta Cormier (Anthropology)  
Faculty: Becker (Environmental Health Sciences), Borojevic (Anthropology), Collins (English), Elias (English), Hwang (Sociology), Kyle (Anthropology), LaGory (Sociology), Lalor (Civil Engineering), Macrina (Health Education), Marion (Biology), McCarl (Economics), Mohl (History), Neilson (Geology), Petri (Human Studies), Pitt (Civil Engineering), Wheatley (Anthropology)

The environmental studies minor, housed in the Department of Anthropology in the School of Social and Behavioral Sciences, is an interdisciplinary program for students seeking a broad learning experience in environmental issues. The minor brings students together with faculty and subjects from a range of disciplines and exposes them to issues at the individual, local, state, national, and international levels. The program helps students become better informed citizens and introduces them to environmentally related professional opportunities. Since UAB has an explicit urban mission, students are encouraged to learn about eco-cultural conditions in cities, where 83 percent of U.S. citizens live. Water and air pollution, hazardous waste sites, and shrinking green space and recreational areas are just a few of the environmental problems often associated with the urban setting. Such problems tend especially to affect minority groups and the poor living in inner-city neighborhoods.

## MINOR

**Requirements:** 21 semester hours are required for completing the minor. Six semester hours must be taken at the 300 level or above. All students must also complete the four required courses listed below. A grade of C or better is required in all courses constituting the minor.

### REQUIRED COURSES

Select four of the following courses (12 semester hours)

*See descriptions and prerequisites within the departmental course listings.*

- ENV 108** Human Population and the Earth's Environment  
**ANTH 268** Human Ecology: Special Topics  
**ANTH 360** Human Ecology  
**BY 370** Ecology  
**HY 483** Internship in Environmental Studies  
**ENH 610** Environmental Disasters

### ELECTIVES

*See descriptions and prerequisites within the departmental course listings.*

- ANTH 106** Introduction to Archaeology  
**ANTH 242** Peoples of the World: South American Indians  
**ANTH 416** Origins of Agriculture  
**ANTH 431** Paleoethnobotany  
**BY 407** Microbial Ecology  
**CE 236** Environmental Engineering  
**CE 431** Environmental Law  
**CE 433** Solid and Hazardous Waste  
**CE 441** Civil and Environmental Engineering Seminal  
**EC 308** Economics of the Environment  
**ENG 214** Native American Literature  
**ENG 392** Literature and Ecology  
**ENH 602** Environmental Management  
**ES 101** Physical Geology  
**ES 109** Planet Earth  
**HE 141** Personal Health  
**HE 223** Impact of Diseases in Human Populations  
**HY 125** Technology and Society  
**HY 428** Technology and American Life  
**HY 435** American Urban History  
**HY 482** Internship in Public History (pre-approved by Director)  
**PSC 490** Environmental Policy  
**SOC 200** Social Change  
**SOC 280** Health and Society  
**SOC 470** Urban Ecology  
**UA 492-493** Urban Environmental Internship

## GERONTOLOGY

**Director:** Patricia L. Sawyer

**Committee on Undergraduate and Graduate Education in Gerontology— Chair:** Sawyer (Sociology)

**Members:** Allman (Center for Aging), Ball (Psychology), Bamman (Physiology and Biophysics), Drentea (Sociology), Galvin (Public Health), Ghanta (Biology), Grabowski (Health Care Organization and Policy), Shewchuk (Health Related Professions), Wadley (Psychology)

**Advisory:** McWilliams (School of Social and Behavioral Sciences)

Gerontology is the study of processes of aging in all their diversity—the complex interaction of individual, social, and organizational phenomena producing change over the entire life span. Gerontological education necessarily encompasses many traditional disciplines in the biological, behavioral, medical, and social sciences, as well as numerous professional specialties. The philosophy of the Gerontology Education Program is that research and instruction of the highest quality are achieved when faculty and students are trained within their parent discipline or field and apply their insights to questions of aging through interdisciplinary education. In this sense, students bring a firm disciplinary background with a specialized body of knowledge into their future endeavors.

UAB's Gerontology Education Program offers interdisciplinary courses in gerontology, leading to an undergraduate minor and parallel certificate. The study of gerontology at this level provides students educated in various disciplines with the background needed to work in programs related to aging and the aged. The program's main goals are to provide students with a thorough background in existing theory and research in gerontology and to supplement their existing backgrounds and professional disciplines.

The academic program is administered by the director of the Gerontology Education Program. The director is also responsive to the guidance of the Committee on Undergraduate and Graduate Education in Gerontology and serves as chair of the committee. The committee is made up of representatives from academic departments throughout UAB who are active in the study of aging and the aged. The director reports to the dean of the School of Social and Behavioral Sciences and to the director of the Center for Aging.

The multidisciplinary gerontology program is offered to all UAB students in good standing. The program has the sponsorship and support of the School of Social and Behavioral Sciences and the Center for Aging. Students may obtain the program's Operating Policies: Standards and Procedures Manual through the program director.

## MINOR AND PARALLEL CERTIFICATE

**Requirements:** The curriculum consists of three required courses (GER 280, GER 425, and GER 469), a required practicum or an approved independent reading or research project, as well as two electives chosen from the roster of courses approved by the Committee on Undergraduate and Graduate Education in Gerontology (see course descriptions below). Eighteen semester hours in gerontology or geriatrics are required, with a grade point average of at least 2.5 and a grade of C or better in each course.

## Course Descriptions

### Gerontology (GER)

- 280. Biology of Aging**—(Also BY 280.) Current understanding of aging, measurement of aging changes, theories of aging, and aging changes in various human systems. *Prerequisite:* BY 101 or permission of instructor. 3 hours.
- 285. Aging in American Society**—(Also SOC 285.) Aging experience in modern world. Theories of aging, dimensions of aging, everyday concerns associated with aging, and future prospects of aging. Guest lectures by professionals in the field and other faculty in gerontology. 3 hours.
- 309. Community Resources for Special Populations**—(Also SW 309.) Analysis of community-based programs for specific populations: older citizens, persons with HIV/AIDS, and the chronic mentally ill. 3 hours.
- 385. Social Psychology of Aging**—(Also SOC 385.) Behavioral and structural relationships of aged population in America. Aging and interpersonal behavior, aging and social structure, and aging and social intervention. 3 hours.
- 397. Advanced Directed Readings in the Biology of Aging**—(Also BY 397.) Reading and independent study in selected areas under supervision of faculty sponsor. Gerontology topic required. *Prerequisite:* Permission of instructor. 1 to 3 hours.
- 398. Special Projects in Psychology**—(Also PY 398.) Independent project, study, or reading supervised by member of faculty. *Prerequisite:* Permission of instructor. 1 to 3 hours.
- 403. Politics of Aging**—(Also PSC 403.) Role of aging in political process. Political demands made by elderly, role of aging in political decision-making, and policy outputs relevant to older population. 3 hours.
- 407. Pathology of Memory**—(Also PY 407.) Memory disorders from standpoint of experimental psychology and neuropsychology. Amnesic syndrome, dementia, transient memory disorders, Alzheimer's disease, and epidemiology and public health issues. *Prerequisite:* Permission of instructor. 3 hours.
- 411. Bio-Psycho-Social Aspects of Aging for the Health Care Worker**—(Also HSA 411.) Current gerontological-geriatric information. Promotes appreciation of "graying of America" phenomenon and helps students determine their roles in working with growing elderly population. 3 hours.
- 425. Psychology of Aging**—(Also PY 425.) Age changes in human cognition and behavior. Sensory processes, memory, intelligence, physiology and health, psychopathology, and life-span development and adjustment. *Prerequisite:* PY 315 or permission of instructor. 3 hours.
- 455. Minority Aging**—(Also SOC 455.) Cross-racial/ethnic exploration on national level of special problems of minority aged groups such as Latinos, Blacks, Chinese, Japanese, Koreans, Pacific-Asians, and American Indians. Family, church, health care, housing, adult education, retirement, income, and recreation. 3 hours.
- 456. Death and Dying**—(Also SOC 456.) Death and dying from sociological and social psychological perspectives. Social significance of death as human existential phenomenon. Recent trends in definition, distribution, and handling of death and dying (e.g., interaction with dying persons, hospice movement, and funeral practices). 3 hours.

**469. Sociology of Aging**—(Also SOC 469.) How role and status changes with age in relation to major social institutions; adjustments people make to such changes. Aging population's impact on society and effect of society on aged. *Prerequisite:* SOC 100 or permission of instructor. 3 hours.

**488. Sociological Practice**—(Also SOC 488.) Students will be involved in community research projects related to intergenerational relations, aging, medicine, and/or health. Placement in community organizations, e.g. schools, senior centers, to focus on research methods related to social policy. *Prerequisite:* Permission of instructor. 3 hours.

**490-491. Independent Study in Sociology**—(Also SOC 490-491.) Individually designed programs for students wishing to conduct semi-independent research or guided reading in gerontology. *Prerequisite:* Permission of instructor. 1 to 3 hours each.

**498-499. Independent Study in Social Work**—(Also SW 498-499.) Community service projects under direction of faculty. *Prerequisite:* Permission of instructor. GER 498: 3 hours; GER 499: 1 to 3 hours.

## INTERNATIONAL STUDIES

**Director:** Nikolaos Zahariadis

**Faculty:** Social and Behavioral Sciences—Taylor (Anthropology); Zahariadis, Scharlach, (Government); Liber, McWilliams, Murray, Tent, Van Sant (History); Cockerham (Sociology); Arts and Humanities—McIver (Art and Art History); Hickson (Communication Studies); Danielou, Long (Foreign Languages and Literatures); Coker (Theatre)

The International Studies Program promotes a holistic appreciation of the different values and structures that characterize the world's diverse societies, as well as an understanding of the institutions that produce economic, social, cultural, and political interdependence among nations.

A major or minor in international studies provides students with the background necessary to pursue a variety of public and private-sector careers. Employment opportunities are as numerous and varied as the interests and abilities of individual students. Majors may find employment in diplomatic or foreign service; international business, law, or labor relations; international development, social service, or health agencies; and cultural organizations. The minor complements any major area by providing students with an international focus in their field.

The program is jointly administered by the School of Arts and Humanities and the School of Social and Behavioral Sciences. In addition, courses taught in other schools and professional programs at UAB may be relevant to the curriculum developed by a student in pursuit of his or her specific career goals.

## MAJOR

Requirements: 36 semester hours in courses drawing mainly from the Schools of Art and Humanities and Social and Behavioral Sciences as follows. See the director of International Studies for more information and advice. For descriptions and prerequisites see the departmental course listings.

## CORE: (9 SEMESTER HOURS)

<b>FLL 120</b>	Foreign Cultures
<b>PSC 103</b>	Introduction to International Relations
<b>ITS 470 or ITS 471</b>	Seminar in International Studies

## CONCENTRATIONS: (21 SEMESTER HOURS)

A. **Economic awareness** (Students must complete 3 semester hours from the following list of courses)

<b>ANTH 318</b>	Anthropology of Development
<b>ANTH 365</b>	Economic Anthropology
<b>EC 405</b>	Economic Development and Growth
<b>EC 407</b>	International Economics
<b>PSC 355</b>	The Politics of Development
<b>PSC 461</b>	International Political Economy

B. **Socio-political concentration** (Students must complete 9 semester hours from the following list of courses from at least TWO departments)

<b>ANTH 205</b>	Asian Experience
<b>ANTH 225</b>	Mesoamerican Archaeology
<b>ANTH 231</b>	Archaeology of the Origins of Civilization
<b>ANTH 241</b>	Peoples of the World: Caribbean
<b>ANTH 242</b>	Peoples of the World: South American Indians
<b>ANTH 243</b>	Peoples of the World: Southeast Asia
<b>ANTH 244</b>	Peoples of the World: Africa
<b>ANTH 245</b>	Peoples of the World: Middle East
<b>ANTH 247</b>	Peoples of the World: Oceania
<b>ANTH 248</b>	Peoples of the World: Latin America
<b>ANTH 268</b>	Human Ecology: Special Topics
<b>ANTH 290</b>	Study Abroad: Mexico
<b>ANTH 330</b>	Nationalism, Ethnicity, and Violence
<b>ANTH 356</b>	Globalization, Migration, Transnationalism and Anthropology
<b>ANTH 360</b>	Human Ecology
<b>ANTH 361</b>	Kinship and Social Organization
<b>ANTH 364</b>	Political Anthropology
<b>ANTH 369</b>	Ethnographic Perspectives in Rural Mexico
<b>ANTH 417</b>	Origins of Agriculture
<b>ANTH 475</b>	Human Adaptability
<b>HY 234</b>	The World Since 1945
<b>HY 245</b>	Introduction to Latin American History
<b>HY 247</b>	Colonial Latin America
<b>HY 248</b>	Modern Latin America
<b>HY 251</b>	Nineteenth-Century Europe
<b>HY 252</b>	Twentieth-Century Europe
<b>HY 257</b>	The Celtic Fringe: Ireland, Scotland, Wales
<b>HY 258</b>	Britain and the Third World
<b>HY 260</b>	History of France, 1500-1789
<b>HY 261</b>	Modern France

<b>HY 262</b>	Introduction to Early Modern Spanish History
<b>HY 263</b>	History of the Russian Empire
<b>HY 264</b>	Russian Revolution, 1917-1921
<b>HY 265</b>	History of the Soviet Union
<b>HY 272</b>	Modern East Asia
<b>HY 283</b>	Old World Archaeology
<b>HY 284</b>	Archaeology of the Origins of Civilization
<b>HY 341</b>	U.S.-Latin American Relations
<b>HY 342</b>	History of Women in Latin America
<b>HY 353</b>	The Christians in History
<b>HY 355</b>	The Reformation
<b>HY 365</b>	Spain, Portugal, and the Modernizing World
<b>HY 370</b>	Gorbachev and the End of the USSR
<b>HY 371</b>	Soviet and East European Revolutions, 1989-1991
<b>HY 374</b>	Meiji Japan
<b>HY 375</b>	The Pacific War, 1931-1945
<b>HY 376</b>	Japan and the United States
<b>HY 419</b>	The Second World War
<b>HY 421</b>	America in Vietnam
<b>HY 433</b>	Americans and the World
<b>HY 446</b>	Andean Nations
<b>HY 447</b>	Modern Mexico
<b>HY 455</b>	The Middle Ages
<b>HY 456</b>	The Renaissance
<b>HY 457</b>	Nineteenth-Century Europe
<b>HY 458</b>	Modern Europe
<b>HY 460</b>	Ancient and Medieval Britain
<b>HY 461</b>	England: Peasant Revolts to Puritan Revolutions
<b>HY 462</b>	Early Modern Britain
<b>HY 463</b>	Victorian Britain
<b>HY 464</b>	Modern Great Britain
<b>HY 466</b>	The French Revolution
<b>HY 467</b>	Modern France, 1815-Present
<b>HY 468</b>	Germany Under Three Reichs
<b>HY 469</b>	Stalin and Stalinism
<b>HY 470</b>	The Soviet Union Since 1953
<b>HY 471</b>	National Conflicts in the USSR
<b>HY 474</b>	China to the 19th Century
<b>HY 475</b>	Modern China
<b>HY 476</b>	Japan to the 19th Century
<b>HY 477</b>	Modern Japan
<b>JS 115</b>	Comparative Criminal Justice Systems
<b>PSC 102</b>	Introduction to Comparative Politics
<b>PSC 250/350</b>	African Political Systems
<b>PSC 251/351</b>	European Political Systems
<b>PSC 252/352</b>	Latin American Political Systems

<b>PSC 253/353</b>	Asian Political Systems
<b>PSC 254/354</b>	East European Political Systems
<b>PSC 260</b>	American Foreign Policy
<b>PSC 261</b>	International Organizations
<b>PSC 262</b>	Global Policy Issues
<b>PSC 360</b>	International Security
<b>PSC 361</b>	North/South International Relations
<b>PSC 362</b>	Diplomacy
<b>PSC 363</b>	Nationalism
<b>PSC 460</b>	The United Nations
<b>PSC 465</b>	International Law
<b>SOC 200</b>	Social Change
<b>SOC 278</b>	Cities of the World
<b>SOC 325</b>	Social Transformation of Russia
<b>SOC 335</b>	Human Sexuality: A Comparative Approach
<b>SOC 370</b>	Population Problems
<b>SOC 480</b>	Medical Sociology

C. Cultural literacy (Students must complete 9 semester hours from the following list of courses from at least TWO departments)

<b>ANTH 100</b>	Anthropology and Human Culture
<b>ANTH 101</b>	Introductory Cultural Anthropology
<b>ANTH 104</b>	Introduction to Folklore
<b>ANTH 107</b>	The Human Past
<b>ANTH 121</b>	Introductory Linguistic Analysis
<b>ANTH 301</b>	Food and Culture Research Seminar
<b>ANTH 305</b>	World Prehistory
<b>ANTH 320</b>	Comparative Religion
<b>ANTH 357</b>	Anthropology of Gender
<b>ANTH 405</b>	As Others See Us
<b>ANTH 450</b>	Advanced Cultural Anthropology
<b>ARH 101</b>	Introduction to Art History
<b>ARH 203</b>	Ancient through Medieval Survey
<b>ARH 204</b>	Renaissance to Modern Survey
<b>ARH 206</b>	Asian Art Survey
<b>EH 218</b>	World Literature since 1660
<b>EH 422/522</b>	African Literature
<b>EH 423/523</b>	African Women's Literature
<b>FLL 220</b>	Foreign Literatures in English Translation
<b>HY 266</b>	Soviet Film and Society
<b>HY 271</b>	Traditional East Asian History and Culture
<b>HY 357</b>	Religion in Early Modern European History
<b>HY 434</b>	As Others See Us
<b>HY 454</b>	Heresy and Witchcraft
<b>HY 459</b>	Themes in European Cultural and Intellectual History
<b>HY 465</b>	The French Enlightenment

## ELECTIVES (6 SEMESTER HOURS)

Students must take 6 semester hours from any of the above approved list of courses AND/OR from the list below.

- ANTH 123** Comparative Cultures through Films  
**ANTH 201** Food and Film  
**ANTH 304** Looking at Earth: Maps, Satellite Images, and GIS  
**ANTH 366** Urban Anthropology  
**EH 421/521** Selections in Translation  
**FLL 303** History of World Movies I  
**FLL 304** History of World Movies II  
**FLL 485** Foreign Language Seminar

In addition, students are required to fulfill the following requirements:

1. Students must demonstrate second-year proficiency in a foreign language.
2. Students must ensure that at least 9 credits are taken in an approved geographic area of concentration from the courses listed above. Geographic areas currently include Europe, Africa, Asia, Latin America, and the Middle East.
3. At least 15 credits must be taken at the 300-level or above, including 9 hours at the 400-level.
4. A grade of C or better must be obtained in any course that completes a requirement in the major.
5. Students must fulfill an international experience (permission of director is required). This requirement may be satisfied by one of the following: participation in a study abroad program; participation in a course with a substantial international, applied component to it; participation in a model United Nations simulation or its equivalent; or participation in an internship with an international organization or company.

## MINOR

Requirements: 18 semester hours, including FLL120, PSC 103, and ITS 470 or ITS 471, and carefully selected courses from the list of approved courses for the major. At least six credits must be taken at the 300-level or above. Minors are not required to attain a second-year foreign language, but foreign language study is strongly recommended. A grade of C or better must be obtained in any course that completes a requirement in the minor.

### Course Descriptions

#### International Studies (ITS)

**225. International Study Abroad**—Independent study conducted in international setting in conjunction with non-UAB academic program. 3 hours.

**229. International Seminar Abroad**—Current events in international setting. Part of UAB Study Abroad Program. 3 hours.

**250. Special Topics**—Topics in world geography and international issues. 3 hours.

**470. Seminar in International Studies**—(Also PSC 402.) International Studies exit seminar that draws together program themes and summarizes main threads of current global issues. 3 hours.

**471. Seminar in International Studies**—(Also PSC 403.) International Studies exit seminar that draws together program themes and summarizes main threads of current global issues. 3 hours.

**480. Advanced Problems in International Studies**—Independent study. 3 hours.

**482. Internship in International Studies**—Individually arranged assignments in international companies or organizations, monitored and evaluated by the director of international studies. 3 hours.

**499. Advanced Seminar in International Studies**—Special-topic seminar treating major current event or international problem. 3 hours.

## WOMEN'S STUDIES

**Director:** Michele Wilson (Sociology)

**Faculty:** Baker (English), Barnett (English), Doss (History), Elias (English), Frost (English), Goldman (Special Education), Graves (English), Gunther-Canada (Government and Public Service), Kemp (English), King (Center for Labor Education and Research), Kurata (English), Leffel (English), Long (English), Martin-Ogunsola (Foreign Languages), Mullins (Curriculum and Instruction), Murray (History), Sloan (Justice Sciences), Taylor (Human Studies), Trigg (Sociology), Volker (Biology), Whatley-Smith (English), Whitaker (English)

Women's studies investigates the subject of women within specific disciplines and across disciplinary boundaries. Courses explore women's history, culture, work, and family life and the structure of society and its impact on men and women. Women's studies examines the issue of gender difference, analyzing its psychological, social, and cultural manifestations.

Because coursework in women's studies provides insight into the human condition, it serves the traditional liberal arts objective of broadening and enriching one's understanding of the world. Students pursuing careers that will require them to deal with women's issues in the fields of government, social service, and health will also benefit from coursework in women's studies.

## MINOR

Requirements: 18 semester hours, including WS 100, WS 400, and 12 semester hours of women's studies electives. A grade of C or better is required for all 18 semester hours.

An individually designed major in women's studies is also available with the permission of the Dean of the School of Social and Behavioral Sciences.

### Course Descriptions

The following is not a comprehensive list of courses; other courses can be considered for credit in the Women's Studies Program. For full descriptions of courses other than women's Studies, refer to the appropriate department's course listings in this catalog.

*Note: Special topics courses (courses with the same numerical designation) may be repeated for credit.*

## Women's Studies (WS)

**100. Introduction to Women's Studies**—Interdisciplinary study of role of women in society through social, political, economic, philosophical, historical, and biological perspectives. Required for women's studies minor. 3 hours.

**280/480. Special Topics in Women's Studies**—Subjects of special interest, such as women and religion, women in civil rights movement, and theories of women's studies. Varies in content depending upon topic. Students may enroll under these numbers multiple times but topic may not be repeated. 1 to 3 hours.

**400. Theory and Practice of Women's Studies: Senior Seminar**—Everyday applications of theory studied in various women's studies courses. Required for women's studies minor. 3 hours.

**490. Directed Readings in Women's Studies**—Independent study with faculty guidance of selected gender-related issues. *Prerequisite:* Permission of instructor. 1 to 3 hours.

**491. Directed Research in Women's Studies**—Independent research with faculty guidance on selected gender-related issues. *Prerequisite:* Permission of instructor. 1 to 3 hours.

**495. Internship in Women's Studies**—Experience in community agency working with women or gender issues. Course requirements dependent upon number of credits student wishes to take. *Prerequisite:* Permission of program director. 1 to 3 hours.

## ARTS AND HUMANITIES

### English (EH)

**214. Introduction to Literature: In a Different Voice**—Women writers in American fiction.—3 hours.

**444. Women's Literature and Theory**—3 hours.

**487. Nineteenth-Century British Novel (Women's Studies Emphasis)**—3 hours.

**492. Special Topics: Seduction, Marriage, and Patriarchy in the Plays of William Shakespeare**—3 hours.

**492. Special Topics: Brontes and George Eliot**—3 hours.

**492. Special Topics: Southern Women Writers: Struggles with Cultural Expectations**—3 hours.

**492. Special Topics: The "New Woman" in Literature, 1890–1920**—3 hours.

**492. Special Topics: Contemporary Women Poets of North America**—3 hours.

**492. Special Topics: Women and Film**—3 hours.

## SOCIAL AND BEHAVIORAL SCIENCES

### Anthropology (ANTH)

**357. Anthropology of Gender**—3 hours.

### History (HY)

**303. Women in American History**—3 hours.

**329. U.S. Women's Labor History**—3 hours.

**342. History of Women in Latin America**—3 hours.

**423. Southern Women: Image and Reality**—3 hours.

### Justice Sciences (JS)

**443. Special Topics: Women and the Criminal Justice System**—3 hours.

### Political Science (PSC)

**342. Women in Politics**—3 hours.

### Psychology (PY)

**420. Contemporary Issues: Psychobiology of Sex Differences**—3 hours.

### Sociology (SOC)

**220. Women and Men: Changing Sex Roles**—3 hours.

**240. Family Conflict and Violence**—3 hours.

**290. Special Topics in Sociology: Women and the Third World**—3 hours.

**290. Special Topics in Sociology: Women and Contemporary Social Issues**—3 hours.

**291. Special Topics in Sociology: African American Women's Perspectives on Gender, Race, and Class**—3 hours.

**490. Gender Inequality**—3 hours.

**490A. Women and the Family**—1 hour.

**490B. Women and Work**—1 hour.

**490C. Women and Power**—1 hour.

## DEPARTMENT OF ANTHROPOLOGY AND SOCIAL WORK

Interim Chair: Christopher Taylor

Faculty: Akins, Borojevic, Cashman, Cheng, Cormier, Kyle, Lev-Tov, McElderry, Walker, Wheatley

Adjunct Faculty: Becker, Brande

The fields of anthropology and social work are linked by their parallel commitment to a methodology that demands long-term personal relationships between scholarly investigators and professional practitioners on one hand and informants and clients in varied social and cultural environments on the other.

## ANTHROPOLOGY

Program Director: Bruce Wheatley

The anthropology program emphasizes the holistic view of humankind through the four major branches of the field: socio-cultural anthropology, archaeology, physical anthropology, and linguistics. An undergraduate student has latitude in selecting a personalized program of study in the major that satisfies individual interests and maintains the holistic integrity of an undergraduate degree in general anthropology.

The archaeology and physical anthropology laboratory contains an extensive collection of Southeastern cultural materials and skeletal remains from various taxa for use in teaching and research. Field schools provide students with practical experience

in ethnography. The faculty's field experience provides familiarity with many ethnographic areas of the world, including Amazonia, Latin America, North America, Europe, Middle East, Africa, Indonesia, and Oceania. The faculty's topical interests include: ecological, political, medical, symbolic, and forensic anthropology; paleo-ethnobotany; and folklore.

## MAJOR

Requirements: 36 semester hours, including an introductory sequence ANTH 101, 102, 106, and 120; and two advanced courses, ANTH 450 and one selected from ANTH 451 or 453. The remaining 18 semester hours of anthropology may be selected from any of the department's other offerings but must include 3 hours at the 400-level and 6 hours at the 300-level. Transfer students must earn at least 9 hours of 400-level courses taken at UAB. No grade below C will be counted in the anthropology major. All majors may be required to complete an examination for program assessment purposes as a requirement for graduation. Performance on this examination will not affect students' grade point averages, nor will it be a factor in determining whether students qualify for the baccalaureate degree.

## MINOR

Requirements: 18 semester hours, including three courses from the introductory sequence (ANTH 101, 102, 106, and 120) and one course from ANTH 450, 451, or 453. The remaining two courses may be chosen from any of the department's offerings. No grade below C will be counted in the anthropology minor.

## HONORS PROGRAM IN ANTHROPOLOGY

### PURPOSE

The Anthropology Honors Program is designed to train students for advanced work at the graduate or professional level.

### ELIGIBILITY

All regularly admitted students with a declared major in anthropology are eligible to enter the program, although continuing participation requires maintenance of an overall 3.0 GPA and a 3.25 GPA in anthropology.

**Requirements:** 33 semester hours in anthropology are required plus one of three statistics/foreign language options. Students will be required to complete a minor.

### REQUIREMENTS

	<i>Sem. Hrs.</i>
ANTH 101 .....	<b>3</b>
ANTH 102 .....	<b>3</b>
ANTH 106 .....	<b>3</b>
ANTH 120 .....	<b>3</b>
ANTH 450 .....	<b>3</b>
ANTH 451 or ANTH 453 .....	<b>3</b>
ANTH 490, ANTH 492, ANTH 494, or ANTH 496 .....	<b>3</b>
<i>(To be completed during the senior year; requires written thesis.)</i>	
Four additional courses from any of the department offerings .....	<b>12</b>

### OPTION 1

Two courses in statistics, including MA 480 .....6  
*(Comparable coursework in computer science may be approved by the department chair.)*

### OPTION 2

Statistics course (PY 214 or equivalent) .....3  
Two courses in a foreign language .....8  
*(or demonstrated proficiency at the 102 level)*

### OPTION 3

Three courses in a foreign language, including one 200 level or above (or demonstrated proficiency at the 200 level) .....11

### BENEFITS

Students will benefit from the Anthropology Department Honors Program by acquiring additional research skills to successfully enter and compete in internationally-oriented graduate and professional programs. Students who complete the program will graduate "With Honors in Anthropology."

### CONTACT

For additional information and/or admission to the Anthropology Honors Program, contact the Undergraduate Advisor, Department of Anthropology, 338 Ullman Building, Birmingham, AL 35294-3350; Telephone (205) 934-3508.

### GRADUATE PROGRAM

The department participates in a cooperative M.A. program in anthropology with the University of Alabama. For information, contact the department chair.

## SOCIAL WORK

**Program Director:** Chris Walker

The baccalaureate social work program, fully accredited by the Council on Social Work Education, prepares graduates for employment at the beginning level of professional social work practice as well as for graduate-level professional education. The mission is to educate undergraduate students from a social science perspective in both problem-solving skills and social work values to prepare them for generalist practice with diverse populations in an increasingly complex world. Required, sequenced course work includes acquisition of social work knowledge, values, and skills essential to social work practice, research, and policy. The curriculum culminates with a full-time, one-term field practicum.

No minor is required for social work majors. Instead, selected social and behavioral science courses provide a foundation for the professional courses. These foundation courses include CS 101, HY 121, EC 110 or 211, PY 101, PSC 101 or 210, SOC 100, ANTH 101 and an approved minority studies course. These courses must be completed with a grade of C or better. Additionally, students are required to take at least one biology course and laboratory that includes content about human beings (BY 101/102 or BY 123), also completed with a grade of C or better. This requirement may be taken as part of the Core Curriculum.

## MAJOR IN SOCIAL WORK

Because the B.S. in Social Work (B.S.S.W.) is a professional degree, students must successfully complete the prescribed application process to advance from pre-social work status to formal acceptance as a social work major. In order to maintain social work major standing and attain the B.S.S.W. degree, students must continually meet standards representing professional competence.

1. Students admitted to major status in social work must earn a C or better in required upper-level classes.
2. Transfer students must complete SW 222, 322, and 422 and the practicum at UAB.
3. The minimum grade point average for students beginning field-work and for the B.S.S.W. degree is 2.5 overall UAB GPA.
4. Students must complete the following required social work courses: SW 100, 202, 214, 222, 313, 314, 320, 321, 322, 422, 490, and 494. Students who have not completed a statistics course prior to formal acceptance as social work major must complete SW 321.
5. A 3-hour elective in social work is also required.

## PRE-SOCIAL WORK CLASSIFICATION

Students declaring their intention to major in social work are admitted with a pre-social work (PSW) classification.

Application to SW major—PSW students may formally apply to become social work majors when they have met all of the following criteria:

1. Completion of essential Core Curriculum requirements, with a grade of C or better in each course.
2. Higher education undergraduate GPA of 2.0 or higher.
3. Completion of SW 100, SW 214, and SW 222 with a cumulative average of 2.5 or better.

## ACCEPTANCE TO THE SOCIAL WORK MAJOR

Students must successfully complete a formal application process to attain social work major status. The application process includes the following: (1) certification from a School of Social and Behavioral Sciences academic advisor that the criteria to apply have been met, (2) a written assessment of writing skills and self-awareness; and (3) a recommendation by the social work faculty.

## MINOR IN SOCIAL WORK

A social work minor is available. Requirements include: SW 100 and 15 hours of social work courses. One to three of the additional hours may be acquired by independent study. No grade below C will be counted toward the social work minor.

### Course Descriptions *Anthropology (ANTH)*

**101. Introductory Cultural Anthropology**—Cultures of the world's peoples; ideas used to explain similarities and differences among human groups. 3 hours.

**102. Introductory Physical Anthropology**—Biological evolution; interpretation of human fossil record; race; human population genetics and primate behavior. 3 hours.

**103. Introduction to Digital Social Science**—Capabilities of digital applications, including digital image editing, digital video editing, multimedia presentations, web design and streaming video, and digital video compression. 3 hours.

**104. Introduction to Folklore**—Central issues in folklore: traditional, expressive, and material culture. Verbal genres, customs, and material forms of folklore from several regional and ethnic cultural groups in the U.S. and worldwide. Tradition and presence of the past in everyday life, creativity and artistic expression, and personal and group identities. 3 hours.

**106. Introductory Archaeology**—Archaeological methods and theory used to reconstruct and interpret past. 3 hours.

**107. World Prehistory**—Main events in evolution of culture from earliest times until advent of cities. Emergence of culture, development of food production, and appearance of states. 3 hours.

**110. Introduction to Anthropology**—An introduction to the four fields of anthropology, focusing on contemporary issues. 3 hours.

**120. Language and Culture**—(Also LING 260.) Nonverbal communication; language origins and acquisition; universals; language classification and processes of change; language as expression of cultural values and social structure; beginning componential and structural analysis. *Prerequisite:* ANTH 101. 3 hours.

**123. Comparative Cultures through Films**—Special topics in cultural anthropology addressed through use of ethnographic films. Culture areas, culture change, and traditional societies in modern world. *Prerequisite:* ANTH 101. 3 hours.

**202. Science Fiction and Anthropology**—Anthropological concepts in works of science fiction; the place of anthropology in contemporary science fiction literature, film, and television. Topics include culture, language, archaeology, and human evolution. 3 hours.

**204. Food in Antiquity**—Dietary variation from hunter-gatherers to agriculturists based on plant and animal remains from archaeological sites. Culinary practices from ancient texts and pictographic representations. 3 hours.

**206. The Family in Cross-Cultural Perspective**—Relationships within and among cultural units commonly referred to as “the family”; survey of domestic groups in various sociocultural settings. 3 hours.

**210. Monkeys and Apes**—Behavior and social organization of humans' closest living relatives. Living primates and why they behave as they do. 3 hours.

**211. Human Evolution**—Human organism's evolution as systemic whole. Process of human evolutionary change as depicted in behavior and fossil record. 3 hours.

**222. Prehistory of North America**—Prehistoric America north of Mexico from terminal Pleistocene to early historic times. *Prerequisite:* ANTH 101. 3 hours.

**224. Language and Gender**—(Also LING 225.) Gender-based stereotypes of language use, gender ethnicity in the United States, and gender-differentiated language across cultures. Fieldwork exer-

cises to improve critical and analytical thinking about language use by men and women. 3 hours.

**226. Archaeological Field School**—Participation in all phases of excavation, laboratory study, and report preparation. Off campus. *Prerequisite:* Permission of instructor. 1 to 6 hours.

**230. Old World Archaeology**—(Also HY 283.) Prehistory of Africa, Asia, and Europe from Paleolithic to Early Bronze Age. Hunter-gatherer adaptations, emergence of village-based agriculture, and appearance of cities. 3 hours.

**231. Archaeology of the Origins of Civilization in Egypt, Mesopotamia, and the Mediterranean**—(Also HY 284.) Development of complex society in Fertile Crescent and surrounding lands from origins of agriculture to Alexander the Great. 3 hours.

**233. Archaeology of Europe**—Cultural sequence in Europe from early occupations until written records. Upper Palaeolithic art, Stonehenge, and origins of village life. 3 hours.

**242. Peoples of the World: South American Indians**—Ethnology of indigenous peoples of South America including ecological adaptation, social organization, religious systems, and culture change. Emphasis on lowland South Americans. *Prerequisite:* ANTH 101. 3 hours.

**244. Peoples of the World: Africa**—Local and regional African cultures. Geographical, racial, and historical backgrounds; contemporary African social systems. *Prerequisite:* ANTH 101. 3 hours.

**245. Peoples of the World: Middle East**—Traditional cultures of Middle East. Ecological setting, historical evolution, and political economy of main life ways of Near Eastern society. 3 hours.

**247. Peoples of the World: Oceania**—Varied influences upon peopling and cultural development of islands in Pacific. Quick survey of major areas—Polynesia, Melanesia, and Micronesia—followed by focus on one culture found therein. 3 hours.

**248. Peoples of the World: Latin America**—Holistic survey of cultures of Latin America from pre-Columbian times to present. Processes of cultural change including revolution, ethnic group relations, and functioning of contemporary societies. 3 hours.

**290. Study Abroad: Chilapa, Guerrero, Mexico**—Orientation to and popular culture in Chilapa; Mexican history and ethnology, regional history and ethnology, and local economy and human ecology. 3 hours.

### *Advanced Undergraduate*

*Prerequisite:* 6 semester hours in anthropology and/or sociology, permission of instructor, or as noted.

**304. Looking at Earth: Maps, Satellite Images, and GIS**—Maps as analytic tools in social, behavioral, and applied sciences. Theory and methods of cartographic representation, aerial and satellite image analysis, and geographic information systems. Principles, practical training in computer methods, and case studies from different regions of the earth. *Prerequisites:* Basic computer course and introductory course in social science. 3 hours.

**305. World Prehistory**—Main events in evolution of culture from earliest times until advent of cities. Emergence of culture, development of food production, and appearance of states. 3 hours.

**307. Environmental Archaeology**—Study of human interaction with the environment in the past through archaeology and related disciplines. *Prerequisite:* ANTH 106. 3 hours.

**316. Ethnographic Filmmaking**—Documentation and analysis of aspects of human social life using film and video. Visual syntax and narrative structure of ethnographic and documentary films. Students will develop short film projects of their own. 3 or 6 hours.

**318. The Anthropology of Development**—Effects of Western penetration of indigenous societies and role of anthropologists in development projects in Third World. 3 hours.

**320. Comparative Religion**—Human behavior in relation to supernatural; religion as system of social behavior and values; theories of religion. 3 hours.

**324. The Law of Historical and Cultural Resources**—Federal and state laws and regulations relevant to archaeology and anthropology. National Historic Preservation Act, Native American Graves Protection and Repatriation Act, National Register listings, preservation easements, and federal income tax rehabilitation credits. 2 hours.

**330. Nationalism, Ethnicity, and Violence**—Social and cultural analysis of ethnicity and nationalist ideologies particularly where these have led to violent confrontations within modern nation-states. Primordialist versus constructionist theories of difference; varying weight to be attributed to political, historical, and cultural factors in study of nationalism; politics of culture versus culture of politics. 3 hours.

**353. Primatology**—Biology, behavior, and distribution of living nonhuman primates. Field studies of old-world monkeys and apes. 3 hours.

**357. Anthropology of Gender**—Cultural construction of gender differences in human societies; shifting definitions of proper male and female roles across cultures and through time. 3 hours.

**360. Human Ecology**—Interactions among behavioral, technological, organizational, and ideological features of human cultures that serve to adapt societies to their physical environment. *Prerequisite:* 3 hours in ANTH. 3 hours.

**361. Kinship and Social Organization**—Comparative analysis of forms of human social organization; range of kinship and marriage arrangements found in pre-industrial societies; explanations of similarities and differences among kinship systems. 3 hours.

**364. Political Anthropology**—Comparative analysis of political structures and processes throughout the world, focusing on non-Western forms; anthropological attempts to understand complex interplay of culture and power in human societies. 3 hours.

**365. Economic Anthropology**—Comparative ethnology of economic organizations and processes in non-industrial societies. Precapitalist social settings and transformations of precapitalist economies that have occurred, and are occurring, as result of development and expansion of industrial capitalism. 3 hours.

**366. Urban Anthropology**—(Also UA 366.) Human life in cities from cross-cultural perspective; process of urbanization in ancient civilizations, colonial empires, and modern-day Third World. 3 hours.

**369. Ethnographic Perspectives on Rural Mexico**—Survey of the incorporation of rural Mexican communities into the country's developing industrial economy. *Prerequisite:* ANTH 101. 3 hours.

**370. Music in World Cultures**—(Also MU 366.) Characteristics of musical styles in various cultures throughout the world. *Prerequisite:* MU 120 or permission of instructor. 3 hours.

**371. Special Topics in Anthropology**—3 hours.

**375. Foundations of Symbolism**—Study of symbolic forms in myth and ritual and overview of theoretical approaches. *Prerequisite:* 6 hours in ANTH and/or SOC or permission of instructor. 3 hours.

**377. History, Culture, and the Politics of Identity: Northern Ireland**—Northern Ireland as case study for investigating the relationship between history and collective memory, the construction of ethnicity and tradition, and the politics of culture and identity in divided societies. 3 hours.

**380. Anthropology and the Health Professional**—Anthropological theory and practice relevant to health care professions in medicine, nursing, public health, psychology, etc. Anthropological perspectives on practice of health care and practical applications of anthropology in providing health care to culturally diverse people. *Prerequisite:* ANTH 101 or permission of instructor. 3 hours.

### *Undergraduate and Graduate*

*Prerequisite:* 9 semester hours in anthropology and/or sociology or permission of instructor, unless otherwise noted.

**400/613. Human Osteology**—The identification of human skeletal remains. This laboratory/lecture course provides the groundwork for much of the work in physical anthropology. 3 hours.

**401. Forensic Anthropology**—(Also JS 456.) Applied human osteology, emphasizing ability to identify age, sex, and population type of skeletal material. Effects of disease and behavior on bones. 4 hours.

**403. Visual Language**—Varied theoretical approaches, including film theory, media theory, literary criticism, and linguistic analysis, to compare language of visual imagery with other communicative modes. How meaning is conveyed through film style, nested and/or contradictory visual messages, narrative structure, and technical choices used to convey mood in classic documentaries. Ethics of representation, filmmaker/subject relations, and role of film as cultural object. 3 hours.

**405/603. As Others See Us**—(Also AS 401, HY 434.) Joint American Studies/International Studies seminar surveying international perceptions of U.S. culture. 3 hours.

**411/611. Advanced Field Archaeology**—Archaeological field and laboratory techniques, including excavation, surveying, and artifact analysis and description; general problems of archaeological interpretation; prehistoric data from southeastern U.S. *Prerequisite:* ANTH 101. 1 to 6 hours.

**412/620. Computers and Statistics in Anthropology**—Computer and statistical applications in anthropology; use of SAS data management and statistical and graphics software. 3 hours.

**414. Geoarchaeology**—Survey of geological methods as applied to archaeological questions. Practicum in geoarchaeological laboratory and analytic methods using samples from archaeological sites in Alabama and the Middle East. *Prerequisite:* ANTH 101 or ANTH 106. 3 or 6 hours.

**415/615. Ethnographic Research Methods**—Ethnographic Field Methods classroom instruction and practical experience in techniques of ethnographic fieldwork, including participant observation, household surveys, structured and unstructured interviewing, and genealogies. Study abroad program in Chilapa, Guerrero, Mexico. 3 to 6 hours.

**417/617. Origins of Agriculture**—Theories about the origins of agriculture, examination of the archeological record concerning different pathways leading to the domestication of plants and animals. 3 hours.

**430/630. Animal Bone Archaeology**—Methods and theories of zoo archaeological research. Practical experience in processing, identification, and interpretation of animal bone remains from archaeological sites. *Prerequisite:* ANTH 106. 3 to 6 hours.

**431/631. Paleoethnobotany**—Preservation and composition of plant remains, recovery techniques, identification and interpretation of paleobotanic material using Old and New World case studies; laboratory experience in identifying macroplant remains. *Prerequisite:* ANTH 106. 3 to 6 hours.

**432/632. Geographical Information Systems and Anthropology**—Use of geographical information systems in study of global, regional, and local socio-cultural patterns. 3 hours.

**435/635. Ethnomedicine and Ethnopsychiatry**—Approaches and contributions of anthropology to study of health, sickness, and healing. Physical environment and human adaptations as key determinants of health systems; culturally defined concepts of sickness, health, and healing; healing as social and physiological activity. Topics may include life stages, medical knowledge among different human groups, impact of culture contact on medical systems, ecological balance and population control, cultural definitions and treatment of abnormal behavior, healers, health and supernatural, social roles of sick, and illness and social control. 3 hours.

**450/605. Advanced Cultural Anthropology**—Critical review of theoretical approaches in cultural anthropology. *Prerequisite:* 9 hours in ANTH and/or SOC or permission of instructor. 3 hours.

**451/609. Advanced Archaeological Anthropology**—Principal theoretical approaches of 20th century archaeology: historical, processual, and post-processual. *Prerequisite:* 9 hours in ANTH and/or SOC or permission of instructor. 3 hours.

**453/610. Advanced Physical Anthropology**—Human evolution and primatology; race; human genetics. Tasks performed by physical anthropologists. *Prerequisite:* 9 hours in ANTH and/or SOC or permission of instructor. 3 hours.

**489. Special Problems in Multimedia Anthropology**—Supervised study of multimedia applications to anthropological topics. Topics determined by student and instructor interest. 1-6 hours.

**490-491. Special Problems in Cultural Anthropology**—Supervised study of specified topic area; defined problem explored in depth; topics determined by student and instructor interest. *Prerequisite:* permission of instructor. 3 hours each.

**492-493. Special Problems in Archaeology**—Supervised in-depth study of specified topic area in archaeology. Topics determined by student and instructor interest. *Prerequisite:* permission of instructor. 3 hours each.

**494-495. Special Problems in Linguistics**—(Also LING 494-495.) Supervised in-depth study of specified topic area in linguistics. Topics determined by student and instructor interest. *Prerequisite:* permission of instructor. 3 hours each.

**496-497. Special Problems in Physical Anthropology**—Supervised, in-depth study of specified topic area in physical

anthropology. Topic determined by student and instructor interest. *Prerequisite:* permission of instructor. 3 hours each.

**498. Honors Thesis Research**—Independent development of research project. *Prerequisite:* Permission of instructor. 3 to 6 hours.

**499. Directed Readings in Probability and Statistics**—Directed studies in probability and practical statistics. Descriptive and inferential statistical methods for laboratory and field research. Univariate and bivariate methods (description of distributions, single and multi-sample analysis of means, correlation, regression, non-parametric methods). *Prerequisite:* permission of instructor. 1 hour.

## Social Work (SW)

**100. Introduction to Social Work**—Overview of the social work profession, its value base, history, and code of ethics. This course is based on a systems-ecological framework and the generalist model, with particular emphasis on career options in various fields of practice. 3 hours.

**202. Social Welfare Policy**—A historical and current examination of cultural, political, and economic factors that shape U.S. social welfare policy and its relationship between social work practice and public policy. The study of policy emphasizes individuals' and communities' achieving and maintaining optimal well-being within a social justice framework. 3 hours.

**207. Racism, Sexism, and Other "Isms."**—Ethical dilemmas in relating to disadvantaged groups such as minorities, aged, women, gays and lesbians, and disabled persons. 3 hours.

**214. Introduction to Public Policy**—Policy process at local, state, and federal levels of government, emphasizing citizen participation. Phases of policy process: problem identification and definition, policy formulation, enactment, evaluation, and revision. 3 hours.

**222. Values Lab**—An introduction to the helping professions with on-site observations in local social service agencies. A didactic classroom and experiential lab that integrates field observation with self-awareness. At the conclusion of this course, students may apply for social work major status. 4 hours.

**304. Family Preservation**—An introduction to policy, child welfare system, theories, and practice models of family preservation. Will cover skills, values, and ethics of working with high-risk families in their home setting. Primary focus will be on strength-based perspectives that promote child protection, family preservation, and family reunification. 3 hours.

**309. Community Resources for Special Populations**—(Also GER 309.) Analysis of community-based programs for specific populations: older citizens, persons with HIV/AIDS, and chronic mentally ill. 3 hours.

**310. Human Behavior and the Social Environment**—Understanding of human development through a social systems perspective that examines interactions between and among human biological, sociological, psychological, and cultural systems as they affect and are affected by human behavior. Social work values as they relate to bio-psycho-social theories will be laced throughout the course. 3 hours.

**313. Human Behavior and the Social Environment I**—The first of two required courses in Human Behavior and the Social Environment, this course is designed to prepare students to understand human development across the different levels of social systems. The course explores theories, concepts, and knowledge from conception through early adolescence. Content also includes discussion of how factors such as social class, sexual orientation, gender, physical ability, age, race, ethnicity, and culture influence human development and behavior. *Prerequisites:* ANTH 101, Biology requirement, PY 101, SOC 100, and acceptance to SW major status. 3 hours.

**314. Human Behavior and the Social Environment II**—The second of two required courses in Human Behavior and the Social Environment, this course is designed to prepare students to understand human behavior across the life cycle. The course explores theories, concepts, and knowledge from early adolescence through death. Students acquire knowledge and understanding of human beings as individuals, as members of families, and other social groupings, and as members of organizations, communities, and larger societal and cultural collectives. Content includes discussion of how factors such as social class, sexual orientation, gender, physical ability, age, race, ethnicity, and culture influence human development and behavior. *Prerequisite:* completion of SW 313 with a C or better. 3 hours.

**320. Social Work Research**—Research theory, design, problem formulation, measurement, qualitative and quantitative approaches, and ethics. 4 hours.

**321. Statistics for Social Research**—Introduction to descriptive and inferential statistics. Topics include measures of central tendency and dispersion, probability theory, sampling, one-and two-sample hypothesis tests. 4 hours.

**322. Social Work Practice I**—Development of solution-focused helping relationship with emphasis on self-awareness, cultural-awareness, active listening, interviewing, and recording skills at all systems levels. 4 hours.

**333. HIV/AIDS Issues in Social Work**—Impact of HIV/AIDS on social work practice with individuals, families, groups, and communities. 3 hours.

**339. Child Welfare**—Policies, programs, and services to meet needs of children. Study of community agencies and children's rights. 3 hours.

**422. Social Work Practice II**—Generalist model application of social work practice with individuals, families, groups, organization, communities, and institutions. Focus on adherence to code of ethics and ethical practice. 3 hours.

**427. Traumatic Effects of Intimate Violence**—Family violence, physical child abuse and neglect, child sexual abuse, date rape, domestic violence, and elder abuse. Definition, history, and scope of each type of abuse and impact on victims. Legal and therapeutic interventions. Observation and active role-play used to facilitate beginning mastery of traumatic effects of intimate violence. 3 hours.

**428. Medical and Mental Health Social Work**—A survey of the etiology of mental illness, as well as assessment, treatment, and case management in hospital and clinic setting. 3 hours.

**432. Group Leadership**—Different kinds of groups and "hands on" experience in leading groups. Observation and active role-play used to facilitate beginning mastery of group management skills. 3 hours.

**452. The Problem of Intimacy**—A survey of theoretical underpinnings of the fear of intimacy. Human responses to the need for intimacy from infancy to death. 3 hours.

**454. Working with Substance Abusers**—Impact of substance abuse on families. Working in interdisciplinary setting to treat substance abusers. 3 hours.

**478-479. Special Topics in Social Work**—Study of current issues in social work. 1 to 3 hours each.

**490. Practicum in Social Work**—Integration of social work knowledge and values with application of professional helping skills. Full-time placement in approved social service agencies under supervision of master's-level social workers. *Prerequisite:* Continued good standing status as SW major. One semester block placement. 9 hours.

**494. Practicum Seminar**—Topics related to professional development, practice issues, and common problems encountered in practicum. *Prerequisite:* Concurrent enrollment in SW 490. 3 hours.

**498-499. Independent Study**—Research under direction of faculty member. *Prerequisite:* Permission of instructor. 1 to 3 hours.

## DEPARTMENT OF GOVERNMENT

**Chair:** Steven Haerberle

**Faculty:** H. Brasher, W. Gunther-Canada, D. Handley, A. Haque, M. Howell-Moroney, A. Lewis, L. Sharlach, J. Slack, C. Stream, S. Wilson, C. Yordan, N. Zahariadis  
**Secondary and Adjunct Faculty:** Bock, Grady, Intoccia, Nicovich

The Department of Government and Public Service offers programs of study leading to the Bachelor of Arts degree in political science and the Master of Public Administration degree. A minor in urban affairs and courses in geography are also offered.

## POLITICAL SCIENCE

Political science is concerned with the observation and comprehension of government in human society. The curriculum in political science provides selective opportunities to study systematically and critically American government and politics, to compare various national political systems, to investigate conflict and cooperation among nation-states, to examine the organization and management of public affairs, to explore the realm of ideas about political authority, and to master methods of political research.

The political science major is an appropriate background for careers in law; social science teaching; state, local, and federal government; foreign diplomacy and international affairs; journalism; and political research.

## MAJOR IN POLITICAL SCIENCE

**Requirements:** 36 semester hours in political science, including four survey courses: PSC 101, 102, 103, and 104. These are introductions to four areas of study: American government (AG), comparative politics (CP), international relations (IR), and political theory (PT). Nine additional semester hours of credit must be earned in one of these four areas to demonstrate a field of special-

ization. Two research methods courses, PSC 411 and 412, must also be completed. At least 9 semester hours must be earned at the 300-level or above, including 3 hours at the 400-level. No credit toward the political science major is allowed for any course in which a grade below C has been earned, and no more than 3 semester hours of internship credit may be counted toward the major. Transfer students must take at least 12 semester hours in political science at UAB, including at least 9 semester hours in courses numbered above 400, exclusive of PSC 411 and 412. All majors may be required to complete an examination for program assessment purposes as a requirement for graduation. Performance on such an examination will not affect students' grade point averages, nor will it be a factor in determining whether students qualify for the baccalaureate degree.

## MINOR IN POLITICAL SCIENCE

**Requirements:** 18 semester hours of political science, including PSC 101 and two courses from PSC 102, 103, and 104. At least 6 semester hours must be taken in courses numbered above 300. No credit toward the political science minor is allowed for any course in which a grade below C has been earned, and no more than 3 semester hours of internship credit may be counted toward the minor. Transfer students must take at least 6 semester hours in political science at UAB, including 3 semester hours in courses numbered above 300.

## HONORS PROGRAM IN POLITICAL SCIENCE

### PURPOSE

The Political Science Honors Program is designed to provide outstanding political science majors with the opportunity for advanced study of the political process. Honors students have the opportunity to complete an independent research project while working closely with a faculty member. The advanced study provided by the honors program accelerates a student's preparation for graduate or professional training.

### ELIGIBILITY

Criteria for entering freshmen are

- a 3.25 high school GPA and ACT composite score of 20 (or equivalent SAT score);
- declaration of political science as the student's major; and
- a letter of intent.

Criteria for students already enrolled at UAB or transfer students are

- completion of nine semester hours of political science;
- a 3.0 cumulative GPA and a 3.25 GPA in political science (and maintenance of these minima);
- declaration of political science as the student's major; and
- a letter of intent.

### OR

- junior standing;
- completion of nine semester hours of political science;
- a 3.0 cumulative GPA and a 3.25 GPA in political science courses in the last 30 percent of coursework attempted (and maintenance of these minima);

- declaration of political science as the student's major;
- letter of intent; and
- faculty approval.

## REQUIREMENTS

Students in the Political Science Honors Program are required to do the following:

- enroll in the Honors Program (replaces the requirement for a specialization);
- complete one of the following advanced seminars: PSC 401, 402, 403, or 404;
- enroll in three semester hours of PSC 497 after completion of the advanced seminar for advanced research in the selected subfield;
- prepare an advanced research project (after completion of PSC 497), which will lead to the development of a substantial research paper and, in some cases, a senior thesis;
- present research project findings to a colloquium of other PSC 497 students and department faculty; and
- participate in Pi Sigma Alpha, the national political science honor society.

## BENEFITS

Honors students will benefit from one-on-one mentoring with faculty in the department, which will lead to a more thorough understanding of the field and practice of political science. This is particularly useful as students choose career goals, such as graduate school, law school, public service, the Foreign Service, or other opportunities. Additionally, students who complete the program will graduate "With Honors in Political Science."

## CONTACT

For more information and/or admission to the Political Science Honors Program, contact the Political Science Program Director, 238 Ullman Building, Birmingham, AL 35294-3350; Telephone (205) 934-9680.

## URBAN AFFAIRS

Urban affairs provides broad, interdisciplinary examination of the development, functions, and problems of metropolitan areas. Urban affairs focuses on the socio-political and spatial entity of the metropolis in which the size, density, and heterogeneity of the urban population causes both problems and opportunities not found in rural communities. The minor also offers internships and co-op opportunities in urban-related agencies to provide practical work experience with academic credit.

## MINOR IN URBAN AFFAIRS

Requirements: 18 semester hours, including UA 101 and 109, as well as nine additional semester hours in urban affairs courses. A grade of C or better is required in all coursework applied toward the minor.

## GRADUATE PROGRAMS

For information on the Master of Public Administration degree program, please consult the program advisor or the UAB Graduate School Catalog.

## Course Descriptions

### Geography (GEO)

**101. Introduction to Geography**—Basic concepts and principles underlying major research traditions of geography, including earth science, culture-environment, and location and area analysis. 3 hours.

**109. Introduction to Urban Geography**—(Also UA 109.) External and internal spatial processes of cities and city systems with emphasis on contemporary urban problems. 3 hours.

**121. World Regional Geography**—Modern world's great culture realms using basic ideas and concepts in field of geography. 3 hours.

**221. Geography of North America**—Nature and character of places, especially as caused by relationship between human beings and environment. 3 hours.

**415/515. Political Economy and Race in Birmingham**—(Also UA 415, PSC 415.) Critical analysis of race in political economy of Birmingham from postbellum period to era of Civil Rights. 3 hours.

### Political Science (PSC)

**101. Introduction to American Government**—Politics, institutions, and policy-making process of American national government. (AG) (CORE AREA IV) 3 hours.

**102. Introduction to Comparative Politics**—Looks beyond today's headlines. Compares governments around the world. Explores political systems of our allies and foes. (CP) (A&S TRACK A) 3 hours.

**103. Introduction to International Relations**—The story behind international crises. Explores reasons for conflict and cooperation between countries. (IR) (A&S TRACK A). 3 hours.

**104. Introduction to Political Theory**—Origin and development of fundamental concepts of political speculation, including descriptive, causative, and normative aspects of politics dealing with value choices and ethical dilemmas. (PT) (A&S TRACK B). 3 hours.

**110. Introduction to American Public Policy**—(Also UA 110.) Policy process at local, state, and federal levels of government. Problem identification and definition; policy formulation and enactment; implementation and evaluation; policy termination. (AG). 3 hours.

**120. Urban Politics**—Structures of urban governments, focusing on intergovernmental relations, official decision makers, and group and electoral politics in metropolitan environments. (AG). 3 hours.

**170. Contemporary Political Issues**—Selected topics of current political importance and interest. Interests identified in current schedule of classes. May be repeated with permission of department chair. 3 hours.

**198. Public Affairs Internship**—*Prerequisite:* open only to Political Science majors. May be repeated with permission of the chair. 3 or 6 hours.

**210. Issues of Diversity**—(Also HY 200.) An examination of diversity in America. Ethical, social, and political dilemmas and challenges in relating to members of different groups. (AG). 3 hours.

- 211. Social Welfare Policy**—An examination of historical and current cultural, political, and economic factors that shape U.S. social welfare policy and its relationship to the delivery of human and social services by public and non-profit agencies within a framework of social justice. (AG). 3 hours.
- 212. Environmental Racism**—(Also PSC 312.) Introduction to the environmental justice movement in the U.S. with an emphasis on environmental racism. The interplay of race, socio-economic status, and interest group politics and the formulation and implementation of U.S. federal and state environmental policy will be examined. An interdisciplinary examination of some fundamental environmental problems faced by individuals and communities of color. (AG). 3 hours.
- 215. African American Ideology**—(Also PSC 315.) Introduction to African American political and social thought, with a particular emphasis on African American ideologies. Identifies key figures, issues, and positions of African American political and social thought. The overall value of African American contributions in political and social thought will be critically examined. 3 hours.
- 216. Gays, Lesbians, and the Politics of Sexual Diversity**—(Also PSC 316.) Examination of lesbian, gay, bisexual, and transgender politics in the U.S. since the mid-20th century, focusing on the regulation of sexuality and gender, the liberation and assimilationist approaches to political action, and contemporary issues, including discrimination in employment, the military, in education, domestic partnerships, HIV/AIDS, and family law. 3 hours.
- 217. Religion and Politics**—(Also PSC 317.) This course investigates the relationship between religion and the American political community. Topics examined will include the influence of religion on Early Settlement thought; the role of religion in shaping the First Amendment; the political evolution of Christian, Jewish, and Islamic sects in the U.S.; the court and the issue of “church and state”; religion and political activism; faith-based organizations and the implementation of public policy. 3 hours.
- 220. Minority Politics**—(Also UA 220.) Minority politics in the United States at national, state, and local levels of government. (AG). 3 hours.
- 221. American State and Local Government**—Institutions, functions, and political processes at state and local levels of American government. (AG). 3 hours.
- 222. Introduction to Public Administration**—Principles and practices of governmental administration, including organization, procedures, personnel management, budgeting, and control. (AG). Advanced undergraduates. *Prerequisite:* 3 semester hours in political science. Permission of instructor. 3 hours.
- 223. Urban Management**—(Also UA 233.) Problems and operations in management of local government; relationships among administrative and political processes in urban environment. (AG). *Prerequisite:* 6 semester hours of political science or permission of instructor. 3 hours.
- 224. The Contemporary City**—(Also UA 224.) Contemporary American city as economic, political, and sociological system. (AG). 3 hours.
- 225. Introduction to Community Planning & Development**—(Also UA 225.) Key topics and elements of effective community planning and development (AG). 3 hours.
- 226. Civil and Human Rights Movements**—(Also UA 226.) Principal events, organizations, and personalities involved in quest for political, economic, and social equality in urban America. (AG). 3 hours.
- 233. Interest Group Politics**—(Also PSC 333.) The role of interest groups in American politics at all levels and in their varied forms will be examined, including theories and empirical research on how organized interests organize in the first place, are governed internally, enter and then interact with each other within populations or interest communities. How interest groups seek to influence government policy through electoral activity and lobbying legislatures, executives, and courts will also be studied. 3 hours.
- 240. Social and Political Philosophy**—(Also PHL 230.) Contemporary debate concerning fundamental principles of political life. Justification of political authority, proper role of government in society, economic justice, freedom and rights, and free enterprise system. (PT) *Prerequisite:* 3 hours in Political Science or Philosophy. 3 hours.
- 250. African Politics**—(Also PSC 350.) Comparative analysis of African politics and governments. (CP). 3 hours.
- 251. European Political Systems**—(Also PSC 351.) Comparative analysis of politics in European nations (CP). 3 hours.
- 252. Latin/South American Political Systems**—(Also PSC 352.) Comparative analysis of politics in Latin and South American societies. (CP). 3 hours.
- 253. Asian Political Systems**—(Also PSC 353.) Comparative analysis of politics in Asian nations. (CP). 3 hours.
- 254. East European Politics**—(Also PSC 354.) Analysis of East European domestic and foreign policies and politics. (CP). 3 hours.
- 260. American Foreign Policy**—Creation and conduct of U.S. foreign policy. Evolution of American role in world affairs; problems, trends, and developments since World War II. (IR). 3 hours.
- 261. International Organization**—Historical and functional evolution of intergovernmental organizations and existing arrangements for collaboration through United Nations, related specialized agencies, and regional organizations. (IR). 3 hours.
- 262. Global Policy Issues**—Political implications of global trends in resource consumption, population growth, food production and consumption, and weapons proliferation. Adequacy of existing political and social arrangements and institutions, both national and international. (IR) (A&S TRACK A). 3 hours.
- 266. The United Nations**—(Also PSC 466/566.) Organization framework, evolving experiences and continuing problems of United Nations system for maintenance of international peace and security and for international economic and social cooperation. (IR). *Prerequisite:* permission of instructor ONLY. 3 hours.
- 270. Political Power in American Film**—Concept of political power in American society and its expression in American film. (AG). 3 hours.
- 271. Contemporary Political Issues**—Issues of current interest in Political Science. 3 hours.
- 295. Special Topics in Political Science**—Selected topics in Political Science. 3 hours.

**312. Environmental Racism**—(Also PSC 212.) Introduction to the environmental justice movement in the United States with the emphasis on environmental racism. The interplay of race, socio-economic status, and interest group politics and the formulation and implementation of U.S. federal and state environmental policy will be examined. An interdisciplinary examination of some fundamental environmental problems faced by individuals and communities of color. 3 hours.

**315. African American Ideology**—(PSC 215.) Introduction to African American political and social thought, with particular emphasis on African American ideologies. Identifies key figures, issues, and positions of African American political and social thought. The overall value of African American contributions in political and social thought will be critically examined. 3 hours.

**316. Gays, Lesbians, and the Politics of Sexual Diversity**—(Also PSC 216/516.) Examination of lesbian, gay, bisexual, and transgender politics in the U.S. since the mid-20th century, focusing on the regulation of sexuality and gender, the liberation and assimilationist approaches to political action, and contemporary issues, including discrimination in employment, the military, education, domestic partnerships, HIV/AIDS, and family law. 3 hours.

**317. Religion and Politics**—(Also PSC 217.) This course investigates the relationship between religion and the American political community. Topics examined will include the influence of religion on Early Settlement thought; the role of religion in shaping the First Amendment; the political evolution of Christian, Jewish, and Islamic sects in the U.S.; the court and the issue of “church and state”; religion and political activism; faith-based organizations and the implementation of public money. 3 hours.

**320. Parties and Elections in American Politics**—Development of political party systems; roles and functions of parties (nomination, election, and finance); voting behavior (party identification and loyalty and independent voter); reform; nomination and election processes; future problems and prospects. (AG). 3 hours.

**321. Public Opinion in American Politics**—Public opinion and factors that shape it (socialization, media, and groups); influence on elections and policy; measurement of public opinion. (AG). 3 hours.

**322. Women in Politics**—Political behavior of women as activists, voters, candidates, and office holders; policy issues affecting women. (AG). 3 hours.

**330. The American Judicial Process**—Structure and organization of American courts; selection of judges; judicial procedure and reasoning in case determination and development of constitutional doctrines; nature and exercise of judicial power; restraints upon courts. (AG). *Prerequisite:* 3 hours in PSC or permission of instructor. 3 hours.

**331. The American Legislative Process**—United States Congress and state legislatures; structure, procedures, recruitment of legislators, leadership, and legislative reform. (AG). *Prerequisite:* 3 hours in PSC or permission of instructor. 3 hours.

**332. The American Presidency**—Presidential leadership and democratic order; legal foundations of presidential authority; popular influences and presidential politics; democracy and presidential leadership today. (AG). *Prerequisite:* 3 hours in PSC or permission of instructor. 3 hours.

**333. Interest Group Politics**—(Also PSC 233.) The role of interest groups in American politics at all levels and in their varied forms will be examined including theories and empirical research on how organized interests organize in the first place, are governed internally, enter and then interact with each other within populations or interest communities. How interest groups seek to influence government policy through electoral activity and lobbying legislatures, executives, and courts will also be studied. 3 hours.

**340. American Political Thought**—Origins and development of ideas underlying the political traditions of the United States. (PT). *Prerequisite:* 3 hours in PSC or permission of instructor. 3 hours.

**341. Classical Political Thought**—(Also PHL 232.) Development of Western political thought in classical period from Plato to Augustine. Theories of major political thinkers. (PT). *Prerequisite:* 3 hours in political science or philosophy. 3 hours.

**342. Modern Political Theory**—(Also PHL 232.) Development of Western political thought from early modern era to contemporary debates in works from Machiavelli to Mill. Theories of major political thinkers. (PT). *Prerequisite:* 3 hours in political science or philosophy. 3 hours.

**343. Gender and Political Theory**—This course examines the relationship between gender and political theory. (PT). 3 hours.

**350. African Politics**—(Also PSC 250.) Comparative analysis of African politics and governments. (CP). 3 hours.

**351. European Political Systems**—(Also PSC 251.) Comparative analysis of politics in European nations. (CP). 3 hours.

**352. Latin/South American Political Systems**—(Also PSC 252.) Comparative analysis of politics in Latin and South American societies. (CP). 3 hours.

**353. Asian Political Systems**—(Also PSC 253.) Comparative analysis of politics in Asian nations. (CP). 3 hours.

**354. East European Politics**—(Also PSC 254.) Analysis of East European domestic and foreign policies and politics (CP). 3 hours.

**355. Politics of Development**—Major theoretical formulations of political development and analysis of political problems confronting less-developed societies. (CP). 3 hours.

**360. International Security**—Analysis of arms race, process of arms control negotiations, and diffusion of nuclear weapons. 3 hours.

**361. North/South International Relations**—Relations between advanced industrial countries and underdeveloped countries, focusing on changing dynamics of these relations. (IR). 3 hours.

**362. Diplomacy**—Origins, institutions, functions, and rules of modern diplomatic and consular practice and roles of diplomacy as instrument of national policy. (IR). 3 hours.

**363. Nationalism in World Politics**—The primary objective of this course is to examine the political basis and implications of nationalism, as an idea and a political movement, in world politics. 3 hours.

**370. Politics and the Media**—Examination of the structure and regulation of the media, the way the media presents issues to the public, and the effect of the media on conduct. 3 hours.

**395. Special Topics in Political Science**—Special topics in political science. 3 hours.

**401. Seminar in American Government**—(Also PSC 501.) Multiple theoretical approaches employed in study of American political culture, behavior, institutions, and policy-making; their usefulness in understanding domestic politics. (AG). *Prerequisite:* permission of instructor. 3 hours.

**402. Seminar in Comparative Politics**—(Also PSC 502.) Multiple theoretical approaches employed in study of comparative politics and their usefulness in cross-national analysis of political systems. (CP). *Prerequisite:* permission of instructor. 3 hours.

**403. Seminar in International Relations**—(Also PSC 503.) Multiple theoretical approaches employed in study of international relations and their usefulness in investigating issues in world politics. (IR). *Prerequisite:* permission of instructor. 3 hours.

**404. Seminar in Political Theory**—(Also PSC 504.) Multiple approaches employed in study of political theory and their usefulness in forming normative judgments. (PT). *Prerequisite:* permission of instructor. 3 hours.

**405. Seminar in Urban Affairs**—(Also PSC 505.) Investigation in topics of current interest in urban studies. *Prerequisite:* permission of instructor. 3 hours.

**411. Introduction to Research Methods**—(Also UA 411.) Alternative approaches to analysis of research questions. Development of rigorous analytical capabilities in application of both quantitative and non-quantitative research strategies. 3 hours.

**412. Introduction to Statistical Analysis**—(Also UA 412.) Descriptive and inferential statistics. Measure of central tendency and dispersion, probability theory, sampling, and one-and two-sample hypothesis tests. *Prerequisite:* PSC 301 Research Methods. 3 hours.

**415. Political Economy and Race in Birmingham**—(Also PSC 515 and UA 420/520.) This course provides a critical analysis of race in the political economy of Birmingham from the postbellum period to the era of civil rights. 3 hours.

**421. Politics, Planning, and Urban Design**—(Also PSC 521, UA 421/521.) Relationship among policies, planning, and urban design. (AG). 3 hours.

**430. American Constitutional Law I**—(Also PSC 530.) Decisions of the U.S. Supreme Court as related to the development of important doctrines of constitutional law. Role of judiciary; extent of federal executive and legislative power; federal taxing and commerce powers. (AG). 3 hours.

**431. American Constitutional Law II**—(Also PSC 531.) Decisions of the U.S. Supreme Court as related to the development of important doctrines of constitutional law. Guarantees of Bill of Rights regarding both national and state governments; 14th Amendment. (AG). 3 hours.

**453. Politics, Planning, and Urban Design**—(Also PSC 553, UA 453/553.) Relationships among policies, planning, and urban design. (AG). *Prerequisite:* 3 hours in PSC or permission of instructor. 3 hours.

**460. The United Nations**—(Also PSC 560.) Organizational framework, evolving experiences and continuing problems of United Nations system for maintenance of international peace and security and for international economic and social cooperation. (IR). *Prerequisite:* permission of instructor. 3 hours.

**461. International Political Economy**—(Also PSC 561.)

Increasing interaction of politics and economics in international and transnational arenas of current global system. (IR). 3 hours.

**465. International Law**—(Also PSC 565.) Historical roots, theoretical foundations, and substantive development of law governing relations among nations; functioning of present international legal system. (IR). *Prerequisite:* 3 hours in PSC or permission of instructor. 3 hours.

**466. The United Nations**—(Also PSC 266/566.) Organizational framework, evolving experiences, and continuing problems of United Nations system for maintenance of international peace and security and for international economic and social cooperation. (IR). *Prerequisite:* permission of instructor. 3 hours.

**471. Contemporary Political Issues**—(Also PSC 571.) Topics of current political importance and interest. Issues identified in class schedule. May be repeated for credit with permission of department chair. 3 hours.

**472. Environmental Policy**—(Also PSC 572.) Institutions, processes, actors, and issues in U.S. and international environmental policy. 3 hours.

**473. Urban Environmental Issues**—(Also PSC 573.) Examination of environmental issues, focus on Birmingham area. 3 hours.

**474. The Politics of Aging**—(Also PSC 574.) Role of aging in political process. Political demands made by elderly, role of aging in political decision making, and policy outputs relevant to older population. (AG). 3 hours.

**495. Special Topics in Political Science**—(Also PSC 595.) Group investigation of topics of current interest in political science. *Prerequisite:* Permission of instructor. 3 hours.

**496. Independent Studies and Special Projects**—(Also PSC 596.) Selected reading or research under supervision of member of PSC department. *Prerequisite:* Permission of PSC advisor and instructor. Open to PSC majors ONLY. 1 to 3 hours.

**497. Honors Research in Political Science**—Directed research by Political Science Honors student. *Prerequisite:* open only to Political Science Honors students. 3 or 6 hours.

**498. Public Affairs Internship**—(Also PSC 598.) Individually arranged assignment in public or non-profit agencies or organizations, monitored and evaluated by member of department. *Prerequisite:* Permission of PSC advisor and member of faculty. Open to PSC majors ONLY. 1 to 3 hours.

### Urban Affairs (UA)

**101. The City in American History**—City in American history from colonial period to present. Origins of urban activities such as overcrowding, transportation, governance, privatism, and poverty. 3 hours.

**107. History and Development of Birmingham**—Social, economic, and political survey of development of the Birmingham area. 3 hours.

**109. Introduction to Urban Geography**—(Also GEO 109.) External and internal spatial processes of cities and city systems, with emphasis on contemporary urban problems. 3 hours.

**191. Co-op Education Work Experience**—*Prerequisite:* Permission of urban affairs faculty advisor. 1 to 3 hours.

**195. Selected Topics in Urban Studies**—Topics listed in class schedule. 3 hours each.

**200. Social Change**—(Also SOC 200.) Change as ever-present feature of contemporary world; comparative analysis of impact of changes on societies in advanced industrial world and Third World; application and critiques of social change theories and relevance for societies throughout world; human consequences of social change. 3 hours.

**220. Minority Politics**—Minority politics in United States at national, state, and local levels of government. 3 hours.

**222. Introduction to Public Administration**—Principles and practices of governmental administration, including organization, procedures, personnel management, budgeting, and control. 3 hours.

**223. Urban Management**—Problems and operations in management of local government; relationships among administrative and political processes in urban management. 3 hours.

**224. The Contemporary City**—Contemporary American city as economic, political, and sociological system. 3 hours.

**226. Civil and Human Rights Movements**—Analysis of principal events, organizations, and personalities involved in quest for political, economic, and social equality in urban America. 3 hours.

**240. Family Conflict and Violence**—(Also SOC 240.) Origins, manifestations, effects, controls, and rehabilitation aspects of family conflict and violence. 3 hours.

**270. Urban Sociology**—(Also SOC 275.) Lifestyle changes in urban society; social and demographic characteristics of cities; benefits and problems resulting from these characteristics; urban problems compared with rural and suburban problems. 3 hours.

**278. Cities of the World**—(Also SOC 278.) Historical and contemporary patterns of world urbanization and consequences; world systems of cities; core-periphery relations and development in Third World; cross-cultural analysis of urban life, urban planning, and community structures in various world regions; case studies of selected world cities such as Moscow, Beijing, Baghdad, Tokyo, and New York. 3 hours.

**291. Cooperative Education Work Experience**—Cooperative education work experience. 1 to 3 hours.

**295. Special Topics in Urban Studies**—Special topics in urban studies. 3 hours.

**315. Social Stratification**—(Also SOC 415.) Inequality of wealth, prestige, and power distribution examined as caste-class differences; effect of stratification on individuals and their behavior, lifestyle, and life chances. 3 hours.

**350. Special Topics in Urban Affairs**—Selected topics of importance and interest in urban affairs. 3 hours.

**366. Urban Anthropology**—(Also ANTH 366.) Human life in cities from cross-cultural perspective; process of urbanization in ancient civilizations, colonial empires, and modern-day Third World. *Prerequisite:* 12 semester hours in courses from the social and behavioral sciences or junior standing. 3 hours.

**395. Special Topics in Urban Affairs**—Selected topics of importance and interest in urban affairs. 3 hours.

**401. Seminar in American Government**—Specific political questions such as education, police, welfare, defense, energy, etc. Selected for detailed analysis at advanced level. 3 hours.

**411. Introduction to Research Methods**—(Also PSC 411.) Alternative approaches to analysis of research questions in political science and public affairs. Development of rigorous analytical capabilities in application of both quantitative and non-quantitative research strategies. 4 hours.

**412. Statistics for Political Research**—(Also PSC 412.) Descriptive and inferential statistics. Measures of central tendency and dispersion, probability theory, sampling, and one- and two-sample hypothesis tests. *Prerequisite:* PSC 320/UA 320. 4 hours.

**413/513. Urban Economics**—(Also EC 413.) Economic issues and structure of metropolitan areas. Economic growth and decay of urban regions. Housing, education, employment, political economy, and public policy. *Prerequisite:* EC 202. 3 hours.

**420/520. Political Economy and Race in Birmingham**—(Also PSC 415.) Critical analysis of race in political economy of Birmingham from postbellum period to era of Civil Rights. 3 hours.

**421. Politics, Planning and Urban Design**—Relationship among politics, planning, and urban design. 3 hours.

**450/550. Contemporary Urban Issues**—Topics of current importance and interest in contemporary urban arena. 3 hours.

**472. Homelessness: Causes and Consequences**—(Also UA 572 and SOC 472.) Review of current problems of homelessness in U.S. Issues of history, health, mental health, poverty, public attitudes, and government policy. 3 hours.

**473. Urban Environmental Issues**—Broad examination of environmental issues; focus on Birmingham area. 3 hours.

**490-491/590-591. Directed Readings in Urban Affairs**—Selected readings under supervision of faculty member. *Prerequisite:* permission of instructor and department chair. 1 to 3 hours each.

**492-493/592-593. Public Affairs Internship**—Individually arranged assignments in public or nonprofit agencies or organizations, monitored and evaluated by member of department. *Prerequisite:* permission of department chair. 3 hours each.

**494-495/594-595. Seminar in Urban Affairs: Special Topics**—Group investigation of topics of current interest in urban studies. Topics listed in class schedule. *Prerequisite:* permission of instructor. 3 hours each.

**496-497/596-597. Urban Research**—Directed research for students with adequate backgrounds in methods and statistics; classroom introduction to research methodology and directed group research for those without significant research and statistics backgrounds. 3 hours each.

## DEPARTMENT OF HISTORY

**Chair:** James F Tent

**Faculty:** Armbrester, Conley, C. Davis, Doss, Huntley, Keitt, Lesnick, Liber, McConnell, McWilliams, Millard, Miller, Mohl, Murray, Van Sant, Webb

The Department of History offers the Bachelor of Arts degree and the Master of Arts degree in history. The undergraduate program is designed to give students insight into the world in which they live and into the forces and events that have shaped and molded that world. In its broadest sense, the discipline of history

provides the background for all other subjects and disciplines. The classical goal of self-knowledge can be enhanced through the study of history. The analytical study of history provides an understanding of “why we are what we are” and “how we came to be where we are today.” The purpose of historical study is not only an understanding of our own past and present, but an appreciation of the evolution of other cultures, civilizations, and nations.

Students interested in careers in the fields of law, teaching, public service, international affairs, business, journalism, and a variety of other areas involving the social sciences and humanities will find the history major beneficial and rewarding.

## MAJOR

12 semester hours in lower-division survey courses, including Western Civilization, HY 101 and 102, or World Civilization, HY 104 and 105, (students may not take both Western Civilization and World Civilization for credit), United States History, HY 120 and 121.

3 semester hours in HY 300, The Historian’s Craft. It is recommended that this course be taken after the completion of the lower-division survey requirement and before taking upper-division courses.

15 semester hours in HY courses numbered 300 or 400 taken at UAB. Nine hours must be 400 or above and remaining 6 hours at 300 or above.

6 semester hours in history electives.

36 semester hours total history major requirements.

**Note:** Majors may want to consult the Director of Undergraduate Programs in the department office prior to taking electives or 300- or 400-level courses to plan a broad program that includes courses in European, U.S., and non-Western areas of history. Fifteen semester hours of upper-division work beyond HY 300 must be taken at UAB. Students may take no more than two directed readings courses. No grade below C may be counted toward the history major. All majors may be required to complete an examination for program assessment as a requirement for graduation. Performance on such an examination will not affect students’ grade point averages, nor will it be a factor in determining whether students qualify for the baccalaureate degree.

## MINOR

9 semester hours in lower-division survey courses selected from Western Civilization, HY 101 and 102, or World Civilization, HY 104 and 105 (students may not take both Western Civilization and World Civilization for credit), United States History, HY 120 and 121. History minors must include one course in the Western Civilization sequence and one course in the U.S. history sequence.

6 semester hours in HY courses numbered above 300.

3 semester hours in history electives.

18 semester hours total history minor requirement.

**Note:** At least 6 semester hours in history above the 300 level must be taken at UAB. No grade below C may be counted toward the history minor.

## HONORS PROGRAM IN HISTORY

### PURPOSE

The History Honors Program is designed for outstanding history majors at UAB. This program affords qualified students the opportunity to interact with faculty and other talented students in a seminar environment that encourages independent thinking and critical analysis. Faculty-led independent research for the senior thesis provides students with experience in applying historical methods and analytical writing techniques. This more advanced study helps prepare undergraduate history majors for graduate work in the field or for post-graduate training in other areas such as law, theology, and medicine. Students who complete the program will graduate “With Honors in History.”

### ELIGIBILITY

To be eligible for the History Honors Program, students must complete at least 60 semester hours with a minimum 3.0 overall GPA and a minimum 3.5 GPA in history courses. At least 24 semester hours in the history major must be completed prior to acceptance in the Honors Program.

Interested students should submit a written letter of application and two writing samples to the History Honors Committee, c/o Chair of the Department of History.

### REQUIREMENTS

The History Honors Program requires 39 total semester hours in history (as compared to 36 for the traditional history major) and maintenance of an overall 3.0 GPA and a 3.5 GPA in history courses through graduation. Additional requirements include:

- 12 semester hours of lower-division survey courses selected from Western Civilization, HY 101 and 102, United States History, HY 120 and 121;
- 3 semester hours of HY 300, The Historian’s Craft. The department recommends that this course be taken after the completion of the lower-division survey requirement and before taking upper-division courses;
- 9 semester hours of HY courses numbered 300 or 400 (these courses may not be transferred from another institution and must be taken at UAB);
- 6 semester hours of history electives;
- 3 semester hours of HY 490, Undergraduate Seminar in History (a reading and discussion seminar with short critical papers based on readings); and
- 6 semester hours of HY 401, Honors Thesis in History (should be taken twice for a total of six semester hours).

39 semester hours total Honors in History major requirements.

Honors students may take one or two graduate seminars in history for undergraduate credit with permission of the History Honors Committee and the professor teaching the graduate seminar. This credit may not be used for graduate credit.

### CONTACT

For additional information on the History Honors Program, contact the Department of History, Director of Undergraduate Programs or Chair; Telephone (205) 934-5634.

## Course Descriptions

### History (HY)

**101. Western Civilization I**—From antiquity to the rise of Early Modern Europe circa 1650. 3 hours.

**102. Western Civilization II**—Early Modern Europe to present. 3 hours.

**104. World History to 1600**—A survey of world societies, cultures, and major civilizations from pre-historic beginnings to the early modern era. HY 104 may replace HY 101, but both may not be taken for credit. 3 hours.

**105. World History 1600 to Present**—A survey of world societies from the early modern era to the present. HY 105 may replace HY 102, but both may not be taken for credit. 3 hours.

**120. The United States to 1877**—Social, political, economic, and cultural forces affecting migration of Europeans and Africans to New World, creation of American Republic, Civil War, and Reconstruction. 3 hours.

**121. The United States Since 1877**—Social, political, and economic forces affecting development of the United States as industrial power. Growth of U.S. during 20th century, increasing role in world affairs, and domestic consequences of superpower status. 3 hours.

**190-191-192. Topics in History**—Special studies of historical topics. May be repeated for credit. 3 hours each.

**201. Economic History of the United States**—Economic developments of U.S. from colonial times to present, focusing on business organization, technology, and innovation. 3 hours.

**203. History of American Technology**—(Also EGR 260.) History of civilization of new technology in the United States emphasizing role of inventors and engineers. 3 hours.

**207. The American Film**—(Also HY 307.) Creation and development of motion pictures in the United States, including how films are made, American film industry, and impact of Hollywood on American culture. 3 hours.

**210. History of American Medicine**—Survey of patterns and trends in American medicine. 3 hours.

**223. African American History: To the Civil War**—Ancient African civilizations and their demise, the slave trade, and slavery in New World to the Civil War. 3 hours.

**224. African American History: From the Civil War**—Survey of late 19th century to present African American history. 3 hours.

**225. History of Alabama**—Social, economic, and political survey of state from prehistory to present. 3 hours.

**226. History and Development of Birmingham**—Social, economic, and political survey of the Birmingham area. 3 hours.

**227. Technology and Society**—Relationship of machines and people in modern industrial society. Topics from recent American history and from contemporary problems. 3 hours.

**234. The World Since 1945**—Analysis of important events and political, social, and economic trends since World War II. 3 hours.

**235. War in the Modern World**—American military history from colonial times to present, including impact of Western ideas and technology on national defense policy. 3 hours.

**245. Introduction to Latin American History**—Major social,

political, economic, and cultural developments in Latin America from pre-Colombian times to present. 3 hours.

**247. Colonial Latin America**—Major pre-Colombian civilizations, focusing on impact of European contact and emergence of new hybrid societies by eighteenth century in Brazil and Hispanic America. 3 hours.

**248. Modern Latin America**—Social, political, and economic trends marking history of region since early 19th century, aiding understanding of conditions in Latin America today. 3 hours.

**251. Nineteenth-Century Europe**—National consolidation, imperialist adventure, and European society and politics from 1815 to 1914. 3 hours.

**252. Twentieth-Century Europe**—Europe as transformed by total war, economic dislocation, rise of totalitarian movements, and post-1945 integration from 1914 to present. 3 hours.

**257. The Celtic Fringe: Ireland, Scotland, Wales**—History of “other” British nations: Irish, Scots, and Welsh. Internal development and relations with England. 3 hours.

**258. Britain and the Third World**—British foreign policy, emphasizing Empire and British relations with peoples outside Europe. 3 hours.

**260. History of France, 1500 - 1789**—Social history of 16th to 18th century France, including growth of monarchy, wars of religion, peasant uprisings, popular culture, Catholic resurgence, Louis XIV, and achievements in arts and literature. 3 hours.

**261. Modern France: Politics and Culture Since the French Revolution**—French history from Revolution of 1789 to present with emphasis on political, social, and economic aspects. 3 hours.

**262. Introduction to Early Modern Spanish History**—Survey of the history of Spain from the 15th to the 18th centuries with emphases on the social and cultural effects of European expansion, race and religion, the Inquisitions, and Spain's contribution to European art and literature. 3 hours.

**263. History of the Russian Empire**—Russian history from prehistory to 1917, focusing on development of Russian state and its social and political character. 3 hours.

**264. Russian Revolution: 1917-1921**—Russian Revolution with emphasis on political, social, and national conflicts in cities, in countryside, and in non-Russian areas. 3 hours.

**265. History of the Soviet Union, 1917-1991**—Bolshevik Revolution and role of Soviet Union as world power. 3 hours.

**266. Soviet Film and Society, 1917-1991**—A review of how Soviet films reflected official and unofficial political and social trends. 3 hours.

**271. Introduction to East Asian History and Culture**—An introduction to the histories and cultures of East Asia (China, Japan, Korea, and Southeast Asia) from ancient times to the present. 3 hours.

**272. Modern East Asia**—A political and social history of East Asia and East Asia's relations with the West from 1800 to present. 3 hours.

**283. Old World Archaeology**—(Also ANTH 230.) Prehistory of Africa, Asia, and Europe from Paleolithic to Early Bronze Age. Hunter-gatherer adaptations, emergence of village-based agriculture, and appearance of cities. 3 hours.

**284. Archaeology of the Origins of Civilization**—(Also ANTH 231.) Development of complex society in the Fertile Crescent, Egypt, Mesopotamia, and Mediterranean from origins of agriculture to Alexander the Great. 3 hours.

**290-291-292. Topics in History**—Special studies of historical topics. May be repeated. 3 hours each.

NO PREREQUISITE FOR 300-LEVEL COURSES UNLESS SPECIFIED.

**300. The Historian's Craft**—Values, methodology, and materials of historical analysis, with emphasis on changing interpretations of history and writing of research paper. *Prerequisite:* HY majors only or permission of instructor. 3 hours.

**303. Women in American History**—Changing economic, political, and social roles of women from colonial period to present. 3 hours.

**304. The Civil Rights Movement in America**—History of civil rights from late 19th century to present; significance of movement to those involved and to rest of American society. 3 hours.

**305. Popular Culture in American History**—Mass culture of U.S. through films and recorded sound, from creation of entertainment industry in 19th century to television and counterculture of 1960s. 3 hours.

**306. Social History of the Automobile**—Impact of automobile on American life and creation of car culture. Effect on environment and urban life. 3 hours.

**307. The American Film**—(Also HY 207.) Creation and development of motion pictures in the United States, including how films are made, American film industry, and impact of Hollywood on American culture. 3 hours.

**308. History of Popular Music in the United States**—Creation of musical entertainment, the changing audience, and diffusion of recordings from earliest recordings of music hall songs to rap and hip hop. 3 hours.

**320. Roosevelt to Roosevelt**—History of the period between 1900 and 1945, with emphasis on national politics. 3 hours.

**322. The Great Depression**—Examines the causes and effects of the Great Depression using both fictional and documentary films and required readings; students will analyze how Hollywood interpreted the lives of Americans during that period. 3 hours.

**325. Southern Politics in the 20th Century**—The social and economic bases of Southern politics. 3 hours.

**327. Southern Labor History**—Unique conditions and people who formed Southern labor history. Changing contours of slave, industrial, and post-industrial labor force. 3 hours.

**329. U.S. Women's Labor History**—Role and influence of working women on American history as social and political force in creating work identity and culture. 3 hours.

**341. U.S.-Latin American Relations**—Diplomatic relations between U.S. and Latin America since early nineteenth century. Roots of contemporary conflicts involving issues such as revolution and drug trafficking. 3 hours.

**342. History of Women in Latin America**—Condition of Latin American women in historical perspective with reference to factors such as race, class, religion, and ethnicity; Hispanic cultural attitudes that have shaped that condition over time. 3 hours.

**351. Continental Enlightenment, 1680-1790**—Ideas and politics during 18th century, focusing on Western Europe outside France; new ideas about society, religion, and government in Italian and German states. 3 hours.

**353. The Christians in History**—Origins, development, and spread of Christianity from antiquity to the modern world. *Prerequisites:* 6 hours from 101, 102, 120 or 121. 3 hours.

**355. The Reformation**—Issues and meanings of the Protestant and Catholic Reformations of the 16th and 17th centuries, with particular attention to intellectual, social, and political dimensions. *Prerequisites:* 101 or 102, or permission of instructor. 3 hours.

**357. Religion in Early Modern European History**—The role of religion in shaping early modern attitudes toward politics, science, literature, and art. 3 hours.

**365. Spain, Portugal, and the Modernizing World**—European expansion and the rise and fall of Imperial Spain. 3 hours.

**370. Gorbachev and the End of the U.S.S.R.**—An analysis of Gorbachev's impact on the Soviet Union and the social and political forces he unleashed. 3 hours.

**371. Soviet and East European Revolutions, 1989-1991**—Describes and analyzes the impact on the U.S.S.R. of the 1989 revolutions in Eastern Europe. 3 hours.

**374. Meiji Japan**—A social and political history of Japan emerging as a modern, industrialized nation from the mid-19th century to the early 20th century. 3 hours.

**375. The Pacific War, 1931-1945**—The military and political conflict between Japan, China, and the United States from the Manchurian Incident to the atomic bombings of Hiroshima and Nagasaki. 3 hours.

**376. Japan and the United States**—A social and political history of relations between Japan and the U.S. and between Japanese and Americans from 1850 to the present. 3 hours.

**390-391-392. Topics in History**—Special studies of historical topics. May be repeated. 3 hours each.

NO PREREQUISITE FOR 400-LEVEL COURSES UNLESS SPECIFIED.

**401. Honors Thesis**—Independent research project for honors students in history directed by faculty advisor. Course taken twice to produce thesis for Honors in History. *Prerequisite:* permission of department chair. 3 hours.

**403. Colonial America to 1765**—Examines colonial North America, especially Britain's colonies, their social and cultural development, and the emergence of distinctive British American and African American identities. *Prerequisite:* HY 120 or equivalents or permission of instructor. 3 hours.

**404. Era of the American Revolution, 1760-1783**—Intellectual and social origins and aspects of the revolutionary era. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**405. War and Society in Early America**—Examination of the history of warfare in colonial North America and the impact of war on colonial and native societies. Topics will include the "military revolution" and colonial America, war and culture, and wars for empire. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**407. Early American Frontiers 1492–1815**—Examines encounters between native peoples and colonists, with emphasis on regions that became part of British Colonial America. 3 hours.

**408. The New Nation, 1783–1815**—Intellectual, political, and social origins and aspects of post-revolutionary era. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**409. American Constitutional History to 1877**—Landmark cases in interpretation of the Constitution against background of American history. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**410. American Constitutional History Since 1877**—Landmark cases in interpretation of the Constitution against background of American history. *Prerequisite:* HY 121 or equivalent or permission of instructor. 3 hours.

**411. The Antebellum South**—South from post-revolutionary era through 1860, emphasizing social and cultural developments and myths. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**412. The American Civil War**—Origins of secession and political, social, military, and diplomatic developments during war. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**413. Reconstruction in America**—Myths and realities of Reconstruction from 1865 to 1877. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**414. The New South, 1877 to 1945**—Political, economic, and urban development of South from Reconstruction to end of World War II. *Prerequisite:* HY 121 or equivalent or permission of instructor. 3 hours.

**415. The Modern South, 1945 to Present**—Social, political, and cultural developments of post-World War II South, including urbanization, civil rights, political party transformations, ethnic diversification, and federal public policy. *Prerequisite:* HY 121 or equivalent or permission of instructor. 3 hours.

**416. The South in Popular Culture from Scarlett to Elvis**—Examines the organic and external images of the 19th and 20th century South in popular culture, particularly in literature, film, and music. Explores the meaning and values embodied in those images, both accurate and false. 3 hours.

**417. The Making of Modern America, 1877–1920**—Changing forms of industrialism and social problems created; Populism, Progressivism, and other reform movements of era. 3 hours.

**418. America in the 1920s and 1930s**—American popular culture, political development, and economic change in period between two World Wars. *Prerequisite:* HY 121 or equivalent or permission of instructor. 3 hours.

**419. The Second World War**—Diplomatic and military history, with emphasis on world-historical changes brought about by World War II. 3 hours.

**420. Recent America, 1945 to the Present**—Economic, social, and political trends; history of Cold War. 3 hours.

**421. America in Vietnam**—History of “America’s longest war.” 3 hours.

**423. Southern Women: Image and Reality**—Southern women’s lives from colonial period into 20th century. Contrasts

myths, particularly myth of belle on pedestal, with realities of women’s lives. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**425. American Myths, American Values**—Major myths that inform and are informed by American values; how these have molded American character. How myths and values have determined the way dominant American culture has viewed various social groups. 3 hours.

**426. Archaeology of the American Industrial Revolution**—(also ANTH 442.) Techniques for interpreting and documenting archaeological and other material remains of American industrial revolution, with emphasis on blast furnaces, mines, and other sites in mineral region of Central Alabama. Comparative historical development of industrial revolutions within capitalist world economy. 3 hours.

**427. History of American Technology**—Development and impact of new technology in U.S. from colonial period to present. 3 hours.

**428. Technology and American Life**—Impact of technology on modern American life and culture; automobile, television, and computer. 3 hours.

**429. Workers in American Society**—Seventeenth century artisans to contemporary factory and office workers, organized and unorganized; effect of industrial and technological revolution on American labor, society, and politics. *Prerequisite:* HY 120 or equivalent or permission of instructor. 3 hours.

**431. American Film and Violent Society**—History of violent movies in the United States from earliest silent films to new gangster films of Quentin Tarantino. Meaning of these films and what they say about American society. 3 hours.

**433. Americans and the World**—Major developments in American foreign relations from colonial times to present. 3 hours.

**434. As Others See Us, A History of Perspectives on America**—(Also AS 401, ITS 401, ANTH 405.) Joint American Studies/International Studies surveying international perceptions of U.S. culture. 3 hours.

**435. American Urban History**—Major patterns of urbanization and urban life in American history. 3 hours.

**438. The Changing American Landscape**—History of way America looks and how it has changed from rural to urban, from farming to industrial landscape. Extensive field trips in Birmingham area. *Prerequisite:* HY 120 or HY 121 or permission of instructor. 3 hours.

**439. American Environmental History**—Changing perspectives on American environment and major issues in environmental history. 3 hours.

**446. Andean Nations**—History of major drug-producing nations of Colombia, Peru, and Bolivia, and their relationship to rest of world. 3 hours.

**447. Modern Mexico**—History of Mexico since independence from Spain in 1821. Growth and impact of nationalism, Mexico’s relations with U.S., and impact of Mexican Revolution of 1910. 3 hours.

**451. History of Greece**—Ancient Greece from prehistory to Alexander and Hellenistic Age. 3 hours.

**452. History of Rome**—Ancient Rome from time of Etruscans

through Republic and Empire until decline in the 4th century A.D. 3 hours.

**454. Heresy and Witchcraft**—Religious dissent, deviance, and persecution from late antiquity to 17th century. *Prerequisites:* 6 hours from HY 101, 102, 120, or 121. 3 hours.

**455. The Middle Ages**—Fall of Roman Empire and impact of Germanic invasions; feudal society, birth of European monarchies, religiosity and Church, Scholasticism and Gothic, and rebirth of commerce and urban life. *Prerequisite:* HY 101 or permission of instructor. 3 hours.

**456. The Renaissance**—From background of medieval society to birth of commercial, urban society; individualism; development of centralized territorial state; popular piety; humanism and art. *Prerequisite:* HY 101 or permission of instructor. 3 hours.

**457. Nineteenth-Century Europe**—National consolidation, imperialist adventure, and European society and politics, 1815–1914. 3 hours.

**458. Modern Europe**—Europe as transformed by total war, economic dislocation, and rise of totalitarian movements; 1914 to present. 3 hours.

**459. Themes in European Cultural and Intellectual History**—European thought and culture from the early modern period to the present. 3 hours.

**460. Ancient and Medieval Britain**—Celtic, Anglo-Saxon, Roman, and Viking influences and evolution of kingdom from Norman Conquest to reign of Edward III. 3 hours.

**461. England: Peasant Revolts to Puritan Revolutions**—Social and political history of England from peasant uprisings of the late 14th century through Wars of the Roses, Tudor years, and civil war of the 17th century. 3 hours.

**462. Early Modern Britain**—History of the nations of the British Isles from the civil wars of the 16th century to the beginning of the Victorian Age. 3 hours.

**463. Victorian Britain**—Social and political history of 19th century Britain. 3 hours.

**464. Modern Great Britain**—Problems facing Britain in the 20th century, including end of empire, economic decline, and political restructuring. 3 hours.

**465. The French Enlightenment: Society and Letters**—French Enlightenment as intellectual and social phenomenon. 3 hours.

**466. The French Revolution**—Revolution as social, political, and cultural event and its place in modern European history and historiography. 3 hours.

**467. Modern France, 1815–Present**—Economic, social, and political history of France. How French working men and women sought to obtain a democratic republic. 3 hours.

**468. Germany Under Three Reichs**—Central Europe from Wars of Religion through national unification to Weimar, Third Reich, and its aftermath. 3 hours.

**469. Stalin and Stalinism**—Rise of Josef Stalin and political and social order he created. Stalin supporters, opponents, and “silent majority.” *Prerequisite:* HY 102 or permission of instructor. 3 hours.

**470. The Soviet Union Since Stalin**—Soviet economic, political, and social trends since Stalin’s death in 1953. *Prerequisite:* HY 102 or permission of instructor. 3 hours.

**471. National Conflicts in the U.S.S.R.**—An analysis of the formation of Soviet national minority policies from 1917 to 1991: negotiation, accommodation, and resistance by non-Russians. 3 hours.

**474. China to the 19th Century**—China’s political, social, and cultural history from its pre-dynastic beginnings to the eve of its confrontation with the West. 3 hours.

**475. Modern China**—China’s political, social, and cultural history from the final decades of the Qing dynasty in the 19th century to its re-emergence as a major world power in the late 20th century. 3 hours.

**476. Japan to the 19th Century**—Japan’s political and cultural history from its legendary beginnings to the final decades of the Tokugawa shogunate. 3 hours.

**477. Modern Japan**—Japan’s political and cultural history from the Meiji Restoration to the present. 3 hours.

**481. Public History**—Various approaches to interest and inform general public of local and state history. Visits to public history sites around Birmingham area. 3 hours.

**482. Internship in Public History**—Individually designed program that places students in local historic museums, archives, or other sites to gain professional experience in public history. *Prerequisites:* minimum of 24 hours completed in History, 3.0 GPA, and permission of community mentor or undergraduate advisor. 1 to 3 hours.

**483. Internship in Environmental Studies**—Individually designed program that places students in local environmental organizations, businesses, or government for special projects to gain professional experience in preparation for an environmental career. *Prerequisites:* At least two core courses completed in the Environmental Studies minor and permission of the Environmental Studies advisor and community mentor. 3 hours.

**490. Undergraduate Seminar in History**—Topic varies depending on professor. *Prerequisites:* 3.0 history GPA and permission of instructor. 3 hours.

**491–492. Directed Readings in History**—Individually designed course of reading in various fields. *Prerequisite:* permission of instructor. Only two directed reading courses will count toward degree requirements for history majors. 1 to 3 hours.

**493. Honors Studies in History**—For advanced students in history who desire a seminar experience. Faculty and topics will vary. *Prerequisite:* Permission of the instructor. 3 hours.

**498–499. Special Studies in Historical Topics**—3 hours each.

## DEPARTMENT OF JUSTICE SCIENCES

**Interim Chair:** John J. Sloan III

**Faculty:** Copes, M. Earwood, J. Grimes, Lindquist, Liu, Morgan, F. Smith, J. Wells

**Secondary and Adjunct Faculty:** S. Drexler, J. Glass, C. Murphy, J. Phillips, C. Saulters-Tubbs, C. Smith, J. Sparks

The Department of Justice Sciences offers the Bachelor of Science degree, the Master of Science in Criminal Justice degree, and the Master of Science in Forensic Science degree. The pro-

gram leading to the Bachelor of Science degree offers students broad academic exposure to the field of criminal justice and provides some opportunity for concentrated study in areas of interest within this field. The primary purpose of the program is to develop a general understanding of the multidisciplinary nature of criminal justice, and its secondary aim is to expose students to in-depth examination of topics related to careers in the criminal justice field. The program is directed toward developing a criminal justice generalist in the belief that any specialization within criminal justice should be based upon a broadly based undergraduate education.

Students considering a career in forensic science are encouraged to consult with one of the forensic science faculty concerning the requirements for admission into the graduate program in forensic science.

## MAJOR

Requirements: 42 semester hours in justice sciences courses, including JS 100, 101, 300, 330, and 410; at least 12 semester hours of JS electives at the 300 level or higher, including 6 hours at the 400 level or higher; at least 12 semester hours of JS electives of any level or higher and JS 120 or a departmentally approved statistics course. Transfer students must earn at least 15 semester hours of criminal justice credit at UAB, including at least 9 semester hours at the 400 level or higher. All majors may be required to complete an examination for program assessment purposes during their senior year as a requirement for graduation. Performance on such an examination will not affect students' grade point averages nor will it be a factor in determining whether students qualify for a baccalaureate degree. A grade of C or better is required in all 39 semester hours of justice sciences courses and in the 3-hour statistics course. The Department of Justice Sciences reserves the right to require a specific grade point average as an additional prerequisite for courses at the 300 level or above.

## MINOR

Requirements: 18 semester hours in justice sciences courses, including JS 100, 101, and 330, as well as 9 additional semester hours of justice sciences electives. Six of the 9 semester hours of elective credit must be completed at the 300 level or higher. Transfer students must earn at least 6 semester hours of justice sciences credit at UAB in courses at the 300 level or higher. These 18 semester hours require a grade of C or better in each course. The Department of Justice Sciences reserves the right to require a specific grade point average as an additional prerequisite for courses at the 300 level or above.

## HONORS PROGRAM IN JUSTICE SCIENCES

### PURPOSE

The Justice Sciences Honors Program encourages and prepares outstanding justice sciences students to pursue a career in the field of criminology/criminal justice by providing an opportunity to conduct research. It promotes initiative, creativity, and independent thinking among academically talented students. Under faculty supervision, students have the opportunity to participate in and complete a research project.

### ELIGIBILITY

Acceptance into the Justice Sciences Honors Program requires:

- completion of an application form and an interview with the Honors Program Coordinator;
- completion of required criminal justice courses (JS 100, 101, 300, and 330) and JS 120;
- an undergraduate higher education GPA of 3.0; and
- a GPA of 3.0 in criminal justice courses.

### REQUIREMENTS

The Justice Sciences Honors Program requires the following:

- completion of required courses for the justice sciences major;
- completion of JS 481, Justice Sciences Honors Seminar - Fall semester;
- completion of JS 482, Honors Project, Spring semester; and
- a conference or colloquium presentation.

### BENEFITS

Participation in the Justice Sciences Honors Program provides opportunities for academically talented students to have unique access to faculty and to interact with other honors students in an environment that encourages creative and innovative thinking. Seminar participation and research experience will be useful for further work in the field of criminology/criminal justice. Completion of the honors program is an advantage when applying to graduate programs in the field. Finally, students who complete the program will graduate "With Honors in Justice Sciences."

### CONTACT

For additional information and/or admission to the Justice Sciences Honors Program, contact Dr. Kay Morgan, Department of Justice Sciences, 101 15th Street Office Building, Birmingham, AL 35294-2060; Telephone (205) 934-2069; E-mail kmorgan@uab.edu.

## GRADUATE PROGRAMS

The program leading to the Master of Science in Criminal Justice degree emphasizes the acquisition of theoretical perspectives and research skills to analyze the justice system's response to criminal behavior. The program leading to the Master of Science in Forensic Science degree is based in criminalistics and offers opportunities for specialization in forensic drug analysis, forensic serology, and analysis of trace evidence. The Doctoral Training Program in Forensic Science leads to the Ph.D. granted by one of the participating Ph.D. programs. Consult the department chair or the UAB Graduate School Catalog for details of these programs.

### Course Descriptions

#### *Justice Sciences (JS)*

**100. Introduction to the Criminal Justice System**—Criminal justice as system consisting of interaction between three main components: police, courts, and corrections. Investigation, arrest, prosecution, trial, conviction, sentence, incarceration, and community supervision. 3 hours.

**101. Crime and Criminality**—Causes and impact of crime/delinquency and criminal/delinquent behavior. 3 hours.

**110. Introduction to Forensic Science**—Major components of forensic science such as death investigation, toxicology, osteology, document examination, psychiatry, odontology, law, and criminalistics. Scientific fact-finding approach in development of factual data from persons and things, including applications of deductive and inductive reasoning. 3 hours.

**115. Comparative Criminal Justice Systems**—Comparative aspects of criminal justice in selected European and non-Western nations. Comparison of police, judicial, and correctional components of criminal justice systems established by nations considered representative of world's four major legal cultures. 3 hours.

**120. Introduction to Statistics**—Statistical analysis of criminal justice data. Elementary statistical techniques. 3 hours.

*Prerequisite for all 200-level courses:* JS 100.

**220. Police in America: An Overview**—Evolution of modern law enforcement in the United States. Police roles and functions within various environments. Public attitudes toward police and police subculture. 3 hours.

**230. The Judicial Process in America: An Overview**—Judicial process, focusing on structure and function of courts, judicial selection and behavior, prosecution, jury system, and the role of lawyers in American society. 3 hours.

**240. Corrections in America: An Overview**—Corrections, focusing on probation, prisons, parole, and community-based programs for both adults and juveniles. 3 hours.

**250. Criminalistics: An Overview**—Relationship between physical sciences and administration of criminal justice. Identification and application of types of physical evidence involving analysis and comparison. Laboratory component included. 3 hours.

### *Advanced Undergraduate*

*Prerequisites:* JS 100 and JS 101, permission of instructor, or as noted.

**300. Criminal Justice Research Methods**—Research methods with application to field of criminal justice. Elementary research design and descriptive statistics. Interpretation of data (e.g., Uniform Crime Reports and demographic studies) commonly used in field. *Prerequisite:* junior or senior standing. 3 hours.

**320. Police: Administrative Organization and Behavior**—Functional and structural approaches to organization. Behavioral study of administration, organizations, and individuals. Effect of group and peer dynamics on decision making. 3 hours.

**321. Police-Community Relations**—Relationship between police and public. Problem areas, crime prevention programs, communications, community participation, and police discretion. 3 hours.

**322. Private Security**—Inventory control methods; loss prevention; legal aspects of private security. 3 hours.

**330. Criminal Law**—Development of criminal law, elements of criminal offense, types of offenses and defenses, case analysis, and legal terminology. 3 hours.

**331. Criminal Procedure**—Process utilized to convict and punish. Legal steps of criminal proceeding from investigation through punishment. 3 hours.

**332. Criminal Evidence**—System of rules and standards, both state and federal, by which admission of proof at trial is regulated. 3 hours.

**333. Trial Advocacy**—Civil and criminal litigation. Judicial system. Exposure to courtroom procedure, evidence, and art of advocacy. 3 hours.

**340. Society and the Offender**—Society's reaction to offender population. Re-entry crisis and problems of ex-offenders. 3 hours.

**341. Correctional Institutions**—Prisons, jails, and juvenile institutions in the United States. Evolution of penology, correctional change strategies, inmate social system, stress, violence, and reform. 3 hours.

**342. Probation and Parole**—Probation and parole systems in the United States. Pre-sentence investigation, classification, offender selection, supervision, and administration. 3 hours.

**343. Community-Based Corrections**—Redefinition of correctional functions, emphasizing development of resources in community at large. Diversion of offenders from criminal justice system. Nontraditional correctional programs. 3 hours.

**350. Forensic Science Laboratory I**—Basic identification and individualization of common, frequently occurring physical evidence materials, with emphasis on those derived from physical contact leaving impressions. 3 hours.

**351. Forensic Science Laboratory II**—Basic identification and individualization of common, frequently occurring physical evidence materials, with emphasis on trace evidence. 3 hours.

**352. Forensic Science Laboratory III**—Basic identification and individualization of common, frequently occurring physical evidence materials, with emphasis on biological materials. 3 hours.

**360. Criminology**—Criminological theories dealing with both functional and conflict perspectives on crime and criminal behavior. 3 hours.

**362. Victimology**—Criminal-victim relationship, focusing on contributing factors such as perception, location, and societal reaction. Crime prevention, victim services, restitution, crime compensation, and elderly victimization. 3 hours.

**399. Co-op in Criminal Justice**—Cooperative education experience in criminal justice. Evaluation (pass/fail) based on achievement of approved learning objectives. Elective credit only; not counted for JS major or JS minor requirements. *Prerequisites:* Permission of co-op coordinator and department chair. May be repeated for maximum of 12 hours. 3 hours.

**403-404. Special Topics in Criminal Justice**—Group investigation of topics of current interest in field of criminal justice. Topics listed in class schedule. May be repeated with different topics for maximum of 12 hours. 3 hours each.

**408/508. Juvenile Delinquency**—Juvenile delinquency in modern society. Nature, scope, causes, treatment, and reaction to juvenile delinquency. Evaluation of various delinquency prevention and diversion programs. 3 hours.

**410. Criminal Justice Ethics**—In-depth analysis of systems of ethics and applicability to administration of justice. Ethics of law and justice, police use of force, professional responsibility, and corruption. 3 hours.

**411/511. The Juvenile Justice System**—Specialized agencies and procedures developed to deal with juveniles. Juvenile court system and emerging philosophy. 3 hours.

**412/512. Juvenile Law**—Review and analysis of emerging statutory and case law in American juvenile justice. 3 hours.

**434. Mock Trial Competition**—Represents UAB as member of

UAB Mock Trial Team in invitational, regional, and national trial competitions. May be repeated for maximum of 6 hours. 3 hours.

**440/540. White Collar and Corporate Crime**—Illegal/deviant behavior occurring in organizational settings, including crimes committed by and against complex organizations. 3 hours.

**441/541. Terrorism and Social Control**—Causes and consequences of terrorism. Governmental response including investigation, prosecution, and punishment of terrorists. 3 hours.

**442/542. Race, Crime, and Justice**—How subordinate status of minority groups (primarily African Americans, Hispanics, and Native Americans) affects interaction with justice system. 3 hours.

**443/543. Women and the Criminal Justice System**—Role of women in justice system as victims, offenders, and professionals. 3 hours.

**444/544. Law and Society**—Origins and definitions of law; overview of legal systems; use of law to facilitate or retard social change, social control, and social conflict. 3 hours.

**445/545. Juvenile Corrections**—Ongoing efforts to reduce juvenile delinquency. Recent innovative programs and their evaluations. 3 hours.

**456. Forensic Approaches to Osteology**—(Also ANTH 401.) Applied human osteology, emphasizing ability to identify age, sex, and population type of skeletal material. Effects of disease and behavior on bones. 3 hours.

**480/580. Patterns in Crime**—Examines what is known about the major correlates of crime and criminality, including age, race, sex, and socio-economic status, as well as the major sources of information from which data on the correlates of crime/criminality are gathered. 3 hours.

**481-482. Honors Research**—Honors students complete Honors Project under direction of faculty mentor. *Prerequisites:* Junior standing and admission to Honors Program. 3 hours.

**490-491. Independent Research in Criminal Justice**—Independent readings and research approved and directed by criminal justice faculty member, who supervises proposed plan of study. *Prerequisite:* permission of department chair. 1 to 3 hours each.

**499. Internship**—Supervised field experience in criminal justice agency. Evaluation based both on agency performance and on analytical paper. *Prerequisite:* permission of instructor. May be repeated for maximum of 12 hours; however, not more than 6 hours may be counted toward major or minor requirements. 3 to 6 hours.

## PRE-LAW STUDIES

Pre-law Advisor: John W. Grimes

Students wishing to enroll in an accredited law school are expected to first complete a baccalaureate degree. Pre-law students at UAB may select any of the undergraduate majors listed on pages 8-9. There is no “pre-law” major.

No law school recommends a particular major or minor for admission. The Association of American Law Schools has stated that the “quality of education is concerned with the development in pre-law students of basic skills and insights. It thus involves education for comprehension and expression in words; critical understanding of the human institutions and values with which

the law deals; creative power and thinking. The development of these fundamental capacities is not the monopoly of any one subject-matter area, department, or division.” The pre-law advisor is available to students who wish to discuss choice of major.

## APPLICATION TO LAW SCHOOL

Students are advised to take the Law School Admission Test (LSAT) at the end of their junior year. This test is administered four times a year and should not be delayed past October of the senior year, since admissions processing begins in the fall for students wishing to enter law school the following fall.

## ADMISSION TO LAW SCHOOL

Admission to accredited law schools is highly competitive. The two main factors considered are the student's undergraduate grade point average and score on the LSAT.

## ALTERNATIVE CAREERS

Since completion of all of the requirements does not guarantee admission to law school, students should choose an undergraduate major that leaves open an alternative career path should their application to law school be unsuccessful.

Further Information

For advice on course selection, information on law schools, or application materials for the LSAT, contact the pre-law advisor, Department of Justice Sciences. (205) 934-2069. E-mail: [jgrimes@sbs.sbs.uab.edu](mailto:jgrimes@sbs.sbs.uab.edu).

## DEPARTMENT OF PSYCHOLOGY

**Chair:** Carl E. McFarland Jr.

**Vice Chair and Director of Undergraduate Studies:** Edwin W. Cook III

**Faculty:** Amthor, Ball, Baucum, Biasini, Blanton, Boggiauo, Cox, Elliott, Hodari, Klapow, Milby, Muu, Paulk, Randich, Schwebel, Sloane, Taub, Tucker, Uswatte, Vuchinich, Wadley, Walley, Weller, Wiesner, Windle, Wright

**Secondary and Adjunct Appointments:** Beaton, Beidleman, G. Jackson, S. Jackson, Stewart

The curriculum in psychology provides a flexible program for the psychology major leading to the Bachelor of Science degree. Alternatively, students can earn a minor in psychology or take advantage of the numerous course offerings that are open to all students. The department provides a variety of experiences to give students an understanding of the basic principles and mechanisms of behavior. The scientific method is emphasized throughout the curriculum. Students with a major or minor in psychology are encouraged to obtain first-hand experience with both the creation of new knowledge (research) or the application of that knowledge in community and treatment settings. There are many opportunities for students to gain firsthand research experience by working with individual faculty members in a variety of laboratory, clinical, and field research settings. In addition, numerous community and treatment facilities provide settings for students to observe and participate in the application of psychological principles to the solution of individual and social problems.

In addition to providing a major field of study as part of a liberal arts and science education, the B.S. degree in psychology prepares students for graduate study in psychology. The degree also provides a strong intellectual foundation for a variety of careers in areas such as teaching, counseling, social work, human factors engineering, community planning, sales, management, personnel administration, ministry, law, politics, and various health professions, including psychiatry, nursing, medicine, optometry, public health, and physical and occupational therapy. Consult the department's undergraduate advisor or the Director of Undergraduate Studies for counseling on preparation for particular careers (205-934-3850).

Psychology is an evolving discipline, and after a period of time the material taught in a psychology course will no longer be current. For this reason, the Department of Psychology reserves the right to deny credit toward its major and minors for courses completed more than 12 years prior to graduation.

## MAJOR

To qualify for a B.S. degree in psychology, students must complete a minimum of 38 semester hours of courses in psychology as listed below and the requirements in another department for a minor. A grade of C or better is required in the 38 semester hours of psychology.

Transfer students must earn at least 15 semester hours of the required advanced credits (PY courses numbered 300 to 499) at UAB. To graduate with a B.S. degree in psychology, students must have at least a C (2.0) cumulative grade point average and a C or better in all psychology courses.

The 38-semester-hour B.S. program in psychology is distributed as follows:

	<i>Sem. Hrs.</i>
PY 101 or 201 Introduction to Psychology .....	3
PY 214 Elementary Statistical Methods and Design .....	3
PY 217 Laboratory for Elementary Statistical Methods and Design.....	1
PY 315 Methods in Psychological Research .....	4
A minimum of three of the following courses:	
PY 303, 312, 313, 335, 350, 353, 361, 363, 370, 372, 380, and 390 .....	9
12 additional hours at the 300 level or above, including 9 hours at the 400 level or above .....	12
6 hours of electives (any PY course at the 100 level or above) .....	6
<b>Total semester hours.....</b>	<b>38</b>

In addition, the B.S. in psychology requires a minimum of 6 semester hours in biology, chemistry, or physics. BY 107, BY 111, ENV 108, CH 100, and PH 100 may not be used to satisfy this requirement. Other biology, chemistry, and physics courses that satisfy the Area III Core Curriculum requirement also satisfy this requirement of the major.

Students are encouraged to participate in ongoing research projects and/or obtain experience with the application of psychology in community settings. Academic credit may be earned for these experiences. Students may apply a maximum of 3 semester hours

of PY 398 (research) and/or PY 397 (community) to their major requirements. Students preparing to attend graduate school in psychology are strongly encouraged to get involved in faculty research projects and develop a more extensive background in natural sciences, mathematics, and computer science. Students interested in pursuing graduate study in neuroscience may apply for admission to a selective, accelerated training program that includes a B.S. in psychology and a minor in biology. Contact the Director of Undergraduate Studies at (205) 934-3850 for details.

Psychology majors may be required to complete a general psychology examination at the time they declare psychology as their major, as well as a second examination upon completion of the course requirements for a B.S. degree in psychology. Although these examinations may be required for graduation, they are intended for program assessment purposes only. Performance on these examinations will not affect students' grade point averages, nor will they be a factor in determining whether students qualify for the baccalaureate degree.

Psychology majors have a full-time academic advisor available: Room 415, Campbell Hall, (205) 934-3850, pyadvise@uab.edu.

## MINOR

**Requirements:** A grade of C or better in 18 semester hours of psychology. Nine of these semester hours must be advanced courses (numbered PY 300-499, excluding PY 397 and PY 398). Up to 3 semester hours of PY 398 may be applied toward the minor, but not toward the 9-semester-hour advanced course requirement. Transfer students must earn at least 6 hours in advanced courses at UAB.

## HONORS PROGRAM IN PSYCHOLOGY

### PURPOSE

The Psychology Honors Program enhances the preparation of undergraduate students for graduate study in psychology or a career in a related profession by providing an in-depth study of the major areas within psychology and an opportunity to conduct research.

### ELIGIBILITY

Criteria for entering freshmen are

- a completed application form;
- an interview with the Director of Undergraduate Studies; and
- a minimum 3.25 GPA in high school academic subjects.

Criteria for students already enrolled at UAB or transfer students are

- a completed application form;
- an interview with the Director of Undergraduate Studies;
- a minimum GPA of 3.25 in psychology coursework; and
- an overall GPA of 3.25 or above.

### REQUIREMENTS

Students in the Psychology Honors Program complete 48 semester hours of coursework. These include all requirements for the psychology major as well as the Psychology Honors Program. No minor is required for psychology honors students. The program requires:

- PY 101, Introduction to Psychology, or PY 201, Honors

Introduction to Psychology;

- PY 214, Elementary Statistical Methods and Design;
- PY 217, Laboratory for Elementary Statistical Methods and Design;
- PY 315, Methods in Psychological Research;
- two PY courses at the 100+ or 200+ level;
- four of the following: PY 303, 312, 313, 335, 350, 353, 361, 363, 370, 372, 380, and 390;
- three PY courses at the 400+ level;
- PY 399, Psychology Honors Seminar, for 3 semester hours;
- PY 398, Research Practicum in Psychology, for six semester hours;
- the student to conduct and write a research project and make one presentation at a student or professional conference; and
- the student to have minimum cumulative and psychology GPAs of 3.25 at the time of graduation.

Transfer students must complete at least 18 semester hours of advanced psychology (PY 300+) at UAB.

### BENEFITS

Participation in the Psychology Honors Program provides an enriched learning environment for the student interested in pursuing a career in psychology or a related profession. The in-depth study of contemporary psychology together with the opportunity to conduct empirical research with a renowned, research-oriented faculty provides students with a strong foundation in the behavioral and social sciences. Students who complete the program will graduate "With Honors in Psychology."

### CONTACT

For more information and/or admission to the Psychology Honors Program, contact the Director of Undergraduate Studies, Department of Psychology, Campbell Hall, Room 415, Birmingham, AL 35294-1170; Telephone (205) 934-3850; E-mail pyadvise@uab.edu.

## MINOR IN COGNITIVE SCIENCE

Director: Michael E. Sloane

Cognitive science is an interdisciplinary field of study focusing on mental processes in general and on cognition in particular. Although this minor is administratively housed in the Department of Psychology, it draws from many other disciplines as well, including philosophy, linguistics, neuroscience, computer science, and anthropology. The minor is designed to provide students interested in consciousness, mental processes and brain-mind issues with an interdisciplinary framework. The minor is particularly relevant for those students considering advanced degrees in virtually any area of psychology, as well as cognitive science, cognitive neuroscience, medicine, neurobiology, neuroscience, anthropology, linguistics, biomedical engineering (brain imaging), or vision science. Consult the psychology academic advisor or the Director of the Cognitive Science minor for more information.

**Requirements:** A grade of C or better in 18 semester hours (including at least 3 semester hours at the 400+ level), distributed as follows:

*Sem. Hrs.*

PY 303 Introduction to Cognitive Science .....	3
PY 363 Cognitive Psychology .....	3
PHL 375/PY 375: Philosophy of Mind or PHL 372: Minds & Machines .....	3
One of the following courses: PY 253, 353, 453, 462, 463; BY 360, 410; PHL 492/NBL 454 .....	3
One of the following courses: LING 120/ANTH 120; LING 450, 454; PY 450 .....	3
3 hours from the following list: PHL 350, 370; PY 361, 380, 414, 461 (may be repeated), 462; ANTH 423; BME 540, 541, 565; CS 460, 480.....	3

Transfer student must earn at least 6 semester hours toward the cognitive science minor at UAB.

## GRADUATE PROGRAM

The Department of Psychology offers programs of study leading to the Doctor of Philosophy (Ph.D.) degree in three areas of psychology: medical clinical psychology (co-sponsored by the School of Medicine), behavioral neuroscience, and developmental psychology (co-sponsored by the Civitan International Research Center). Although the Master of Science (M.S.) degree is awarded as an intermediate degree in the Ph.D. program, a terminal M.S. degree program is not offered. Individuals interested in the graduate program should contact the Department of Psychology or the UAB Graduate School, Room 511, Hill University Center, 1400 University Boulevard, Birmingham, Alabama 35294-1150.

### Course Descriptions

#### Psychology (PY)

**101. Introduction to Psychology**—Application of scientific method to behavior. Areas of psychology including learning, motivation, perception, physiological, comparative, personality, abnormal, social, clinical, child development, and individual differences (Core Area IV). 3 hours.

**107. Psychology of Adjustment**—Adaptive behavior; theories, research, and personal applications relevant to desirable behavior patterns; interpersonal skills and self-control techniques.  
*Prerequisite:* PY 101. 3 hours.

**108. Human Sexuality**—Biological and psychological bases of human sexual behavior. Genetic, hormonal, and learning foundations for development of sexual and sex-related structures and of psychosexual identity and behavior. Adult sexual structures and behavior, conception control, pregnancy, lactation and parentalism, drugs and reproduction, and sexual pathology and variances.  
*Prerequisite:* PY 101. 3 hours.

**109. Drugs and Human Behavior**—Historical and cultural perspectives on drug use by humans. Major classes of drugs; effects, side effects, and toxicity. Mechanisms of drug action, drug abuse, government regulations, and use of psychoactive drugs in treatment of mental disorders. *Prerequisite:* PY 101. 3 hours.

**201. Honors Introduction to Psychology**—Advanced seminar in scientific study of behavior and cognitive processes.  
*Prerequisite:* permission of Director of Undergraduate Studies. 3 hours.

- 212. Developmental Psychology**—Human development from prenatal period to old age. Genetic and environmental determinants of behavior. Language, cognition, personality, social and emotional behavior, intelligence, and physical and sexual development. Applied areas include child rearing, childhood psychoses, and child abuse. *Prerequisite:* PY 101. 3 hours.
- 213. Cross-Cultural Perspectives on Child Development**—Cultural differences in determinants of child development. Effects of culturally distinct approaches to child rearing and education on infant attachment, temperament, aggression, cognitive development, peer interaction, sex-role socialization, and moral reasoning. *Prerequisite:* PY 101. 3 hours.
- 214. Elementary Statistical Methods and Design**—Descriptive and inferential statistics with emphasis on behavioral science applications. Measures of central tendency and variability, frequency distributions, probability, t-test, correlation, analysis of variance, and regression. *Prerequisite:* MA 110 or MA 102. 3 hours.
- 217. Laboratory for Elementary Statistical Methods and Design**—Use of computers in statistical analysis of psychological research data. Laboratory component of PY 214. Required for all psychology majors. *Prerequisites:* CS 101 or equivalent knowledge; MA 110 or MA 102 and PY 214 (or concurrent enrollment). 1 hour.
- 218. Abnormal Psychology**—Research-oriented study of different types of maladaptive behavior, including symptoms, development, classification, and treatment. *Prerequisite:* PY 101. 3 hours.
- 220. Contemporary Issues in Psychology**—Issues of current interest in psychology. *Prerequisite:* PY 101. 1 to 3 hours.
- 253. Brain, Mind, and Behavior**—How brain functions during dreaming, visual perception, aggression, learning and memory, sex, and language. Left versus right hemisphere specializations, recovery after brain damage, and neurological basis of illnesses such as schizophrenia, autism, and Parkinson's disease. Includes five hours of videos. *Prerequisite:* PY 101. 3 hours.
- 263. Introduction to Cognitive Science**—Major academic components of cognitive science: cognitive psychology, cognitive neuroscience, philosophy of mind, artificial intelligence, and linguistics. Prerequisite for cognitive science minor. *Prerequisite:* PY 101 or permission of instructor. 3 hours.
- 275. Psychology and Law**—Interaction between theories and applications of psychology and practice of civil and criminal law. Insanity, malpractice, competency, civil commitment, violence, jury selection, and expert-witness testimony. *Prerequisite:* PY 101. 3 hours.
- 303. Introduction to Cognitive Science**—Introduction to the exciting new discipline of cognitive science, the interdisciplinary study of mind and intelligence. This course draws on a number of disciplines involved in unraveling the mysteries of the mind and intelligent life. *Prerequisite:* PY 101 or permission of instructor. 3 hours.
- 305. Medical Psychology**—Psychological methods applied to health problems. Development of medical problems, psychological/behavioral treatment of medical disorders, prevention of disease, and promotion of health. *Prerequisite:* PY 101. 3 hours.
- 312. Advanced Developmental Psychology**—Current research and theory in childhood and adolescence with focus on perceptual/cognitive and social/emotional issues. Relationship between spoken language development and learning to read, linguistic development in special populations (e.g., hearing-impaired children), applications of memory research to children's courtroom testimony, impact of preschool experience (e.g., Head Start) on academic achievement, and family and peer influence on cognitive and social development. *Prerequisite:* PY 212. 3 hours.
- 313. Introduction to Language Development**—Children's acquisition of the ability to speak and understand their native language. Learning to read and write. Language abilities in special populations (e.g., the hearing-impaired, mentally-retarded, elderly individuals). Communication abilities in nonhumans. *Prerequisites:* PY 212 or 213. 3 hours.
- 315. Methods in Psychological Research**—Fundamentals of experimentation with psychological phenomena. Conceptual and practical exploration of problem definition and hypothesis formation; observation, definition, and measurement; design and control of experiments for valid causal inference; quasi-experimental designs; generalization and ecological validity; explanation and interpretation of results; scientific communication. *Prerequisites:* PY 214 and PY 217. 4 hours.
- 318. Child and Adolescent Abnormal Psychology**—Manifestations, causes, and treatment of psychological disorders from infancy through adolescence. Developmental and research perspective on these disorders with clinical and social implications. *Prerequisite:* PY 212 or PY 218. 3 hours.
- 319. Psychopathology and Culture**—Cultural differences with respect to types of behavior viewed as abnormal and how such behaviors are classified and treated. *Prerequisite:* PY 101. 3 hours.
- 320. Contemporary Issues in Psychology**—Issues of current interest in psychology. *Prerequisite:* permission of instructor. 1 to 3 hours.
- 325. Clinical Child Psychology**—Diagnosis, prevention and treatment of psychological problems in children and adolescents. Interview techniques, behavioral and cognitive interventions, and community prevention programs. Developmental considerations emphasized. *Prerequisite:* PY 212 or 213. 3 hours.
- 326. Industrial/Organizational Psychology**—Psychological methods applied to people at work. Selection, placement, performance appraisal, training, attitude measurement, work motivation, leadership, industrial safety, and human performance. *Prerequisite:* PY 101. 3 hours.
- 327. Comparative Organizational Psychology**—Responses of organization members to organizational structures and processes as function of cultural differences. Attitudes, production, decision making, and organizational commitment. 3 hours.
- 330. Sport Psychology**—Psychological factors in athletic performance. Psychological characteristics of successful athletes; anxiety, arousal, motivation, attention, concentration, attribution, cognition, and imagery. *Prerequisite:* PY 101. 3 hours.
- 335. Motivation and Emotion**—Psychobiological basis of eating, drinking, sleep, sex, and aggression, and the role of emotion and reinforcement in shaping these behaviors. Underlying mechanisms involved in these motivated behaviors from basic biological need (homeostasis) to abnormal conditions as occurs in eating and sleep disorders, genetic anomalies, drug addiction and violence. *Prerequisite:* PY 101. 3 hours.
- 350. Personality and Intellectual Assessment**—Measurement of personality and other psychological characteristics through psy-

chological tests. Selection, administration, and interpretation of psychological tests. *Prerequisite:* PY 214 . 3 hours.

**353. Behavioral Neuroscience**—Neurobiological basis of behavior. Central nervous system mechanisms that mediate processes such as learning, motivation, sensation, speech, and emotional behavior. *Prerequisite:* PY 101. 3 hours.

**361. Psychology of Learning**—Issues of learning in terms of current theoretical positions. Classical conditioning, instrumental conditioning, forgetting, role of motivation, and transfer of training. *Prerequisite:* PY 101. 3 hours.

**363. Cognitive Psychology**—Human cognitive functioning. Selective attention, information processing, models of learning, memory, perception, and free and structured thought processes. *Prerequisite:* PY 101. 3 hours.

**370. Personality**—Comparison of major theories of personality, including philosophy of human nature; structure, dynamics, and development of personality. *Prerequisite:* PY 101. 3 hours.

**372. Social Psychology**—Major theories and research in social psychology. Social perception and attribution, behavior in interpersonal relationships, and group influences on individual behavior. *Prerequisite:* PY 101. 3 hours.

**375. Philosophy of Mind**—(Also PHL 375.) Mind; its nature, forms, and functions. Consciousness, self-consciousness, action, belief, desire, rationality, personal identity; problems such as mind-body, psychological explanation, and freedom of will. *Prerequisite:* One previous PHL course or permission of instructor. 3 hours.

**380. Perception**—Contemporary theory and empirical research in sensory coding of perceptual information. Sensory transduction, physiology and anatomy of sensory systems, and psychophysical measurement techniques. Visual perception, hearing and speech, smell, and taste. *Prerequisite:* PY 101. 3 hours.

**390. Animal Behavior**—Theoretical and applied aspects of animal behavior. Learning and natural selection, evolutionary stable strategies, reasoning, mimicry, perception and intelligence. *Prerequisite:* PY 101. 3 hours.

**397. Community-Based Practicum in Psychology**—Community work in various supervised settings such as Crisis Center, Department of Human Resources, etc. *Prerequisite:* permission of Director of Undergraduate Studies. (Pass/fail). 1 to 3 hours.

**398. Research Practicum in Psychology**—(Also GER 398.) Project or research activity supervised by faculty. *Prerequisite:* permission of Director of Undergraduate Studies. Cannot be taken pass/fail. 1 to 3 hours.

**399. Psychology Honors Seminar**—Seminar for honors students. Conduct of special project (PY 398) required. *Prerequisite:* permission of Director of Undergraduate Studies. 1 hour.

**402. History and Systems of Psychology**—Historical origins and development of major approaches to psychology. *Prerequisite:* PY 315 or permission of psychology advisor. 3 hours.

**405. Biofeedback, Meditation, and Self-Regulation**—History and current applications of biofeedback, meditation, and relaxation techniques. *Prerequisite:* PY 315 or permission of psychology advisor. 3 hours.

**407. Pathology of Memory**—(Also GER 407.) Memory disorders from standpoint of experimental psychology and neuropsychology.

Amnesic syndrome, dementia, transient memory disorders, Alzheimer's disease, and epidemiology and public health issues. *Prerequisite:* PY 315 or permission of psychology advisor. 3 hours.

**411. Cognitive Development**—Development of memory, perception, learning, and thinking in children. *Prerequisites:* PY 212 and PY 315 or permission of psychology advisor. 3 hours.

**412. Social Development**—Contemporary theoretical models and empirical research in social development. Attachment formation in infancy, parent-child and family interactions, peer relationships, moral and pro-social development, aggression, and sex role development. *Prerequisite:* PY 212 and PY 315 or permission of psychology advisor. 3 hours.

**413. Psychology of the African American Child**—Psychological development of African American children from birth through adolescence. Prenatal influences on growth and development, cognitive development, practices of African American families, Black English and language development, psychological testing, self-concept, racial identification, and motivation and academic achievement. *Prerequisite:* PY 212 or AAS 320 and PY 315 or permission of psychology advisor. 3 hours.

**414. Perceptual Development**—Changes in sensory capacities from birth to old age, including all sensory modalities. Life-span development of higher-level perceptual processes, including development of perceptual constancies and intermodal perception. *Prerequisite:* PY 212 and PY 315 or permission of psychology advisor. 3 hours.

**415. Mental Retardation and Developmental Disabilities**—History, causes, treatment/education, behavioral interventions, and family issues related to mental retardation and other developmental disabilities. Psychologist as member of interdisciplinary treatment team. *Prerequisite:* PY 212 and PY 315 or permission of psychology advisor. 3 hours.

**416. Advanced Methods in Psychological Research**—Method for understanding psychological research; its strengths, weaknesses, and conclusions. How best psychological studies are designed and how one experiment leads to another. *Prerequisite:* PY 315 or permission of psychology advisor. 3 hours.

**418. Psychotherapy and Behavior Change**—Different therapeutic approaches and issues relating to their effectiveness. Principles of behavior modification. *Prerequisite:* PY 218 or 319 and PY 315, or permission of psychology advisor. 3 hours.

**420. Contemporary Issues in Psychology**—Issues of current interest in psychology. *Prerequisite:* PY 315 or permission of psychology advisor. 1 to 3 hours.

**423. Abnormal Child Development**—Current research and theories related to aberrations of normal development processes, including autism, childhood schizophrenia, and other disorders of childhood. *Prerequisite:* PY 212, PY 218 or permission of psychology advisor. 3 hours.

**425. Psychology of Aging**—(Also GER 425.) Age changes in human cognition and behavior. Sensory processes, memory, intelligence, physiology and health, psychopathology, and life-span development and adjustment. *Prerequisite:* PY 212 and PY 315 or permission of psychology advisor. 3 hours.

**430. Psychology of Chronic Pain**—Major empirical and theoretical contributions to causes, evaluation, and treatment of chronic

ic pain. *Prerequisite:* PY 315 or permission of psychology advisor. 3 hours.

**431. The Dynamics of Pain**—Physiology, pharmacology, and anatomy of acute and chronic pain. How medical treatments relieve pain. Stress-induced analgesia, transcutaneous electrical stimulation, acupuncture, inflammation, and psychological approaches to treatment of pain. *Prerequisite:* PY 315 and PY 353 or permission of psychology advisor. 3 hours.

**450. Acquisition of Language**—Communication development in infancy, development of speech perception and production, grammatical and semantic development, acquisition of literacy, individual differences and cross-cultural variation in language acquisition, and use of language in social context. *Prerequisite:* PY 212 and PY 315 or permission of psychology advisor. 3 hours.

**453. Advanced Behavioral Neuroscience**—Neurobiological and psychological research on neural systems that control behavior. Synaptic communication, regulatory behaviors, learning, memory, sensation and perception, movement, emotions, and psychopathology. *Prerequisite:* PY 335, 353 or 380 and PY 315 or permission of psychology advisor. 3 hours.

**455. Psychology of Eating Disorders**—Genetic, neurochemical, developmental, and sociocultural determinants of anorexia nervosa, bulimia, binge-eating disorder, and obesity. Diagnostic, preventive, and treatment strategies. Provocative recent findings from animal research. Unusual human eating behaviors, including patterns manifested in brain trauma and genetic disorders, craving, ingestion of non-nutritive substances, and cannibalism. *Prerequisites:* PY 335 or 353 and PY 315 or permission of psychology advisor. 3 hours.

**457. Human Psychophysiology**—Physiology, instrumentation, and methodology of psychophysiological measurements, including autonomic and central nervous systems. Consideration of basic and applied research. *Prerequisite:* PY 315 or permission of psychology advisor. 3 hours.

**461. Research Seminar in Cognitive Science**—Current research, theories and controversies in cognitive science. Seminar topic changes each term. *Prerequisite:* PY 315 or permission of psychology advisor. 1 hour.

**462. Overview of Cognitive Science**—Cognitive Science is the interdisciplinary study of mind and intelligence. This course is a comprehensive overview of the historical and conceptual foundations of cognitive science. No previous courses in cognitive science are needed to participate. *Prerequisite:* PY 361 or PY 363 and PY 315 or permission of psychology advisor. 3 hours.

**463. Cognitive Neuroscience**—Interdisciplinary study of higher-order cognitive functions in humans. Data from functional brain imaging, neurology, neuroanatomy, and neurophysiology used in study of human perception, language, learning, and memory. *Prerequisite:* PY 353, PY 363, 380 and PY 315 or permission of psychology advisor. 3 hours.

**480. Sensory Processing in Perception**—Neural coding underlying perception. Sequence of transformation in sensory processing hierarchy from receptors to complex cortical areas, relationship to cognitive functioning, and recent progress in machine vision and perception. *Prerequisite:* PY 315 and PY 353, 363, or 380 or permission of psychology advisor. 3 hours.

**488. Pediatric Psychology**—Behavioral influence on health and illness; impact of health problems and illness on behavior and

development of children and adolescents; family issues related to these interactions. *Prerequisite:* PY 212 and PY 315 or permission of psychology advisor. 3 hours.

## DEPARTMENT OF SOCIOLOGY

**Chair:** Ferris J. Ritchey

**Faculty:** Clair, Cockerham, Drente, Fitzpatrick, Hall, Hwang, LaGory, Sawyer, Trigg, K. Wilson, M. Wilson, Yoels

The Department of Sociology offers two approaches for a major in sociology: (1) general sociology and (2) social psychology in sociology.

General sociology involves the study of group dynamics and its impact on human populations and individuals. As a social science, the discipline analyzes the patterns of behavior in all types of social relationships. This field has broad scope and relevance. The undergraduate program in general sociology is designed to complement UAB's location in a large metropolitan area with a major medical center. Such a location provides an excellent laboratory for study in several areas, including health and aging, social psychology, social inequality, and urban sociology. Students may choose from several courses in each of these areas.

Social psychology in sociology is an interdisciplinary field of study within the social sciences. It provides a perspective on interpersonal relationships that draws on research conducted by sociologists and psychologists. In the broadest sense, social psychology is the study of how people's behaviors and thoughts influence, and are influenced by, the actions of others. As a field of study, social psychology has typically focused on the study of persons in face-to-face situations and small group settings.

The central goal of both general sociology and social psychology is to provide students with a solid foundation in the basic tools of the discipline: statistical analysis, research methodology, and theoretical frameworks.

General sociology offers training for four basic types of careers. First, it provides a broad background for students who are not planning a career in sociology but who want an understanding of the nature and development of social structures and social issues. Second, it offers valuable preparation for professional careers in the social services. Third, it serves as useful pre-professional training for careers such as law, business, education, government, architecture, and even medicine. Finally, the program helps prepare students for graduate study in sociology.

Social psychology prepares students for careers in service-oriented fields such as education, health, business, and government, and graduate work in social psychology.

## GENERAL SOCIOLOGY MAJOR

To qualify for a B.A. degree in sociology, a student must complete a minimum of 35 semester hours in sociology as listed below. A grade of C or better is required in all courses counted toward the major, including transfer courses. All sociology majors may be required to complete an examination for program assessment purposes as a requirement for graduation. Performance on such an examination will not affect students' grade point averages

nor will it be a factor in determining whether students qualify for the baccalaureate degree.

Transfer students must earn at least 12 semester hours of the required advanced or core courses including 9 hours at 400 or above (SOC 410 and/or SOC 400- and 400-level courses) while in residence at UAB. The 35-semester-hour B.A. program is distributed as follows:

**REQUIREMENTS**

	<i>Sem. Hrs.</i>
SOC 100 Introduction to Sociology .....	3
SOC 400 Research Methods .....	4
SOC 410 Social Statistics .....	4
At least one of the following theory courses:	
SOC 415, SOC 405, and SOC 407 .....	3
18 hours at the 200 level or above, including at least 9 hours at the 300 level or above .....	18
One sociology elective course .....	3
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Total semester hours .....	35

**GENERAL SOCIOLOGY MINOR**

Requirements: 18 semester hours in sociology. These hours include SOC 100 and 9 semester hours in 400-level courses. Transfer students must take at least 6 semester hours in sociology at UAB, including at least 3 semester hours in courses numbered above 300. A grade of C or better is required in all courses applied toward the minor, including transfer courses.

**HONORS PROGRAM IN SOCIOLOGY**

**GOAL**

The Sociology Honors Program is designed to help prepare outstanding undergraduate majors for graduate study in sociology or a career in medical sociology. The program promotes independent thinking, and, under faculty supervision, students will be exposed to a wide range of sociological perspectives and research areas.

**ELIGIBILITY**

Acceptance into the Sociology Honors Program requires the following:

- completion of the required sociology courses;
- an undergraduate higher education GPA of 3.00 or above;
- a junior or senior level standing (admittance to Honors Program must take place before August 1); and
- a cumulative GPA in Sociology courses of 3.3 or above.

**REQUIREMENTS**

The following is required to graduate with honors in the Sociology Honors Program:

- completion of the required sociology courses;
- completion of two-semester Honors seminar 498/499;
- completion of a senior-level thesis under faculty supervision; and
- colloquium presentation in the Spring with faculty and graduate students.

**BENEFITS**

Participation in the Sociology Honors Program provides a unique opportunity for highly motivated, academically talented undergraduate students to have access to and interact with faculty in an environment that encourages creativity and independent scholarship. Seminar participation and research experience will be important to nurturing the student's sociological imagination. Completion of the Honors Program is an advantage when applying to graduate school or looking for employment in an appropriate discipline-oriented field. Finally, students who complete the program will graduate "With Honors in Sociology."

**CONTACT**

For additional information and/or admission to the Sociology Honors Program, contact Dr. Kevin Fitzpatrick, Department of Sociology, 237 Ullman Building, Birmingham, AL 35294-3350; Telephone: (205) 934-3307

**SOCIAL PSYCHOLOGY IN SOCIOLOGY MAJOR**

To qualify for a B.A. degree in sociology with an emphasis in social psychology, a student must complete a minimum of 35 semester hours as listed below. SOC 400, SOC 410, and SOC theory must be completed at UAB unless waived by the department through petition. A grade of C or better is required in all courses applied toward the major, including transfer courses. The 35-semester-hour B.A. program in social psychology is distributed as follows:

**REQUIREMENTS**

	<i>Sem. Hrs.</i>
SOC 100 Introduction to Sociology .....	3
PY 101 Introduction to Psychology .....	3
SOC 410 Social Statistics .....	4
SOC 120 Introduction to Social Psychology .....	3
SOC 400 Research Methods .....	4
PY 372 Social Psychology.....	3
One of the following theory courses:	
SOC 415, SOC 405 or SOC 407 .....	3
Three of the following (at least two must be at or above the 300 level): SOC 130, SOC 135, SOC 220, SOC 280, SOC 283, SOC 285, SOC 323, SOC 340, SOC 383, SOC 385, SOC 456, SOC 469 and SOC 480 .....	9
One of the following:	
PY 212, PY 218, or PY 319 .....	3
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Total semester hours .....	35

**SOCIAL PSYCHOLOGY MINOR**

**Requirements:** 18 semester hours in social psychology. These hours include SOC 100, SOC 120, and 12 semester hours in social psychology from the courses listed below, 9 semester hours of which should be at the 300 level or above. Transfer students must take at least 6 semester hours in social psychology at UAB, including at least three semester hours in courses numbered above 300. A grade of C or better is required in all courses applied toward the minor, including transfer courses.

## REQUIREMENTS

	<i>Sem. Hrs.</i>
SOC 130 Marriage and the Family .....	3
SOC 135 Human Sexuality .....	3
SOC 220 Changing Sex Roles .....	3
PY 212 Developmental Psychology .....	3
PY 218 Abnormal Psychology .....	3
SOC 280 Health and Society .....	3
SOC 283 Sociology of Mental Health .....	3
SOC 285 Aging in American Society .....	3
PY 319 Psychopathology and Culture .....	3
SOC 323 Social Structure and Personality .....	3
SOC 340 Deviance and Control .....	3
PY 372 Social Psychology .....	3
SOC 383 Drugs and Society .....	3
SOC 385 Social Psychology for Aging .....	3
SOC 405 Symbolic Interaction .....	3
SOC 456 Death and Dying .....	3
SOC 469 Sociology of Aging .....	3
SOC 480 Medical Sociology .....	3

## HONORS PROGRAM IN SOCIAL SOCIOLOGY

### GOAL

The Social Psychology Honors Program is designed to help prepare outstanding undergraduate majors for graduate study in Social Psychology or a career in medical Social Psychology. The program promotes independent thinking, and under faculty supervision, students will be exposed to a wide range of sociological perspectives and research areas.

### ELIGIBILITY

Acceptance into the Social Psychology Honors Program requires the following:

- completion of the required Social Psychology courses;
- an undergraduate higher education GPA of 3.00 or above;
- a junior or senior level standing (admittance to Honors Program must take place before August 1); and
- a cumulative GPA in Social Psychology courses of 3.3 or above.

### REQUIREMENTS

The following is required to graduate with honors in the Social Psychology Honors Program:

- completion of the required Social Psychology courses;
- completion of two-semester Honors seminar 498/499;
- completion of a senior-level Thesis under faculty supervision; and
- colloquium presentation in the Spring with faculty and graduate students.

### BENEFITS

Participation in the Social Psychology Honors Program provides a unique opportunity for highly motivated, academically talented undergraduate students to have access to and interact with faculty

in an environment that encourages creativity and independent scholarship. Seminar participation and research experience will be important to nurturing the student's sociological imagination. Completion of the Honors Program is an advantage when applying to graduate school or looking for employment in an appropriate discipline-oriented field. Finally, students who complete the program will graduate "With Honors in Social Psychology."

### CONTACT

For additional information and/or admission to the Social Psychology Honors Program, contact Dr. Kevin Fitzpatrick, Department of Sociology, 237 Ullman Building, Birmingham, AL 35294-3350; Telephone (205) 934-3307

## GRADUATE PROGRAM

For information on the graduate program in sociology, please consult the Department of Sociology or the UAB Graduate School Catalog.

### Course Descriptions Sociology (SOC)

**100. Introduction to Sociology**—Collective human social behavior, its forms and consequences; inequality, group membership, social institutions and interpersonal relationships; how humans are affected by other humans. 3 hours.

**120. Introduction to Social Psychology**—How societies and groups affect perception of self and others; emotional climate and structure of group interaction; processes and dynamics of group leadership, interaction, and dissolution. 3 hours.

**130. Marriage and the Family**—Contemporary trends of marriage, cohabiting and partnerships; male-female relations among singles; dating and courtship; social and psychological factors in mate selection; marital adjustment; role of sex, money, and children in marriage; divorce, other crisis situations, and changing patterns of family relationships in U.S. 3 hours.

**135. Human Sexuality**—Social basis of sexual interaction; varieties of sexual interaction; sexuality related to daily life; attitudes, contraceptive use, and fertility and fecundity; sex role controversies; relation to institutions such as family, religion, medicine, and education; social definitions as determinants of behavior. 3 hours.

**200. Social Change**—(Also UA 200.) Change as ever-present feature of contemporary world; comparative analysis of impact of change on societies in advanced industrial world and Third World; application and critiques of social change theories and their relevance for societies throughout world; human consequences of social change. 3 hours.

**220. Women and Men: Changing Sex Roles**—Presumed biological differences; socialization differences of females and males; positions in and treatment by major institutions such as education, religion and economy; influence of gender labeling on development and lives of both sexes. 3 hours.

**230. Family and Kinship**—Structure and dynamics of family institutions and kinship systems in cross-cultural perspective over time and space; theoretical implications of family's relationship to social and technological environment. 3 hours.

**235. Sociology of Religion**—Social aspects of individual religious experience; organization of churches and sects; relationships

among religion, science, and other institutions. 3 hours.

**240. Family Conflict and Violence**—(Also UA 240.) Origins, manifestations, effects, controls, and rehabilitation aspects of family conflict and violence. 3 hours.

**245. Contemporary Social Problems**—How certain social conditions come to be seen as problems; why problems persist and how they can be changed; how conflict between groups and social movements contributes to developing and solving social problems; empirical overview of problematic conditions. 3 hours.

**250. Race and Ethnic Relations**—Various ethnic and racial groups, with emphasis on theory and research on intergroup relations; internal structure, culture, and experiences of ethnic groups. 3 hours.

**260. Sociology of Occupations and Professions**—Social organization of occupations; role and function in modern industrial society; relationship between occupational choice and social behavior; professionalism, occupational choice, and careers and stress; labor force composition, unemployment, and retirement. 3 hours.

**275. Urban Sociology**—(Also UA 270.) Lifestyle changes in urban society; social and demographic characteristics of cities; benefits and problems resulting from these characteristics; urban problems compared with rural and suburban problems. 3 hours.

**278. Cities of the World**—(Also UA 278.) Historical and contemporary patterns of world urbanization and their consequences; world system of cities; core-periphery relations and development in Third World; analysis of urban life, urban planning, and community structures in various world regions; case studies of selected world cities such as Moscow, Beijing, Baghdad, Tokyo, and New York. 3 hours.

**280. Health and Society**—Sociocultural definitions and responses to sickness; organization of health and medical institutions; health professionals; history of and social change in health-care delivery in U.S. 3 hours.

**283. The Sociology of Mental Health**—Nature of mental illness, public attitudes toward it, and explanations of mental health using medical and sociocultural approaches. Major therapies used to treat mental illness: psychotherapy, behavior modification, chemotherapy, somatic therapy, and changing treatment setting and public attitudes. 3 hours.

**285. Aging in American Society**—(Also GER 285.) Aging experience in modern world. Theories of aging, dimensions of aging, everyday concerns associated with aging, and future prospects of aging. Guest lectures by professionals in field and other faculty in gerontology. 3 hours.

**290-295. Special Topics in Sociology**—Varies in content. May be repeated for credit but topic may not be repeated. 1 to 3 hours each. *Prerequisites:* 6 semester hours in sociology or permission of instructor, unless otherwise noted.

**314. Advanced Survey Methods**—Building on the skills developed in Research Methods (SOC 300) and Social Statistics (SOC 310), this course gives students hands-on experience with research design, questionnaire construction, telephone and postal surveying data. 3 hours.

**316. Popular Culture**—Nature of popular culture, connections with big business, and role in changing behavior as seen in music, sports, politics and mass media. 3 hours.

**318. Passion in Action: Social Movements in America**—

Theoretical and substantive examination of social movements, including reform, status, equality, and new social movements. 3 hours.

**323. Social Structure and Personality**—Interaction of social structure and personality; motivation, cognition, and impact of family, social class, and other institutions on personality development and mental illness. 3 hours.

**325. Social Transformation of Russia**—Comparison and contrast of political, social, economic, cultural, educational, and scientific life of Russian society before socialist revolution, during Soviet period, and modern time; development, organization, and problems of people living together as social and national groups. 3 hours.

**335. Human Sexuality: A Comparative Approach**—Cross-cultural and historical variations in sexual standards, attitudes, and behaviors and relationship to social structure; theories of sexuality and relationship to cultural contexts and changing urban-industrial environments. 3 hours.

**336. Sport and Society**—Sociological analysis of sport in contemporary societies. Sport as microcosm of society and modern institution; socialization process, problems of racial and sexual inequality, aggression and violence, mass media, and societal change. 3 hours.

**340. Deviance and Control**—How and why certain behaviors, thoughts, and characteristics are labeled deviant; how and why certain individuals are labeled; consequences of being labeled; individual and group conflict; socialization to deviance; education; law enforcement; institutions; influence on family and friends. 3 hours.

**370. Population Problems**—Scope and method of population analysis; analysis of growth, distribution of characteristics, and changes of population of U.S.; impact of changes in population structure on American and world society. 3 hours.

**383. Drugs and Society**—Early and continuing use of plant-derived hallucinogens in various societies; psychological and biological reasons for taking drugs; substance abuse and its consequences for society. 3 hours.

**385. Social Psychology of Aging**—(Also GER 385.) Behavioral and structural relationships of aged population in America. Aging and interpersonal behavior, aging and social structure, and aging and social intervention. *Prerequisite:* 9 semester hours in sociology or permission of instructor, unless noted. Open to graduate students by permission. 3 hours.

**400. Research Methods**—Fundamentals of inquiry in social sciences; problems of definition, concept formation, and hypothesis testing; measurement, validity, reliability, and sampling; data-gathering techniques, basic statistical tools, and research design; use of computers and computer software packages. *Prerequisite:* 12 hours of social and behavioral sciences, including SOC 310. 4 hours.

**405. Symbolic Interaction**—Symbolic interaction as major version of sociological social psychology; origins of approach in Mead, Blumer, and Goffman. Significance of concepts such as role-taking, impression management, self, identity and symbolic interaction. 3 hours.

**407. Development of Sociological Theory**—Social thought from earliest classic thinkers to current sociological models; inter-relationship between sociological theory and logic of social science; critical analysis of contemporary sociological theories. 3 hours.

**410. Social Statistics**—Elementary techniques and analysis; preparation and use of graphs and tables; measures of central tendency and dispersion; probability and sampling; tests of significance and measurements of association. *Prerequisite:* MA 110, 102 or equivalent. Lecture and laboratory. 4 hours.

**415. Social Stratification**—(Also UA 315.) Inequality of wealth, prestige, and power distribution examined as caste-class differences; effect of stratification on individuals and their behavior, lifestyle, and life chances. 3 hours.

**416. Sociology of the South**—Focus on the South as a unique region. Race relations are the organizing principle. Examines areas such as history, politics, religion, music, personality, social types and collective behavior. 3 hours.

**444. Sociology of Film and Photography**—Theoretical and methodological advancement of visual sociology (use of still photographs, film, video, and electronically transmitted images) as a way of examining and understanding society, culture, and social relationships. 3 hours.

**455. Minority Aging**—(Also GER 455.) Cross-racial/ethnic exploration on national level of special problems of minority aged groups such as Latinos, Blacks, Chinese, Japanese, Koreans, Pacific-Asians, and American Indians. Family, church, health care, housing, adult education, retirement, income, and recreation. 3 hours.

**456. Death and Dying**—(Also GER 456.) Death, dying, and bereavement from sociological and social psychological perspectives. Social significance of death as human existential phenomenon. 3 hours.

**457. The Aging Family**—Changes in family structure; status of aging in family in various societies; intra- and inter-generational relations; family-related role transitions. 3 hours.

**469. Sociology of Aging**—(Also GER 469.) How roles and statuses change with age in relation to major social institutions; adjustments people make to such changes. Aging population's impact on society and effect of society on aged. 3 hours.

**470. Urban Ecology**—Spatial distribution of social, demographic, and physical factors in urban environment; distribution of population by age and race; competition for land between businesses and home owners; location of physical features such as cemeteries and nightclubs. 3 hours.

**472. Homelessness: Causes and Consequences**—Current problems of homelessness in U.S. history, health, mental health, poverty, public attitudes, and government policy. 3 hours.

**480. Medical Sociology**—Critical evaluation of medical care system and health policy; social consequences of current health issues; social causes of health and illness; alternative practitioners and self-help groups. 3 hours.

**488. Sociological Practice**—(Also GER 488.) Students will be involved in community research projects related to intergenerational relations, aging, medicine, and/or health. Placement in community organization (e.g., schools, senior centers) to focus on research methods related to social policy. 3 hours.

**490-495. Independent Study and Special Courses in Sociology**—(Also GER 490-491.) Individually designed programs for semi-independent research or guided readings in areas and subjects otherwise unavailable. Irregularly offered courses on special topics in sociology. Varies in content. May be repeated for credit but topic may not be repeated. *Prerequisites:* senior standing and permission of instructor and department chair. 1 to 3 hours each.

**498. Sociology Honors Seminar**—Special seminar for sociology honors students. *Prerequisites:* admission to the Sociology Honors Program and permission of the Undergraduate Director in Sociology. 3 hours

**499. Sociology Honors Thesis**—Sociology honors thesis. *Prerequisites:* SOC 498; Admission to the Sociology Honors Program; and permission of the Undergraduate Director in Sociology. 3 hours.



# UAB HONORS PROGRAM

The UAB Honors Program draws on the wide range of resources available at a large urban university and concentrates those resources within a small, personal, liberal arts setting. Designed for students who want to satisfy their intellectual curiosity both inside and outside the classroom, the program is limited to 200 students who represent a wide variety of disciplines, backgrounds, and interests. An innovative curriculum is specifically designed for those students and taught by faculty members who are known for their excellence in teaching and scholarship. Without delaying progress toward a degree, the Honors Program provides students an opportunity to participate in a community of committed scholars, to form close relationships with faculty, to explore new ideas, and to share their ideas, interests, and lives on a daily basis in the Spencer Honors House.

## BENEFITS

Students in the Honors Program receive a more intensive and innovative education than is available in the regular curriculum. They have close personal contacts with their instructors and with other students, providing a sense of community and identity within the larger university context. Honors Program students have the opportunity to meet and get to know not only a wide variety of faculty and administrators on campus, but important figures in the community and distinguished visitors from throughout the world.

The Spencer Honors House, with all of its facilities, belongs to the Honors students and is accessible to them at all times. Students have the opportunity to travel and to participate in a wide variety of cultural, social, and scholarly events. After completing the program, they graduate with the special designation "With University Honors" on their transcripts and in the commencement program.

In addition, Honors students are recognized annually at Honors Day. Graduation from the Honors Program often gives students a distinct advantage when applying for graduate or professional schools. A third of Honors Program alumni have entered graduate schools, including Johns Hopkins, Washington University, and The University of North Carolina; a third have entered medical or law schools, including Harvard, The University of Virginia, and Washington and Lee; and the rest have begun careers in fields that include engineering, journalism, and computer programming.

## SPENCER HONORS HOUSE

The center of identity and community for the Honors Program is the Spencer Honors House, located on campus in the spacious and attractive environment of the Old Church at 1190 10th Avenue South. All instructional and social activities of the Honors Program take place there. The Honors House is also available for day-to-day use by Honors students for recreation, studying, meeting, and relaxing. The facilities include a kitchen, lounge areas, library, computers, pool table, and stereo. The offices of the director, associate director, and assistant director are also in the house.

## HONORS COURSEWORK

Instead of the 41 semester hours of Core Curriculum requirements, students in the Honors Program take 33 semester hours of Honors coursework and three semester hours in mathematics. In addition, they participate in a variety of special events, most of which are centered in the Spencer Honors House. While in no way delaying progress toward a degree or interfering with commitment to a major, the Honors Program provides a stimulating range and depth of scholarly pursuits within an interdisciplinary context. Students have frequent individual contact with the teaching faculty and have unusual opportunities for independent projects and research.

Honors students have two options for completing their 33 semester hours in honors:

- two 9-semester-hour fall-semester interdisciplinary honors courses plus five 3-semester-hour honors seminars (only two of which can be related to the student's major or minor); or
- two 9-semester-hour fall-semester interdisciplinary honors courses, a minimum of two 3-semester-hour honors seminars (not related to the student's major or minor), and up to nine semester hours of honors coursework within the student's major (with the total number of semester hours adding up to 33).

The interdisciplinary honors courses are offered during the fall semester and are open only to Honors students. These courses are team-taught by faculty members (usually six) from different schools in the university and by guest lecturers from the medical center, the business sector, and other areas. Each interdisciplinary course is organized thematically and designed to cover a broad range of material so the student is introduced to all areas covered by the Core Curriculum and to a wide variety of other areas as well. Topics of past interdisciplinary courses have included "The Environment: The Earth in Our Shadow," "The Nature/Nurture Debate," and "Creativity in the Arts and Sciences." As part of the course, each student works on an independent project related to the central theme. Since instructors are committed to full-time teaching of this course, students receive ample advice and guidance on their projects.

Honors seminars are open to all students at UAB. Honors students are required to take at least two seminars in order to complete the Honors Program. These seminars are offered during the fall semester, spring semester, and summer term and are limited to 18 students. Honors seminars are available in a variety of different fields and focus on issues that are of major interest within the field and also have implications and applications beyond it. Examples of Honors seminars which have been taught are "Creative Problem Solving," "Medical Schools and the University Idea," and "The Anthropology of Slavery."

## ADDITIONAL INFORMATION ABOUT THE CURRICULUM

### CORE REQUIREMENT IN MATHEMATICS

In addition to the Honors coursework, Honors students must fulfill the mathematics requirement of Area III of the Core Curriculum.

### CREDIT FOR PARTICIPATION IN HONORS

Students may receive up to three semester hours of credit, graded on a pass/fail basis, for participating in the range of special events sponsored by the Honors Program. Those events include a monthly lecture series called First Thursday, afternoon receptions for visiting speakers (who, in the past, have included Studs Terkel, E.O. Wilson, Gene Roddenberry, Abbie Hoffman, Paul Starr, and Eugene McCarthy), workshops, and field trips.

### CREDIT FOR COMMUNITY SERVICE

Students may receive up to three semester hours of credit, graded on a pass/fail basis, for completing long-term service projects. Available projects are announced before each semester and typically include work at a recycling center, homeless shelter, or public school as well as regular meetings to reflect on these service projects.

### INDEPENDENT STUDY

Students may propose an internship or independent study project in place of one seminar. An example of such a project is an internship at city hall, leading to a policy proposal on some area of city government. Proposals for these projects must be approved by the Honors Council.

### CONTINUATION IN THE PROGRAM

A student who leaves the Honors Program for any reason will receive full credit toward graduation for all coursework completed in the program. The director of the Honors Program will designate which of the Core Curriculum requirements have been fulfilled by the individual student's Honors coursework. An Honors student is expected to maintain a 3.0 average in Honors Program coursework. If the average falls below 3.0, the student will have one year to raise his or her average up to a 3.0 in order to remain in the program. A student must have an overall 3.0 average in the program and at UAB to graduate "With University Honors"; a student who has a 3.0 average in the program but a lower UAB GPA will graduate "With Honors in Interdisciplinary Studies."

### WHO SHOULD APPLY

Any student entering or already enrolled at UAB is eligible to apply for the Honors Program. Although most students entering the program are full-time freshmen, part-time students are also eligible, and students may enter the program as sophomores or juniors. Non-traditional students are encouraged to apply. Honors students are selected on the basis of the following criteria:

- academic ability, as indicated by high school or previous college grades;

- creativity or talent—in science, music, art, drama, leadership, etc.;
- intellectual promise, as indicated by standard aptitude and/or achievement tests;
- recommendations of knowledgeable instructors;
- competence in grammar, English composition, and mathematics; and
- evidence of any of the above as disclosed in a personal interview.

Any student who has a genuine interest in the kind of education that the Honors Program provides should apply, even if the student may not feel that he or she has demonstrable evidence of the above criteria. There are no rigid minimum requirements for being accepted into the Honors Program, which is intended to attract bright, curious, dedicated students who can both profit from and contribute to an intensive learning experience. Such students cannot always be identified on the basis of any objective set of criteria; therefore, all applicants will be given careful consideration on the basis of whatever evidence they present, both in a written application and in a personal interview.

### SCHOLARSHIPS

The Hess-Abroms Honors Scholarships, awarded annually, are valued at \$20,000 each and provide \$5,000 per year. Application is open to incoming freshmen. The award is based on superior academic achievement, creativity or talent, strong motivation, character, and intellectual promise. The deadline for application for the Hess-Abroms scholarships is January 1.

The Juliet Nunn Pearson Honors Scholarships are awarded each year to three first-year students in the Honors Program. These three \$1,000 scholarships are awarded on the basis of merit and need; all students admitted into the Honors Program are automatically considered as candidates for these scholarships.

Other scholarships are available to students in the Honors Program on the basis of merit and need.

### APPLICATION

Students interested in applying for admission to the UAB Honors Program should write or call Director, UAB Honors Program, HOH, 1530 3rd Avenue South, Birmingham, Alabama 35294-4450; Telephone (205) 934-3228; E-mail [honorsprogram@uab.edu](mailto:honorsprogram@uab.edu).

In order to be guaranteed full consideration, applications for fall admission should be submitted by January 15th.

# UAB STUDY ABROAD PROGRAMS

**Director:** Josh Carter (Academic Programs and Policy)

The UAB Study Abroad Program offers students the opportunity to compliment and enhance their degree programs by participating in a variety of study abroad programs.

What is Study Abroad?

Study abroad is defined as any academically sound program of study which takes place in a foreign location which shall be defined as any location outside the boundaries of the 50 United States of America. U.S. Protectorates such as the U.S. Virgin Islands and Puerto Rico are included in the definition of such foreign locations. These programs of study include but are not limited to undergraduate or graduate level coursework toward the completion of a degree program, internships and/or research projects carrying academic credit or which are a component of a degree program, field studies which are part of a particular class, clinical or observational externships which fulfill curricular requirements.

There are three types of study abroad programs available to UAB students:

## 1. Affiliated or Reciprocal Exchanges

These are programs for which UAB has an established affiliation agreement with a foreign university. Upon consultation with the UAB Study Abroad Program Director and approval by their academic advisor, chair of the department in which an equivalent course would be offered and the chair of the department responsible for the student's major; students may enroll in a combination of the following courses:

- INTL 100-199** SA Level I Special Topics
- INTL 200-299** SA Level II Special Topics
- INTL 300-399** SA Level III Special Topics
- INTL 400-499** SA Level IV Special Topics
- INTL 500-599** SA Grad Level I Special Topics
- INTL 600-699** SA Grad Level II Special Topics

## 2. Faculty-Led Short-Term Programs

These are UAB classes that are developed and taught by UAB faculty members and have some portion of the class (a minimum average of at least two weeks) that takes place in a foreign setting as defined under "What is Study Abroad." These classes will appear in the UAB course schedule book with a section code of SA (Study Abroad). Such faculty-led classes are generally taught during the summer term.

## 3. Non-Affiliated or 3rd Party Program Providers

A variety of U.S. and foreign universities and other corporate entities offer a large selection of study abroad programming to suit the particular needs of most students. Students **MUST** arrange for a consultation with the UAB Study Abroad Director to discuss academic credit transfer issues to ensure the proper posting of coursework earned from this type of study abroad

experience. These programs are available to any UAB student, but this broad availability does not guarantee that coursework will articulate to UAB or count toward completion of a degree.

In all three cases the UAB Study Abroad Program works in tandem with Academic Programs and Policy and the UAB Schools to provide a multitude of possible course equivalencies so that students can more smoothly integrate a study abroad experience into their degree program(s).

**NOTE:** *Students must arrange an appointment with the Director of the UAB Study Abroad Program as soon as possible prior to the start of their intended study abroad program to ensure that credit earned abroad will satisfy degree requirements.*

Application, enrollment circumstances, possible credits, and deadlines vary according to individual programs and are coordinated through the UAB Study Abroad Program Office. Contact the UAB Study Abroad Program Director at (205) 975-6611, or via the UAB Study Abroad Program website at [www.studyabroad.app.uab.edu](http://www.studyabroad.app.uab.edu) for further information concerning various programs, the resource library, references for peer consultation and academic advising, and financial aid applicability and contacts.



# GENERAL STUDIES

**Director:** Nancy Walburn

The Division of General Studies is a primary source of academic support for students. The division coordinates and offers academic programs and services designed to enhance the academic experience of undergraduate students. The Division includes academic advising services for two key areas – General Studies advising and Pre-Health advising, University 101 and Supplemental Instruction.

## GENERAL STUDIES ADVISING

The General Studies advising system provides a comprehensive program for students who are undecided about a major and students who are completing the requirements for admission to programs in nursing and business. Advisors assist students in identifying their educational and career goals and in selecting courses and supporting activities to achieve these goals. Students work with their advisor to assess their skills, clarify their goals and develop an individual plan for their chosen program of study.

Academic advising is provided in individual sessions and in group sessions during New Student Orientation. Advisors provide students with information regarding academic policies and procedures, explanations of university expectations and descriptions of options and opportunities available to help them achieve their academic goals. Additionally, advisors assist students in developing skills for successful academic performance.

The following majors are advised in General Studies:

### **Undeclared (UDEC)**

Students who have not yet decided on a major have the opportunity to explore options for majors while taking courses that count toward a degree. Undeclared students in General Studies may select any of the undergraduate majors in the university; however, they must select a major by the completion of 60 semester hours of course work. Advisors in General Studies work with each student to choose a field of study that is compatible with the student's skills, interests and priorities.

### **General Studies Business (GSB)**

Students who have identified a major in the School of Business but do not meet the grade point average requirements work with a General Studies advisor toward the goal of becoming eligible for admission to the School of Business or identifying other options that are achievable.

### **Pre-Nursing (PNUR)**

Students who have identified Nursing as a major must complete prerequisites and achieve a competitive grade point average for admission to the School of Nursing. Advisors work with each student to become a competitive applicant or to consider appropriate options for their educational goals.

The Pre-Nursing Mobility Program is specifically designed for graduates of an accredited diploma or associates degree program who are licensed as a Registered Nurse and are seeking to obtain a Bachelor of Science in Nursing. Entry into the program is based

on successful completion of all pre-nursing prerequisite courses with a minimum grade point average of 2.5 and an overall grade point average of 2.0. Students must meet with a pre-nursing advisor for an evaluation of prior coursework and to identify the necessary steps for admission into the program.

Students should call (205) 934-6135 or visit the office (Room 318, Hill University Center) to make an appointment.

## PRE-HEALTH PROFESSIONS ADVISING

The office of the Pre-Health Professions Advisor is also located in the Division of General Studies. Pre-Health advising, in addition to academic advising, is recommended for students who plan to apply to medical, dental, or optometry school.

Appointments with the Pre-Health Advisor may be scheduled in the Division of General Studies, Room 318, Hill University Center, or by phone, 934-6135.

UAB has a pre-health program designed to help students become competitive applicants for health professional programs beyond graduation. The Pre-Health advisor assists students in major fields of study across the university as they prepare for the competitive application process to professional schools. Beginning with group meetings at freshman orientation, students see the pre-health advisor in information sessions, group meetings by class level, and seminars in addition to individual advising sessions throughout the student's undergraduate preparation. Each student, with the advisor, creates an individual plan to develop the high level of academic and interpersonal skills critical to successful application to professional school. Opportunities are available for students to participate in assessment interviews with admissions committee members, an active national pre-health honor society, and a number of leadership and community service activities as they develop the interpersonal skills necessary for a professional career in healthcare. The pre-health advisor coordinates the preparation of required letters of evaluation at the time of the student's application to professional school.

While there is not a specific pre-health major at UAB, most undergraduate programs of study easily accommodate the pre-requisite courses required for admission to schools of medicine, dentistry and optometry. In principle, students may select any of the undergraduate majors listed in this catalog. Students are encouraged to pursue individual academic interests by the professional school admissions committees.

## ACADEMIC PROGRAM

The Pre-Health Coordinator works in collaboration with the student's academic advisor to plan individual academic programs according to the requirements of the students' chosen majors. In addition, students will incorporate the following courses that are required by medical, dental, and optometry schools:

Courses Required by most Medical, Dental, or Optometry Schools:

<b>English</b>	EH 101, 102
<b>Biology</b>	BY 123 & 124 (with labs)
<b>Chemistry</b>	CH 115 (116 lab), 117 (118 lab), 235 (236 lab), 237 (238 lab)
<b>Mathematics</b>	Two semesters of college math. (May include statistics or computer science) We recommend math through pre-calculus (MA106).
<b>Physics</b>	PH 201(211lab) & 202 (212 lab); or 221(231 lab) & 222 (232 lab)

The UAB School of Optometry does not require CH 237. It does require The Biology of Microorganisms (BY 271), one semester of calculus, one semester of statistics, two courses in psychology, and two semesters of additional courses in social and behavioral sciences.

The UAB School of Dentistry requires 12 semester hours in biology. As a result, an additional biology course is required: BY 210, 256, 271, 314, and 330 are recommended choices. Biochemistry is strongly recommended (CH 461). Calculus and analytical geometry (MA 125) is also strongly recommended.

Students should take these courses during their freshman and sophomore years in order to be prepared to take the required admissions tests as juniors and are encouraged to consult the catalogs of specific professional programs in which they have an interest in order to be certain that they complete all requirements for admission prior to application to a particular professional program.

## ALTERNATIVE CAREERS

Students should bear in mind that admission to schools of medicine, dentistry, or optometry is highly competitive. Satisfactory completion of pre-professional requirements in no way guarantees acceptance by the professional schools. The undergraduate major should therefore be chosen with care so that alternative career paths are available if admission to the desired professional school is not granted. Students should also keep in mind alternative health professions in which a doctorate may be earned, such as pharmacy, podiatric medicine, or veterinary medicine. The Pre-Health Coordinator works with students and provides resource materials to explore options and develop individual plans.

## COMPLETION OF BACHELOR'S DEGREE

In addition to the prerequisite courses for admission to a school of medicine, dentistry, or optometry, students must also satisfy the requirements for completion of a degree including requirements for a major (see pages 8-9). In rare situations a student may be accepted to an accredited medical, dental, or optometry school before completing the requirements for a baccalaureate degree. These students, upon successful completion of their first year of professional study, may then receive a Bachelor of Science degree with a major in natural science. For requirements, see page 188.

## UNIVERSITY 101

Designed to promote the academic success of conditionally admitted freshmen, the University 101 course focuses on critical thinking skills needed for success in core curriculum courses and for success in navigating the transition into the university. Required of all conditionally admitted students, the course is open to regularly admitted student as space permits and can be used as elective credit toward degree requirements. The critical thinking skills of fact, interpretation and analysis are taught in relation to three areas of a student's university career:

- Success in core curriculum courses
- Personal academic planning and decision making
- Development of a university experience

### Course Description

#### University 101 The University Experience (3 hours)

Students receive training, experience and prescriptive feedback on critical thinking skills and their applications to Core Curriculum courses in the following ways: lecture, discussion, readings, and exercises. Students interact with academic advisors in supportive, diagnostic and prescriptive ways to determine individual needs for academic success. Students participate in activities outside the classroom that will support critical thinking and integration into the university.

## SUPPLEMENTAL INSTRUCTION

Supplemental Instruction is an academic support program involving a series of weekly review sessions for students taking historically difficult courses. Sessions are designed to reinforce the content of the course while developing course-specific problem solving skills and test preparation strategies. Attendance in Supplemental Instruction sessions is voluntary and free of charge.

## ARMY ROTC

**Faculty:** Shuck, Murrell, Scott, McCormick, Satterwhite, Beach, Linton, Daniels

The Army Reserve Officers Training Corps (ROTC) program is offered at UAB under federal laws and Acts of Congress. The Department of Military Science offers the Army Senior ROTC Program.

ROTC is a program involving leadership and skills training. Through hands-on training and classroom instruction by experienced, active-duty Army officers, and non-commissioned officers, students learn skills applicable to professional civilian or military careers. Students learn military, leadership, and organizational management skills.

Qualified students may obtain a commission as a second lieutenant, with the opportunity to serve either full time in the active Army or part time in the National Guard or U.S. Army Reserve. Scholarships for two, three, or four years are available, as well as other special ROTC scholarships.

### ENROLLMENT

Enrollment is open to all students. The Army ROTC program offers several courses that may be counted as electives. The Lower Division is designed to benefit students with a broad range of professional goals. The Upper Division leads to a presidential commission as a second lieutenant in the U.S. Army. Enrolled students who actively pursue a commission may earn a Minor in Military Science.

### LOWER DIVISION

Lower division courses are normally taken in the freshman and sophomore years. Students who do not take ROTC during their first two years of college and are not veterans may take a compressed version of the lower division sequence in the summer as a six-week, all-expense-paid leadership seminar. Successful completion of the lower division gives students the credentials necessary for enrollment in the upper division.

### UPPER DIVISION

Upper division courses are taken during the final two years of college and include an advanced summer seminar between the junior and senior years. Students in the upper division are paid \$350 to \$400 per month while enrolled and earn salary for summer internships.

### SCHOLARSHIP PROGRAM

Army ROTC offers opportunities for scholarships. Students may apply for three-year or two-year scholarships. Each scholarship covers tuition, provides an annual allotment of \$600 for books and fees, and gives students a tax-free allowance each month classes are in session. The allowance increases each year: \$250 per

month during the student's freshman year, \$300 per month during the sophomore year, \$350/month during the junior year, and \$400 per month during the senior year. Army ROTC scholarships are awarded on the basis of merit. Family income has no bearing on eligibility for an award. For more details, see the Financial Aid section of this catalog or contact the scholarship advisor with the Army ROTC Program. Telephone (205) 934-7215.

### PARTNERSHIP IN NURSING EDUCATION

Army ROTC offers a unique scholarship opportunity for UAB School of Nursing students under the Partnership in Nursing Education (PNE) program. These scholarships not only cover tuition, books and fees, and the monthly allowance, but also guarantee progression into the upper division clinical nursing classes. Two-year, three-year, or four-year scholarships are available for all qualified nursing majors. See the Financial Aid section of this catalog or contact the scholarship advisor with the Army ROTC Program. Telephone (205) 934-7215.

### VETERANS

Students with prior military experience can fulfill credit requirements for the ROTC lower division sequence. If credit is granted, and, provided the student is not on a three-year Army ROTC Scholarship, veterans may bypass the freshman and sophomore years of ROTC and enroll directly in the upper division sequence. Students with prior service may be eligible for special veteran scholarships. In addition to any financial assistance from ROTC, veterans are still qualified to receive any and all GI Bill, Army College Fund, or VEAP benefits to which they are entitled.

### SIMULTANEOUS MEMBERSHIP PROGRAM

Students may take advantage of the Simultaneous Membership Program (SMP), which allows participation in ROTC and enlistment in the Army National Guard or Reserve at the same time. Students in the SMP program serve as officer trainees in a Guard or Reserve unit and perform duties commensurate with the grade of Second Lieutenant. SMPs are paid at the rate of at least a Sergeant E-5 for Guard or Reserve service.

### MINOR IN MILITARY SCIENCE

Students who are actively pursuing a commission as a Lieutenant (active duty or reserve duty) may pursue a minor in Military Science. Contact the Department of Military Science, (205) 934-7215.

### HONORS PROGRAM

As part of the Military Honors Program, military science students with outstanding qualities of leadership, academics, and high moral character may be designated by the Professor of Military Science as "Distinguished Military Students." Upon earn-

ing a commission as a second lieutenant and a baccalaureate degree, select students may be designated "Distinguished Military Graduates."

## FURTHER INFORMATION

For further information on the UAB Army ROTC program, contact the Professor of Military Science at (205) 934-7215 or 934-8749, or visit the web site at [www.uab.edu/armyrotc](http://www.uab.edu/armyrotc).

### Course Descriptions

#### Military Science (MS)

##### LOWER DIVISION COURSES

**101-102. Military Leadership**—Emphasizes personal organization, time management, and goal-setting skills. Designed to help students determine priorities and succeed in college and in life. Also introduces students to the role of the military in American society and government. 2 hours each.

**103. Military Science I**—Physical training, leadership, and communication skills. For students unable to take MS 101 and 102. Prerequisite: permission of Professor of Military Science. 3 hours.

**157. Outdoor Adventures**—Action-oriented. Provides an opportunity to experience challenging, exciting activities such as rappelling from a 40-foot tower, skeet shooting, rifle marksmanship, water survival, and orienteering. May also include hiking, canoeing, and paintball. 2 hours.

**201-202. Military Leadership**—Emphasizes individual skills necessary to be a successful leader and manager. Instruction on written and interpersonal communications, briefing/presentation skills, hands-on office equipment and computer software training. Leadership dynamics, individual and group behavioral processes, and team building. Analysis of professional values and ethics. Focus on decision-making and problem-solving skills. 2 hours each.

**203. Leadership and Management**—Physical training, leadership, and communication skills. For students unable to take MS 201 and 202. Prerequisite: permission of Professor of Military Science. 3 hours.

**204-206. Rangers**—Develop leadership qualities of ROTC cadets through small-unit tactics, self-discipline, self-confidence, and resourcefulness. Cadets participate in vigorous physical training. Enrolled cadets may participate in the two-day, 27-school, Southeastern Conference Invitational Varsity Ranger Challenge competition. 1 hour each.

**250. Camp Challenge**—Summer, off-campus, all-expense-paid, hands-on seminar. Trains students in MS 100 and 200 level skills. Attending students qualify to compete for special two-year full scholarships to UAB. Prerequisite: permission of Professor of Military Science. 6 hours.

##### UPPER DIVISION COURSES

**301. Military Leadership**—Instruction and application of advanced map reading and land navigation skills; patrolling, calling for, and adjusting indirect fire; writing and presenting operations orders. Preparation for Advanced Camp at Fort Lewis, Washington. Prerequisite: completion of Lower Division courses. 3 hours.

**302. Military Leadership**—Basic military tactics and troop-leading procedures; survival keys and code of conduct; leadership

doctrine, professional values, and platoon defensive and offensive measures; platoon movement techniques and command and staff functions. Preparation for Advanced Camp at Fort Lewis, Washington. Prerequisites: completion of Lower Division courses. 3 hours.

**303. Military Science III**—Platoon defensive and offensive measures; platoon movement techniques and command and staff functions. Incorporates all cadet skills for the Leadership Development and Assessment Course at Fort Lewis, Washington. Prerequisites: completion of lower division courses and permission of the Professor of Military Science. 3 hours.

**401. Military Leadership**—Oral and written presentation skills, including writing and reviewing selections of military correspondence and forms; presentation of performance-oriented training; conduct of briefings and meetings; analysis of organizational morals and ethics. Prerequisites: MS 301, 302. 3 hours.

**402. Military Leadership**—Military justice system and junior officer's use of it; Army personnel management, logistics system, and personal support agencies. Prerequisites: MS 301, 302. 3 hours.

**403. Military Science IV**—Oral and written presentation skills; presentation and briefing skills; leadership and ethical analyses supported by case studies; military justice system, personnel, and supply management systems. Prerequisites: MS 301, 302, and permission of the Professor of Military Science. 3 hours.

## AIR FORCE ROTC

The Air Force Reserve Officer Training Corps (ROTC) program provides college men and women with the opportunity to compete for a commission as a second lieutenant in the United States Air Force upon graduation. The program is divided into the General Military Course and the Professional Officer Course. The General Military Course includes courses offered during the first two years of the program and is open to all students without military obligation. The Professional Officer Course includes junior and senior level courses and is restricted to those who meet entry requirements or have special permission from the Professor of Aerospace Studies. Air Force ROTC students can gain confidence, leadership training, communication skills, and an appreciation for the role of the military in contemporary society. Call (205) 726-2859 for complete information.

## GENERAL MILITARY COURSE

The General Military Course consists of AFS 101, AFS 102, AFS 201, and AFS 202. These courses are open to all students regardless of qualifications for military service or intent to compete for commission. As part of the General Military Course, students examine the basic organization and structure of the Air Force, appreciate the historical significance of air power, apply basic communication skills, and receive an introduction to total quality management. Each course is one semester hour credit.

## ADDITIONAL PROGRAMS

ROTC cadets also compete for additional training programs such as FREEFALL (parachuting), SOAR (glider training), ASSIST (Officer Shadow Program), Nurse Orientation Program (NOP),

Flight Nurse NOP, Survival Training, Overseas Base Orientation, and Engineering Orientation Program. These programs take place between the freshman-sophomore and junior-senior years. They allow cadets to see real-world Air Force officers operating on a daily basis and provide exposure to opportunities they might not otherwise receive.

## SCHOLARSHIP PROGRAMS

Four-year college scholarships are available to highly qualified high school seniors. Interested students should contact their local Air Force recruiter or the nearest Air Force ROTC program for application booklets. Applications are due by December 1 of the senior year in high school.

Three-year and two-year scholarships are available to college students. Air Force ROTC scholarships pay college tuition, laboratory fees, incidental fees, and books. Scholarship students also receive a monthly tax-free stipend ranging from \$150 to \$400 depending on academic year in school. Family income has no bearing on eligibility for an award. For additional information, contact the Aerospace Studies Department at (205) 726-2859. Uniforms and textbooks for all aerospace studies courses are provided at no charge.

## LEADERSHIP LABORATORY

Leadership Laboratory is an integral part of the Air Force ROTC program. It provides an opportunity for students to apply classroom teachings to actual environments. Each course has an associated leadership laboratory. The laboratory meets for two hours each week during the term. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop leadership potential. Leadership Laboratory involves a study of the life and work of Air Force junior officers. Students develop their leadership potential in a practical, supervised laboratory, which typically includes field trips to Air Force installations throughout the United States.

The first two years of Leadership Laboratory involve activities classified as initial leadership experiences. This includes studying Air Force customs, courtesies, drill, and ceremonies; giving military commands; instructing, correcting, and evaluating the preceding skills; studying the environment of an Air Force base; and learning about career opportunities available to commissioned officers. The last two years of Leadership Laboratory consist of activities classified as advanced leadership experiences. They involve planning, organizing, coordinating, directing, and controlling the military activities of the cadet corps; preparing and presenting briefings and other oral and written communications; and providing interviews, guidance, and information to increase the understanding, motivation, and performance of other cadets.

## FIELD TRAINING

Air Force ROTC field training is offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of field training, usually between their sophomore and junior years. Students applying for entry into the two-year program must successfully complete six weeks of field training prior to enrollment in the Professional Officer Course. The major areas of study in the four-week field training program include officership training, air-

craft and air-crew orientation, career orientation, survival training, base functions and the Air Force environment, and physical training. The major areas of study included in the six-week field training program are essentially the same as those conducted in four-week field training and in the General Military Course, including Leadership Laboratory.

## MINOR IN AEROSPACE STUDIES

Students who are actively pursuing a commission as a second lieutenant may pursue a minor in aerospace studies. Contact the Air Force ROTC Office, (205) 726-2859, for more information.

### Course Descriptions

#### *Aerospace Studies (AFS)*

**101. The Air Force Today I**—Topics relating to Air Force and national defense. Purpose, structure, and career opportunities in the United States Air Force. Written communications. Students should also take AFS 101 Laboratory. 1 hour.

**102. The Air Force Today II**—Interpersonal communications. Effective listening techniques and verbal and nonverbal communications. Practical exercises and group projects to demonstrate barriers to effective communication and techniques to overcome barriers. Students should also take AFS 102 Laboratory. 1 hour.

**201. The Air Force Way I**—Historical survey of technological innovation in warfare. Emergence of air power and significance in war and national security policy implementation. Students should also take AFS 201 Laboratory. 1 hour.

**202. The Air Force Way II**—Leadership and followership traits in context of modern military force. Ethical standards of military officers and Air Force core values. Total quality management. Students should also take AFS 202 Laboratory. 1 hour.

**250. Field Training**—Six-week training and evaluation course to select potential candidates for Professional Officer Course. Includes all topics in AFS 101, 102, 103, 201, 202, and 203. Rigorous physical training. *Prerequisite:* permission of Professor of Aerospace Studies. 8 hours.

**300. Field Training**—Four-week training and evaluation course to select potential candidates for Professional Officer Course. Rigorous physical training. *Prerequisite:* permission of Professor of Aerospace Studies. 2 hours.

**301. Air Force Leadership and Management I**—Selected concepts, principles, and theories of quality Air Force leadership and management. Individual leadership skills and personal strengths and weaknesses as applied to Air Force environment. Students should also take AFS 301 Laboratory. Classes conducted on Samford University campus. 3 hours.

**302. Air Force Leadership and Management II**—Selected Air Force officer's duties and responsibilities as subordinate leader. Responsibility and authority of Air Force officer. Students should also take AFS 302 Laboratory. Classes conducted on Samford University campus. 3 hours.

**401. National Security Affairs I**—Basic elements of national security policy and process. Roles and missions of air power in implementing national security policy. Students should also take AFS 401 Laboratory. Classes conducted on Samford University campus. 3 hours.

**402. National Security Affairs II**—Contemporary roles for military in society and current issues affecting military profession. Comparative analysis of civil and military justice systems. Students should also take AFS 402 Laboratory. Classes conducted on Samford University campus. 3 hours.

# NON-ACADEMIC POLICIES

## EQUAL OPPORTUNITY POLICY

May 27, 2004

(Replaces policy dated December 22, 2003)

See also the UAB "Sexual Harassment Policy."

### POLICY STATEMENT

The University of Alabama at Birmingham (UAB) hereby reaffirms its policy of equal opportunity in education and employment.

### EQUAL EMPLOYMENT OPPORTUNITY

The University of Alabama at Birmingham is expressly committed to maintaining and promoting nondiscrimination in all aspects of recruitment and employment of individuals at all levels throughout UAB. Specifically, it is the intent of UAB to recruit, hire, and promote all faculty and staff without regard to race, color, religion, sex, sexual orientation, national origin, disability unrelated to job performance, disabled veteran status, or Vietnam era veteran status. UAB also complies with the Age Discrimination in Employment Act which prohibits employment discrimination against persons 40 years of age or older. UAB will not tolerate any conduct by an administrator, supervisor, faculty, or staff member which constitutes any form of prohibited discrimination.

All personnel actions, programs, and facilities are administered in accordance with equal opportunity and affirmative action policies.

### IMPLEMENTATION IN EMPLOYMENT

In working toward the implementation of this policy, UAB will state its position as an equal opportunity/affirmative action employer in all solicitations and advertisements for employment vacancies placed by, or on behalf of, UAB. UAB will broadly publish and circulate its policy of equal employment opportunity by including a statement in all media communication and printed matter for employment purposes. Further, UAB will consider, through appropriate and designated procedures, complaints or grievances of any individual who has reason to believe that he or she has been affected by prohibited discrimination.

### EQUAL EDUCATION OPPORTUNITY

As an institution of higher education and in the spirit of its policies of equal employment opportunity, UAB hereby reaffirms its policy of equal educational opportunity. All applicants for admission will be considered without regard to an applicant's race, color, religion, sex, sexual orientation, age, national origin, disability unrelated to program performance, disabled veteran status, or Vietnam era veteran status. Complaints or grievances of any student who has reason to think he or she has been affected by discrimination will be considered through established procedures.

This policy is included in all student handbooks and catalogs.

The following summary statement may be printed in other UAB publications:

*The University of Alabama at Birmingham administers its educational programs and activities, including admission, without regard to race, color, religion, sex, sexual orientation, age, national origin, disability unrelated to program performance, disabled veteran status, or Vietnam era veteran status.*

### INQUIRIES AND COMPLAINTS

Any inquiries or complaints concerning the application of the Americans with Disabilities Act (ADA); Title VII of the Civil Rights Act of 1964; Executive Order 11246, as amended; Title IX of the Education Amendments of 1972; the Rehabilitation Act of 1973; or other legislation and its implementing regulations as they relate to the University of Alabama at Birmingham should be directed to any one of the following persons, as appropriate:

#### **Dr. Pamela Burks**

Director, Cultural Diversity and Career Development  
Staff Affirmative Action Officer  
419 Medical Towers Building  
(205) 934-8988

#### **Dr. Virginia D. Gauld**

Vice President for Student Affairs  
Student Affirmative Action Officer  
Title IX and 504 Coordinator  
503 Hill University Center  
(205) 934-8146

#### **Dr. Louis Dale**

Vice President for Equity and Diversity  
Faculty Affirmative Action Officer  
401 Campbell Hall  
(205) 934-8762

### OVERALL IMPLEMENTATION

The Office of the Vice President for Financial Affairs and Administration is responsible for procedures to implement this policy.

## SUMMARY OF UAB IMMUNIZATION POLICY

All first-time, entering students born on or after January 1, 1957, who enroll in credit courses on UAB's main campus must show proof of immunization against Rubeola (Red Measles). For purposes of this policy, immunization against Rubeola (Red Measles) includes an initial vaccine plus a second dose of vaccine (see policy).

All UAB international students and international scholars are required to be immunized against Tetanus, Diphtheria, Mumps,

Rubeola (Red Measles), and Rubella (German Measles). In lieu of being re-immunized, such individuals may present proof of having had such immunizations. If they do not have such proof or have not been immunized, they must be immunized against these diseases prior to attending, enrolling, or participating in UAB academic, research, observing, or clinical programs and activities.

Furthermore, all international students and international scholars must show proof of a non-reactive Tuberculin skin test (or appropriate treatment if positive) within three months prior to enrollment or visiting. Individuals who have a history of reactive Tuberculin skin testing must provide a current chest x-ray (taken since their last reactive skin test but within three months prior to enrollment or visiting) indicating that the person currently is clear of Tuberculosis.

All UAB students in the Joint Health Sciences programs and in the Schools of Medicine, Dentistry, Optometry, Public Health, Nursing, and Health Related Professions are required to be immunized against Tetanus, Diphtheria, Varicella (Chickenpox), Mumps, Rubeola (Red Measles), Rubella (German Measles), and Hepatitis B. In lieu of being re-immunized, such individuals may present proof of having had such immunizations. Proof must be either official medical documentation or certificates of immunization or positive titer. If students do not have such proof or have not been immunized, they must begin the immunization process against these diseases prior to being admitted, attending, enrolling, or participating in UAB academic, research, or clinical programs and activities.

Students completing their Hepatitis B series of vaccines must obtain Hepatitis B titer 1 to 2 months after their third vaccine to see if additional boosters are necessary. If the titer is negative, students will be given the option either to repeat the entire Hepatitis B series or to take 1 to 2 Hepatitis B "booster" shots to try to attain a positive titer. Students who have completed their Hepatitis B vaccine series prior to matriculation are required to take a Hepatitis B titer prior to participating in a clinical environment to see if additional boosters or labs are required.

All students enrolled in health-related schools must have had a Tuberculin skin test with negative results (or appropriate treatment if positive) within three months prior to matriculation. Students participating in clinical environments with patients will be required to obtain a two-step Tuberculin skin test before starting clinical rotations and are mandated to renew their Tuberculin one-step skin test once per year.

Exceptions to this policy will be made only for those students who can document medical or religious contraindications to the vaccine.

## NON-RESIDENT TUITION POLICY

The following policy was approved by the Board of Trustees of the University of Alabama as Board Rule 202 on December 5, 1997. For information regarding the implementation of this policy at UAB, see the UAB Non-resident Tuition Policy Statement.

### I. NON-RESIDENT TUITION FEE

**A.** All students registering at the University of Alabama, the University of Alabama at Birmingham, or the University of

Alabama in Huntsville who do not establish that they are "resident students" shall pay a "non-resident student" tuition which shall be at least twice that of "resident student" tuition.

**B.** Classification of students as "non-resident students" or "resident students" shall be made at the time of their initial registration and shall continue unchanged through all subsequent registrations at that institution until satisfactory evidence to the contrary is submitted at the time of any subsequent registration.

**C.** A "resident student" is one who, at the time of registration:

**D.** Is not a "minor" and is a resident of the state of Alabama and has been a resident of the state for at least one year immediately preceding the date of registration; or

**E.** Is a "minor" and whose "supporting person(s)" is a resident of the state of Alabama and has been a resident of the state for at least one year immediately preceding the date of registration.

## II. DEFINITIONS

### A. Minor

An individual who, because of age, lacks the capacity to contract under Alabama law. Under current law, this means a single individual under nineteen (19) and a married individual under eighteen (18), but excludes an individual whose disabilities of non-age have been removed by a court of competent jurisdiction for a reason other than establishing a legal residence in Alabama.

### B. Supporting person

Either or both of the parents of the student (if they are living together) or if they are divorced or living separate, then either the parent having legal custody or, if different, the parent providing the greater amount of financial support of the two. If both parents are deceased or if neither had legal custody, then supporting person shall mean, in the following order: legal custodian of the student, and, if none, the guardian, and, if none, the conservator.

### C. Resident

One whose residence is in the state of Alabama. Residence means the single location at which a person resides with the intent of remaining there indefinitely as evidenced by more substantial connections with that place than with any other place. Individuals carrying resident status under this policy shall certify under penalty for perjury that a specific address or location within the state of Alabama is their residence, that they intend to remain there indefinitely, and that they have more substantial connections with the state of Alabama than with any other state. Though certification of an address and an intent to remain in the state indefinitely are prerequisites to establishing status as a resident, ultimate determination of that status shall be made by the institution by its evaluation of the presence or absence of connections with the state of Alabama including the following:

1. Payment of Alabama state income taxes as a resident
2. Ownership of a residence or other real property in the state and payment of state ad valorem taxes thereon
3. Full-time employment (not temporary) in the state
4. Residence in the state of a spouse, parents, or children
5. Previous periods of residency in the state continuing for one year or more
6. Voter registration and voting in the state; more significantly, continuing voter registration in the state that initially occurred at least one year prior to the initial registration of the student in Alabama at a public institution of higher education

7. Possession of state or local licenses to do business or practice a profession in the state
8. Ownership of personal property in the state and payment of state taxes thereon (e.g., automobile, boat, etc.) and possession of state license plates
9. Continuous physical presence in the state for a purpose other than attending school and except for temporary absences for travel, military service, temporary employment, etc.
10. Membership in religious, professional, business, civic, or social organizations in the state
11. Maintenance in the state of checking and savings accounts, safe deposit boxes, or investment accounts
12. In-state address shown on selective service registration, driver's license, automobile title registration, hunting and fishing license, insurance policies, stock and bond registrations, last will and testament, annuities, or retirement plans
13. Location within the state of the high school from which the individual graduated

### III. AUTHORITY TO EXPAND THE DEFINITION OF "RESIDENT STUDENT"

The President of each campus may recommend to the Chancellor for consideration by the Board of Trustees that the term "resident student" may include any one or more of the following categories, at that campus:

- A.** One who, at the time of registration, is not a "minor" and:
  1. Is a full-time employee (not temporary) of the institution at which the student is registering or is the spouse of such an employee;
  2. Is able to verify full-time permanent employment within the state of Alabama and shall commence said employment not more than ninety (90) days after registration with the institution, or is the spouse of such an employee;
  3. Is a member or the spouse of a member of the United States military on full-time active duty stationed in Alabama under orders for duties other than attending school;
  4. Is employed as a graduate assistant or fellow by the institution at which the student is registering; or
  5. Is a resident of any county within fifty (50) miles of the campus of the institution at which the student is registering, and had been a resident of that county for at least one year immediately preceding the date of registration. "Resident" shall have the same meaning, as to the relevant county, which it has as to the state of Alabama in the definitions section of this policy statement.
  
- B.** One who, at the time of registration, is a "minor" and whose "supporting person(s)":
  1. Is a full-time employee (not temporary) of the institution at which the student is registering;
  2. Is able to verify full-time permanent employment within the state of Alabama and shall commence said employment not more than ninety (90) days after registration with the institution;
  3. Is a member of the United States military on full-time active duty stationed in Alabama under orders for duties other than attending school; or
  4. Is a resident of any county within fifty (50) miles of the campus of the institution at which the student is registering, and has been a resident of that county for at least one year

immediately preceding the date of registration. "Resident" shall have the same meaning, as to the relevant county, which it has as to the state of Alabama in the definitions section of this policy statement.

### IV. AUTHORITY TO IMPLEMENT POLICY

- A.** The Presidents are authorized (and authorized to delegate to admissions officers and others) and directed to implement this policy by appropriate written policies, guidelines, and procedures.
- B.** Such policy shall provide that classification as a "resident student" shall be based upon the required certificate and other written evidence to be filed in the admissions office and that any decision by an admissions officer may be appealed by the student to a review committee which shall be constituted, appointed, and operated as provided in such policy.
- C.** The decision of the review committee may be appealed to the President, whose action thereon shall be final.

### UAB NON-RESIDENT TUITION POLICY

UAB students are governed by the Board of Trustees' Non-resident Tuition Policy, above, which applies to students enrolled in each of the campuses of the University of Alabama System. The policy is implemented at UAB in accordance with the following guidelines:

#### INTRODUCTION

The Board of Trustees has established a "Non-resident Tuition Policy" which addresses non-resident tuition, certification of residency status by campus officials, and establishment of campus policies to administer an appeals process. This UAB policy implements certain provisions of that Board policy.

#### POLICY STATEMENT

The Division of Student Affairs, the Graduate School, and the admissions/registration offices of the Health Affairs schools, as appropriate, are designated as the offices empowered at UAB to determine and certify "resident" or "non-resident" student status. These offices are responsible for documenting each residency status evaluation and for maintaining the records used to substantiate that evaluation.

As the provisions of Section II of the Board policy indicate, "though certification of an address and an intent to remain in the state indefinitely are prerequisites to establishing status as a resident, ultimate determination of that status shall be made by the institution by its evaluation of the presence or absence of connections with the state of Alabama. . ." However, meeting the specific criteria included in Section II of the Board policy may not in all circumstances result in certification as a "resident student." Also, according to the provisions of the Board policy, UAB has been given the authority to expand, and has by separate Board resolution expanded, the definition of "resident student" to encompass all the categories in Sections III. A and III. B of the Board policy. [In general, international students who have not been issued a U.S. resident alien card may not be considered for residency status for tuition purposes unless they hold a graduate assistantship or fellowship and meet certain criteria. International students who have been issued a U.S. resident alien card will be considered for residency status for tuition purposes in the same manner as are U.S. citizens.]

The decision by an admissions or registration officer concerning certification of residency status may be appealed in writing by the student to the Vice President for Student Affairs who may overrule the decision or may, at his or her discretion, convene a review committee composed of a representative from the Office of the Dean of Student Affairs, a representative from the Office of the Vice President for Academic Affairs, and a representative from the Office of the Vice President for Health Affairs [or appropriate current UAB officials]. If the decision of the review committee is appealed by the student, the Vice President for Student Affairs may add a recommendation of concurrence or non-concurrence with the review committee and forward the findings to the President for determination. The decision of the President is final.

## DRUG-FREE CAMPUS POLICY FOR STUDENTS

UAB's drug-free campus policy was revised and approved December 14, 1991, and applies to all UAB students. The policy statement and attachments are as follows.

*Note: See also the following related policies:*

- Drug-free Workplace Policy;
- Drug Screening Policy for Student Athletes;
- School of Medicine "Policy on Impairment and Chemical Substance Abuse";
- School of Dentistry "Policy on Impairment and Chemical Substance Abuse";
- School of Nursing "Policy on Impairment and Chemical Substance Abuse."

### POLICY STATEMENT

This policy is applicable to all students enrolled in credit course(s) or degree-granting programs at the University of Alabama at Birmingham and to all students receiving academic credit at UAB (other than for continuing education units) for study in a program in a foreign country conducted by UAB alone or in conjunction with a foreign university.

Unlawful possession, use, manufacture, distribution, or dispensing of illicit drugs, controlled substances, or alcoholic beverages by any UAB student on UAB property or as part of any UAB-sponsored or UAB-sanctioned activity is prohibited. The legal possession, use, or distribution of alcoholic beverages on UAB property or at UAB-sponsored or UAB-sanctioned activities is governed by the UAB General Policy Regarding the Use and Consumption of Alcoholic Beverages and applicable local, state, and federal laws.

In certain situations, the University is required to report the activities prohibited by this policy to appropriate law enforcement authorities. In all cases, the University may report activities prohibited by this policy to appropriate law enforcement authorities if it appears that the activity is a violation of law.

### DISCIPLINARY ACTIONS

Violations of this policy constitute nonacademic misconduct and will be subject to established disciplinary action for nonacademic misconduct in accordance with stipulations in the *Direction Student Handbook* or other applicable procedures. Violations of this policy by students should be reported to the appropriate stu-

dent affairs office or other office handling student nonacademic misconduct in the same manner in which other instances of nonacademic misconduct are reported.

In some cases of violation of this policy for unlawful use, a student may be given, at the discretion of the University, the option to participate satisfactorily in an approved drug or alcohol abuse assistance or rehabilitation program in lieu of dismissal. Participation in such an assistance or rehabilitation program is at the expense of the student.

### DRUG-FREE AWARENESS PROGRAM

At least annually, UAB shall inform students of the dangers of drug and alcohol abuse on campus, of the existence of this policy statement and its penalties for violations, and of available drug and alcohol counseling, rehabilitation, and assistance through the following activities:

1. Publication, at least annually, of this policy in appropriate student publications and distribution to students in UAB's foreign programs and to students in programs conducted in conjunction with foreign universities;
2. Inclusion of this policy in future editions of student class schedules and/or registration materials, student handbooks, and student catalogs;
3. Dissemination of this policy and of information at student orientation and assistance programs regarding the dangers of drug and alcohol use and abuse and available rehabilitation programs; and
4. Continuation, and expansion, of the UAB drug and alcohol awareness program which includes sponsorship of the "Alcohol/Drug Awareness Week" and publication of pamphlets and other materials.

### APPLICABILITY TO OTHER POLICIES

Other drug-free policies created to cover specific areas of the University may be more restrictive than this policy but may not be less restrictive. At a minimum, other such policies must include, or reference, the provisions of this policy. Violators will be subject to the provisions of the more stringent policy but will not be punished under more than one policy for the same offense.

This policy does not revoke or otherwise interfere with policies in the health professional schools designed to determine whether health care professionals are impaired and to offer rehabilitation, subject to the above provisions.

The wording in the "Non-academic Conduct" section of the *Direction Student Handbook* which relates to causes of dismissal due to the use, possession, etc. of illicit drugs, controlled substances, or alcoholic beverages references only certain provisions of this more extensive policy. The entire policy is applicable in all cases even if the policy itself is not printed in full.

### ATTACHMENTS

The "Applicable Legal Sanctions," "Drug and Alcohol Use Health Risks," and "Drug and Alcohol Counseling, Treatment, and Rehabilitation Programs" attached to this policy are a part of the policy but may be revised from time to time without affecting the policy itself.

# Federal Trafficking Penalties

As of November 18, 1988

CSA	PENALTY		Quantity	DRUG	Quantity	PENALTY	
	2nd Offense	1st Offense				1st Offense	2nd Offense
I and II	Not less than 10 years. Not more than life.  If death or serious injury, not less than life.  Fine of not more than \$4 million individual, \$10 million other than individual.	Not less than 5 years. Not more than 40 years.  If death or serious injury, not less than 20 years. Not more than life.  Fine of not more than \$2 million individual, \$5 million other than individual.	10-99 gm or 100-999 gm mixture	METHAMPHETAMINE	100 gm or more or 1 kg <sup>1</sup> or more mixture	Not less than 10 years. Not more than life.  If death or serious injury, not less than 20 years. Not more than life.  Fine of not more than \$4 million individual, \$10 million other than individual.	Not less than 20 years. Not more than life.  If death or serious injury, not less than life.
			100-999 gm mixture	HEROIN	1 kg or more mixture		
			500-4,999 gm mixture	COCAINE	5 kg or more mixture		
			5-49 gm mixture	COCAINE BASE	50 gm or more mixture		
			10-99 gm or 100-999 gm mixture	PCP	100 gm or more or 1 kg or more mixture		
			1-10 gm mixture	LSD	10 gm or more mixture		
			40-399 gm mixture	FENTANYL	400 gm or more mixture		
10-99 gm mixture	FENTANYL ANALOGUE	100 gm or more mixture					
	Drug	Quantity	First Offense		Second Offense		
	Others <sup>2</sup>	Any	Not more than 20 years. If death or serious injury, not less than 20 years, not more than life. Fine \$1 million individual, \$5 million not individual.		Not more than 30 years. If death or serious injury, life. Fine \$2 million individual, \$10 million not individual.		
III	All	Any	Not more than 5 years. Fine not more than \$250,000 individual, \$1 million not individual.		Not more than 10 years. Fine not more than \$500,000 individual, \$2 million not individual.		
IV	All	Any	Not more than 3 years. Fine not more than \$250,000 individual, \$1 million not individual.		Not more than 6 years. Fine not more than \$500,000 individual, \$2 million not individual.		
V	All	Any	Not more than 1 year. Fine not more than \$100,000 individual, \$250,000 not individual.		Not more than 2 years. Fine not more than \$200,000 individual, \$500,000 not individual.		

<sup>1</sup>Law as originally enacted states 100 gm. Congress requested to make technical correction to 1 kg.

<sup>2</sup>Does not include marijuana, hashish, or hash oil. (See separate chart.)

## EFFECTIVE DATE AND IMPLEMENTATION

This policy is effective immediately upon its being signed by the President [December 14, 1991].

The offices of the appropriate vice presidents are responsible for the development and maintenance of procedures to implement this policy within their areas of responsibility.

In addition to being distributed to students on the UAB campus, this policy will be distributed to students in UAB's foreign programs and to students in programs conducted in conjunction with foreign universities. The Vice President for Student Affairs is responsible for all distributions to students covered by this policy.

## ATTACHMENT A

“Applicable Legal Sanctions”

December 14, 1991

Federal Penalties and Sanctions for Illegal Possession of a Controlled Substance  
(55 Federal Register 33589)

21 U.S.C. 844(a)

First conviction: Up to 1 year imprisonment and fined at least \$1,000 but not more than \$100,000, or both.

After 1 prior drug conviction: At least 15 days in prison, not to exceed 2 years and fined at least \$2,500 but not more than \$250,000, or both.

After 2 or more prior drug convictions: At least 90 days in prison, not to exceed 3 years and fined at least \$5,000 but not more than \$250,000, or both.

Special sentencing provisions for possession of crack cocaine: Mandatory at least 5 years in prison, not to exceed 20 years and fined up to \$250,000, or both, if:

- (a) First conviction and the amount of crack possessed exceeds 5 grams.
- (b) Second crack conviction and the amount of crack possessed exceeds 3 grams.
- (c) Third or subsequent crack conviction and the amount of crack possessed exceeds 1 gram.

21 U.S.C. 853(a)(2) and 881(a)(7)

Forfeiture of personal and real property used to possess or to facilitate possession of a controlled substance if that offense is punishable by more than 1 year imprisonment. (See special sentencing provisions re: crack.)

21 U.S.C. 881(a)(4)

Forfeiture of vehicles, boats, aircraft, or any other conveyance used to transport or conceal a controlled substance.

21 U.S.C. 844a

Civil fine of up to \$10,000 (pending adoption of final regulations).

21 U.S.C. 853a

Denial of Federal benefits, such as student loans, grants, contracts, and professional and commercial licenses, up to 1 year for first offense, up to 5 years for second and subsequent offenses.

18 U.S.C. 922(g)

Ineligible to receive or purchase a firearm.

# Federal Trafficking Penalties - Marijuana

As of November 18, 1988

Quantity	Description	First Offense	Second Offense
1,000 kg or more; or 1,000 or more plants	<b>Marijuana</b> Mixture containing detectable quantity*	Not less than 10 years, not more than life. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$4 million individual, \$10 million other than individual.	Not less than 20 years, not more than life. If death or serious injury, not less than life. Fine not more than \$8 million individual, \$20 million other than individual.
100 kg to 1,000 kg; or 100-999 plants	<b>Marijuana</b> Mixture containing detectable quantity*	Not less than 5 years, not more than 40 years. If death or serious injury, not less than 20 years, not more than life. Fine not more than \$2 million individual, \$5 million other than individual.	Not less than 10 years, not more than life. If death or serious injury, not less than life. Fine not more than \$4 million individual, \$10 million other than individual.
50 to 100 kg	<b>Marijuana</b>	Not more than 20 years. If death or serious injury, not less than 20 years, not more than life. Fine \$1 million individual, \$5 million other than individual.	Not more than 30 years. If death or serious injury, life. Fine \$2 million individual, \$10 million other than individual.
10 to 100 kg	<b>Hashish</b>		
1 to 100 kg	<b>Hashish Oil</b>		
50-99 plants	<b>Marijuana</b>		
Less than 50 kg	<b>Marijuana</b>	Not more than 5 years. Fine not more than \$250,000, \$1 million other than individual.	Not more than 10 years. Fine \$500,000 individual, \$2 million other than individual.
Less than 10 kg	<b>Hashish</b>		
Less than 1 kg	<b>Hashish Oil</b>		

\*Includes Hashish and Hashish Oil.

(Marijuana is a Schedule I Controlled Substance)

## Miscellaneous

Revocation of certain Federal licenses and benefits, e.g., pilot licenses, public housing tenancy, etc., are vested within the authorities of individual Federal agencies.

**Note:** See Attachment A.1 for additional Federal drug trafficking penalties and information.

**Note:** These are only Federal penalties and sanctions. Additional State penalties and sanctions may apply.

## SUMMARY OF STATE PENALTIES AND SANCTIONS

Under Alabama law, the possession, purchase, or consumption of alcoholic beverages by a person under 21 years of age is punishable by a fine of up to \$500 and by up to three months in jail. Also under Alabama law, for a first offense, unlawful possession of a controlled substance (that is, illegal drugs) may be punished by imprisonment up to ten years and a \$5,000 fine and unlawful distribution of controlled substances may be punished by imprisonment up to 20 years and a \$10,000 fine. Subsequent offenses may carry more stringent sentences.

## DRUG-FREE SCHOOLS AND COMMUNITIES ACT

Illegal drug and alcohol use, consumption, distribution, etc. on college and university campuses also are covered by the provisions of the United States Drug-Free Schools and Communities Act Amendment of 1989 (Public Law 101-226).

## LEGAL SANCTIONS IN FOREIGN COUNTRIES

Students in a program in a foreign country conducted by UAB alone or in conjunction with a foreign university also may be subject to sanctions under foreign law or under the Uniform Code of

Military Justice. Although the legal sanctions described in this policy under United States law may not apply to students in a foreign country, UAB will nevertheless hold such students to the same standards as students within the United States and will take the disciplinary actions described in this policy for violations of these standards.

## ATTACHMENT B

“Drug and Alcohol Use Health Risks”

December 14, 1991

## GENERAL

Although there has been recent change in American health habits and societal attitudes toward recreational drug and alcohol use, problems continue to exist and experimentation is starting at an earlier age. An important piece of information to surface in recent years is that even moderate, non-prescribed use of alcohol and non-prescribed use of drugs can have an adverse effect on overall health and well-being. Consider the following facts:

1. Drinking more than one or two alcoholic beverages a week promotes more visible signs of aging;
2. Consuming one and one-half or more alcoholic beverages per day increases the risk of breast cancer;
3. Drinking alcoholic beverages poisons the heart muscle, counteracts the benefits of exercise, increases male impotence, and depresses the body's immune system;
4. Tobacco use is a contributing factor in the development of chronic bronchitis, emphysema, circulatory problems, and coronary disease, as well as being the leading cause of lung cancer;

# Controlled Substances - Uses & Effects

DRUGS/ CSA SCHEDULES	TRADE OR OTHER NAMES	MEDICAL USES	DEPENDENCE Physical Psychological	TOLERANCE	DURATION (hours)	USUAL METHODS OF ADMINISTRATION	POSSIBLE EFFECTS	EFFECTS OF OVERDOSE	WITHDRAWAL SYNDROME	
<b>NARCOTICS</b>										
Opium	II III V Dover's Powder, Paregoric, Paregorol	Analgesic, antidiarrheal	High	High	Yes	3-6	Oral, smoked	Euphoria, drowsiness, respiratory depression, constricted pupils, nausea	Slow and shallow breathing, clammy skin, convulsions, coma, possible death	Watery, eyes, runny nose, yawning, loss of appetite, tremors, panic, chills and sweating
Morphine	II III Morphine, M-Cotin, Rovanol, Rovanol SR	Analgesic, antitussive	High	High	Yes	3-6	Oral, smoked, injected			
Codeine	II III V Tylenol w/Codeine, Empirin w/Codeine, Robaxon, A-C, Fiorinal w/Codeine	Analgesic, antitussive	Moderate	Moderate	Yes	3-6	Oral, injected			
Heroin	I Diaceylmorphine, Horse, Smack	None	High	High	Yes	3-6	Injected, sniffed, smoked			
Hydromorphone	II Dilaudid	Analgesic	High	High	Yes	3-6	Oral, injected			
Meperidine (Pethidine)	II Demerol, Mepergan	Analgesic	High	High	Yes	3-6	Oral, injected			
Methadone	II Dolophine, Methadone, Methadone	Analgesic	High	High-Low	Yes	12-24	Oral, injected			
Other Narcotics	I II III IV V Numorphan, Percodan, Percocet, Tylox, Tussex, Fentanyl, Darvon, Lomolil, Talwin <sup>1</sup>	Analgesic, antidiarrheal, antitussive	High-Low	High-Low	Yes	Variable	Oral, injected			
<b>DEPRESSANTS</b>										
Chloral Hydrate	IV Noctec	Hypnotic	Moderate	Moderate	Yes	5-8	Oral	Slurred speech, disorientation, drunken behavior	Shallow respiration, clammy skin, dilated pupils, weak and rapid pulse, coma, possible death	Anxiety, insomnia, tremors, delirium, convulsions, possible death
Barbiturates	II III IV Amytal, Butisol, Fiorinal, Lotusate, Nembutal, Secobarbital, Tuinal, Phenobarbital	Anesthetic, anticonvulsant, sedative, hypnotic, voluntary euthanasia agent	High-Mod.	High-Mod.	Yes	1-16	Oral			
Benzodiazepines	IV Alivan, Dalmane, Diazepam, Librium, Xanax, Serax, Valium, Tranxexa, Vertran, Versed, Halcion, Paxipam, Restoril	Anxiolytic, anticonvulsant, sedative, hypnotic	Low	Low	Yes	4-8	Oral			
Methaqualone	I Quaalude	Sedative, hypnotic	High	High	Yes	4-8	Oral	without odor of alcohol		
Glutethimide	III Doridan	Sedative, hypnotic	High	Moderate	Yes	4-8	Oral			
Other Depressants	III IV Equanil, Milown, Noludar, Placidyl, Valmid	Antianxiety, sedative, hypnotic	Moderate	Moderate	Yes	4-8	Oral			
<b>STIMULANTS</b>										
Cocaine <sup>1</sup>	II Coke, Fines, Snow, Crack	Local anesthetic	Possible	High	Yes	1-2	Sniffed, smoked, injected	Increased alertness, excitation, euphoria, increased pulse rate & blood pressure, insomnia, loss of appetite	Agitation, increase in body temperature, hallucinations, convulsions, possible death	Apathy, long periods of sleep, irritability, depression, disorientation
Amphetamines	II Biphetamine, Dalcobase, Desoxyn, Dexamfet, Oxyrol	Attention deficit disorders, narcolepsy, weight control	Possible	High	Yes	2-4	Oral, injected			
Phenmetrazine	II Preludin	Weight control	Possible	High	Yes	2-4	Oral, injected			
Methylphenidate	II Ritalin	Attention deficit disorders, narcolepsy	Possible	Moderate	Yes	2-4	Oral, injected			
Other Stimulants	III IV Adipex, Cylert, Dextro, Ionamin, Meftat, Plegine, Sarbox, Tenuate, Toprol, Trizol <sup>2</sup>	Weight control	Possible	High	Yes	2-4	Oral, injected			
<b>HALLUCINOGENS</b>										
LSD	I Acid, Microdot	None	None	Unknown	Yes	8-12	Oral			
Mescaline and Peyote	I Mesc, Buttons, Cactus	None	None	Unknown	Yes	8-12	Oral	Illusions and hallucinations, poor perception of time and distance	Longer, more intense "trip" episodes, psychosis, possible death	Withdrawal syndrome not reported
Amphetamine Variants	I 2,6-DMA, PMA, STP, MDA, MDA, TMA, DMA, DDB	None	Unknown	Unknown	Yes	Variable	Oral, injected			
Phencyclidine	II PCP, Angel Dust, Jolt	None	Unknown	High	Yes	Days	Smoked, oral, injected			
Phencyclidine Analogues	I PCP, PCP, TCP	None	Unknown	High	Yes	Days	Smoked, oral, injected			
Other Hallucinogens	I Bifenxine, Ibogaine, DMF, BET, Pilocybin, Psilocybin	None	None	Unknown	Possible	Variable	Smoked, oral, injected, sniffed			
<b>CANNABIS</b>										
Marijuana	I Pot, Acapulco Gold, Grass, Reefer, Sissamilla, Thai Sticks	None	Unknown	Moderate	Yes	2-4	Smoked, oral	Euphoria, relaxed inhibitions, increased appetite, disoriented behavior	Fatigue, paranoia, possible psychosis	Insomnia, hyperactivity, and decreased appetite occasionally reported
Tetrahydrocannabinol	I II THC, Marinol	Cancer chemotherapy anti-nauseant	Unknown	Moderate	Yes	2-4	Smoked, oral			
Hashish	I Hash	None	Unknown	Moderate	Yes	2-4	Smoked, oral			
Hashish Oil	I Hash Oil	None	Unknown	Moderate	Yes	2-4	Smoked, oral			

<sup>1</sup>Designated a narcotic under the CSA. <sup>2</sup>Not designated a narcotic under the CSA.

- Cocaine use is responsible for kidney damage, stroke, lung and heart diseases, seizures, and intense psychological problems;
- Many forms of narcotics are highly addictive to users;
- Marijuana use creates certain dysfunctions related to thinking, learning, and recall; aggravates asthma, bronchitis, and emphysema; contributes to fertility problems; and contributes to the development of lung cancer;
- The non-prescribed use of tranquilizers, barbiturates, and amphetamines is dangerous and may cause major health problems, including death;
- Extended drug and/or alcohol use may result in substance dependency and loss of control of an individual's life.

Source: Compiled by UAB Substance Abuse Program from the following resources:

- Drug Data: What Everyone Needs to Know about Mood-altering Drugs, Comp Care Publications, Minneapolis.
- You Are What You Drink, Allan Luks and Joseph Barbato, Villard Books, New York.
- You Can Stop, Jacquelyn Rogers, Simon & Schuster, New York.

## ATTACHMENT B.1

### Alcohol — Effects (55 Federal Register 33591)

Alcohol consumption causes a number of marked changes in behavior. Even low doses significantly impair the judgment and coordination required to drive a car safely, increasing the likeli-

hood that the driver will be involved in an accident. Low to moderate doses of alcohol also increase the incidence of a variety of aggressive acts, including spouse and child abuse. Moderate to high doses of alcohol cause marked impairments in higher mental functions, severely altering a person's ability to learn and remember information. Very high doses cause respiratory depression and death. If combined with other depressants of the central nervous system, much lower doses of alcohol will produce the effects just described.

Repeated use of alcohol can lead to dependence. Sudden cessation of alcohol intake is likely to produce withdrawal symptoms, including severe anxiety, tremors, hallucinations, and convulsions. Alcohol withdrawal can be life-threatening. Long-term consumption of large quantities of alcohol, particularly when combined with poor nutrition, can also lead to permanent damage to vital organs such as the brain and the liver.

Mothers who drink alcohol during pregnancy may give birth to infants with fetal alcohol syndrome. These infants have irreversible physical abnormalities and mental retardation. In addition, research indicates that children of alcoholic parents are at greater risk than other youngsters of becoming alcoholics.

## USES AND EFFECTS OF CONTROLLED SUBSTANCES

See Attachment B.2 for additional information concerning health risks involved in drug use.

## ATTACHMENT C

“Drug and Alcohol Counseling, Treatment, and Rehabilitation Programs”  
December 14, 1991

### STUDENT SERVICES

The Campus Assistance Program [Counseling and Wellness Center] is designed to address the following issues: continued longitudinal needs assessments, campus community awareness, enlistment of support from all campus segments, identification of high-risk students, early intervention, development of peer counseling and support groups, and referral to on/off campus resources and treatment facilities when indicated. The following are on-campus programs available to students.

Counseling and Wellness Center  
150 Holley-Mears Building  
924 19th Street South  
934-5816

UAB Mental Health Services  
Center for Psychiatric Medicine  
1713 Sixth Avenue South  
Birmingham, AL 35294-0018  
ACCESS line 934-7008

UAB Substance Abuse Program  
401 Beacon Parkway West  
Birmingham, AL 35209  
917-3733

Other non-UAB, off-campus services are available in the Birmingham area and in many of the foreign countries in which UAB conducts programs of study. Such counseling, treatment, and rehabilitation services are too numerous to list here, but anyone needing assistance with locating such off-campus or foreign country services may contact one of the programs listed above or the UAB Center for International Programs [International Scholar and Student Services], as appropriate.

## SEXUAL HARASSMENT POLICY

January 27, 1999  
(Replaces policy dated April 17, 1996.)

### INTRODUCTION

The University of Alabama at Birmingham is firmly committed to providing an environment that is free of discrimination, including sexual harassment. Sexual harassment includes unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when (1) submission to such conduct is made, either explicitly or implicitly, a term or condition of an individual's employment or academic evaluation, (2) submission to, or rejection of, such conduct by an individual is used as the basis for employment or academic decisions affecting such individual, or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or of creating an intimidating or hostile working or educational environment. Such behavior may violate federal law and/or give rise to personal liability for the results of such behavior. Consequently, UAB prohibits all forms of sexual harassment and will investigate

complaints thoroughly and with the utmost seriousness.

A violation of this policy may result in the taking of disciplinary action up to, and including, discharge.

### SEXUAL HARASSMENT IN THE WORKPLACE

It is a violation of UAB policy for any employee, including faculty, to engage in sexual harassment in the workplace or in work-related situations. Employees who believe that they have been sexually harassed by a supervisor, co-worker, or other employee of UAB should report the incident promptly to the Human Resource Management Relations Office. Only Human Resource Management has the responsibility for coordinating and conducting an investigation of sexual harassment claims in the workplace and also for recommending corrective action to the UAB administration.

### SEXUAL HARASSMENT IN THE INSTRUCTIONAL SETTING

UAB prohibits sexual harassment of students by the teaching staff or other employees of UAB. For purposes of this policy, the term “teaching staff” means all those who teach at UAB and includes, but is not limited to, full-time faculty, part-time faculty, students functioning in teaching roles (such as graduate assistants), and academic administrators.

A student who believes that he or she has been sexually harassed should report the incident promptly to the Vice President for Student Affairs.

Sexual harassment by a student is considered nonacademic misconduct, and the alleged student offender will be subject to the disciplinary process contained in the *Direction: Student Handbook*.

### SEXUAL HARASSMENT—GENERAL

Full and prompt reporting is necessary for effective implementation of this policy, and UAB encourages such reporting. However, UAB's duty to protect employees and students exists when UAB's supervisory personnel know, or have reason to know, of unreported sexual harassment. Supervisors therefore are directed to take all appropriate steps to prevent sexual harassment in their areas of responsibility and to take corrective action, including disciplinary action, in response to inappropriate behavior which may constitute sexual harassment even in the absence of a complaint.

This policy seeks to encourage students, staff, and faculty to express freely and responsibly, through established procedure, complaints of sexual harassment. All such complaints shall be treated as confidential information and shall be disclosed only to those with a need to know as part of the investigatory and resolution process. Any act of interference, retaliation, or coercion by a UAB employee against a student or employee for using this policy interferes with such free expression and is itself a violation of this policy.

### IMPLEMENTATION

This policy will be published regularly in the *UAB Reporter* and in the *Class Schedule*. The policy will be included in revisions of handbooks relating to staff, faculty, and students.

The Vice President for Financial Affairs and Administration is responsible for implementation of this policy as it relates to sexual harassment in the workplace. The Vice President for Student

Affairs is responsible for implementation of this policy as it relates to sexual harassment in the instructional setting.

## OWNERSHIP OF INTELLECTUAL PROPERTY RIGHTS

UAB recognizes that research and scholarship should be encouraged and carried out without regard to financial gain from licensing fees, royalties, or other such income. However, UAB also recognizes that patentable inventions, discoveries, software programs, and other intellectual property often arise from UAB-related student efforts.

The policies governing the administration of inventions are included in the Board of Trustees Rule 509 and in the UAB Patent Policy. Other institutional policies govern other forms of intellectual property including computer software. Those policies also provide recognition and incentive to inventors and at the same time ensure that UAB shares in the rights pertaining to inventions in which it has an investment. Any income accruing to UAB is used in the furtherance of UAB's academic mission.

Disclosure of discoveries and inventions which appear to have commercial value and/or utility should be made to the UAB Research Foundation. Any such invention or discovery (1) which is the result of research carried on by, or under the direction of, any student of the University and/or having the costs thereof paid from University funds or from funds under the control of, or administered by, the University, or (2) which is made by a student of the University and which relates to the inventor's field of study at the University, or (3) which has been developed in whole or in part by the utilization of resources or facilities belonging to the University shall be assigned to the University. Therefore, students may not themselves assign or grant any option to any such intellectual property developed during the course of their enrollment without a release from UAB.

Questions concerning intellectual property rights should be directed to the UAB Research Foundation.

## ELECTRONIC DATA PROCESSING SECURITY POLICY

The University relies heavily on its electronic data processing systems and computers to meet its operational, financial, and informational requirements. It is essential that these systems and machines be protected from misuse and unauthorized access. It also is essential that the University's computers and computer systems and the data that they store and process be operated and maintained in a secure environment and in a responsible manner.

To this end, the following are violations of University policy:

1. Deliberate, unauthorized attempts to access or use the University's computers, computer facilities, networks, systems, programs, or data or the unauthorized manipulation of the University's computer systems, programs or data;
2. Deliberate, unauthorized use of UAB facilities or equipment to access non-UAB owned computers;
3. Deliberate, unauthorized activity which causes UAB computers, computer facilities, systems, programs, or data to be accessed or used; and
4. Deliberate activity (conducted in the course of one's

employment with the University or in the course of one's enrollment as a student at the University) which causes non-UAB owned computers, computer facilities, systems, programs, or data to be accessed or used in an unauthorized manner.

Any such violations of University policy by any University employee or student constitute theft and/or unauthorized use of University property.

A UAB employee who in the course of his or her employment intentionally, and without proper authorization, directly or indirectly engages in such activities or who damages or destroys any computer, computer system, computer network, program, or data or who causes such acts to occur will be subject to disciplinary action as specified in the *UAB Personnel Policies and Procedures Manual* and in the following documents:

—for faculty, the dismissal section(s) of the UAB *Faculty Handbook*;

—for non-academic employees, the dismissal section(s) of the *Handbook for Administrative, Professional, and Support Personnel*.

Such offenses by students constitute non-academic misconduct and will be subject to disciplinary action.

The University may report the activity to appropriate law enforcement authorities if it appears that the activity is a violation of State or Federal law.

## STUDENT E-MAIL ADDRESSES POLICY

November 10, 2003

### See also:

*Electronic Data Processing Security Policy*

*Acceptable Use Policy* (Published at "UAB Information Security" World Wide Web site)

*Network Usage Guidelines* (Published at "UAB DC/NS Help Desk" World Wide Web site)

### PURPOSE

UAB provides electronic mail resources in support of its instruction, research, and service activities. The purpose of this policy is to establish the use of electronic mail (e-mail) as one of the official methods for communicating with UAB students.

### OFFICIAL COMMUNICATIONS USING E-MAIL ADDRESSES

In a similar manner as mail distribution of paper communiques to a student's "permanent" address is considered an official method for distributions to students, so also are official e-mail messages sent by UAB to a student's "@UAB.EDU" e-mail address considered an official distribution method.

For purposes of this policy, "official" communiques or e-mails as used here are those established as "official" through other approval mechanisms in place at UAB.

### STUDENT REQUIREMENTS AND RESPONSIBILITIES

Every student enrolled at UAB must have an e-mail address that ends with "@UAB.EDU". Such an e-mail address is required for a

student to register for UAB credit courses.

It is the student's responsibility to obtain an official UAB e-mail address in a timely manner from the UAB e-mail registering system (BlazerID World Wide Web site). This will require the student also to have a valid, current, and reliable electronic mailbox through an Internet Service Provider (ISP) or portal, or on a server administered by the student's academic department, or on the central mail service provided by the Office of the Vice President for Information Technology.

It is the student's responsibility to check his or her e-mail regularly for distribution of official UAB communiques. UAB recommends that e-mail be checked at least once a day, when practicable.

UAB is not responsible for lost, rejected, or delayed e-mail forwarded by UAB from a student's "@UAB.EDU" address to off-campus or unsupported e-mail services or providers. Such lost, rejected, or delayed e-mail does not absolve the student from responsibilities associated with an official UAB communique sent to the student's official UAB e-mail address ("@UAB.EDU").

If there is a change in a student's e-mail address to which the "@UAB.EDU" alias address is re-directed, it is the student's responsibility to make the changes in the UAB e-mail registering system.

## **UAB RESPONSIBILITIES**

UAB will ensure that all students have access to an e-mail account and will provide means for students who do not otherwise have access to e-mail-capable computers to be able to check their e-mail through such mechanisms as computer labs, the UAB libraries, and public terminals.

UAB will provide mechanisms to allow students to request that their e-mail addresses not be published in a similar way that other student directory information is not published. However, unpublished e-mail addresses will be used for sending official UAB communiques to students including communications to a group of students such as a course e-mail list. Students also will be provided mechanisms for requesting that their e-mail addresses not be used for general UAB mailings that are not official communications with students.

UAB is not responsible for the handling or mishandling of students' e-mail by non-UAB providers or by unofficial (non-@UAB.EDU) e-mail servers.

## **UAB STUDENT RECORDS POLICY**

The General Education Provisions Act, Section 438, as amended, and the regulations promulgated for the enforcement of the act, found at 45 Federal Register 30911, as amended at 45 Federal Register 86296, provide that all students enrolled or previously enrolled at the University of Alabama at Birmingham have the following rights in relation to their educational records:

### **I. GENERAL POLICY**

No information from records, files, or other data directly related to a student, other than public information defined below, shall be disclosed to individuals or agencies outside the university without the written consent of the student, except those disclosures set forth in paragraph IX.

## **II. DEFINITION OF EDUCATIONAL RECORD**

Student educational records are defined as those records, files, documents, and other material which contain information directly related to students and which are maintained by UAB or a party acting for UAB. Records of instructional, supervisory, and administrative personnel which are in the sole possession of the maker and accessible only to the maker or a substitute are specifically excluded from this definition of educational record. Educational records of students are not available to UAB Police personnel, and records of the University Police, which, at UAB, are maintained separately from educational records, are maintained solely for purpose of law enforcement, and are not disclosed to individuals other than law enforcement personnel of the same jurisdiction, are not part of the educational record. Records which are made or maintained by physicians, psychiatrists, psychologists, or other professionals or paraprofessionals and which are maintained in connection with treatment and are not available to anyone else are also excluded from a student's educational record, but such records are available to another physician or appropriate professional of the student's choice if requested. Records which only contain information relating to a person after that person is no longer a student are not considered part of the student's educational record.

## **III. DEFINITION OF STUDENT**

For the purpose of this policy a student is defined as any individual currently or previously enrolled in any academic offering of UAB. It does not include prospective students.

## **IV. PUBLIC INFORMATION**

The following is a list of public information which may be made available by the university without prior consent of the student and which is considered part of the public record of the student's attendance: Name, address (local and permanent), telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, dates of attendance, degrees and awards received, schedule of classes, and institution most recently previously attended. The information will not be made available if a student directs a written instruction to the appropriate records official prior to the end of the registration period for any given term.

## **V. TYPES AND LOCATION OF RECORDS**

Each school maintains a file on each student enrolled, containing applications, grade reports or other performance evaluations, and correspondence. Some departments or programs maintain similar files. The counseling service, placement service, and financial aid office maintain a file on students who use those services. The university has designated the following officials as responsible for student records within their respective areas: University Registrar, Academic Affairs, Room 207, Hill University Center; Dean and Co-Director, Graduate School, Room 511, Hill University Center; Director of Student Affairs, School of Dentistry, Room 207, School of Dentistry Building; Office of the Assistant Dean for Academic and Student Affairs, 604 Webb Building; Associate Director for Records, School of Medicine, Room P100, Volker Hall; Director of Student Services, School of Nursing, Room 105B, School of Nursing Building; Assistant Dean for Student Affairs, School of Optometry, Room 104, Henry B. Peters Building; Associate Dean for Academic Affairs, School of Public

Health, Room 308, Tidwell Hall.

The above shall hereinafter be referred to as "records officials." Each of these records officials is responsible for maintaining a listing of student records within such records officials area of responsibility, indicating the location and general content of the records. Any student request concerning records or files, including requests that public information not be disclosed, requests for disclosure to third parties, and requests for access by the student should be directed to this official. Forms for all such requests may be obtained from these officials. These persons will also act as hearing officers when the content of a record is challenged as provided below.

#### **VI. DISCLOSURE OF STUDENT RECORDS TO THE STUDENT**

The student is accorded the right to inspect, in the presence of a university staff member, records, files, and data primarily and directly related to the student. To inspect a file a student should go to the office of the appropriate records official and initiate a request in writing. If a student desires to obtain copies of the items in the educational record rather than personally reviewing the record, the written request to the records official for copies must be signed and notarized to prevent disclosure to persons other than the student. A time for inspection shall be granted within 45 days of the date of the request, and copies will be mailed within the same time period. Copies shall be made and provided to the student at a cost to the student equal to actual cost of reproduction and payable in advance.

The right of inspection does not include financial statements of parents, confidential recommendations placed in the file prior to January 1, 1975, provided that such recommendations were solicited with a written assurance of confidentiality or sent or retained with a documented understanding of confidentiality and used only for the purpose solicited, and other confidential recommendations, access to which has been waived by the student in accordance with paragraph VIII.

#### **VII. CHALLENGING THE CONTENTS OF THE RECORD**

UAB will respond to any reasonable request for an explanation or interpretation of any item in a student's file. Requests for such explanation or interpretation should be addressed in writing to the appropriate records official.

If, after inspecting a record, a student believes that information contained in the educational record is inaccurate or misleading or violates his or her privacy, the student may request that the record be amended by presenting such request in writing to the appropriate records official. A request that the record be amended shall be answered by the records official within 15 days of its receipt with information that the record has been amended as requested or that the record has not been amended and that the student has a right to a hearing on the matter. A written request for a hearing should be addressed to the appropriate records official as listed in V, who will set a date and time for hearing with reasonable notice of same to the student within 45 days of receiving the request.

The request for hearing should identify the item or items in the file to be challenged and state the grounds for the challenge, e.g., inaccuracy, misleading nature, inappropriateness. The records official shall examine the contested item, shall hear the person responsible for placing the item in the file if appropriate, and shall

examine any documents or hear any testimony the student wishes to present. A student may be assisted or represented by individuals of his or her choice, including an attorney, at his or her own expense. The records official may decide that the item should be retained or that it should be deleted or altered. The records official shall issue a written decision, based solely on the evidence presented at the hearing, within 10 days of the conclusion of the hearing. If the decision is adverse to the student, the notice of decision shall include a statement that the student has the right to place a statement in the record commenting on the information and/or setting forth reasons for disagreeing with the decision.

#### **VIII. WAIVER OF ACCESS**

UAB may request that a student waive the student's right to inspect confidential recommendations respecting that student's application for admission, provided that the student be notified, upon request, of the names of all those providing the recommendations, the recommendations are used only for the purpose solicited, and the waiver is not a condition of admission or any other benefit. Confidential recommendations respecting application for employment or the receipt of an honor or other recognition may also be waived.

A waiver may be revoked with respect to actions occurring after revocation by so notifying the records official in writing.

#### **IX. PROVIDING RECORDS TO THIRD PARTIES**

The general policy of UAB is to refuse access to or disclosure of information from student records to third parties without the written consent of the student. Should a student wish to have such records released, a signed and dated written request must be directed to the proper records official, specifying the records to be released, the reason for release, the party or class of parties to whom records are to be released, and a request for copies to the student, if desired. UAB will then transfer or grant access to the information. The transferred information shall contain a statement that the information may be used by the receiving party or, if an organization, by its officers, agents, and employees for the purpose requested, but that the party shall not transfer the information to any other party except with the written consent of the student. A charge not to exceed the actual cost of reproduction will be assessed against the student when copies are made for the party or the student.

Student records are available to the following persons with the accompanying conditions without written consent of the student:

1. Instructional or administrative personnel whose duties include responsibilities to students which in the institution reasonably require access to student records.
2. Officials of other schools in which a student seeks to enroll. UAB will make a reasonable attempt to notify the student of the transfer, as well as the student's right to a copy, upon request, and the right to a hearing to challenge the contents if desired.
3. Certain representatives of federal departments or agencies or state educational authorities as provided by the law. In absence of consent or specific authorization by federal law of the collection of personally identifiable data, data collected by excepted officials shall be protected in a manner which will not permit personal identification of students and parents by other than those officials, and personally identifiable data shall be destroyed when no longer needed.

4. Financial aid officers or their assistants in connection with the application for or receipt of financial aid, provided that personally identifiable information may only be disclosed for the purpose of determining eligibility, amount, and conditions and to enforce terms and conditions.
5. Organizations conducting studies for administrative evaluation, tests, etc., provided that studies are not conducted in a manner which will permit personal identification of students or their parents by other than representatives of the organization and that the information will be destroyed when no longer needed for the purposes collected.
6. Accrediting organizations.
7. Other appropriate persons in an emergency to protect health or safety of students or others. In determining appropriateness of disclosure, consideration will be given to the seriousness of the threat to health or safety of the student and others, the need for information to meet the emergency, whether the parties requesting information are in a position to deal with the emergency, and the extent to which time is of the essence.
8. In response to lawful subpoena or court order.

UAB will keep a record, indicating the name and legitimate interest, of all disclosures except those made to a student, those made pursuant to written consent, those designated as public information, and those made to persons at UAB with a legitimate educational interest.

This record of disclosure will become a part of the educational record, subject to inspection and review.

**X** The UAB Student Records Policy shall be published in the catalog of each school, and a copy shall be displayed prominently on a bulletin board in each school. In order to comply with the requirement that UAB give annual notice of this policy to enrolled students, a short notice of the policy shall be included in the Class Schedule for each term.

**X I** Any student who believes that UAB has violated his or her right to access or privacy of educational records as established by the Family Education Rights and Privacy Act of 1974, as amended, the accompanying regulations published at 45 Federal Register 30911, as amended at 45 Federal Register 86296, and this policy may address a complaint to:

**The Family Educational Rights and Privacy Act Office**

Department of Education  
400 Maryland Avenue, S.W.  
Washington, D.C. 20202

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**Scott E. Buchalter**, M.D., Chief of Staff, UAB Hospital  
**Mary Nash**, Ph.D., Executive Director, UAB Hospital

### FACULTY

**Abbott, Gypsy, Professor of Counselor Education; 1982**  
B.A. (Birmingham-Southern), M.A., Ph.D. (Alabama)  
**Adams, Laurie A., Assistant Professor, Radiation Therapy Program; 1999**  
Ed.D. (Georgia Southern University)

- Adkins, Nell, Associate Professor of Accounting; 1999**  
B.S., M.A. (Southern Mississippi), Ph.D. (Florida State), C.P.A.
- Advincula, Rigoberto, Assistant Professor of Materials Science and Engineering; 1997**  
B.S. (University of the Philippines), Ph.D. (Florida)
- Agresti, David G., Professor Emeritus of Physics; 1969**  
B.S. (Ohio State), M.S., Ph.D. (California Institute of Technology)
- Ahmad, Wajih, Assistant Professor of Health Education; 1998**  
B.S., M.Ph., Ph.D. (UAB)
- Akins, Perry Wesley, Assistant Professor of Anthropology and Social Work; 1999**  
B.S.S.W. (Auburn), M.S.W. (Florida State)
- Aldridge, Jerry T., II, Professor of Early Childhood Education; 1986**  
B.S. (Livingston), M.A., M.A., Ed.D. (Alabama)
- Alexander, James R., Professor of Art; 1978**  
B.Arch., M.Arch. (Cornell), M.F.A. (Louisiana State)
- Allison, Carol, Instructor of Special Education (Visual Impairment); 1999**  
B.A. (Northwestern State), M.A. (UAB)
- Allison, Kelly, Associate Professor of Theatre; 1998**  
B.F.A. (Minnesota), M.F.A. (Stephens)
- Amsbary, Jonathan H., Associate Professor of Communication Studies; 1988**  
B.A. (New Mexico), M.A., Ph.D. (Indiana)
- Amsler, Charles D., Jr., Professor of Biology; 1994**  
A.B. (Duke), M.S. (North Carolina-Wilmington), Ph.D. (California-Santa Barbara)
- Amthor, Franklin R., Associate Professor of Psychology; Associate Professor of Biomedical Engineering 1981**  
B.S. (Cornell), Ph.D. (Duke)
- Anayiotos, Andreas, Associate Professor of Biomedical Engineering Associate Professor of Materials Science and Engineering 1991**  
B.S. (Boston), M.S., Ph.D. (Georgia Institute of Technology)
- Andrews, J. Barry, Professor of Materials Science and Engineering Chair, Department of Materials Science and Engineering 1976**  
B.S. (UAB), M.E., Ph.D. (Florida), P.E. (Alabama)
- Andrews, Lucy G., Instructor of Biology; 1998**  
A.B. (Agnes Scott), Ph.D. (Duke)
- Angell, Michael, Assistant Professor of Music; 1994**  
B.M. (Oberlin Conservatory), M.M., D.M.A. (Michigan)
- Angus, Robert A., Professor of Biology; 1978**  
B.S. (Wisconsin), Ph.D. (Connecticut)
- Appleton, Joseph H., Distinguished Service Professor Emeritus of Civil Engineering 1959**  
B.C.E. (Auburn), M.S., Ph.D. (Illinois), P.E. (Alabama)
- Armbruster, Margaret E., Assistant Professor of History; 1986**  
B.A. (Samford), M.A. (Vanderbilt)
- Arnold, N. Scott, Professor of Philosophy; 1982**  
B.A. (Pennsylvania), M.A., Ph.D. (Massachusetts)
- Atigadda, Venkatram, Research Assistant Professor of Chemistry; 2003**  
B.S. (Gulbarga-India), M.S., Ph.D. (Auburn)
- Ayers, Douglas J., Associate Professor of Marketing; 1999**  
B.S., M.B.A. (Tennessee), Ph.D. (Kentucky)
- Bach, Rebecca Ann, Associate Professor of English; 1994**  
B.A., M.A., Ph.D. (Pennsylvania)
- Baker, Patricia S., Assistant Professor of Sociology; Director, Gerontology Education Program; 1997**  
B.A. (California-Los Angeles), M.A., Ph.D. (UAB)
- Baker, Tracey A., Associate Professor of English; Director, English Resource Center, Department of English; 1984**  
B.A. (Indiana), M.A., Ph.D. (Purdue)
- Ball, Karlene K., Professor of Psychology; Director, Center for Research in Applied Gerontology; 1996**  
M.S., Ph.D. (Northwestern)
- Ban, Heng Associate Professor Mechanical Engineering; 2000**  
B.S. (Tsingua University), M.S. (University of Science & Technology of China), Ph.D. (Kentucky)
- Bangalore, Purushotham, Assistant Professor of Computer and Information Sciences; 2003**  
B.E. Bangalore-India), M.S., Ph.D. (Mississippi State)
- Barnard, Anthony C. L., Professor Emeritus of Computer and Information Sciences; 1968**  
B.S. (Birmingham, England), M.B.A. (UAB), Ph.D., D.Sc. (Birmingham, England)
- Basilico, David Anthony, Associate Professor of English; Director, Linguistics Program, Department of English; 1993**  
B.A. (Brown), Ph.D. (Arizona)
- Bates, Charles E., Research Professor of Materials and Mechanical Engineering 1994**  
B.S. (Alabama), M.S., Ph.D. (Case Institute of Technology)
- Baucum, Don G., Visiting Assistant Professor in Psychology; 1999**  
B.S., M.A., Ph.D. (Alabama)
- Baulos, Doug Instructor of Art; 2003**  
B.F.A. (UAB), M.F.A. (New Orleans)
- Bauman, Robert P., Professor Emeritus of Physics; 1967**  
B.S., M.S. (Purdue), Ph.D. (Pittsburgh)
- Beard, Craig W., Senior Assistant Librarian, Reference Services, Mervyn H. Sterne Library; 1990**  
B.A. (Harding), M.A.R. (Harding Graduate School of Religion), M.L.S. (Florida State)
- Bej, Asim K., Professor of Biology; 1991**  
B.Sc., M.Sc. (Calcutta), Ph.D. (Louisville)

- Benditt, Theodore M., Professor of Philosophy; 1978**  
B.A., LL.B., M.A. (Pennsylvania), Ph.D. (Pittsburgh)
- Biasini, Fred J., Assistant Professor of Psychology; 1983**  
B.A., M.S., (St. Vincent), Ph.D. (Alabama)
- Bishop, Harold L., Associate Professor of Educational Leadership; 1974**  
B.S., M.A., Ph.D. (Alabama)
- Blanton, Paul D., Research Assistant Professor of Psychology; 2000**  
B.A. (Furman), M.A., Ph.D., (UAB)
- Blokh, Alexander, Professor of Mathematics; 1992**  
Ph.D. (Kharkov State)
- Blair, Stacy, Assistant Professor, Cytotechnology Program; 2001**  
M.S. (Jacksonville State University)
- Blythe, Clyde Randolph, Jr., Instructor of English; 2000**  
B.A., M.A. (UAB), M.F.A., Ph.D. (Alabama)
- Bodon, Jean, Professor of Communication Studies; 1997**  
B.A. (Birmingham-Southern), M.A. (Alabama), Ph.D. (Florida State)
- Bokobza, Serge, Associate Professor of French; 1980**  
Licence-ès-Lettres, Maîtrise-ès-Lettres (Paris-x-Nanterre), M.A., Ph.D. (Illinois)
- Bolus, Norman E., Assistant Professor, Nuclear Medicine Technology Program; 1999**  
CNMT, M.P.H. (University of Alabama at Birmingham)
- Bonds, Patrick Blair, Instructor of English; 2001**  
B.A. (Baylor), M.A. (New Orleans), M.Phil. (Trinity College)
- Booth, Rachel Z., Professor of Nursing Dean, School of Nursing; 1987**  
B.S.N., M.S., Ph.D. (Maryland)
- Booth, Wendy, Nurse Practitioner; 1995**  
B.S.N., M.S.N. (Alabama)
- Borgford-Summerlin, Christina, Assistant Professor of Chemistry; 2000**  
B.S. (Washington), M.Ed. (UAB), Ph.D. (York – England)
- Borojevic, Ksenija, Assistant Professor of Anthropology and Social Work; 2000**  
B.A. (University of Belgrade), M.A., Ph.D. (Washington University)
- Bos, Theodore, Professor of Quantitative Methods; 1982**  
B.Ec. (Queensland), Ph.D. (Illinois)
- Brande, Scott, Associate Professor of Geology; 1979**  
B.S. (Rochester), M.S. (California Institute of Technology), Ph.D. (SUNY-Stony Brook)
- Brasher, Holly, Assistant Professor of Government; 2003**  
B.A. (Louisiana State), M.A. (Florida), Ph.D., (North Carolina)
- Braswell, Mary Flowers, Professor of English; 1969**  
B.A., M.A. (Alabama), Ph.D. (Emory)
- Bray, Terry, Research Assistant Professor of Biomedical Engineering; 2000**  
B.S. (Mercer), M.S. (Georgia Institute of Technology)
- Broom, Lowell S., Professor of Accounting Associate Dean, School of Business; 1988**  
B.S. (William Carey), M.B.A. (Mississippi), D.B.A. (Louisiana Tech), C.P.A.
- Brouillette, Wayne J., Professor of Chemistry; 1979**  
B.S. (West Florida), M.S., Ph.D. (Kansas)
- Brouwer, Bert, Professor of Art; Dean, School of Arts and Humanities; 1997**  
B.S., M.F.A. (Wisconsin)
- Brown, Edwin L., Associate Professor of Labor Studies; 1979**  
A.A. (Miami-Dade), B.A. (Florida International), M.A. (UAB)
- Bruess, Clint E., Dean Emeritus, Professor Emeritus of Health Education and of Health Care Organization and Policy; 1981**  
B.S. (Macalester), M.A. (Maryland), Ed.D. (Temple)
- Bryant, Barrett R., Professor of Computer and Information Sciences; Associate Chair, Department of Computer and Information Sciences; 1983**  
B.S. (Arkansas-Little Rock), M.S., Ph.D. (Northwestern)
- Bryant, Keith Jr., Professor Emeritus of Accounting; 1969**  
B.A. (Samford), M.B.A., Ph.D. (Alabama)
- Buck, Audras, Assistant Professor of Art; 2003**  
B.A. (Missouri-Columbia)
- Buckley, James J., Associate Professor of Mathematics; 1976**  
B.S., M.S., Ph.D. (Georgia Institute of Technology)
- Buckner, Ellen, Associate Professor of Nursing; 1975**  
B.A. (Duke), B.S., M.S., M.S.N., D.S.N. (Alabama)
- Burg, William D., Assistant Professor of Information Systems; 1999**  
B.S. (Nebraska-Omaha), Ph.D. (Texas Tech)
- Burns, Joseph C., Associate Professor of Elementary and High School Education; 1984**  
B.S. (Grove City), M.Ed., Ed.D. (Georgia)
- Burns, Richard M., Professor of Finance; 1987**  
B.S. (Alabama), M.B.A. (UAB), Ph.D. (Georgia)
- Burrage, Joe, Associate Professor of Nursing; 2002**  
B.S.N. M.S.N. (Northwestern State) Ph.D. (Georgia State)
- Butcher, Daniel L., Instructor of English; 2001**  
B.A. (Mississippi), M.L.I.S., M.A. (Louisiana State)
- Butler, Sheila W., Assistant Librarian, Reference Services, Mervyn H. Sterne Library; 1996**  
B.A. (Lambuth), M.E.D. (Montevallo), M.L.S. (Alabama)
- Calhoun, Charles, Associate Professor of Elementary Education; Chair, Department of Curriculum and Instruction; Assistant Dean, Urban Education; 1989**  
B.A. (Earlham), M.Ed., Ph.D. (Georgia State)

- Callahan, Dale, Assistant Professor Director, Information Engineering and Management Program; 2000**  
B.E.E. (Auburn), M.S.E.E. (UAB), Ph.D. (Alabama)
- Camata, Renato P., Assistant Professor of Physics; 2000**  
B.S. (Universidade de Sao Paulo), M.S., Ph.D. (California Institute of Technology)
- Candelaria, Leonard A., Associate Professor of Music, Artist in Residence; 2002**  
B.M. (North Texas), M.M. (North Texas), D.M.A. (Northwestern)
- Carroll, Kenneth, Assistant Professor of Music; 1999**  
B.A. (Arkansas Tech), M.M., D.M.A. (Georgia)
- Carson, Mike, Research Assistant Professor of Biomedical Engineering; 2001**  
B.S. (Arkansas), Ph.D. (Texas)
- Carter, William C., Distinguished Professor of French; 1975**  
A.B., M.A. (Georgia), Ph.D. (Indiana)
- Cartright, Pamela C., Instructor, Radiation Therapy Program; 2001**  
M.A.E. (University of Alabama at Birmingham)
- Cashman, Ray, Assistant Professor of Anthropology and Social Work; 2003**  
B.A. (Williamson College), M.A., Ph.D., (Indiana)
- Castle, Jane, Assistant Professor of Nursing; 2001**  
B.S.N. (East Tennessee State) M.S.N. (Virginia) Ph.D. (Boston College)
- Celletti, Anarella, Associate Professor of Early Childhood Education; 2001**  
B.A. (Venezuela), M.A., Ph.D. (South Carolina)
- Chang, Tracey E H., Associate Professor of Labor Studies; 1998**  
B.A. (Fu-Jen University-Taiwan), M.A., Ph.D. (Iowa)
- Chapman, Alison, Assistant Professor of English; 2000**  
B.A. (Davidson), M.A., Ph.D. (Pennsylvania)
- Chapman, Gary H., Professor of Art; Chair, Department of Art and Art History; 1990**  
B.S., B.A. (Berea), M.F.A. (Cranbrook Academy)
- Chawla, Krishan Kumar, Professor of Materials Science and Engineering; 1998**  
B.S. (Banaras Hindu, India), M.S., Ph.D. (Illinois)
- Chen, Shen-en, Assistant Professor of Civil and Environmental Engineering; 1999**  
B.S.C.E., M.S.C.E., Ph.D. (West Virginia Univ.)
- Cheng Chih Hsiung (Gary), Assistant Professor of Mechanical Engineering; 2001**  
B.S. (Tamkang University, Taiwan) M.S., Ph.D. (Kansas)
- Cheng Tyrone, Assistant Professor of Anthropology and Social Work; 2002**  
B.S.W. (Hong Kong Shue Yan College), M.S.W., Ph.D., (Alabama)
- Chernov, Nikolai, Professor of Mathematics; 1994**  
M.S., Ph.D. (Moscow State, Russia)
- Cheung, Herbert C., Professor of Biochemistry; 1969**  
A.B., M.S., Ph.D. (Rutgers)
- Christensen, Lois M., Associate Professor of Elementary Education; 1996**  
B.A.Ed., M.A.Ed. (Arizona State), Ph.D. (Texas A&M)
- Clair, Jeffrey M., Associate Professor of Sociology; 1988**  
B.A., M.A. (San Diego State), Ph.D. (Louisiana State)
- Cleeland, Eunice, Clinical Nurse Specialist; 1997**  
B.S.N. (Samford), M.S.N. (Alabama)
- Clements, Kay, Associate Professor, Health Information Management Program; 2004**  
M.A. (University of Alabama at Birmingham)
- Clemmons, W. Ronald, Associate Professor of Music; 1973**  
B.A., M.M. (Alabama), D.M.A. (Louisiana State)
- Cobb, Martha Elizabeth, Instructor of Spanish; 1992**  
B.A., M.A. (Auburn)
- Coker, Adeniyi A., Jr., Associate Professor of Theatre; Director, African American Studies; 1999**  
B.A. (Ife), M.F.A. (CUNY-Brooklyn), Ph.D. (Temple)
- Coker, Angela, Assistant Professor of Counseling; 1998**  
B.A. (CUNY-Brooklyn), M.S. (Wyoming), Ph.D. (Union - Cincinnati)
- Coker, Margo, Instructor of Educational Psychology; 2001**  
B.A., M.S. (A & M), Ph.D. (Brandeis - Waltham)
- Cockerham, William C., Professor of Sociology; Professor of Medicine; Co-Director, Center for Social Medicine and STDs; 1991**  
B.A. (Oklahoma), M.A., Ph.D. (California-Berkeley)
- Collins, Loucreacia, Assistant Professor of Educational Leadership; 2000**  
B.S., M.A., Ed.D. (Mississippi State)
- Collins, Robert J., Associate Professor of English; Director, Creative Writing Program; 1980**  
A.B. (Xavier), M.A., Ph.D. (Ohio State)
- Conley, Carolyn A., Associate Professor of History; 1985**  
B.A. (Duke), M.A. (Chicago), Ph.D. (Duke)
- Conner, David A., Professor Emeritus of Electrical and Computer Engineering; 1978**  
B.E.E., M.S. (Auburn), Ph.D. (Georgia Institute of Technology), P.E. (Alabama, Georgia, Tennessee, Kentucky)
- Cook, Edwin, Associate Professor of Psychology; Vice Chair and Director of Undergraduate Studies, Department of Psychology; 1986**  
B.S. (Pennsylvania), M.S., Ph.D. (Wisconsin)
- Copeland, Philip L., Assistant Professor of Music; 2001**  
B.M. (Mississippi), M.M. (Mississippi College), D.M.A. (Southern Baptist Theological Seminary)
- Copes, J. Heath, Assistant Professor of Justice Sciences; 2001**  
B.S. (Southwestern Louisiana), M.A., Ph.D., (Tennessee)

- Cormier, Loretta, Associate Professor of Anthropology and Social Work; 2000**  
B.S. (Florida), M.A. (UAB), Ph.D. (Tulane)
- Covington, Dennis R., Professor of English; 1982**  
B.A. (Virginia), M.F.A. (Iowa)
- Cowan, Adrian, Assistant Professor of Finance; 2002**  
B.A. (Colorado State), M.S., Ph.D. (George Washington)
- Cox, James E., Associate Professor of Psychology; 1981**  
B.A. (Lawrence), M.S., Ph.D. (Yale)
- Cox Edmondson, Vickie, Associate Professor of Management; 1996**  
B.A. (Spelman), M.B.A. (Mercer), Ph.D. (Georgia)
- Cracco, Derek A., Assistant Professor of Art; 1999**  
B.F.A. (Louisiana State), M.F.A. (Syracuse)
- Crawford, Martin, Professor Emeritus Mechanical Engineering 1968**  
B.S., M.S. (Tennessee), Ph.D. (Georgia Institute of Technology), P.E. (Alabama)
- Crigler, Paul, Instructor of Information Systems; 2004**  
B.S. (Auburn), B.S. (UAB), M.S. (UAB)
- Crull, Darren, Instructor of Art; 2003**  
B.A. (Lamar), M.F.A. (Florida State)
- Crunk, Tony, Assistant Professor of English; 2000**  
B.A. (Centre), M.A. (Kentucky), M.A., M.F.A. (Virginia)
- Culver, Sarah E., Associate Professor of Economics; Director of Undergraduate Programs, School of Business; 1993**  
B.S., M.A., Ph.D. (Houston)
- Cusic, Anne M., Assistant Professor of Biology; 1988**  
B.S. (UAB), M.S. (Samford), Ph.D. (UAB)
- Dahle, Karen B., Assistant Professor of Special Education, 1999**  
B.S. (James Madison), M.S. (Radford), Ed.D. (VA Polytech Institute State)
- Dale, Louis, Professor of Mathematics; Vice President for Equity and Diversity; 1973**  
B.A. (Miles), M.S. (Atlanta), Ph.D. (Alabama)
- Dallow, Jessica, Assistant Professor of Art History; 2002**  
B.A. (San Diego), M.A., Ph.D. (North Carolina-Chapel Hill)
- Daniélou, Catherine E., Associate Professor of French; 1990**  
Licence-ès-Lettres, Maîtrise-ès-Lettres (Sorbonne), M.A., Ph.D. (Michigan State)
- DasGupta, Manabendra, Associate Professor of Economics; 1990**  
B.A., M.A. (Calcutta), M.A., Ph.D. (Southern Methodist)
- Davidson, J. Rudolph, Professor Emeritus of Educational Leadership; 1969**  
B.S., M.A., Ed.D. (Alabama)
- Davidson, James S., Associate Professor of Civil and Environmental Engineering 1997**  
B.S., M.S., Ph.D. (Auburn)
- Davis, Colin J., Associate Professor of History; 1991**  
B.A. (Warwick-Coventry, England), M.A., Ph.D. (SUNY-Binghamton)
- Davis, Mardell, Assistant Professor of Nursing 1981**  
B.S.N., M.S.N. (Illinois) Ph.D.(UAB)
- Dean, Derrick R., Associate Professor of Materials Science and Engineering 2004**  
B.S., M.S. (Tuskegee), Ph.D. (Illinois, Urbana-Champaign)
- Deupree, Joy, Clinical Nurse Specialist, School of Nursing 1999**  
BSN, MSN, FNP (UAB)
- DeVoll, Matthew W., Assistant Professor of English; 2003**  
B.A.(Delaware), M.A.(Tulane), Ph.D.(Washington)
- DeVore, Todd E., Instructor of Physics; 1998**  
B.S. (Lewis and Clark), M.S. Ph.D. (UAB)
- Dillon, H. Kenneth, Associate Professor of Environmental Health Sciences; Associate Professor of Civil and Environmental Engineering; 1985**  
M.A., Ph.D. (Vanderbilt)
- Dilworth, James B., Professor Emeritus of Management; 1970**  
B.S. (Alabama), M.S., Ph.D. (Oklahoma State)
- DiMicco, Wendy, Assistant Professor of Nursing 1970**  
B.S. (Barry), M.S. (Alabama) Ph.D. (UAB)
- Dobbins, Allen C., Associate Professor of Biomedical Engineering 1996**  
B.S. (Dalhousie), B.S.E., M.S.E., Ph.D. (McGill)
- Doss, Harriet E. Amos, Associate Professor of History; 1978**  
B.A. (Agnes Scott), M.A., Ph.D. (Emory)
- Dowd, Steven B., Associate Professor, Radiography Program; 1992**  
Ed.D. (Nova University)
- Dowdy, Carol A., Professor Emerita of Special Education; 1979**  
B.S., M.A. (Auburn), Ed.D. (Alabama)
- Drace, William R., Instructor, Surgical Physician Assistant Program; 2003**  
B.S. (University of Alabama at Birmingham)
- Dretea, Patricia, Associate Professor of Sociology; 1999**  
B.A. (Wisconsin), M.A., Ph.D. (Ohio State)
- Duncan, W. Jack, Professor of Management and University Scholar; Professor of Health Care Organization and Policy, Professor of Health Services Administration; 1972**  
B.S. (Samford), M.B.A., Ph.D. (Louisiana State)
- Dwyer, Zoe. B., Lecturer of Materials Science and Engineering Director, Outreach and Retention for School of Engineering 1999**  
B.S., M.S., Ph.D. (UAB)
- Earwood, Martha, Instructor of Justice Sciences; 2003**  
B.S., M.S. (Georgia State)

**Eason, Mona L., Assistant Professor of Early Childhood Education, Associate Dean, School of Education; 1990**  
B.S., M.A. Ph.D. (UAB)

**Eberhardt, Alan, Associate Professor of Biomedical Engineering 1991**  
B.S., M.S. (Delaware), Ph.D. (Northwestern)

**Edmonds, Cindy D., Associate Professor of Accounting 1989**  
B.S. (Auburn), M.B.A. (Houston), Ph.D. (Alabama)

**Edmonds, Thomas P., Alumni and Friends Professor of Accounting 1986**  
B.B.A. (Georgia State), M.B.A. (St. Mary's), Ph.D. (Georgia State)

**Eleftheriou, Evangelos C., Research Associate Professor of Materials Science and Engineering 1992**  
B.S., M.S., Ph.D. (Tennessee Technological)

**Elliott, Timothy, Professor of Psychology; 2003**  
B.S. (Freed-Hardeman), M.S., (Auburn), Ph.D., Missouri-Columbia)

**Ellis, Cassandra M., Assistant Professor of English; 1998**  
A.B.(Syracuse), M.A., Ph.M., Ph.D.(Columbia)

**Emfinger, Kay, Assistant Professor of Early Childhood Education; 2003**  
B.S., M.A.Ed. (Auburn), Ph.D. (UAB)

**Ennis, Dena E, Assistant Professor, Radiography Program; 2000**  
M.A.E. (University of Alabama at Birmingham)

**Evans, Frederick, Research Assistant Professor; 2004**  
B.S.E. (Duke), M.S., Ph.D. (UAB)

**Evans, Retta , Associate Professor of Health Education; 2003**  
B.S., (Fort Hays), M.S. (Northeastern), Ph.D. (Arkansas)

**Fambrough, R. Eugene, Instructor of Music, Assistant Director of Bands; 2001**  
B.M.(Georgia), M.M.(East Carolina), D.M.A.(Alabama)

**Farr, Kenneth, Clinical Nurse Specialist; 2001**  
B.S.N. (UAB) M.S.N. (Georgia State University)

**Fast, Vladimir G., Associate Professor of Biomedical Engineering 1997**  
Diploma in Physics (Moscow Institute), Ph.D. (Moscow Institute for Physics and Technology)

**Feldman, Dale S., Associate Professor of Biomedical Engineering 1985**  
B.S.M.E. (Northwestern), M.S.M.T.E. (Dayton), Ph.D. (Clemson)

**Feldman, Glenn A., Assistant Professor of Labor Studies; 1996**  
B.A., B.S. (Birmingham-Southern), M.A., Ph.D. (Auburn)

**Fetherston, Thomas A., Professor of Finance; 1987**  
B.A. (Louisiana State), M.B.A., Ph.D. (Rutgers)

**Fitzgerald, Patricia, Clinical Instructor of Elementary Education; 1996**  
B.A. (Birmingham-Southern), M.Ed. (Georgia State)

**Fitzpatrick, Kevin M., Professor of Sociology; 1985**  
B.A. (Susquehanna), M.A. (South Carolina), Ph.D. (SUNY-Albany)

**Folami, L. Buky, Assistant Professor of Accounting 2000**  
B.S. (Robert Morris), M.P.A., Ph.D. (Georgia State), C.P.A., C.M.A.

**Fordham, Pam, Assistant Professor of Nursing 1979**  
B.S.N., M.S.N., D.S.N. (Alabama)

**Fouad, Fouad H., Professor of Civil and Environmental Engineering Chair, Department of Civil and Environmental Engineering Associate Director, University Transportation Center for Alabama; 1981**  
B.S.C.E. (Alexandria, Egypt), M.S.C.E. (Texas), Ph.D. (Texas A&M), P.E. (Alabama, Texas)

**Fowler, Dennis, Clinical Nurse Specialist; 2003**  
B.S.N M.S.N (UAB)

**Fritsma, George A., Associate Professor, Medical Technology Program; 2001**  
M.S. (Wayne State University)

**Fritsma, Margaret G., Associate Professor, Medical Technology Program; 1979**  
M.A. (University of Alabama at Birmingham)

**Frost, Linda, Associate Professor of English; 1993**  
B.A. (Bowling Green), Ph.D. (SUNY-Stony Brook)

**Gargiulo, Richard M., Professor of Special Education; 1982**  
B.A. (Hiram Scott), M.S. (Wisconsin-Milwaukee), Ph.D. (Wisconsin)

**Gauld, Virginia D., Assistant Professor of Educational Leadership; Vice President for Student Affairs; 1977**  
B.S. (Emory), M.A., Ph.D. (Alabama)

**Gauthier, Joseph J., Associate Professor of Biology; 1973**  
B.A. (St. Michaels), M.S. (Amherst), Ph.D. (California-Los Angeles)

**Gee, Morris, Instructor of Management; 2001**  
B.S., M.A. (Alabama)

**Geiger, Brian, Associate Professor of Health Education; 1993**  
B.S. (Tulane), M.A. (Loyola), Ed.D. (South Carolina)

**Gerakines, Perry A., Assistant Professor of Physics; 2000**  
B.S., Ph.D. (Rensselaer Polytechnic Institute)

**Ghanta, Vithal K., Professor of Biology; 1971**  
B.S. (G.C.W. College), M.S. (Banarus Hinda), Ph.D. (Southern Illinois)

**Gilchrist, Roger L., Instructor of Biology; 1999**  
B.S., M.S., Ph.D. (Wyoming)

**Ginter, Peter M., Professor of Health Care Organizations and Policy; Professor of Management; Chair, Department of Health Care Organizations and Policy; 1983**  
B.S., M.B.A. (Auburn), Ph.D. (North Texas State)

**Glosecki, Stephen O., Associate Professor of English; 1982**  
B.A. (Beloit), M.A., Ph.D. (California-Davis)

- Goldman, Jay, Professor of Engineering; Dean Emeritus, School of Engineering; 1984**  
B.S.M.E. (Duke), M.S.M.E. (Michigan State), D.Sc. (Washington), P.E. (Missouri)
- Goldman, Renitta L., Professor of Special Education; 1984**  
B.A. (Washington), M.S. (North Carolina State), Ph.D. (Missouri)
- Gopalsamy, Sankarappan, Research Assistant Professor of Mechanical Engineering; 2002**  
B.Sc., M.Sc. (Mudurai University, India), Ph.D. (Indian Institute of Technology, India)
- Graham, George A., Professor of Philosophy; Professor of Psychology; Chair, Department of Philosophy; 1975**  
A.B. (Fordham), M.A. (Western Ontario), Ph.D. (Brandeis)
- Granger, Wesley M., Associate Professor, Respiratory Therapy Program; 1996**  
Ph.D. (Medical College of Georgia)
- Grant, Joan, Professor of Nursing; 1980**  
B.S.N. (North Alabama), M.S.N., D.S.N. (Alabama)
- Graves, David E., Professor of Chemistry; Chair, Department of Chemistry; 2003**  
B.S., Ph.D. (UAB)
- Graves, Lila V., Associate Professor of English; 1976**  
B.S., M.A., Ph.D. (Auburn)
- Gray, Gary M., Professor of Chemistry; 1983**  
B.S., Ph.D. (Lehigh)
- Gray, Jeffrey G., Assistant Professor of Computer and Information Sciences; 2002**  
B.S., M.S. (West Virginia), Ph.D. (Vanderbilt)
- Gray, Richard A., Associate Professor of Biomedical Engineering; 1997**  
B.S. (Bucknell), M.S., Ph.D. (Virginia)
- Green, David G., Instructional Associate Professor of Electrical and Computer Engineering; 1981**  
B.S.E., M.S.E. (Alabama in Huntsville)
- Greenup, Patsy E., Associate Professor, Medical Technology Program; 1977**  
Ph.D. (University of Alabama at Birmingham)
- Greenwood, Rebecca, Instructor of Nursing; 2004**  
B.S.N. (New Hampshire) M.S.N. (Northeastern) Ph.D. (Boston College)
- Griesemer, Marcel, Associate Professor of Mathematics; 1998**  
Ph.D. (ETH, Zurich, Switzerland)
- Griffin, Robin D., Associate Professor of Materials Science and Engineering; 1990**  
B.S., M.S. (Illinois), Ph.D. (Wisconsin)
- Grigsby, Donald L., Associate Professor Emeritus of Foundations of Education; Assistant Professor of Physics; 1971**  
B.S. (Central Missouri), M.A. (California-Los Angeles), Ph.D. (Southern California)
- Grimes, Gary J., Professor of Electrical and Computer Engineering; Executive Director, Center for Telecommunications Education and Research; 1994**  
B.S. (Colorado), M.S. (Wisconsin), Ph.D. (Colorado)
- Grimes, John W., Instructor in Justice Sciences; 2000**  
B.S. (UAB), J.D. (Alabama)
- Grimes, L. Kyle, Associate Professor of English; 1990**  
B.A. (Dartmouth), M.A., Ph.D. (Illinois)
- Grimes-Robison, Cindy, Clinical Nurse Specialist; 2003**  
B.S.N. (UAB) M.S.N. (Troy State)
- Grostick, Sara S., Associate Professor, Health Information Management Program; 1974**  
R.H.I.A., M.A.Ed. (University of Alabama at Birmingham)
- Guinn, Matthew, Assistant Professor of English, 2002**  
A.B. (Georgia), M.A. (Mississippi), Ph.D. (South Carolina)
- Gunther-Canada, Wendy A., Assistant Professor of Government; 1993**  
B.A. (Utah), M.A., Ph.D. (Rutgers)
- Haarbauer, D. Ward, Professor of Theatre; Associate Dean, School of Arts and Humanities; 1964**  
B.S., M.A. (Alabama), Ph.D. (Wisconsin)
- Haerberle, Steven H., Associate Professor of Government; 1982**  
B.A. (Marshall), M.A., M.A., Ph.D. (Duke)
- Hagan, Mary M., Assistant Professor of Psychology; 2000**  
B.A., M.A., Ph.D. (Texas at El-Paso)
- Hall, Cheryl D., Assistant Professor of Theatre; 1989**  
B.A. (Southern Illinois), M.F.A. (Arizona)
- Hall, Janice D., Associate Professor, Radiography Program; 1986**  
R.T.(R), M.A.E. (University of Alabama at Birmingham)
- Hall, Jeffrey, Associate Professor of Sociology; 2003**  
B.S., M.A., Ph.D. (UAB)
- Hamilton, Tracy P., Associate Professor of Chemistry; 1991**  
B.S., M.S., Ph.D. (Arkansas)
- Hamilton, Virginia V., Professor and University Scholar Emerita of History; 1965**  
B.A., M.A. (Birmingham-Southern), Ph.D. (Alabama)
- Han, Youngshook, Assistant Professor of Nursing; 1996**  
B.S.N. (Chungnam), M.S.N., Ph.D. (Wisconsin)
- Haque, Akhlaque, Assistant Professor of Government; 1995**  
B.S. (Dhaka), M.A., Ph.D. (Cleveland State)
- Harrelson, Paul M., Instructor, Surgical Physician Assistant Program; 1999**  
M.P.A.S. (University of Nebraska)
- Harbin, Barbara, Clinical Nurse Specialist; 1991**  
B.S. (Northern Illinois), M.S. (Ohio)

- Harris, Audrey, Assistant Professor, Radiography Program; 2001**  
M.A.Ed. (University of Alabama at Birmingham)
- Harris, Linda S., Associate Librarian; Head, Reference Services, Mervyn H. Sterne Library; 1984**  
B.A. (Stillman), M.S.L.S. (Atlanta)
- Harris, Tina M., Visiting Instructor of English, 2003**  
B.A. (Montevallo), M.A. (UAB)
- Harrison, Joseph G., Associate Professor of Physics; 1986**  
B.S. (Texas A&M), M.S., Ph.D. (Wisconsin)
- Harrison, Richard H., II, Assistant Librarian, Reference Services, Mervyn H. Sterne Library; 1990**  
B.A. (The College of Wooster), M.L.S. (Vanderbilt)
- Hatsfelt, Naomi, Assistant Professor of Theatre; 2003**  
B.A. (McNeese State), M.F.A. (Ohio State)
- Hawk, James E, Lecturer Emeritus in Physics; 1956**  
B.A. (Virginia), A.M. (Washington)
- Heacock, Marian V, Professor Emeritus of Management; 1967**  
B.A. (Alabama), M.S. (Michigan), Ph.D. (Alabama)
- Helmi, Medhat A., Professor Emeritus of Accounting; 1976**  
B.Com. (Cairo), M.B.A. (Eastern Michigan), Ph.D. (Illinois), C.M.A.
- Henn, Martha, Senior Assistant Librarian, Reference Services, Mervyn H. Sterne Library; 1995**  
B.A. (Earlham), M.L.S. (Indiana), M.A. (Emory)
- Hester, Donna J., Associate Professor of Physical Education; 1983**  
B.S., M.A., Ph.D. (Ohio State)
- Hicks, Kristine K., Research Assistant Professor of Biomedical Engineering; 1997**  
B.S. (Central Arkansas), Ph.D. (Arkansas for Medical Sciences)
- Hickson, Mark, III, Professor of Communication Studies;**  
B.S., M.A. (Auburn), M.A. (Mississippi State), Ph.D. (Southern Illinois)
- Hill, Kendall P, Professor Emeritus of Finance; 1982**  
B.S., M.B.A., Ph.D. (Oklahoma State)
- Hodari, Askhar J., Assistant Professor of Psychology; 2002**  
B.A. (Spellman), M.S., Ph.D., (Howard)
- Hoff, Ann K., Assistant Professor of English; 2003**  
B.A. (Columbia), M.A., Ph.D. (CUNY)
- Hogan, Beverly, Clinical Nurse Specialist; 2000**  
B.S.N. M.S.N (UAB)
- Holley, Henry J., Professor Emeritus of Electrical and Computer Engineering; 1974**  
B.S.E.E. (Missouri), M.E. (Illinois Institute of Technology), Ph.D. (Tennessee), P.E. (Alabama)
- Holmes, Robert E., Professor of Management; Dean, School of Business; 1999**  
B.B.A. (Texas), M.B.A. (North Texas), Ph.D. (Arkansas)
- Holt, Susan S., Associate Librarian; Head, Cataloging Technical Services, Mervyn H. Sterne Library; 1977**  
B.A. (Winthrop), M.Ln. (South Carolina), M.A. (Presbyterian School of Christian Education), B.S. (UAB)
- Horns-Marsh, Virginia D., Professor Emerita of Early Childhood Education; 1970**  
B.S. (Huntingdon), M.A., Ph.D. (Alabama)
- Houser, Shannon, Assistant Professor, Health Information Management Program; 2004**  
M.P.H. (University of Alabama at Birmingham)
- Howard, Delores Hodgens, (Artist-in-Residence) Instructor in Music; 1983**  
B.Mus. (Birmingham-Southern), Artist Diploma (Juilliard)
- Howard, Samuel E., (Artist-in-Residence) Instructor in Music; 1983**  
B.Mus. (Birmingham-Southern), Artist Diploma (Juilliard)
- Howell-Moroney, Michael, Assistant Professor of Government; 2003**  
B.S. (Northern Arizona), M.B.A. (Eastern), Ph.D., (Delaware)
- Hubbard, Ron, Associate Professor of Theatre; 1998**  
B.M., M.S. (North Texas), M.A. (Texas Womens), Ph.D. (Texas Tech)
- Hudson, Jr., John O., Instructor of Educational Leadership; 1998**  
B.S. (A & M), M.A. (Samford)
- Hunter, Gary R., Professor of Physical Education; 1984**  
B.S. (Eastern Michigan), M.A., Ph.D. (Michigan State)
- Huntley, Horace H., Assistant Professor of History; 1976**  
B.A. (Minnesota), M.A. (Syracuse), Ph.D. (Pittsburgh)
- Hutchings, John William, Professor of English; 1981**  
A.B. (Transylvania), M.A., Ph.D. (Kentucky)
- Hutchison, Jeanne S., Assistant Professor of Mathematics; 1970**  
B.S. (Creighton), M.A., Ph.D. (California-Los Angeles)
- Hwang, Sean-Shong, Associate Professor of Sociology; 1988**  
B.A. (National Taiwan), M.A. (Waterloo), Ph.D. (Texas A&M)
- Hyatt, Robert M., Associate Professor of Computer and Information Sciences; 1988**  
B.S., M.S. (Southern Mississippi), Ph.D. (UAB)
- Ibelema, Minabere, Assistant Professor of Communication Studies; 1995**  
B.A. (Wilberforce), M.A., Ph.D. (Ohio State)
- Ignatin, George, Associate Professor of Economics; 1969**  
B.A. (Miami), Ph.D. (Texas)
- Irving, Howard L., Professor of Music; 1981**  
B.Mus. (Centenary), M.M., Ph.D. (Louisiana State)
- Jack, Eric, Assistant Professor of Management; 2001**  
B.S. (Georgia Institute of Technology), M.B.A. (Wright State), Ph.D. (Cincinnati)
- Jacobs, Johnny D., Instructor of Music Education; 2000**  
B.M.E. (Birmingham-Southern), M.A., Ed.D. (Alabama)

- Jacobs, Robert R., Associate Professor of Environmental Health Sciences; Associate Professor of Civil and Environmental Engineering; 1987**  
M.S. (Baylor), Ph.D. (North Carolina)
- Jambor, Thomas W., Associate Professor Emeritus of Early Childhood Education; 1975**  
B.S., M.S. (Wisconsin-Milwaukee), Ed.D. (Pennsylvania State)
- James, Nadine, Instructor of Nursing; 2002**  
B.S.N (Southern Mississippi) M.S.N. (South Alabama) Ph.D. (UAB)
- Jang, Kyungho, Assistant Professor of Economics; 2002**  
B.A. (Seoul National), M.A. (Chung-Ang), M.A., Ph.D. (Ohio State)
- Jannett, Thomas C., Professor of Electrical and Computer Engineering; 1984**  
B.S.E., M.S.E. (UAB), Ph.D. (Auburn)
- Janowski, Gregg M., Associate Professor of Materials Science and Engineering; 1990**  
B.S., M.S., Ph.D. (Michigan Technological)
- Jeff, Linda H., Associate Professor, Medical Technology Program; 1979**  
M.A. (University of Alabama at Birmingham)
- Jenkins, David T., Associate Professor of Biology; 1974**  
B.S., Ph.D. (Tennessee)
- Jennings, Patricia R., Associate Professor, Surgical Physician Assistant Program; 2003**  
M.H.S. (Duke University)
- Johnson, Phillip L., Research Assistant Professor of Biomedical Engineering; 2002**  
B.E. (Vanderbilt), M.S., Ph.D. (UAB)
- Johnson, Ralph A., Professor Emeritus of Labor Studies; 1980**  
B.A. (Indiana-South Bend), M.A., Ph.D. (Indiana)
- Johnson, Vicki Y., Assistant Professor of Nursing; 1999**  
B.S.N., M.S.N (Texas) Ph.D. (Texas at San Antonio)
- Johnson, Walter; Instructor of Mathematics; 2002**  
B.S.EE. (Auburn), M.A.Ed. (UAB)
- Johnstone, John K., Associate Professor of Computer and Information Sciences; 1994**  
B.S. (Saskatchewan), M.S., Ph.D. (Cornell)
- Jolly, Peggy B., Professor of English; Director, Freshman Composition, Department of English; 1976**  
B.A. (Jacksonville), M.A. (Samford), Ph.D. (Alabama)
- Jones, Daniel D., Professor Emeritus of Biology; 1970**  
B.S., M.S. (Purdue), Ph.D. (Michigan State)
- Jones, James R., Associate Professor of Electrical and Computer Engineering; 1981**  
B.S.E.E., M.S.E.E. (Texas A&M), P.E. (Alabama, California, Texas)
- Jones, Steven, Research Assistant Professor; 2000**  
B.C.E., M.S.C.E. (Auburn), Ph.D. (University of Virginia-Charlottesville)
- Jones, Warren T., Professor Emeritus of Computer and Information Sciences; 1979**  
B.S.E.E. (Georgia Institute of Technology), M.S. (Georgia State), M.S., Ph.D. (Georgia Institute of Technology), P.E. (Kentucky)
- Kahn, Shirley Salloway, Assistant Professor of Educational Leadership; Vice President for Development, Alumni, and External Relations; 1981**  
B.S., M.A., Ph.D. (Alabama)
- Kamii, Constance, Professor of Early Childhood Education; 1984**  
B.S., M.A., Ph.D. (Michigan)
- Karpeshina, Yulia, Professor of Mathematics; 1995**  
M.S., Ph.D. (Saint Petersburg, Russia)
- Kasman, Yakov, Assistant Professor of Music; 2002**  
B.M. (Music College of Moscow Conservatory), M.M., D.M.A. (Moscow State Conservatory)
- Kawai, Ryoichi, Associate Professor of Physics; 1991**  
B.S., M.S., Ph.D. (Waseda, Japan)
- Kay, Matthew, Research Assistant Professor of Biomedical Engineering; 2001**  
B.E. (Vanderbilt), M.S.B.E., Ph.D. (UAB)
- Keitt, Andrew, Assistant Professor of History; 1999**  
B.A. (Duke), M.A., Ph.D. (UC-Berkeley)
- Kelehear, Zach, Associate Professor of Educational Leadership; 2000**  
B.A., M.A. (Furman), Ed.D. (North Carolina State)
- Keltner, Norman, Professor of Nursing; 1990**  
B.S.N., M.S.N. (Fresno), Ed.D. (San Francisco)
- Kennedy, Karen, Associate Professor of Marketing; 2001**  
B.S. (Blue Mountain), M.S. (Florida State), M.B.A. (Georgia State), Ph.D. (South Florida)
- Key, Susan, Associate Professor of Management; 1995**  
B.A., J.D., M.B.A. (Illinois), Ph.D. (Pittsburgh)
- Kilgo, Jennifer L., Professor of Special Education; 1995**  
B.A. (Auburn), M.Ed., M.Ed. (UAB), Ed.D. (Alabama)
- Kim, Jong-Ean, Research Assistant Professor of Mechanical Engineering; 2003**  
B.S., M.S. (Hanyang University, China), Ph.D. (University of California-Davis)
- Kim, Sue J., Assistant Professor of English; 2003**  
B.A. (Dartmouth), M.A., Ph.D. (Cornell)
- King, Judith L., Associate Professor of Labor Studies; Director, Center for Labor Education and Research; 1981**  
B.A. (Michigan State), M.Ed., M.A. (Illinois)
- Kirkland, Lynn, Associate Professor of Early Childhood; 1998**  
B.S., M.A., Ed.S. (UAB), Ed.D. (Alabama)
- Kitchin, Elizabeth M., Assistant Professor, Clinical Nutrition and Dietetics Division; 1997**  
R.D., M.S. (Virginia Polytech)

**Klapow, Joshua C., Assistant Professor of Psychology; 1996**  
B.A. (California-Los Angeles), Ph.D. (San Diego State)

**Kluge, Janice V., Professor of Art and Art Education; 1982**  
B.F.A. (Illinois), M.A., M.F.A. (Wisconsin-Madison)

**Knisley, Stephen B., Associate Professor of Biomedical Engineering; 1994**  
B.S.E. (Duke), Ph.D. (North Carolina)

**Knowles, Ian W., Professor of Mathematics; 1979**  
B.Sc. (Adelaide), M.Sc., Ph.D. (Flinders-South Australia)

**Kohler, Maxie P., Associate Professor of Educational Psychology; 1991**  
B.S. (Univ. Miss. for Women), M.S., Ph.D. (Mississippi State)

**Koomullil, Roy, Assistant Professor of Mechanical Engineering; 2002**  
B.Tech. (Mahatma Gandhi University, India), M.Tech. (Indian Institute of Technology, India), Ph.D. (Mississippi State)

**Krannich, Larry K., Professor Emeritus of Chemistry; 1969**  
B.S., M.S. (Illinois State), Ph.D. (Florida)

**Kraus, David W., Associate Professor of Biology; 1990**  
B.S. (Delaware), Ph.D. (Clemson)

**Kravchuk, Elena, Instructor of Mathematics; 2002**  
M.S. (Donetsk State – Ukraine), Ph.D. (NASU, Donetsk – Ukraine)

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B.A., M.S. (Indiana Institute of Technology), Ph.D. (Andhra)

**Kudryavtsev, Anatoliy B., Research Assistant Professor of Physics; 1997**  
M.S. (Moscow Institute of Physics), Ph.D. (General Physics Institute, Moscow)

**Kurata, Marilyn J., Associate Professor of English; Chair, Department of English; 1978**  
B.S. (Carnegie Mellon), M.A., Ph.D. (Wisconsin)

**Kyle, Chris, Assistant Professor of Anthropology and Social Work; 2000**  
B.A. (Ft. Lewis College), M.A., M.Phil., Ph.D. (Columbia)

**LaGory, Mark, Professor of Sociology; Professor of Urban Affairs; 1980**  
B.A., M.A., Ph.D. (Cincinnati)

**Laken, Debra E., Associate Professor, Respiratory Therapy Program; 1999**  
M.A. Ed. (University of Alabama at Birmingham)

**Lalor, Melinda M., Associate Professor of Civil and Environmental Engineering; Assistant Professor of Environmental Health Sciences; Director, Environmental Health Engineering Graduate Program; 1989**  
B.S. (Birmingham-Southern), M.S.C.E. (UAB), Ph.D. (Vanderbilt)

**Lammon, Carol, Associate Professor of Nursing; 2003**  
B.S.N. M.S.N (UAB) Ph.D. (Alabama)

**Lan, JoAnn Jiang, Associate Professor of Instructional Technology; 1994**  
B.A. (China), M.S.Ed. Ed.D. (Northern Illinois)

**Laughlin, Steven G., Associate Librarian, Administrative Services, Mervyn H. Sterne Library; 1977**  
B.B.A., M.L.S. (Texas), M.P.A. (UAB)

**Lawson, Christopher M., Professor of Physics; 1993**  
B.S. (Oklahoma State), M.S. (Colorado), Ph.D. (Oklahoma State)

**Ledbetter, Bonnie M., Associate Librarian, Reference Services, Mervyn H. Sterne Library; 1971**  
B.A. (Beloit), M.S. (Florida State)

**Lee, James M., Professor Emeritus of Foundations of Education; 1977**  
A.B. (St. Johns), A.M. (Columbia), Ed.D. (Teacher's College, Columbia)

**Lee, Seung-Dong, Professor of Economics; 1979**  
B.A., M.A. (Korea), M.A., Ph.D. (Southern Methodist)

**Lesnick, Daniel R., Associate Professor of History; 1980**  
B.A. (Oberlin), M.A., Ph.D. (Rochester)

**Lewis, Angela K., Assistant Professor of Government; 2003**  
B.A. (Alabama), M.P.A., Ph.D., (Tennessee)

**Lewis, Roger T., Professor of Mathematics; 1975**  
A.B. (Tennessee), M.S. (Florida Institute of Technology), Ph.D. (Tennessee)

**Liber, George O., Associate Professor of History; 1987**  
B.A. (Indiana), M.A. (Harvard), Ph.D. (Columbia)

**Lindquist, Charles A., Associate Professor Emeritus of Justice Sciences; Associate Professor of Government and Public Service; Scientist, Injury Control Research Center; 1978**  
B.A. (Hartwick), A.M. (Temple), Ph.D. (Pennsylvania)

**Litch, Mary M., Assistant Professor of Philosophy; 1996**  
B.S. (Old Dominion), M.S., Ph.D. (Massachusetts)

**Liu, Ray H., Professor of Justice Sciences; Professor of Chemistry; Director, Graduate Program in Forensic Science; 1984**  
LL.B. (Central Police University, Taiwan), Ph.D. (Southern Illinois)

**Loder, Tondra, Assistant Professor of Foundations of Education; 2003**  
B.S. (Birmingham-Southern), M.P.P. (Chicago), Ph.D. (Northwestern)

**Long, Jennifer M., Assistant Librarian, Reference Services, Mervyn H. Sterne Library; 1997**  
B. S. (Bowling Green), M.L.S. (Kent State)

**Long, Ada W., Professor of English; Director, Honors Program; 1977**  
B.A. (Stanford), M.A., Ph.D. (SUNY-Albany)

**Long, Roberta A., Professor Emerita of Elementary Education; 1968**  
B.A. (Bethany), M.Ed., Ph.D. (Oklahoma)

- Long, Sheri Spaine, Associate Professor of Spanish; Chair, Department of Foreign Languages and Literatures; 1992**  
B.A., M.A. (Iowa), Ph.D. (California-Los Angeles)
- Lucas, Linda C., Professor of Biomedical Engineering Dean, School of Engineering; 1982**  
B.S. (Alabama), M.A., M.S., B.S.E., M.S.E., Ph.D. (UAB)
- Mack, Marianne, Assistant Professor of Communication Studies; 2001**  
B.A. (Hollins), M.Ed. (Harvard), M.F.A. (Florida State)
- Macrina, David M., Professor of Health Education; Chair, Department of Human Studies; 1988**  
B.S. (Siena), M.S. (Massachusetts), Ph.D. (Illinois)
- Manning, Gary, Professor Emeritus of Elementary Education; 1972**  
B.S.E., M.Ed.; Ed.D. (Nebraska)
- Manning, Maryann M., Professor of Elementary Education; 1972**  
B.F.A. (South Dakota), M.Ed. (Wayne State), Ed.D. (Nebraska)
- March, Joe L., Assistant Professor of Chemistry; 1999**  
B.S., M.S. (Southwestern Texas), Ph.D. (Texas)
- Marion, Ken R., Professor of Biology; Chair, Department of Biology; Liaison Officer, Marine Environmental Science Consortium; 1971**  
A.B., Ph.D. (Washington)
- Martin, James C., Associate Professor of Physics; 1980**  
B.S. (Florida State), Ph.D. (Georgia Institute of Technology)
- Martin, Kathleen, Assistant Professor of Early Childhood Education; 1999**  
B.A. (Florida State), M.A. (Georgia State), Ph.D. (UAB)
- Martin, Warren S., Professor of Marketing; 1979**  
B.A. (Southern Methodist), M.B.A., Ph.D. (Texas)
- Martin-Ogunsola, Dellita L., Professor of Spanish; 1976**  
B.A. (Louisiana State), M.A., Ph.D. (Ohio State)
- Mathes, Rachel, Assistant Professor of Music; Director of Opera; 1998**  
B.A. (Birmingham-Southern), M.M., D.M.A. (South Carolina)
- Mayer, John C., Professor of Mathematics; Associate Chair, Department of Mathematics; 1984**  
B.A. (Randolph-Macon), M.A., Ph.D. (Florida)
- McAlister, Michael K., Professor of Information Systems; 1975**  
B.S.E.E., B.S.M.E. (Alabama), M.B.A. (Samford), Ph.D. (Iowa)
- McCaleb, Alberta, Associate Professor of Nursing; Chair, Undergraduate Studies, School of Nursing; 1982**  
B.S.N., M.S.N., D.S.N. (Alabama)
- McCarl, Henry N., Professor Emeritus of Economics; 1969**  
B.S. (Massachusetts Institute of Technology), M.S., Ph.D. (Pennsylvania State), C.P.G. (Alabama)
- McClain, Anne, Research Assistant Professor of Mechanical Engineering; 2002**  
B.S., M.S. (Mississippi State)
- McClain, Stephen T., Assistant Professor of Mechanical Engineering; 2002**  
B.S. (University of Memphis), M.S., Ph.D. (Mississippi State)
- McClintock, James B., Professor of Biology; Interim Dean, Graduate School; 1987**  
B.S. (California), M.S., Ph.D. (South Florida)
- McComiskey, Bruce, Associate Professor of English; 1998**  
B.A., M.A. (Illinois State), Ph.D. (Purdue)
- McConnell, Michael N., Associate Professor of History; 1983**  
B.S. (Indiana), M.A. (Youngstown State), Ph.D. (William and Mary)
- McCutcheon, Martin J., Professor Emeritus of Biomedical Engineering; 1967**  
B.S.E.E., M.S.E.E., Ph.D. (Arkansas), P.E. (Alabama)
- McElderry, Cathy, Visiting Professor of Anthropology and Social Work; 2002**  
B.S. (Montevallo), M.S.W., M.P.H. (Atlanta), Ph.D., (Alabama)
- McFarland, Carl E., Jr., Professor of Psychology; Chair, Department of Psychology; 1975**  
B.A., M.S., Ph.D. (Kansas)
- McGee, Gail W., Professor Emeritus of Management; 1983**  
B.S. (Jacksonville State), M.S., Ph.D. (Alabama)
- McIver, Katherine A., Associate Professor of Art History; 1992**  
B.A. (Oregon), M.A., Ph.D. (California-Davis)
- McKissock, Mary L., Lecturer of Information Systems; 1997**  
B.S. (Houston), M.B.A. (Samford)
- McKittrick, Jennifer, Assistant Professor of Philosophy; 1999**  
B.A. (Brown), Ph.D. (MIT)
- McKnight, Andrew, Assistant Professor of Foundations of Education; 2003**  
B.A. (Virginia Commonwealth), M.A.Ed. (William & Mary), Ph.D. (North Carolina at Greensboro)
- McLernon, Dennis J., Assistant Professor of Theatre; 2000**  
B.A. (Allentown), M.Ed. (Auburn-Montgomery), M.F.A. (Alabama-Alabama Shakespeare Festival)
- McPherson, Heather A., Professor of Art History; 1982**  
B.A. (Oregon), M.A. (Sorbonne), Ph.D. (Washington)
- McWilliams, Tennant S., Professor of History; Dean, School of Social and Behavioral Sciences; 1974**  
A.B. (Birmingham-Southern), M.A. (Alabama), Ph.D. (Georgia)
- Meadows, Lee, Associate Professor of High School Education; 1993**  
B.A. (Mississippi), M.A. (Texas), Ph.D. (Georgia)
- Menear, Kristi S., Assistant Professor of Physical Education; 2001**  
B.A. (Louisiana), M.A., Ph.D. (New Orleans)

**Merrill, Hugh, Instructor of Communication Studies; 2002**  
B.A., M.A.(Alabama), Ph.D.(Emory)

**Messina, Frank M., Professor of Accounting Chair, Department of Accounting and Information Systems; 1993**  
B.S. (Livingston), M.Acc., Ph.D. (Mississippi State), C.P.A.

**Millard, Andre J., Professor of History; 1989**  
B.A. (Nottingham-England), M.A. (Mississippi), Ph.D. (Emory)

**Milby, Jesse B., Professor of Psychology; Director, Medical (Clinical) Psychology Doctoral Program; 1968**  
B.A. (Eastern Baptist College), Ph.D. (Alabama)

**Miller, E.T., Professor Emeritus of Civil and Environmental Engineering 1981**  
B.C.E., M.S.C.E. (Georgia Institute of Technology), C.E. (Massachusetts Institute of Technology), Ph.D. (Texas A&M), P.E. (Alabama, Florida, Kentucky)

**Miller, Stephen, Assistant Professor of History; 2001**  
B.A. (Wisconsin-Madison), M.A., Ph.D., (UCLA)

**Mills, Carol B., Assistant Professor of Communication Studies; 2004**  
B.A.(Miami), M.A.(Emerson), Ph.D.(Purdue)

**Mirov, Sergey B., Professor of Physics; 1993**  
Master (Moscow Power Engineering Institute), Ph.D. (USSR Academy of Sciences)

**Mohl, Raymond A., Professor of History; Chair, Department of History; 1996**  
B.A. (Hamilton), M.A.T. (Yale), M.A., Ph.D. (NYU)

**Mohr, Robert D., Instructor of Physics; 2003**  
B.S. (North Georgia), M.S. (Clemson), Ph.D. (Alabama)

**Moore, John K., Assistant Professor of Spanish; 2003**  
B.A.(University of the South), M.A. (Middle Tennessee State), Ph.D. (North Carolina-Chapel Hill)

**Morgan, Kathryn D., Associate Professor of Justice Sciences; 1991**  
B.S., M.A. (Texas Woman's), Ph.D. (Florida State)

**Mosteller, Paul W., Associate Professor of Music; 1988**  
B.S. (West Chester), M.Ed. (Juilliard), D.M.A. (Iowa)

**Moss, Jacqueline, Assistant Professor of Nursing; 2002**  
B.S.N. M.S.N (Georgia State) Ph.D. (Maryland)

**Muccio, Donald D., Professor of Chemistry; 1982**  
B.S., Ph.D. (Ohio State)

**Mun, Eun-Young Assistant Professor of Psychology; 2002**  
B.A., M.A., (Yonsei, South Korea), Ph.D., (Michigan State)

**Munchus, George M., III, Professor of Management; 1976**  
B.S., M.B.A., Ph.D. (North Texas State), A.P.S.

**Murray, Pamela S., Associate Professor of History; 1990**  
B.A. (New Mexico State), M.A., Ph.D. (Tulane)

**Musa, Phillip E., Assistant Professor of Management; 2000**  
B.S., M.S., M.B.A. (Texas Tech)

**Nail, Lance, Associate Professor of Finance; Chairman, Department of Finance, Economics, and Quantitative Methods; 1996**  
B.S. (Alabama), Ph.D. (Georgia)

**Neilson, Michael J., Professor Emeritus of Geology; 1975**  
B.S., Ph.D. (New England, Australia)

**Neiva, Eduardo, Professor of Communication Studies; 1993**  
B.A. (Catholic University of Rio de Janeiro), M.A., Ph.D. (Federal University of Rio de Janeiro)

**Nelson, Catherine N., Assistant Professor of Special Education; 1993**  
B.S. (Millsaps), M. Ed. (Louisiana State), Ph.D. (North Texas)

**Nelson, Dalton S., Instructor of Electrical and Computer Engineering 1994**  
B.S.E.E., M.S.E.E. (UAB), P.E. (Alabama)

**Nemeth, Paula A., Instructor of Biology; 1992**  
B.S. (Northwestern), M.S., Ph.D. (Michigan)

**Newcomer, Bradley R., Associate Professor, Radiography Program; 1997**  
R.M.R.T., Ph.D. (Wright State University)

**Newport, M. Gene, Professor Emeritus of Management; Dean Emeritus, School of Business and Graduate School of Management; 1971**  
B.S. (Eastern Illinois), M.S., Ph.D. (Illinois)

**Nichols, Robert, Research Associate Professor of Mechanical Engineering 2002**  
B.S. (Mississippi), M.S., Ph.D. (Tennessee)

**Nikles, Jacqueline A., Assistant Professor of Chemistry; 2001**  
B.S. (Marietta College), Ph.D. (Case Western Reserve)

**Nkashama, Mubenga N., Professor of Mathematics; 1989**  
B.S., M.S. (National University of Zaire), Ph.D. (Catholic University of Louvain, Belgium)

**Noach, Ralph, Research Associate Professor; 2002**  
B.S., M.S. (Texas A&M), Ph.D. (Texas-Arlington)

**Nonidez, William K., Associate Professor of Chemistry; 1984**  
B.S., Ph.D. (Georgia)

**Nordlund, Thomas M., Associate Professor of Physics; 1990**  
B.A. (Oregon), M.S., Ph.D. (Illinois)

**Norris, Cheryl, Nurse Practitioner; 1993**  
B.S.N. (Jacksonville State), M.S.N. (Alabama)

**Nunn, Grady H., Professor Emeritus of Government and Public Service; 1949**  
B.A., M.A., Ph.D. (New York)

**Olive, J. Fred, III, Associate Librarian; Head, Educational Technology Services, Mervyn H. Sterne Library; 1988**  
B.A. (Samford), M.L.S., Ed.S., Ed.D. (Alabama)

**Oliver, Nathan, Instructor of Management; 2003**  
B.S. (UAB), M.B.A. (Alabama A & M)

- Oliver, Tina, Instructor of Mechanical Engineering; 2002**  
B.S.M.E, M.S.M.E (UAB)
- O'Neil, Peter V., Professor Emeritus of Mathematics; 1978**  
B.S. (Fordham), M.S., Ph.D. (Rensselaer Polytechnic Institute)
- Orihuela, Carlos L., Associate Professor of Spanish; 1994**  
B.A. - Licenciatura in Literature (Universidad Nacional Mayor De San Marcos, Lima), M.A., Ph.D. (Pittsburgh)
- Ort, Eddie P., Professor Emeritus of Elementary Education; 1969**  
B.S. (Georgia Southern), M.A., Ed.D. (Peabody)
- Oversteegen, Lex G., Professor of Mathematics; 1980**  
Kandidaat Doctorandus (Amsterdam), Ph.D. (Wayne State)
- Pang, K. C., Instructor of Management; 2003**  
B.S., M.B.A. (UAB)
- Panion, Henry, III, University Professor; Department of Music; 1987**  
B.S. (Alabama A&M), M.A., Ph.D. (Ohio State)
- Patterson, Burton R., Professor of Materials Science and Engineering; 1981**  
B.E. (Vanderbilt), M.S., Ph.D. (Florida)
- Patterson, Janice, Assistant Professor of Elementary Education; 1999**  
B.S. (Kentucky), M.A. (Western Kentucky), Ph.D. (Wisconsin)
- Patterson, Jerry L., Professor of Educational Leadership; 1996**  
B.S., M.A. (Kentucky), Ph.D. (Ohio)
- Paulk, Diana, Research Assistant Professor; 2003**  
B.A., M.S., EdS., (Florida State), Ph.D., (Nebraska)
- Paustian, Pamela E., Assistant Professor; Health Sciences Program; 2001**  
M.S., (Faulkner University)
- Pemberton, Judy, Assistant Professor of Nursing; 1980**  
B.S.N. M.S.N. (Maryland) Ph.D (UAB)
- Pence, Gregory E., Professor of Philosophy; Coursemaster, Medical Ethics, School of Medicine; 1976**  
B.A. (William and Mary), M.A., Ph.D. (New York)
- Penick, James L., Professor Emeritus of History; 1988**  
B.A. (William and Mary), M.A., Ph.D. (California-Berkeley)
- Perkins, Susan L., Associate Professor; Respiratory Therapy Program; 1976**  
C.R.T.T., R.R.T., M.A. (University of Alabama at Birmingham)
- Perry, Tonya, Instructor of High School Education; 2002**  
B.A. (North Carolina-Chapel Hill). M.Ed. (UAB)
- Peters, Robert, Associate Professor of Civil and Environmental Engineering; 2001**  
B.S. (Northwestern), M.S., Ph.D. (Iowa State)
- Petri, Cynthia J., Associate Professor of Health Education; 1992**  
B.A., M.S., Ph.D. (Purdue)
- Pewitt, J. Dudley, Distinguished Service Professor Emeritus; 1973**  
M.S., M.B.A., D.B.A. (Southern California)
- Pierce, Cecilia M., Associate Professor of High School Education; 1990**  
B.S. (Alabama), M.Ed. (Montevallo), Ed.D. (Alabama)
- Pijuan-Thompson, Vivian, Assistant Professor; Cytotechnology Program; 2000**  
Ph.D. (University of Miami, Coral Gables)
- Pilkerton, Patty A., Senior Assistant Librarian, Technical Services, Mervyn H. Sterne Library; 1988**  
B.S. (Montevallo), M.A. (UAB), M.L.S. (Alabama)
- Pollard, Andrew E., Assistant Professor of Biomedical Engineering; 1996**  
B.S.E., M.S.E., Ph.D. (Duke)
- Pollard, Elizabeth Ayres, Assistant Professor of Theatre; 2003**  
B.A. (New Mexico State), M.A. (Arizona State)
- Poole, Dorothea, Clinical Nurse Specialist; 1993**  
B.S.N. (Tuskegee), M.S.N. (Alabama)
- Powell, Larry, Professor of Communication Studies; Interim Chair; 1998**  
B.A., M.A. (Auburn), Ph.D. (Florida)
- Powers, Ollie S., Associate Professor of Accounting; 1975**  
B.S. (Samford), M.A. (Alabama), C.M.A.
- Powers, Marc, Professor of Theatre; Chair, Department of Theatre; 2000**  
B.A. (Bucknell), M.F.A. (Pennsylvania State)
- Powers, Thomas L., Professor of Marketing Professor of Health Services Administration; 1985**  
B.S., M.B.A. (Eastern Michigan), Ph.D. (Michigan State)
- Price, Marjorie, Associate Professor of Philosophy; 1977**  
A.B. (Barnard), M.A., Ph.D. (New York)
- Quinlan, Kieran, Associate Professor of English; 1986**  
B.A., M.A. (Oxford), M.A., Ph.D. (Vanderbilt)
- Radford, David L., Associate Professor of Elementary and High School Education; Science Education Coordinator, Center for Community Outreach; 1998**  
B.A. (Florida), M.A. (South Florida), Ph.D. (Georgia)
- Randich, Alan, Professor of Psychology; 1991**  
B.A., M.S. (Syracuse), Ph.D. (Dalhousie)
- Ranelli, John E, Lecturer in Computer and Information Sciences; 1984**  
B.A. (Birmingham-Southern), M.A., C.A.S.E., M.S. (UAB)
- Rapp, Doris A., Associate Professor; Surgical Physician Assistant Program; 2003**  
Pharm.D. (University of Kentucky)
- Ray, John A., Assistant Professor of Music; 2003**  
B.M.E., M.M. (Samford), D.M.A. (Alabama)

- Ray, Midge N., Associate Professor; Health Information Management Program and Department of Health Services Administration; 1983**  
R.N., M.S.N. (University of Alabama at Birmingham)
- Rayburn, Frank, Professor Emeritus of Accounting; 1990**  
B.S. (North Carolina-Charlotte), Ph.D. (Alabama), C.P.A., C.M.A.
- Reach, Ray, Instructor of Music; Director of Jazz Ensembles; 1998**  
B.A., B.M.E. (Birmingham-Southern), M.M. (Alabama), M.M. (Eastman), D.M.A. (North Texas)
- Reed, Linda, Assistant Professor of Nursing; 1980**  
B.S.N., M.S.N. (Alabama), Ph.D. (Texas)
- Reilly, Kevin D., Professor of Computer and Information Sciences; Professor of Psychology; 1970**  
B.S. (Creighton), M.S. (Nebraska), Ph.D. (Chicago)
- Reynolds, Dale, Instructor of Music; 1998**  
B.M. (Samford), M.M. (Southwestern Baptist Theological Seminary), Post-M
- Reynolds, Jeff W., Associate Professor of Music; Chair, Department of Music; 1998**  
B.M. (Samford), M.M. (Southwestern Theological Seminary), D.M.A. (Illinois)
- Ridings, Herbert D., Associate Professor; Surgical Physician Assistant Program; 2004**  
M.A. (University of Kentucky)
- Rieger, Sonja O., Professor of Art; 1979**  
B.A. (Massachusetts), M.F.A. (Rutgers)
- Rigney, E. Douglas, Associate Professor of Biomedical Engineering; Associate Dean, School of Engineering; 1989**  
B.S., M.S., Ph.D. (UAB), P.E. (Alabama)
- Ritchey, Ferris J., Professor of Sociology; Associate Professor of Administration/Health Services; Chair, Department of Sociology; 1978**  
B.A., M.A. (Alabama), Ph.D. (Texas)
- Rivera, C. Julio, Associate Professor of Information Systems; 1988**  
B.S., M.S. (Texas A&M), M.B.A. (Southern Mississippi), Ph.D. (Mississippi State)
- Rizk, Tarek, Assistant Professor of Civil and Environmental Engineering; 2003**  
B.S., M.S., (American University of Cairo), Ph.D. (George Washington University)
- Robertson, Randal H., Associate Professor; Department of Health Services Administration; 1978**  
Ph.D. (University of Alabama at Birmingham)
- Robicheaux, Robert A., Professor of Marketing; Chair, Department of Management, Marketing, and Industrial Distribution; 2004**  
B.S., M.B.A., Ph.D. (Louisiana State University)
- Robinson, Loudell Ellis, Professor Emeritus of Accounting; 1970**  
B.S. (Samford), M.S., Ph.D. (Alabama), C.P.A., C.M.A.
- Rogan, W. Boyd, Associate Professor of Educational Leadership; Chair, Department of Leadership, Special Education, and Foundations; 1973**  
B.S., M.Ed., Ed.D. (Western Michigan)
- Rogers, Jack, Associate Professor of Biomedical Engineering; 1994**  
B.S., M.S., Ph.D. (California-San Diego)
- Ross, Don, Professor of Philosophy; 2003**  
B.A., M.A., Ph.D. (Western Ontario)
- Ross, Jill, Assistant Professor of Nursing; 2002**  
B.S.N. (College of St. Catherine) M.S.N. (Florida) Ph.D. (University of Kansas Medical Center)
- Ross, Levi, Instructor of Health Education; 2003**  
B.A. (West Florida-Pensacola), M.P.H., Ph.D. (UAB)
- Roy, Jane, Assistant Professor of Physical Education; 2001**  
B.S., M.A., Ph.D. (Alabama)
- Rushton, William James, IV, Assistant Director of the Honors Program and Adjunct Lecturer of English; 1998**  
B.A. (Vanderbilt), A.B. (Oxford), M.A., Ph.D. (Virginia)
- Ryan, Cynthia, Associate Professor of English; 1998**  
B.S., M.A. (Illinois State), Ph.D. (Purdue)
- Saito, Yoshimi, Professor of Mathematics; 1983**  
B.A., M.A., Ph.D. (Kyoto, Japan)
- Samuels, Sue, Assistant Professor of Music, Director of Bands; 2003**  
B.M. (Furman), M.M. (Georgia State)
- Sanchez-Lopez, Lourdes, Assistant Professor of Spanish; Directo, Spanish for Special Purposes; 2001**  
B.A. (Universidad de Granada), M.A. (Universidad de Jaén), M.A. (Southern Mississippi), Ph.D. (Universidad de Jaén)
- Sapp, Gary L., Professor of School Psychology; 1974**  
B.S. (Campbellsville), M.A. (Kentucky), Ed.D. (Tennessee)
- Schimizzi, Anthony G., Associate Librarian, Technical Services, Mervyn H. Sterne Library; 1978**  
B.A. (Cornell), M.A. (North Carolina), M.L.S. (Kentucky)
- Schmidt, Denise, Assistant Professor of Music; 2002**  
B.M.E. (Florida State), M.M. (North Texas), D.M.A. (Kentucky)
- Schnormeier, Kimberly A., Associate Professor of Theatre; 1991**  
B.F.A. (Miami), M.F.A. (Northwestern)
- Schwebel, David C., Assistant Professor of Psychology; 2000**  
B.A. (Yale), M.A., Ph.D. (Iowa)
- Scott, Robert A., Associate Professor Emeritus of Management; 1976**  
B.A. (Georgia Institute of Technology), M.B.A., Ph.D. (Georgia State)

- Scripa, Rosalia N., Professor of Materials Science and Engineering; Professor of Biomedical Engineering; Associate Provost for Undergraduate Programs and Faculty Affairs; 1976**  
B.S. (Alfred), M.S. (Pennsylvania State), M.S., Ph.D. (Florida), P.E. (Alabama)
- Segner, E. P., Jr., Professor Emeritus of Civil and Environmental Engineering; 1990**  
B.S.C.E., M.S.C.E. (Texas), Ph.D. (Texas A&M), P.E. (Alabama, Texas, Oklahoma, Tennessee)
- Self, William R., Assistant Professor of Communication Studies; 1989**  
B.A. (Montevallo), Ph.D. (Alabama)
- Shackleford, Lee, Instructor of Theatre; 2000**  
B.A. (UAB), M.F.A. (Southern Illinois)
- Shattell, Mona, Assistant Professor of Nursing; 2003**  
B.S.N. M.S.N. (Syracuse) Ph.D. (Tennessee)
- Shealy, David L., Professor of Physics; Chair, Department of Physics; 1973**  
B.S., Ph.D. (Georgia)
- Sheets, Patricia M., Instructor in Counselor Education; 1991**  
B.A., M.A. (UAB), Ph.D. (Alabama)
- Shih, Ming-Hsin (Alan), Research Associate Professor; 2002**  
B.E. (Tamkang University), M.S., Ph.D. (Mississippi State)
- Skrinska, Victor A., Professor, Medical Technology Program; 2001**  
Ph.D. (Cleveland State University)
- Siegal, Daniel, Assistant Professor of English; 2002**  
B.A. (Chicago), M.A., Ph.D. (Virginia)
- Simányi, Nándor, Professor of Mathematics; 1999**  
M.S., Ph.D. (Rolánd Eötvös - Hungary), Dr.M.S. (Hungarian Academy of Sciences)
- Simon, Cliff, Assistant Professor of Theatre; 2002**  
B.A. (Queens), M.F.A. (Texas-Austin)
- Sims, Michele, Assistant Professor of Middle School Education; 1999**  
B.A., M.S. (CUNY), Ph.D. (Pennsylvania)
- Singh, Sanjay K., Associate Professor of Information Systems; 1993**  
B.Com. (St. Xavier), M.B.A. (Georgia College), Ph.D. (Georgia)
- Sisiopiku, Virginia, Associate Professor of Civil and Environmental Engineering; 2002**  
M.S., Ph.D. (Illinois-Chicago)
- Singleton, Tommie, Assistant Professor of Information Systems; 2003**  
B.S., M.B.A. (North Alabama), Ph.D. (Mississippi)
- Skjellum, Anthony, Professor of Computer and Information Sciences; Chair, Department of Computer and Information Sciences; 2003**  
B.S., M.S., Ph.D. (California Institute of Technology)
- Slack, James D., Professor of Government; 1999**  
B.A. (Ohio), M.A., Ph.D. (Miami)
- Sloan, John J., III, Associate Professor of Justice Sciences; Associate Professor of Sociology; Director, Graduate Program in Criminal Justice; 1988**  
B.S., M.A. (Eastern Michigan), Ph.D. (Purdue)
- Sloan, Kenneth, Associate Professor of Computer and Information Sciences; Associate Professor of Biomedical Engineering; 1990**  
Sc.B. (Brown), M.S. (Stevens Institute of Technology), Ph.D. (Pennsylvania)
- Sloane, Michael E., Associate Professor of Psychology; 1982**  
B.A., M.A. (University College, Dublin), Ph.D. (Northwestern)
- Slovensky, Donna J., Professor, B.S. in Health Sciences Program; 1976**  
R.H.I.A., Ph.D. (University of Alabama at Birmingham)
- Smith, Brent L., Professor Emeritus of Justice Sciences; Professor of Sociology; Chair, Department of Justice Sciences; 1981**  
B.A. (Ouachita), M.S., Ph.D. (Purdue)
- Smith, Dennis G., Associate Professor of Electrical and Computer Engineering; 1977**  
B.S.E. (Alabama), M.S.E. (UAB), Ph.D. (Alabama in Huntsville)
- Smith, Frederick P., Professor of Justice Sciences; Professor of Chemistry; 1979**  
B.A. (Antioch), M.S., Ph.D. (Pittsburgh)
- Smith, Jay A., Jr., Professor of Marketing; Ben S. Weil Chair of Industrial Distribution; 1991**  
B.S. (Louisiana State), M.S. (Tennessee), M.B.A., Ph.D. (Maryland)
- Smith, Tommy G., Associate Professor of High School Education; 1989**  
B.S., M.S., Ed.D. (Auburn)
- Smith, Virginia Whatley, Associate Professor of English; 1991**  
B.S. (North Carolina A&T State), M.A., Ph.D. (Boston University)
- Smith, William M., Professor of Biomedical Engineering; Professor of Cardiovascular Disease/Medicine; Interim Chair, Department of Biomedical Engineering; 1994**  
B.S. (Oglethorpe), Ph.D. (Duke)
- Snyder, Scott W., Associate Professor of Research and Early Childhood Special Education; 1988**  
B.A. (SUNY-Potsdam), M.S., Ph.D. (Purdue)
- Soni, Bharat K., Professor of Mechanical Engineering; Chair, Department of Mechanical Engineering; 2002**  
B.S., M.S. (M.S. University, India), Ph.D. (Texas-Arlington)
- Spence, Paul H., Professor Emeritus; Collection Development Librarian, Mervyn H. Sterne Library; 1970**  
A.B., M.A. (Emory), Ph.D. (Illinois)
- Sprague, Alan P., Associate Professor of Computer and Information Sciences; Associate Professor of Medicine; 1988**  
B.A. (Oberlin), M.A.T. (Northwestern), M.S., Ph.D. (Ohio State)

**Stanford, Robert E., Professor of Quantitative Methods; 1982**

B.A. (University of the South), M.A. (Georgia Institute of Technology), Ph.D. (California-Berkeley)

**Stanishevsky, Andrei V., Assistant Professor of Physics; 2002**

M.S. (Minsk Radioengineer Institute-USSR), Ph.D. (Belarus Academy of Sciences -USSR)

**Stephens, B. J., Associate Professor of Mechanical Engineering 1980**

B.S. (UAB), M.S., Ph.D. (Duke), P.E. (Alabama)

**Stephens, G. Lynn, Associate Professor of Philosophy; 1979**

B.A. (Harvard), Ph.D. (Massachusetts)

**Stephens, Jerry W., Librarian and Director, Mervyn H. Sterne Library; 1974**

B.S., M.B.A. (UAB), M.L.S., Ph.D. (Alabama)

**Stevens, Ann M., Associate Professor, Nuclear Medicine Technology Program; 1988**

CNMT, M.S. (State University of New York at Buffalo)

**Stitt, Joseph, Instructor of English; 2003**

B.A., M.A. (Alabama)

**Stocks, Douglas R., Associate Professor Emeritus of Mathematics; 1969**

B.A., M.A., Ph.D. (Texas)

**Stokely, Ernest M., Professor Emeritus of Biomedical Engineering 1990**

B.S.E.E. (Mississippi State), M.S.E.E., Ph.D. (Southern Methodist), P.E. (Texas)

**Stolz, Günter, Professor of Mathematics; 1994**

Ph.D. (Frankfurt, Germany)

**Stream, Christopher, Assistant Professor of Government; 2002**

B.A. (Nebraska), M.S., Ph.D., (Florida State)

**Summerlin, Lee R., Professor of Chemistry; 1972**

A.B. (Samford), M.S. (Birmingham-Southern), Ph.D. (Maryland)

**Sutton, Bryce, Assistant Professor of Economics; 2004**

B.A. (Indiana), M.A. (Eastern Illinois), Ph.D. (St. Louis)

**Swan, John E., Professor Emeritus of Marketing 1978**

B.G.A., M.S. (Louisiana State), M.A. (UAB), D.B.A. (Indiana)

**Talbot, Thomas E., Professor Emeritus of Materials and Mechanical Engineering 1967**

B.M.E. (Auburn), M.S. (California Institute of Technology), Ph.D. (Georgia Institute of Technology), P.E. (Alabama, Georgia, Tennessee)

**Tanik, Murat M., Professor of Electrical and Computer Engineering 1998**

B.S. (Middle East Technical), M.C.S., Ph.D. (Texas A&M), P.E. (Texas)

**Tanju, Deborah W., Professor of Accounting 1982**

B.B.A., M.Acc., Ph.D. (Georgia), C.M.A., C.I.A.

**Tanju, Murat N., Professor of Accounting 1977**

B.S. (Academy of Economics and Commercial Sciences, Eskisehir, Turkey), M.Acc., Ph.D. (Georgia), C.M.A., C.P.A.

**Tatum, Karen Elizabeth, Assistant Professor of English; 2003**

B.A., M.A. (Houston), Ph.D. (Alabama)

**Taub, Edward, Professor of Psychology; 1986**

B.A. (Brooklyn), M.A. (Columbia), Ph.D. (New York)

**Taylor, Christopher C., Professor of Anthropology and Social Work; 1991**

B.A. (Yale), M.A. (Paris-X, Nanterre), Ph.D. (Virginia)

**Tent, James E., Professor of History; University Scholar; 1974**

A.B. (Dartmouth), M.A., Ph.D. (Wisconsin)

**Temple, Gale M., Assistant Professor of English; 2001**

B.S. (Michigan), M.A., Ph.D. (Loyola-Chicago)

**Thacker, Robert W., Assistant Professor of Biology; 2000**

B.S. (Duke), M.S., Ph.D. (Michigan)

**Thompson, Michael A., Professor, Nuclear Medicine Technology Program; 1980**

M.S. (Auburn University)

**Tollefsbol, Trygve, Associate Professor of Biology; 1998**

B.S. (Houston), M.S., Ph.D. (North Texas)

**Tong Dieu Van, Associate Librarian, Technical Services, Mervyn H. Sterne Library; 1977**

B.A. (Hue), M.L.S. (Vanderbilt)

**Treutel, Rita B., Instructor of English; 1998**

B.S. (Auburn), M.A. (UAB)

**Trigg, Becky, Instructor of Sociology; 2003**

B.A., M.A., (UAB)

**Tsay, Bor-Yi, Professor of Accounting 1986**

B.S. (National Taiwan), M.B.A. (Eastern Washington), Ph.D. (Houston), C.P.A.

**Tucker, Diane C., Professor of Psychology; Director, Behavioral Neuroscience Doctoral Program; 1984**

B.S., M.S., Ph.D. (Iowa)

**Turner, Kevin, Instructor of Music; 1998**

B.A. (Trinity)

**Turner-Henson, Anne, Professor of Nursing 1982**

B.S.N. (Medical College of Georgia), M.N. (Emory), D.S.N. (Alabama)

**Turpen, Richard A., Associate Professor of Accounting 1993**

B.S. (Birmingham-Southern), M.A., Ph.D. (Alabama), C.P.A.

**Tutwiler, Margaret, Adjunct Professor of Communication Studies; Adjunct Professor of Political Science; 1993**

B.A. (Alabama)

**Twieg, Donald B., Professor of Biomedical Engineering Associate Professor of Cardiovascular Disease/Medicine; 1990**

B.A., M.S. (Rice), Ph.D. (Southern Methodist)

**Tyson, Lawrence E., Associate Professor of Counselor Education; 1997**

B. A. (Atlantic Christian), M.Ed. (Rollins), Ph.D. (Mississippi State)

- Uddin, Nasim, Associate Professor of Civil and Environmental Engineering; 2001**  
B.S. (University of Engineering and Technology, Bangladesh), M.S. (Oklahoma-Norman), Ph.D. (SUNY Buffalo)
- Underwood, Robert, Assistant Professor of Marketing; 2001**  
B.S., M.B.A. (Alabama), Ph.D. (Virginia Polytechnic Institute)
- Underwood, Stephen S., Associate Professor Emeritus of Elementary Education; 1969**  
B.S., M.A. (Middle Tennessee State), Ed.D. (Alabama)
- Uswatte, Gitendra, Assistant Professor of Psychology; 2001**  
B.A. (Princeton), M.A., Ph.D., (UAB)
- Vaidya, Uday K., Associate Professor of Materials Science and Engineering; 2001**  
B.S.M.E. (Karnataka University, India), M.S. (Shivaji University, India), Ph.D. (Auburn)
- Van Matre, Joseph G., Professor of Quantitative Methods; 1971**  
B.E.E., M.B.A. (Auburn), Ph.D. (Alabama)
- Van Sant, John, Assistant Professor of History; 2000**  
B.A., M.A. (UC-Davis), Ph.D. (Oregon)
- Vaughan, Loy O., Jr., Associate Professor of Mathematics; 1969**  
B.A. (Florida State), M.S., Ph.D. (Alabama)
- Vaughn, Gregg L., Associate Professor of Electrical and Computer Engineering; Chair, Department of Electrical and Computer Engineering; 1979**  
B.S.E.E., M.S., Ph.D. (Alabama), P.E. (Alabama)
- Velu, Sadanandan, Research Assistant Professor of Chemistry; 2002**  
B.Sc., M.Sc. (Calicut – India), Ph.D. (Madras – India)
- Vincent, Janice, Assistant Professor of Nursing; 1983**  
B.S.N. (Samford), M.S.N. (Medical College of Georgia), D.S.N. (Alabama)
- Vohra, Yogesh K., Professor of Physics and University Scholar; Professor of Materials Science and Engineering; 1992**  
B.S., M.S., Ph.D. (Delhi, India)
- Vuchinich, Rudy, Professor of Psychology; 2001**  
B.S., (Indiana State), M.A., Ph.D., (Vanderbilt)
- Wadley, Virginia, ResearchVoltz, Deborah, Associate Professor of Special Education, 2003**  
B.A. (National College of Education-Evanston), M.A. (UAB), Ed.D. (Alabama)
- Vyazovkin, Sergey, Assistant Professor of Chemistry; 2001**  
B.M.S., M.A., Ph.D., Ph.D. (Belorussian – Russia)
- Wailles, Carolyn A., Instructor of Mathematics; 2002**  
B.A. (Birmingham Southern), M.A.Ed. (UAB)
- Walden, Carolyn E., Associate Librarian, Technical Services, Mervyn H. Sterne Library; 1978**  
B.M., M.A. (Iowa), M.M. (Cincinnati)
- Walker, Chris D., Assistant Professor of Anthropology and Social Work; 1999**  
B.S.S.W., M.S.W. (Alabama)
- Walker, Joe, Associate Professor of Finance; 1987**  
B.A., B.S. (Baylor), Ph.D. (Texas A&M)
- Wallander, Jan, Professor of Psychology; 1986**  
B.A. (Ashland), M.S., Ph.D. (Purude)
- Walley, Amanda C., Associate Professor of Psychology; 1989**  
B.S. (Simon Fraser), Ph.D. (Indiana)
- Walsh, Edward, Research Assistant Professor of Biomedical Engineering; 1992**  
B.S., Ph.D. (Worcester)
- Walsh, Peter, Research Professor of Mechanical Engineering; 2002**  
B.S. (Robert College, Turkey), M.A. (Wesleyan University), Ph.D. (Cornell)
- Wang, Yu-mei, Associate Professor of Educational Technology; 2002**  
B.A. (Harbin Normal – China), Ph.D. (Oregon-Eugene)
- Ward, James R., Jr., Professor of Mathematics; 1989**  
B.A., M.A., Ph.D. (South Florida)
- Watkins, Charles L., Professor of Chemistry; Associate Dean, School of Natural Sciences and Mathematics; 1970**  
B.S. (Alabama), M.S., Ph.D. (Florida)
- Watkins, Frank E., Jr., Associate Professor of Accounting; 1980**  
B.S., M.S., J.D. (Tennessee), Ph.D. (Louisiana State), C.P.A.
- Watson, R. Douglas, Professor of Biology; 1988**  
B.S. (Southern Utah State), Ph.D. (Iowa)
- Watts, Stephen A., Professor of Biology; 1987**  
B.S. (Auburn), M.A., Ph.D. (South Florida)
- Waugh, Jonathan B., Associate Professor, Respiratory Therapy Program; 1999**  
Ph.D. (Ohio State University)
- Wdowiak, Thomas J., Associate Professor Emeritus of Physics; 1976**  
B.S. (South Florida), Ph.D. (Case Western Reserve)
- Weatherly, C. Diann, Senior Assistant Librarian, Reference Services, Mervyn H. Sterne Library; 1985**  
B.A. (Berry), M.L.S. (Emory)
- Webb, Samuel L., Associate Professor of History; 1988**  
B.S. (Livingston), J.D. (Alabama), M.A. (UAB), Ph.D. (Arkansas)
- Wech, Barbara, Assistant Professor of Management; 2001**  
B.S. (Wayne State), M.B.A. (Michigan State), Ph.D. (Louisiana State)
- Weikard, Rudi, Professor of Mathematics; Chair, Department of Mathematics; 1990**  
Diploma, Ph.D. (Technical University of Braunschweig, Germany)
- Weinstein, Gilbert, Associate Professor of Mathematics; 1991**  
B.A. (Haifa, Israel), M.Ph., Ph.D. (Syracuse)
- Weller, Rosalyn E., Associate Professor of Psychology; 1986**  
B.A. (Pennsylvania State), Ph.D. (Vanderbilt)

**Wells, Jeffrey, Assistant Professor of Justice Sciences; 1998**

B.A. (Washington), M.S. (Washington State), Ph.D. (Illinois-Chicago)

**Wenger, Lowell E., Professor of Physics; Dean, School of Natural Sciences and Mathematics; 2003**

B.S., M.S., Ph.D. (Purdue)

**Whall, Mary B., Instructor of Philosophy; 1993**

B.A. (UAB), Ph.D. (Georgia)

**Wharton, Lawrence G., Associate Professor of English; 1974**

B.A., M.A. (Oklahoma State), Ph.D. (Utah)

**Wheatley, Bruce P., Associate Professor of Anthropology and Social Work; 1979**

A.B. (California-Berkeley), Ph.D. (California-Davis)

**Whitaker, Elaine E., Associate Professor of English; Associate Chair, Department of English; 1985**

B.A. (Hendrix), M.A., Ph.D. (New York)

**Whittle, Rachel, Assistant Professor of English; 2002**

B.A., M.Ed. (Mississippi), Ph.D. (Southern Mississippi)

**Wibbels, Thane, Associate Professor of Biology; 1993**

B.S. (Nebraska), M.S. (Houston), Ph.D. (Texas A&M)

**Wiesner, Margit, Research Assistant Professor of Psychology; 2001**

Diploma (Free University of Berlin), Ph.D., (Friedrich Schiller University of Jena, Germany)

**Wills, Edward L., Research Associate Professor of Physics; 1972**

B.S., M.S. (Auburn), Ph.D. (Virginia)

**Wilson, Bettye G., Associate Professor, Radiography Program; 1992**

M.A.E. (University of Alabama at Birmingham)

**Wilson, Kenneth L., Associate Professor of Sociology; 1989**

B.A. (Iowa), M.A., Ph.D. (Texas)

**Wilson, Michele, Associate Professor of Sociology; Director, Women's Studies Program; 1976**

B.A. (Boston), M.A. (Rhode Island), Ph.D. (Connecticut)

**Windle, Michael, Professor of Psychology; Director, Developmental Psychology Doctoral Program, 1998**

M.A. (Southern Illinois), Ph.D. (Pennsylvania State)

**Wittig, John W., Senior Lecturer in Communication Studies; 1981**

A.B. (Carson-Newman), M.A. (Florida), Ph.D. (Southern Illinois)

**Wood, Jacqueline, Assistant Professor of English, 1999**

B.A. (Ohio Wesleyan), M.A. (Western Kentucky), M.A. (Florida Atlantic), Ph.D. (Florida)

**Woodring, Barbara C., Professor of Nursing Associate Dean Undergraduate Program; 2000**

B.S.N. (Grace College), M.S. (St Frances College), M.A.-nursing (Ball State), M.A.-education (Johns-Hopkins), Ed.D. (Ball State)

**Worthington, Lou Anne, Associate Professor of Special Education; 1996**

B.S., M.S. (Auburn), Ph.D. (Alabama)

**Wright, Annette, Nurse Practitioner; 2002**

B.S.N. (Auburn) M.S.N. (Troy State)

**Wright, Erin, Associate Professor of Art; 2001**

B.F.A. (Colorado State), M.F.A. (Arizona)

**Wright, Penelope, Associate Professor of Nursing; 1989**

B.S.N. (Emory), M.S.N. (Northern Illinois), Ph.D. (Northwestern)

**Wright, Rex A., Associate Professor of Psychology; 1987**

B.A. (Texas), M.S., Ph.D. (Kansas)

**Xie, Dong, Research Associate Professor of Biomedical Engineering; 1999**

B.E. (E. China Univ.), M.S. (Hubei, China), M.S., Ph.D. (Ohio)

**Yamada, Sumio, Assistant Professor of Mathematics; 2001**

B.A. (Princeton), Ph.D. (Stanford)

**Yoels, William C., Professor of Sociology; 1982**

B.A. (Queens), M.A., Ph.D. (Minnesota)

**York, Will, Professor of Theatre; 1999**

B.F.A., M.F.A. (Ohio)

**Young, John H., Professor Emeritus of Physics; 1969**

B.A. (Gettysburg), M.S. (New Hampshire), Ph.D. (Clark)

**Zahariadis, Nikolaos, Assistant Professor of Government; 1998**

B.A. (Slippery Rock), M.A., Ph.D. (Georgia)

**Zeng, Yanni, Associate Professor of Mathematics; 1997**

B.S., M.S. (Zhongshan, China), Ph.D. (New York)

**Zhang, Chengcui, Assistant Professor of Computer and Information Sciences; 2004**

B.S., M.S. (Zhejiang University, P.R.C.), Ph.D. (Florida International)

**Zou, Henghui, Associate Professor of Mathematics; 1994**

B.S. (Xiangtan, P.R.C.), M.S. (Peking, P.R.C.), Ph.D. (Minnesota)

**Zuckerman, Edward D., Associate Professor of Theatre; 1999**

B.A. (Westchester State), M.F.A. (Wayne State)

**Zvanut, Mary E., Associate Professor of Physics; 1992**

B.S., M.S., Ph.D. (Lehigh)

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