2026-2027 Student Handbook

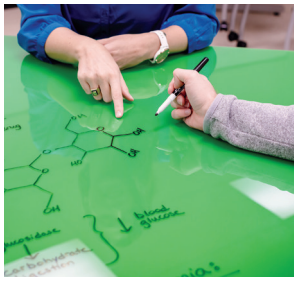
Department of Clinical & Diagnostic Sciences

MS in Biotechnology











UAB
The University of Alabama at Birmingham

School of Health Professions

UAB School of Health Professions

Department of Clinical and Diagnostic Sciences

Master of Science in Biotechnology

2026-2027 Academic handbook

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School of Health Professions	

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INTRODUCTION

DEAN'S WELCOME MESSAGE

Welcome to the University of Alabama at Birmingham School of Health Professions where you are joining a legacy of excellence!

We are one of the six schools comprising the renowned UAB Academic Health Center. We offer more than 30 programs and 40 offerings at the certificate, baccalaureate, master's, and doctoral levels. And we are home to nearly 3,000 undergraduate and graduate students.

You came here for an outstanding education, and we provide exactly that. However, **only you** can control whether you will become an excellent professional. To do so, you must challenge yourself every day and take advantage of all our vast resources, state-of-the-art facilities and research opportunities during your academic and clinical education. You also need to make the most of your access to the world-class faculty who are here to teach and support your journey. You didn't enroll here to be to be an amateur. You came to become a professional, and not an average one. I encourage you to become a "Pro" and an excellent one at that. Own it, live it, excel at what you do, and make both us and yourself proud.

I look forward to seeing you grow in your respective fields and watching you become the leader we know you can be.

Go Blazers!

Mark Merrick, Ph.D., AT, ATC, FNATA, FNAP, FASAHP
Dean, UAB School of Health Professions

OVERVIEW OF THE SCHOOL OF HEALTH PROFESSIONS

The UAB School of Health Professions (SHP) is one of the largest academic institutions of its type in the United States. What began in the 1950s as a collection of training programs in various para-professional disciplines has grown into an internationally recognized center of academic and research excellence.

Today, we have five academic departments – Clinical and Diagnostic Sciences, Health Services Administration, Nutrition Sciences, Occupational Therapy, and Physical Therapy – that are housed in four buildings: Susan Mott Webb Nutrition Sciences Building (WEBB), Learning Resource Center (LRC), the School of Health Professions Building (SHPB), and the Center for Biophysical Sciences and Engineering (CBSE).

We are proud of many accomplishments including:

- *U.S. News & World Report* ranks all eligible SHP programs in the nation's top 25.
- Research funding is at an all-time high of $26+ million and growing.
- Nearly 10 of our programs you will only find in Alabama at UAB.

- Our school has never been stronger or better positioned as a national leader in health professions education. And this status will only grow stronger as we continue to welcome students like you.

DISCLAIMER
This Handbook is an overview of general academic regulations specific to SOHP programs at UAB. Although UAB will make its best efforts to abide by this handbook, UAB reserves the right to interpret and apply its procedures and policies, and to deviate from these guidelines, as appropriate in the particular circumstances and in accordance with the mission and goals of the program. UAB also reserves the right to address issues not covered in this handbook and to make changes to the policy without advance notice. Changes become effective at the time the proper authorities determine so and the changes apply to both prospective students and those already enrolled. Please refer to our website for the most up-to-date version.

All students are responsible for knowing and abiding by the general University rules and regulations pertaining to studying at UAB and the specific academic requirements of their particular degree program. This Handbook is not intended to nor does it contain all policies or regulations applicable to students. Each student is responsible for familiarizing him/herself with the contents of this Handbook. Although the policies contained herein are intended to reflect current rules and policies of the University, users are cautioned that changes or additions may have become effective since the publication of this material. In the event of a conflict, current statements of Board policy contained in the Bylaws, Rules, official minutes, and other pronouncements of the Board or Chancellor, or superseding law, shall prevail.

This Handbook does not constitute a contract and may not be deemed or construed as part of any contract between UAB and any student or student representative.

IMPORTANT INFORMATION YOU SHOULD KNOW

Although UAB works hard to prepare students for future careers in their desired fields, employment and salaries are not guaranteed. Employment outcomes depend on a student's efforts and market conditions. Students are responsible for understanding their financial responsibilities. Tuition costs can be found on this UAB website. Scholarships are competitive and not guaranteed. Admission to other graduate or professional programs is also not guaranteed. Advisors will provide students with guidance, but students are ultimately responsible for degree completion, and timelines for completion may vary based on individual circumstances.

SECTION 1 – SCHOOL AND UNIVERSITY INFORMATION

ACADEMIC CALENDAR

All dates related to registration, payments of tuition and fees, drop/add dates, other administrative requirements, and official school holidays are recorded on the UAB Academic Calendar.

ACADEMIC INTEGRITY CODE

The University established a new Academic Integrity Code effective August 23, 2021. This Code, which applies to undergraduate, graduate, and professional students as well as all academic activities, defines academic misconduct and outlines procedures for breaches of the code. The Academic Integrity Code process is managed by the Academic Integrity Coordinator (AIC). In the School of Health Profession, the AIC is the Associate Dean for Academic and Faculty Affairs, and the office is located in SHPB 660. You can see the full text of the Academic Integrity Code online.

ADVISING

Undergraduate student advising is provided through advisors assigned to each program as well as through the Office of Student Services. Advisor and recruiter contact information can be found on the Office of Student Services Website. Graduate student advising is provided through the SHP graduate programs.

AMBASSADORS

Ambassadors help to spread awareness of the School of Health Professions and its multifaceted undergraduate and graduate programs, serve as liaisons between the department and university-wide student organizations, and serve as a student voice in school and university committees. The SHP Ambassadors help to support the programs within the school that will impact recruitment and retention initiatives. You can learn more about the SHP Ambassadors on their webpage.

ASKIT

AskIT is the technology help desk for faculty, staff, and students. You will be asked to supply your BlazerID when you request assistance. Contact them by phone at 205-996-5555 or via email or visit the AskIT service portal online.

ATTENDANCE

Class attendance is expected in all SHP programs. Specific class, laboratory, or clinical site attendance requirements may be more stringent than university guidelines. Refer to the program requirements in this handbook and in course syllabi for policies. The UAB attendance policy is as follows:

The University of Alabama at Birmingham recognizes that the academic success of individual students is related to their class attendance and participation. Each course instructor is responsible for establishing policies concerning class attendance and make-up opportunities. Any such policies, including points for attendance and/or participation, penalties for absences, limits on excused absences, total allowable absences, etc., must be specified in the course syllabus provided to students at the beginning of the course term. Such policies are subject to departmental oversight and may not, by their specific prescriptions, negate or circumvent the accommodations provided below for excused absences.

The University regards certain absences as excused and in those instances requires that instructors provide a reasonable accommodation for the student who misses assignments, presentations, examinations, or other academic work of a substantive nature by virtue of these excused absences. Examples include the following:

- Absences due to jury or military duty, provided that official documentation has been provided to the instructor in a timely manner in advance.
- Absences for students who have approved disability-related absence accommodations through Disability Support Services may follow the reasonable number of absences outlined in their flex plan or as determined by the instructor. Students are responsible for notifying instructors of these and any other approved accommodations through their Notice of Accommodations letter.
- Absences due to participation in university-sponsored activities when the student is representing the University in an official capacity and as a critical participant, provided that the procedures below have been followed:
    - Before the end of the add/drop period, students must provide their instructor a schedule of anticipated excused absences in or with a letter explaining the nature of the expected absences from the director of the unit or department sponsoring the activity.
    - If a change in the schedule occurs, students are responsible for providing their instructors with advance written notification from the sponsoring unit or department.
- Absences due to other extenuating circumstances that instructors deem excused. Such classification is at the discretion of the instructor and is predicated upon consistent treatment of all students.
- Absences due to religious observances provided that students give faculty written notice prior to the drop/add deadline of the term.

In these instances, instructors must give students the opportunity to complete assignments in a way that corresponds as much as possible to the nature, scope, and format of the original. Options may include making up exams or other assignments, rescheduling student classroom presentations, or arranging for early or late submission of written assignments. The course make-up policy should be included in the syllabus.

BLAZERID / BLAZERNET / EMAIL

BLAZERID

All students receive a unique identifier, the BlazerID, established at BlazerID Central. Your BlazerID is required for accessing BlazerNET and other campus resources. To activate one's BlazerID, select "Activate Accounts."

BLAZERNET

BlazerNet is the official portal of the UAB information network and is accessible from any Internet-accessible computer, on- or off-campus.

EMAIL

UAB student email is provided through Microsoft Office 365, a cloud-based system. Students have 50 GB of email space and 25 GB of free file 1 TB storage. The UAB email is the official communication medium for courses, news, information, and announcements. Students should not forward their UAB account to a personal email account. UAB is not responsible for information not received by the student due to the 'redirecting' of a UAB account to another email server.

BLAZER EXPRESS

The UAB Blazer Express Transit System provides transportation throughout the UAB campus. With a valid UAB ID badge, students can enjoy fare-free bus transportation. All buses are ADA-accessible and can seat approximately 35 riders. For an updated schedule, route maps, and hours of operation please visit the Blazer Express website.

BOOKSTORE

There is one bookstore located on the UAB campus in the Hill Student Center. It offers a wide variety of products and services to students, including online purchasing and shipping. The bookstore stocks UAB memorabilia and college wear in addition to all required textbooks and course material. Visit the UAB Barnes and Noble Bookstore online for more details.

CAMPUS ONECARD

The UAB OneCard is the official university identification card. It is used for personal identification, for entry to campus events and the recreation center, for library checkout, and for other UAB services. It also serves as a declining balance card for the UAB meal plans and for Blazer Bucks accounts. Additional information is available on the UAB OneCard website.

CAMPUS MAP

UAB's campus map can be found online.

CAMPUS SAFETY

Campus safety procedures and resources can be accessed online.

CANVAS LEARNING MANAGEMENT SYSTEM

The Canvas Learning Management System is the platform used for managing instructional materials online. Canvas course sites are accessed through BlazerNET or at the UAB Center for Teaching and Learning website. Students should monitor their course sites routinely for communication from faculty and to manage course assignments.

CATALOG

The UAB Catalog is published annually and includes UAB's courses, policies, and curricula. Students can find the Undergraduate or Graduate catalog online.

COMMUNITY STANDARDS AND ACCOUNTABILITY

Community Standards and Accountability is responsible for upholding the integrity and purpose of the University through the fair and consistent application of policies and procedures to students' behavior to ensure a community that respects the dignity and right of all persons to reach their highest potential. UAB Student Advocacy, Rights & Conduct (SARC) delivers programs and services in order to promote student safety and success, the pursuit of knowledge, respect for self and others, global citizenship, personal accountability and integrity, and ethical development. More information can be found at the UAB SARC website. The UAB student conduct code may be accessed online.

COUNSELING SERVICES

Student Counseling Services offers no cost, confidential counseling for UAB students related to physical, emotional, social, intellectual, or spiritual concerns. Student Counseling Services is located on the 3rd floor of the Student Health and Wellness Center at 1714 9th Avenue South. For more information, call 205-934-5816 or visit the Student Counseling Services website.

DISABILITY SUPPORT SERVICES (DSS)

UAB is committed to providing an accessible learning experience for all students. If you are a student with a disability that qualifies under the Americans with Disabilities Act (ADA) and/or Section 504 of the Rehabilitation Act, and you require accommodations, please contact Disability Support Services for information on accommodations, registration, and procedures. Requests for reasonable accommodations involve an interactive process and consist of a collaborative effort among the student, DSS, faculty, and staff. If you have a disability but have not contacted DSS, please call 205-934-4205 or visit the DSS website.

If you are a student registered with Disability Support Services, it is your responsibility to contact the course instructor to discuss the accommodations that may be necessary in each course. Students with disabilities must be registered with DSS and provide an accommodation request letter before receiving academic adjustments. Reasonable and timely notification of accommodations for the course is encouraged and provided to the course instructor so that the accommodations can be arranged.

EMERGENCIES

Report suspicious or threatening activity to the UAB Police Department immediately. Law enforcement officers are available 24 hours, seven days a week. Also, more than 300 emergency blue light telephones connected directly to the police dispatch are located throughout campus.

Behavioral Threat Assessment and Management (BTAM)

The UAB and UAB Medicine Behavioral Threat Assessment and Management Team (BTAM) is an interdisciplinary team dedicated to maintaining a safe, secure, and healthy campus environment for all students, employees, and visitors. BTAM uses a structured, proactive process to identify, assess, and manage behavioral threats to campus safety and well-being. Concerning behaviors—such as a significant change in academic performance or conduct, aggressive or irrational behavior, expressions of severe distress, or inability to control anger—should be reported promptly. Non-emergency situations involving students may be reported through the Division of Student Affairs at (205) 975-9509 or via the online reporting form. For more information, visit the UAB BTAM website.

UAB Police:

For an emergency, dial 911 *from a campus phone*. For non-emergencies call: 205-934-3535 or 205-934-HELP (4357) or 205-934-4434.

Emergencies affecting campus are communicated via the following:

- UAB Severe Weather & Emergency Hotline 205-934-2165
- UAB home webpage
- UAB Emergency Management webpage
- Announcements on BlazerNET
- Cell phone messages and SMS text via B-ALERT. Register for B-ALERT online.

Nondiscrimination Statement:

UAB is an Equal Employment/Equal Educational Opportunity Institution dedicated to providing equal opportunities and equal access to all individuals regardless of race, color, religion, ethnicity, national origin, sex (including pregnancy), genetic information, age, disability, and veteran's status. As required by Title IX, UAB prohibits sex discrimination in any education program or activity that it operates. Individuals may report concerns or questions to UAB's Assistant Vice President and Senior Title IX Coordinator. The Title IX notice of nondiscrimination is located online.

FERPA Training

The Family Educational Rights and Privacy Act (FERPA) of 1974 provides protection for all educational records related to students enrolled in an educational program. UAB has a dedicated FERPA website with information about your rights and protection of your records. You may email any questions or concerns about FERPA issues to FERPA@uab.edu. All SHP students are required to complete FERPA Training. The course can be accessed at THIS WEBSITE.

Financial Aid

Financial Aid Counselors are available each day in the One Stop Student Services Office located in the Hill Student Center, 1400 University Blvd. Suite 103. If you have general

questions, you can contact the Office of Student Financial Aid at 205-934-8223 or via email. For additional financial aid information visit the UAB Cost & Aid website.

Food Services

There are several dining facilities available on campus. The campus dining map can show you the closest to the SHP buildings. For additional information about meal plans and campus dining facilities visit the Campus Dining website.

Graduate School

The UAB Graduate School offers doctoral programs, post-master's specialist programs, and master's level programs. Graduate programs in SHP are coordinated through the Graduate School, and students must adhere to the Graduate School policies and procedures. Graduate School information for current students is available at the UAB Graduate School website. Policies and Procedures for the Graduate School can be found in the Graduate School Catalog.

Graduation

All students must complete an application for degree six months prior to graduating and no later than the deadline in the academic calendar. The University holds commencement every semester. Check the UAB commencement website for the most current information.

Health Insurance

To ensure that all students have adequate health care coverage, including ongoing primary and specialty care, the University of Alabama at Birmingham (UAB) requires all students to have major medical health insurance. Students can provide proof of their own private coverage or be enrolled in the Student Health Insurance Plan. The plan is a 1-year commercial policy provided by United HealthCare and is re-negotiated annually. This policy is a comprehensive health insurance policy at an affordable cost that is specifically designed to meet the needs of UAB Students. If you are required to have insurance but have sufficient coverage on another plan and wish to opt out of the Student Health Insurance Plan, you are required to submit a waiver to Student Health Services at the beginning of every semester. More information including submitting a waiver can be found at the UAB Student Health Insurance Waivers website.

HIPAA Training

The Health Insurance Portability and Accountability Act (HIPAA) includes significant requirements for protecting individual privacy of health information. All students in the School of Health Professions must complete an online tutorial and be tested on HIPAA regulations at the time of program admission. A BlazerID is required to access the training site, located at UAB Online Learning. Compliance with the training requirement is monitored by the Office of Academic and Faculty Affairs.

Honor Societies

All students in the School of Health Professions are eligible for consideration for the Alpha Eta Honor Society. The UAB Chapter of this Society recognizes students registered in the final term

of a baccalaureate or graduate health professions program. Inductees must have a cumulative grade point average of 3.0 (4.0 = A) and be in the upper 10% of their program. Nominations are made by program directors in spring and summer terms.

Immunization Policy

To provide a safe and healthy environment for all students, faculty, and staff at the University of Alabama at Birmingham (UAB), first-time entering students, international students and scholars, and students in clinical & non-clinical programs, must provide proof of immunization against certain diseases, unless they have an approved medical or religious exemption. Full details can be found on the UAB Immunizations webpage.

Institutional Review Board for Human Use (IRB)

Student researchers must comply with all requirements for protection of human subjects. Detailed information is available on the IRB website.

Intellectual Property

Intellectual property refers to an asset that originated conceptually, such as literary and artistic works, inventions, or other creative works. These assets should be protected and used only as the creator intends. Training materials defining inventor status, patent criteria, and other intellectual property issues, as well as University Policies on Patents, Copyright, and Intellectual Property are on the Office of Compliance & Risk homepage.

Lactation Centers

The University has provided several lactation centers for students, faculty, and staff across the campus. Visit the UAB Lactation Resources webpage for a resource guide and a location map. The School of Health Professions' lactation room is in the Susan Mott Webb Nutrition Sciences Building at 1675 University Blvd, Room 431. Lactating students enrolled in the School of Health Professions have access to the room via their student ID/OneCard. If you cannot access the room, contact the building administrator, Julia Tolbert-Jackson at 205-873-5666.

Libraries and Learning Resource Center

UAB's libraries house excellent collections of books, periodicals, microforms, and other media. Students have online remote access to catalogs and online collections. Computers are available for student use during regular hours of operation.

SHP Learning Resource Center (LRC)

The School of Health Professions Learning Resource Center (LRC) provides a unique set of enterprise solutions that promote an exciting, intriguing, and innovative learning environment. It provides audio/visual support, and information technology management of public, classroom, and testing labs. The building is at 1714 9th Avenue South, and the SHP student space is on the second floor. You can contact LRC staff via email or via phone at 205-934-5146.

Lister Hill Library of the Health Sciences

Lister Hill Library (LHL) is the largest biomedical library in Alabama and one of the largest in the south. It is located across the crosswalk from the School of Health Professions.

Mervyn H. Sterne Library

Mervyn H. Sterne Library has a collection of more than one million items supporting teaching and research in the arts and humanities, business, education, engineering, natural sciences and mathematics, and social and behavioral sciences. It is located at 917 13th Street South.

UAB Student Conduct Code

The Student Conduct Code promotes honesty, integrity, accountability, rights, and responsibilities expected of students consistent with the core missions of the University of Alabama at Birmingham. This Code describes the standards of behavior for all students, and it outlines students' rights, responsibilities, and the campus processes for adjudicating alleged violations. Behavior that violates UAB standards of conduct listed within the Student Conduct Code and elsewhere will be subject to disciplinary action through the appropriate conduct process. Whether it is determined that an individual or group is responsible for the violation(s), either by direct involvement or by condoning, encouraging, or covering up the violation, appropriate response will occur with respect to the individual(s) and/or group involved.

Undergraduate Non-Academic Policies

Graduate Non-Academic Policies

One Stop Student Services

The mission of the One Stop is to provide a single point of professional integrated service to students. The One Stop serves students who need assistance with academic records, financial aid, registration, student accounting, OneCard, and other related topics. One Stop is located in the Hill Student Center, 1400 University Blvd. Suite 103. You may contact the One Stop office by phone or email at 205-934-4300, 855-UAB-1STP (855-822-1787), or via email.

Parking

Student vehicles must be registered with UAB Parking and Transportation Services, located at 608 8th Street South. Parking is allocated on a first-come, first-served basis. Parking fees are established by location, payable by semester or year, and are billed to the student's account.

Plagiarism and TurnItIn

Plagiarism violates the Academic Integrity Code and will be addressed in accordance with it. All papers submitted for grading in any SHP program may be reviewed using the online plagiarism monitoring software. Please note that all documents submitted to TurnItIn are added to their database of papers that is used to screen future assignments for plagiarism.

Recreation Center

The Campus Recreation Center is located at 1501 University Blvd. A valid student identification card or membership card is required for access. Facilities include basketball courts, racquetball courts, weight rooms, swimming pools, exercise rooms, and indoor track.

School of Health Professions Awards

All students in the School of Health Professions are eligible for consideration for the SHP Student Awards Program, which includes the following awards:

- Alfred W. Sangster Award for Outstanding International Student – This award is presented annually to an international student in recognition of their academic and non-academic achievements.
- Cecile Clardy Satterfield Award for Humanism in Health Care – This award is made annually to recognize one outstanding student for humanitarianism, professionalism, and commitment to health care.
- Charles Brooks Award for Creativity – This award is made annually in recognition of creative accomplishments such as written publications or artistic contributions which complemented the student's academic activities.
- Dean's Leadership and Service Award – Presented to a maximum of three outstanding SHP students annually, this award recognizes leadership to the School, UAB, and the community.

A call for nominations will be sent to program directors each year. Please refer to the program section of this handbook for awards available to students in individual programs.

School of Health Professions Scholarships

SHP has several scholarship opportunities for students enrolled in SHP programs. The Scholarship Committee, comprised of faculty from each department, reviews and selects awardees. Please go to the SHP Scholarship Application webpage for a list of scholarships and instructions for application.

Application announcements are made by the Office of Academic and Faculty Affairs. Many programs in SHP also have scholarships available to currently enrolled students in those programs. Please refer to the program section of this handbook for more information.

School of Health Professions Shared Values

- Collaboration
- Compassion & Caring
- Excellence & Achievement
- Integrity
- Respect
- Service
- Social Responsibility
- Stewardship

Social Media

Social media can serve as useful communication tools. However, health professions students should use the forums judiciously. For more information visit the UAB Social Media Guidelines webpage. The school's official sites are on the following platforms:

- Facebook
- Instagram
- LinkedIn
- Vimeo
- X/Twitter
- YouTube

Student Health Services

The University provides prevention, counseling, and treatment services to students through Student Health Services (SHS) located at 1714 9th Avenue South. Appointments may be scheduled via their online portal.

Title IX

In accordance with Title IX, the University of Alabama at Birmingham does not discriminate on the basis of sex in any of its programs or services. The University is committed to providing an environment free from discrimination based on sex and expects individuals who live, work, teach, and study within this community to contribute positively to the environment and to refrain from behaviors that threaten the freedom or respect that every member of our community deserves. For more information about Title IX, policy, reporting, protections, resources, and supports, please visit the UAB Title IX webpage.

Tuition and Fees

UAB tuition and fees are published online. They may be paid through BlazerNET. SHP programs have specific fees attached to programs, courses, and/ or laboratories. Payment deadlines for each semester are published on the official academic calendar. Please note that failure to meet payment deadlines can result in being administratively withdrawn from courses.

Weather

Severe weather situations that may affect the safety of students, faculty, and staff are communicated through the same channels as other emergencies. UAB has a dedicated Preparedness webpage with Severe Weather Gathering Points and supply lists. Other information sources include the B-ALERT System (contact information must be setup and current) and the UAB Severe Weather & Emergency Hotline 205-934-2165.

Withdrawal from Course / Program

Withdrawal from a course or from your program is an official process and should be discussed with your academic advisor and/or program director. Most programs in the School of Health Professions are full-time and the curricula specifically sequenced. Withdrawal from a course

may risk you having to wait to register for the class again. Withdrawals are made through the UAB registration system via the Student Resources tab in BlazerNET. Notice of program withdrawal should be given in writing to the program director. For more information visit the UAB Add/Drop, Extended Drop and Withdrawal Policy webpage, which also includes a medical withdrawal policy.

SECTION 2 – SHP AND UAB POLICIES

SCHOOL OF HEALTH PROFESSIONS POLICIES

DISMISSAL OF STUDENT FOR FAILURE TO MAKE SATISFACTORY ACADEMIC PROGRESS

Dismissal of Student and Appeal Process

EMERGENCY PLAN – SHPB/LRC/WEBB

SHPB/LRC/WEBB Emergency Plan

BACKGROUND CHECK AND DRUG SCREEN POLICY

Students in SHP programs are required to undergo a background check and drug screen using the school's approved vendor, Disa Healthcare Technology, at the time of program admission, and again, prior to placement in a fieldwork placement (clinical, internship, practicum, residency, etc.). Additional checks/screens may be required by the individual sites therefore; students should work with the program to ensure compliance requirements are met. Instructions for requesting the background check and drug screens are provided to students by their programs. Students in SHP undergraduate programs must complete a module on drug screening and background checks during their first semester. The module will be located in Canvas, UAB's learning management system.

The SHP Office of Academic and Faculty Affairs is responsible for ensuring student compliance with the Background Check and Drug Screen Policy throughout the program. Students found to be non-compliant with this policy will not be allowed to matriculate in the program (orientation, attend class, fieldwork placement, etc.) until all requirements are met. Program Directors, Fieldwork Coordinators, and students will be notified of non-compliance and a hold will be placed on the students' account.

- Fees for these screenings will be the responsibility of the student.
- The rules and regulations governing individual fieldwork placement sites may include additional provisions and/or more stringent guidelines which supersede this policy. Fees for these screenings are the responsibility of the student.
- Should your criminal background check contain issues, or if you fail a drug screen that may prevent you from receiving or sitting for board certification/licensure, a representative from the Office of Academic and Faculty Affairs will contact you. Depending upon the outcome, students will have a registration hold placed on their account until in compliance and this may result in being dismissed from the program. See your program's guidelines regarding specific consequences.

Programs requiring a criminal background check and drug screening by the end of the first semester of enrollment and again, prior to fieldwork placement (if applicable in the program requirements), are the following:

- Administration Health Services, PhD
- Biomedical Sciences to Biotechnology Fast Track
- Biomedical Sciences to Clinical Laboratory Science Fast Track

- Biomedical Sciences to Health Physics Fast Track
- Biomedical Sciences to Nuclear Medicine & Molecular Imaging Sciences Fast Track
- Biomedical and Health Sciences, MS
- Biotechnology, MS
- Biotechnology, PhD
- Dietitian Education Program, Graduate Certificate
- Genetic Counseling, MS
- Health Administration (Residential), MSHA
- Health Care Management to Healthcare Quality and Safety Fast Track
- Health Care Management to Health Informatics Fast Track
- Health Care Management to Occupational Therapy Doctorate Fast Track
- Health Physics, MS
- Medical Laboratory Science, MS
- Nuclear Medicine & Molecular Imaging Sciences, MS
- Nutrition Sciences, MS
    - Dietetic Internship Clinical Track
    - Dietitian Education Program
    - Research Track
- Nutrition Sciences, PhD
- Occupational Therapy, OTD – (entry level)
- Physical Therapy, DPT
- Physician Associate Studies, MSPAS
- Rehabilitation Science, PhD

The following students enrolled in SHP undergraduate programs will complete a learning module related to background checks and drug screens in Canvas, UAB's learning management system by the first semester of enrollment. If a fieldwork placement (clinical, internship, practicum, residency, etc.) is required, students must complete criminal background checks and drug screens prior to the first day of the semester of a fieldwork placement:

- Health Care Management, BS
- Biomedical Sciences, BS
- Nutrition Sciences, BS
- Disability Studies and Rehabilitation Science, BS

Programs waived from the Criminal Background Check and Drug Screening requirements are the following:

- Applied Mixed Methods Research, Graduate Certificate
- Biotechnology Regulatory Affairs, Graduate Certificate
- Clinical Informatics, Graduate Certificate
- Health Administration (International and Executive tracks), MSHA
- Health Informatics, MSHI
- Healthcare Finance Management, Graduate Certificate
- Healthcare Leadership, DSc

- Healthcare Leadership, Graduate Certificate
- Healthcare Quality and Safety, MS
- Healthcare Quality and Safety, Graduate Certificate
- Health Services Research, MS
- Healthcare Simulation, MS
- Healthcare Simulation, Graduate Certificate
- Nutrition for Community Health, Graduate Certificate
- Nutrition Sciences, MS
    - Clinical Track-Prior Learning
    - Lifestyle Management and Disease Prevention Track
- Low Vision Rehabilitation, Graduate Certificate
- Multi-Tiered Approach to Trauma, Graduate Certificate
- Occupational Therapy Doctorate (Post Professional)
- Physical Therapy Residencies (Neurologic, Orthopedic)
- Primary Care Physical Therapy for Underserved Populations, Graduate Certificate

Students enrolled in exempt programs who participate in a course(s) incorporating community, corporate or other high impact, out-of-classroom activities such as service learning, capstone projects or other hands-on learning experiences, may be required by placement sites to submit background check and drug screening results. Students are responsible for the fees associated with such screening.

DISA HEALTHCARE TECHNOLOGY INSTRUCTIONS

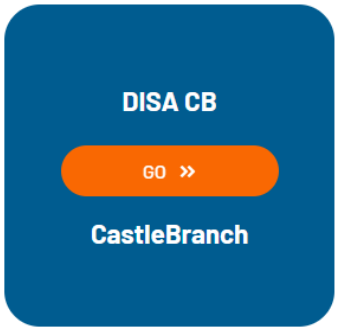
Disa Healthcare Technology is a secure platform that allows you to order your background check & drug test online. Once you have placed your order, you may use your login to access additional features, including document storage, portfolio builders and reference tools. Disa Healthcare Technology also allows you to upload any additional documents required by your school.

Order Summary

- Required Personal Information
    - In addition to entering your full name and date of birth, you will be asked for your Social Security Number, current address, phone number, and email address.
- Drug Test (LabCorp)
    - Within 24-48 hours after you place your order, the electronic chain of custody form e-chain will be placed directly into your CastleBranch account. This e-chain will explain where you need to go to complete your drug test.
- Payment Information
    - At the end of the online process, you will be prompted to enter your Visa or MasterCard information. Money orders are also accepted, but will result in a $10 fee and additional turn-around-time.

Place Your Order

Visit the website, click “place order” and choose the Disa CB platform (see logo screenshot below).



Enter package code AHO1 – Background Check and Drug Test. You will be required to enter your program under “Student Information” classification. You will then be directed to set up your Disa/CastleBranch profile account. This package code is for the following majors:

- Health Care Management
- Biomedical Sciences
- Biotechnology
- Biomedical and Health Sciences
- Genetic Counseling
- Health Administration – Residential (MSHA)
- Health Care Quality and Safety (not employees of health care organizations)
- Health Informatics
- Health Physics
- Medical Laboratory Sciences
- Nuclear Medicine and Molecular Imaging Sciences
- Occupational Therapy
- Physical Therapy
- Physician Associate Studies
- Rehabilitation Sciences

View Your Results

Your results will be posted directly to your Disa/CastleBranch profile account. You will be notified if there is any missing information needed to process your order. Although 95% of background check results are completed within 3-5 business days, some results may take longer. Your order will show as “In Process” until it has been completed in its entirety. Your school’s administrator can also securely view your results online with their unique username and password. If you have any additional questions, you may contact the Service Desk at 888-723-4263 x 7196 or submit a question using the online contact us form.

Accidents / Injuries Occurring on Campus:

All accidents/injuries occurring while involved in a program associated with the School of Health Professions are to be promptly reported to the faculty member in charge of class. Incident reports for accidents and injuries must be filed with the Department Administrative Office within 48 hours of the incident. Failure to report accidents or injuries within 48 hours of the incident may impact UAB's ability to address the accident or injury.

Accident / Injury Reporting Procedure

When a student, visitor, faculty, or staff is involved in an accident or sustains an injury while involved in a program associated with the School of Health Professions, an accident / injury report is required. The faculty member in charge of the class where the injury occurs, or who is the first point of contact following the injury should download and complete this Incident Report Form.

Needlestick/ Blood or Body Fluid Exposures

When a student, visitor, faculty, or staff is involved in a body fluid or needlestick exposure while involved in a program associated with the School of Health Professions, they should follow the procedures on the UAB Human Resources website. The faculty member in charge of the class where the exposure occurs, or who is the first point of contact following the injury should download and complete this Incident Report Form.

Undergraduate and Graduate Volunteer Research:

Undergraduate or graduate volunteer students wanting to conduct research in a School of Health Professions laboratory should contact Dr. Samantha Giordano-Mooga via email for requirements.

UAB Policies

Academic Progress

UAB Academic Progress policy for Graduate Students

UAB Academic Progress policy for Undergraduate Students

Health

UAB Policy on Immunizations

UAB Policy on Needle Sticks and Exposures

Equal Opportunity

UAB Policy on Equal Opportunity and Discriminatory Harassment

Police and Public Safety

UAB Policy on Campus Safety

UAB Policy on Firearms, Ammunition, and Other Dangerous Weapons

Research and Scholarly Activities

UAB Policy on Academic Integrity Code

UAB Policy on Ethical Standards in Research and Other Scholarly Activities

UAB Policy on Patents

Substance Use/Abuse

UAB Policy on Alcoholic Beverages, Use and Consumption

UAB Policy as a Drug Free Campus

UAB Policy on Non-Smoking

Technology

UAB Policy on Technology Resources

Student Complaints

UAB Complaint Policy

PART 3: PROGRAM SPECIFIC INFORMATION
MASTER OF SCIENCE IN BIOTECHNOLOGY

PROGRAM OVERVIEW

Biotechnology is an industry based on biology that harnesses cellular and molecular processes to create novel technologies and products that will positively impact the quality of our lives and the health of our planet. The Biotechnology program at UAB provides students with the training necessary to be part of the industry's specialized workforce. Students will develop a strong knowledge base in science, technology, research, and industry-specific entrepreneurial skills that can translate scientific discovery into commercial products which will ultimately improve the odds for millions of patients around the world who are suffering from diseases for which there are no adequate treatments.

Upon completion of the program, graduates are well prepared for leadership roles in the biotechnology industry including management, research and development, and regulatory affairs. Graduates are also prepared for roles in marketing and commercialization of biotechnology products and technologies and are qualified for jobs with competitive salaries. In the 21st century, the biotechnology industry will be a key economic engine for the United States greatly outpacing other industries with strong job growth. At UAB, we are proud to offer students the specialized training needed for the continued support and growth of the biotechnology industry in the United States.

The Biotechnology program offers a Master of Science degree in-person and online for students. The in-person Master of Science in Biotechnology degree curriculum is divided into categories including the principles of biotechnology, applications of biotechnology, and bench-to-commercialization. The Online Master of Science in Biotechnology is a completely virtual program (no hybrid option available) that provides students with the scientific knowledge and business development skills needed to successfully pursue their goals. The online curriculum is delivered as asynchronous, and the students have access to live class recordings. The in-person and online curricula are similar except for the lab curriculum. In-person students take three 2-credit labs. Online students do not participate in lab. Instead, they take two 3-credit courses in biochemistry and pharmacology. Please note, while there are similarities, the two programs are separate- courses designated for the online program cannot be combined with the in-person courses and vice versa.

INTRODUCTION

Welcome to the Biotechnology Program. This handbook has been compiled to provide you with information to help you as you progress through the program. Where appropriate, the contact for more detailed information on various subjects has been included. If, however, you desire or need further explanation of any matter, or other types of information, please contact your faculty mentor or program manager. The UAB web pages or links are included for some of the sections of this handbook, and you are encouraged to review the links for

information you may need. The UAB and School of Health Professions (SHP) pages have search engines to allow you to input keywords and find information. Also, the academic calendar is located at this website. Refer to the UAB graduate school webpage or the CDS biotechnology webpage for additional information about the Graduate School or updates about the program.

Mission

The Master of Science in Biotechnology program is committed to preparing students for meaningful careers in the biotechnology industry and related scientific fields. Our mission is to provide a transformative educational experience that blends scientific knowledge with practical skills and entrepreneurial insight. We aim to cultivate professionals who are not only technically proficient but also capable of translating scientific discoveries into real-world solutions that improve lives. Through a collaborative and interdisciplinary learning environment, we empower students to think critically, innovate responsibly, and contribute to the advancement of biotechnology.

Goals and Objectives

The Master of Science in Biotechnology is designed to prepare students for careers in various fields involving biotechnology and its related sciences. The program is divided into three major content areas of emphasis to provide students with broad training and education in scientific knowledge, research principles, and business practices and entrepreneurship. Specifically, the curriculum includes broad training and education in:

- Scientific principles and knowledge underlying biotechnology.
- Scientific principles and knowledge underlying emerging diagnostic technologies associated with biotechnology.
- Basic laboratory techniques in biotechnology.
- Instrumentation and automation principles used in the biotechnology industry.
- Legal and regulatory issues in biotechnology.
- Biotech business operations, management, and entrepreneurship.
- More specifically, graduates of this program are expected to demonstrate attributes desirable of biotechnology professionals such as:
- Dependability
    - Demonstrate integrity, honesty, and conscientiousness in work.
    - Accept responsibility for one's own actions.
    - Organize and complete work on schedule without sacrificing accuracy and reliability.
    - Follow established policies and procedures.
    - Punctuality.
    - Submission of coursework by stated deadline.
- Stability
    - Work effectively under conditions of stress and/or change.
    - Maintain a professional demeanor under adverse conditions.

- Ability to interact effectively with others
    - Influence and contribute to a pleasant work environment.
    - Communicate with others in a professional and courteous manner.
    - Contribute willingly to the accomplishment of group endeavors.
- Professionalism
    - Maintain a neat, clean personal appearance complying with existing dress codes.
    - Show initiative and interest to improve technical skills and expand knowledge.
    - Investigate appropriate sources (literature and professional) for technical and professional information.
    - Maintain confidentiality of patient and laboratory data.

NOTE: At the conclusion of each didactic course, students are evaluated based on the above criteria using an Affective Evaluation that will be uploaded to the course Canvas shell. Students are informed of the observations of the faculty so that changes in student behavior can occur, ensuring a successful transition to internships. These behaviors are expected of all students in the classroom and at internships.

The objectives below will be addressed within the Biotechnology courses:

- Interpret and correlate test data:
    - Accurately determine the results of experiments using the appropriate controls, standards, and/or references.
    - Calculate results of experiments performed, if necessary.
    - Evaluate the validity of experimental results in terms of reference intervals, quality control data, and analytical system performance.
    - Correlate results of experiments with other experimental data and pertinent information to identify potential errors.
    - Repeat experiments or perform confirmatory tests or additional procedures as indicated.
    - Record and report results in writing, orally, or by computer conforming to established procedures.
- Institute and monitor quality control and quality assurance measures to optimize precision and accuracy of laboratory tests:
    - Perform quality control procedures on analytical tests, equipment, reagents, media, and products according to protocol.
    - Acknowledge unacceptable control results and take corrective action if indicated.
    - Recognize and correct basic instrument malfunction.
    - Following standard laboratory procedures, document all information such as quality control, maintenance, and remedial actions taken.
    - Set up policies and record forms for a simple quality control program.
    - Use the appropriate safety precautions and barriers in the performance of various tasks in order to prevent the transmission of infectious agents or other laboratory accidents and document any incidents.

- Participate in the development of skills and knowledge needed for technology assessment (statistics, scientific literature analysis, study design, presentations, and evaluation skills):
    - Evaluate data for sensitivity, specificity, and predictive value.
    - Evaluate tests, methods, instruments, and new technology in biotechnology.
    - Evaluate systems processing for total testing for inpatient, outpatient, and point of care and referral specimens.
- Develop a general understanding of regulatory requirements and health & safety management topics governing biotechnology:
    - Describe the purpose of UAB and external agencies concerning safety and biosafety guidelines, standards, laws, and regulations that recommend and/or mandate compliance with established standards of practice.
    - Describe implications for non-compliance with health and safety management practices.
    - Describe federal and state regulatory statutes for the development, approval, and commercialization of drugs, biologics, and medical devices.
- Develop the abilities of critical thinking, innovation, and problem solving:
    - Demonstrate how to identify a specific problem.
    - Use scientific knowledge to propose a solution to the problem.
    - Develop the solution to the problem in the form of a technology.
    - Generate a plan on how to move the technology from the bench to commercialization.

Faculty and Staff

Our faculty creates a culture of innovation and collaboration that embraces social responsibility and entrepreneurial principles. UAB faculty are teachers, scholars, researchers, clinicians, and entrepreneurs who earn the highest honors in their fields, lead professional societies, and provide exceptional mentoring and training. Visit our website to see our faculty and staff.

Essential Requirements and Technical Standards for Admissions, Participation, and Program Completion

Criteria and Required Materials

In order to successfully complete the M.S. in Biotechnology, students must complete the designated academic and internship requirements. In addition to the academic requirements, students must also meet the essential requirements.

The essential requirements are the “physical abilities, mental abilities, skills, attitudes, and behaviors a student must show or perform at each stage of their education.” The absence of an essential requirement would fundamentally alter the program’s goals. The essential requirements include functions in observation, movement, communication, intellect, and behavior.

OBSERVATION

The student must be able to:

- Observe laboratory demonstrations in which biologicals (i.e., body fluids, culture materials, tissue sections, and cellular specimens) are tested for their biochemical, hematological, immunological, microbiological, and histochemical components.
- Observe business or laboratory personnel in internship settings in order to perform assigned projects.
- Characterize the color, odor, clarity, and viscosity of biologicals, reagents, or chemical reaction products.
- Employ a clinical grade binocular microscope to perform tissue culture related objectives.
- Read and comprehend text, numbers, illustrations, and graphs displayed in print, on a projection screen, and on a video monitor.

MOVEMENT

The student must be able to:

- Move freely and safely about a laboratory.
- Travel to research core facilities and businesses for internship experience.
- Perform moderately taxing continuous physical work, often requiring prolonged sitting, in confined spaces, over several hours.
- Maneuver equipment safely around the laboratory in order to facilitate data collection.
- Control laboratory equipment (i.e. pipettes, inoculating loops, test tubes) and adjust instruments to perform laboratory procedures.
- Use an electronic keyboard to operate laboratory instruments and to calculate, record, evaluate, and transmit laboratory information.

COMMUNICATION

The student must be able to:

- Read and comprehend technical and professional materials (i.e. textbooks, magazine and journal articles, handbooks, and instruction manuals).
- Follow verbal and written instructions in order to correctly perform test procedures.
- Communicate with faculty members, fellow students, staff, other health care professionals, and business executives verbally and in a recorded format (writing, typing, graphics, or telecommunication).
- Prepare scientific manuscripts, scientific posters, grant and business proposals, laboratory reports, and take examinations within specified times.

INTELLECT

The student must:

- Possess the following intellectual skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, comparison, self-expression, and criticism.

- Be able to exercise sufficient judgment to recognize and correct performance deviations.

BEHAVIOR

The student must:

- Be able to manage the use of time and be able to systematize actions in order to complete professional and technical tasks within faculty-defined time limits.
- Possess the emotional health necessary to effectively employ intellect and exercise appropriate judgment.
- Be able to provide professional and technical services while experiencing the stresses of task related uncertainty (experimental failures, lack of enthusiasm about a current discovery, disagreements over data interpretations), emergent demands, and a distracting environment.
- Be flexible and creative and adapt to professional and technical changes.
- Recognize potentially hazardous materials, equipment, and situations and proceed safely in order to minimize risk of injury to patients, self, and nearby individuals.
- Adapt to working with unpleasant biologicals.
- Support and promote the activities of fellow students and of healthcare/life science professionals. Promotion of peers helps furnish a team approach to learning, task completion, problem solving, and patient care.
- Be honest, compassionate, ethical, and responsible. The student must be forthright about errors or uncertainty. The student must be able to critically evaluate his/her own performance, accept constructive criticism, and look for ways to improve (i.e. participate in enriched educational activities). The student must be able to evaluate the performance of fellow students and tactfully offer constructive comments.

Meeks, L. M., & Neal-Boylan, L. (Eds.). (2020). *Disability as diversity: A guidebook for inclusion in medicine, nursing, and the health professions*. Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-030-46187-4

TRANSFER CREDIT POLICIES

Students may be eligible to transfer graduate-level coursework completed at another accredited institution toward the Master of Science in Biotechnology degree, subject to Program Director's approval.

A maximum of 12 graduate credit hours may be transferred into the program. The Biotechnology Program reserves the right to determine the number of transfer credits accepted and may establish additional criteria regarding course applicability, content equivalency, recency of coursework, and minimum grades earned.

If the program wishes to apply previously earned coursework toward degree requirements, the Program Director must review and approve the request through the Graduate Planning System (GPS) exception process. Official transcripts and any supporting documentation may be required as part of the review.

Approval of transfer credit is not automatic and is granted at the discretion of the program in accordance with UAB Graduate School policies. Students are encouraged to discuss potential transfer credits with the Program Director as early as possible in their academic program.

Continuous Enrollment Requirements

If you anticipate deviating from the standard curriculum sequence, it is important to discuss your plan with the Program Manager II in advance. Together, you can develop a customized academic plan that aligns with your goals while maintaining program integrity and meeting all graduation requirements.

Examples of curriculum deviations that require planning include:

- Reducing course load for a term or more
- Skipping a term or requesting a leave of absence
- Repeating a course

Leave of Absence, Re-Entry & Withdrawal Procedures

A student who wishes to withdraw from one or more courses, but not the entire semester, must meet with the Program Director before withdrawal to discuss. Withdrawing from any course may delay the student's progression through the program and/or ability to graduate on time.

Students requiring a leave of absence or medical leave of absence should first discuss the request with the Program Director. Students should apply for leave of absence by completing the appropriate form at the Graduate School Forms website.

A student who wishes to voluntarily withdraw from the Biotechnology Program must have approval by the Program Director before the withdrawal is officially made. The student must submit a written statement, in the form of an official business letter, of their intent to withdraw from the program including the effective date of the withdrawal and must schedule a face-to-face, or phone meeting, with the Program Director to discuss the withdrawal. Once approved by the Program Director the official UAB withdrawal is made by the student through the UAB One Stop Student services.

Students should refer to the Academic Calendar for information regarding refunds on tuition and fees. The Tuition Refund Appeals Policy may be found at the following website

- Students who voluntarily withdraw from the program for any reason may only be considered for re-enrollment if they departed in good academic standing.
- NOTE: The failure to attend a class does not constitute a formal withdrawal.

Degree Requirements

Credit Hours

The Master of Science in Biotechnology requires the successful completion of 37 credit hours and all degree requirements as outlined in the current UAB Graduate Catalog and program curriculum.

The program is designed for students to enroll continuously during the fall, spring, and summer semesters and follow the recommended curriculum sequence to ensure timely degree completion.

For enrollment purposes:

- Full-time enrollment is generally defined as 9 or more graduate credit hours.
- Part-time enrollment is generally defined as less than 9 graduate credit hours.

Students are expected to maintain continuous enrollment, make satisfactory academic progress, and work closely with the Program Manager II to ensure completion of degree requirements. Deviations from the recommended course sequence may result in delayed graduation.

CURRICULUM OUTLINE

Prerequisite Courses for Biotechnology

Students entering the Master of Science in Biotechnology program are expected to have completed the following prerequisite coursework or approved equivalents prior to enrollment:

- Pre-Calculus Algebra (or higher) – 3 credit hours
- General Chemistry I with Lab – 4 credit hours
- General Chemistry II with Lab – 4 credit hours
- Introductory Biology – 4 credit hours
- Genetics - 3 credit hours
    - Another biology course applicable toward a degree may be substituted with approval from the Program Director.

The M.S. Biotechnology curricula for both the in-person and online programs are outlined below. Students must successfully complete all classes with a minimum grade of C or higher and maintain an overall GPA of 3.0 or higher to graduate from the program. Please note that an HP designation indicates the class is offered in-person. A designation beginning with “Q”, such as QL, QM, etc., indicates the class is offered online.

With the exception of CDS 610 QL, in-person students are NOT permitted to take online sections. If an in-person student registers for an online (QL) section, they will be instructed to drop and add the correct, in-person section. Additionally, online students are not permitted to take in-person classes. If an online student registers for an in-person (HP) section, they will be instructed to drop and add the correct, online section. It is the student’s responsibility to correctly register for all classes before the add/drop deadline as stated on UAB’s Academic Calendar. Failure to do so may affect the student’s ability to graduate. Visit the UAB Catalog website for course descriptions.

CURRICULUM COURSES FOR BIOTECHNOLOGY (IN-PERSON STUDENTS)

Semester 1 – Fall

- BT 500 HP: Principles of Biotechnology I – Nucleic Acid Technology, 3 credit hours. (Fall only)

- BT 650 HP/A: Applications in Biotechnology I, 2 credit hours. (Fall only)
- BT 670 HP: Bench to Commercialization I, 3 credit hours. (Fall only)
- BT 676 HP: Innovative Technologies in Biotechnology, 1 credit hour. (Taken each semester)
- CDS 610 QL: Research Design & Statistics, 3 credit hours. (Fall only)
- CDS 505 HP: Professional Development, 1 credit hour. (Fall only)

Semester 2 – Spring

- BT 550 HP: Principles of Biotechnology II – Amino Acid Technology, 3 credit hours. (Spring only)
- BT 651 HP/A: Applications in Biotechnology II, 2 credit hours. (Spring only)
- BT 671 HP: Bench to Commercialization II, 3 credit hours. (Spring only)
- BT 676 HP: Innovative Technologies in Biotechnology, 1 credit hour. (Taken each semester)
- BT 695 HP: Biotechnology Internship, 2 credit hours. (Offered Fall, Spring, Summer. Recommended in the Spring or the student's second semester)

Semester 3 – Summer

- BT 600 HP: Principles of Biotechnology III – Systems Biology & Pharmacology, 3 credit hours. (Summer only)
- BT 652 HP/A: Applications in Biotechnology III, 2 credit hours. (Summer only)
- BT 672 HP: Bench to Commercialization III, 3 credit hours. (Summer only)
- BT 676 HP: Innovative Technologies in Biotechnology, 1 credit hour. (Taken each semester)
- BT 690 HP: Capstone: Integrating Basic Science & Product Development, 4 credit hours. (Summer only)

CURRICULUM COURSES FOR BIOTECHNOLOGY (ONLINE STUDENTS)

Semester 1 – Fall

- BT 500 QL: Principles of Biotechnology I – Nucleic Acid Technology, 3 credit hours. (Fall only)
- BT 670 QL: Bench to Commercialization I, 3 credit hours. (Fall only)
- BT 676 QL: Innovative Technologies in Biotechnology, 1 credit hour. (Taken each semester)
- BT 605 QL: Applications of Biochemistry in Biotechnology, 3 credit hours. (Offered each semester. Recommended in the Fall)
- CDS 610 QL: Research Design & Statistics, 3 credit hours. (Fall only)
- CDS 505 QL: Professional Development, 1 credit hour. (Fall only)

Semester 2 – Spring

- BT 550 QL: Principles of Biotechnology II – Amino Acid Technology, 3 credit hours. (Spring only)
- BT 671 QL: Bench to Commercialization II, 3 credit hours. (Spring only)

- BT 676 QL: Innovative Technologies in Biotechnology, 1 credit hour. (Taken each semester)
- BT 675 QL: Special Topics, 3 credit hours. (Offered each semester. Recommended in the Spring)
- BT 695 HP: Biotechnology Internship, 2 credit hours. (Offered Fall, Spring, Summer. Recommended in the Spring or the student's second semester)

Semester 3 – Summer

- BT 600 QL: Principles of Biotechnology III – Systems Biology & Pharmacology, 3 credit hours. (Summer only)
- BT 672 QL: Bench to Commercialization III, 3 credit hours. (Summer only)
- BT 676 QL: Innovative Technologies in Biotechnology, 1 credit hour. (Taken each semester)
- BT 690 QL: Capstone: Integrating Basic Science & Product Development, 4 credit hours. (Summer only)

CAPSTONES

Research and analysis skills are necessary to be successful in the biotechnology industry. To ensure the development of these skills, all M.S. in Biotechnology students will complete the BT 690: Capstone Course. BT 690 is an independent research course wherein students will develop the ability to research, analyze, and describe a biotechnology product or company. BT 690 gives students the opportunity to explore the history, management, and life cycle of a biotech company or product from discovery to development with an emphasis on ethical concerns, the current economic environment, marketing issues, intellectual property, finances, and growth opportunities.

CLINICAL ROTATIONS/INTERNSHIPS (BT 695)

Each student in the M.S. Biotechnology Program is required to complete one internship during one semester while enrolled in the program. The internship will consist of 80 hours (up to 10 hours per week). The internship can be carried out at research core facilities which are located at UAB, or, at a local biotechnology company. Depending on their professional interests, the student can complete a research focused internship, or an internship focused on the business aspects of biotechnology. This allows each student to learn techniques in areas of interest and to enhance his/her abilities in the application of scientific principles to developing novel techniques.

If a student elects to complete their BT 695 internship at an off-campus site a signed affiliation agreement must be in place before the student can proceed. The program manager will work with SHP administration to obtain these agreements.

ADVISING & MENTORING

ADVISOR/MENTOR ASSIGNMENT PROCESS

The Program Manager II (PM II) will serve as the academic advisor for all MS Biotechnology students. Prior to class registration, the PM II will send an advising email to each student listing

the classes required in order to graduate by the student's designated graduation term. It is the student's responsibility to register for the classes listed, or to communicate with the PM II in a timely manner if they plan on deviating from the plan. Deviating from the plan outlined by the PM II may result in a delay of graduation for the student. See the Curriculum Outline section in this handbook.

Each student will be assigned a faculty mentor during their first Individual Development Plan (IDP) meeting with the PM II. Faculty mentors are assigned based on the interests and/or goals of the student. Students are expected to interact with their faculty mentor on a regular basis, via email, in person, or virtually.

Objectives of Faculty Mentorship:

- Maintain open lines of communication between students and faculty.
- Professional development. Provide the student with a person with whom they can discuss problems, concerns, academic questions etc.
- Address issues in a constructive manner.
- Serve as a resource for letters of recommendation and professional references.

Changing Faculty Mentor

Students who wish to change their faculty mentor should discuss the request with the Program Manager II (PM II). Requests may be made for a variety of reasons, including changes in academic interests, research interests, career goals, or mentor availability.

The PM II will review the request and work with the student to identify an appropriate faculty mentor based on the student's educational and professional objectives. While every effort will be made to accommodate student preferences, mentor assignments are subject to faculty availability and expertise.

Students are encouraged to communicate professionally and respectfully throughout the reassignment process. Changes in faculty mentorship do not affect the student's academic advisor assignment, as the Program Manager II serves as the academic advisor for all students in the Master of Science in Biotechnology Program.

The program reserves the right to reassign faculty mentors when necessary to ensure appropriate mentorship, faculty workload balance, or alignment with the student's academic and professional goals.

Expectations for Faculty Mentors and Students

The Biotechnology Program is committed to fostering productive and professional mentoring relationships that support student success, academic achievement, research development, and career preparation. Faculty mentors and students share responsibility for maintaining a collaborative and respectful learning environment.

Expectations for Faculty Mentors

Faculty mentors are expected to:

- Provide academic, research, and professional guidance.
- Meet with students regularly to discuss academic progress, research activities, and career goals.
- Provide constructive feedback in a timely manner.
- Assist students in identifying educational, research, internship, and professional development opportunities.
- Promote ethical conduct in research, scholarship, and professional activities.
- Support students in navigating program requirements and university resources.

Expectations for Students

Students are expected to:

- Take primary responsibility for their academic and professional development.
- Communicate regularly and professionally with their faculty mentor.
- Come prepared for meetings and follow through on agreed-upon action items.
- Maintain satisfactory academic progress and comply with all program requirements.
- Demonstrate professionalism, integrity, and respect in all interactions.
- Seek guidance when challenges arise and utilize available university resources.
- Adhere to all laboratory, research, safety, and ethical standards.

Shared Responsibilities

Faculty mentors and students are expected to:

- Establish clear expectations and goals.
- Maintain open, honest, and respectful communication.
- Foster an inclusive and collaborative learning environment.
- Address concerns promptly and professionally.
- Work together to support the students' academic, research, and career objectives.

This mentoring relationship is intended to promote student success while preparing graduates for leadership roles in biotechnology, research, industry, regulatory affairs, and related fields.

POLICIES & STANDARDS

PROGRAM POLICIES

Attendance

In regard to the Academic Calendar, please note the following:

- It is the student's responsibility to review the calendar and act accordingly.
- Students are expected to attend classes and meet academic commitments from the first day of class through the last day of final exams as stated on UAB's Academic Calendar.
- If extenuating circumstances, such as illness, make absence from class unavoidable, the student is responsible for communicating with the course director in a timely manner.
- If a student is not present in class, it will be considered an unexcused absence

unless it meets the criteria for an excused absence and the student provides documentation.
- The course director is not obligated to allow a student to make up any work missed as a result of an unexcused absence.
- Unless it is the result of circumstances outside the student's control (i.e. flights cancelled by the airline, documented illness, etc.), arriving to campus after the designated start date does not constitute an excused absence.
    - For a list of university approved excused absences, reference the UAB Undergraduate Catalog Attendance and Excused Absence Policy.

At the beginning of each term, class schedules will be posted on Canvas and in syllabi indicating dates, times, location, lecture topics, laboratory sessions, examinations, assignments, etc. The class schedules are subject to change, as circumstances require. The students will be informed of any necessary schedule changes as soon as possible.

- The program requires 3 terms of full-time enrollment to complete.
- Students will typically have class Monday through Thursday each week; however, the exact days and times of class sessions will vary from day to day and term to term.
- Each student will complete an internship prior to graduation. The student will work with their internship supervisor to coordinate a schedule. The student is expected to follow that schedule.
    - Students are discouraged from working more than 10 hours per week at their internship.
    - If a student is interning at a site on campus, they must follow all applicable UAB rules regarding student employment.
- Work schedules and personal commitments must be planned around class/internship schedules. Students may not leave early or arrive at class, lab sessions, or internships late because of work.
- Attendance is mandatory at all assigned classes (lectures, labs, etc.)

Curriculum Compliance Policy

In-Person Students

As a student in the MS Biotechnology program, you are required to follow the prescribed curriculum as outlined by the program. This includes completing all required courses and milestones in the recommended sequence and timeframe.

Why This Matters

- The curriculum is designed to ensure that you meet all academic and professional standards for graduation.
- Failure to follow the curriculum may affect your ability to graduate.
- International students*:* Deviating from the curriculum without prior approval may affect your visa status and legal ability to remain in the country. The MS Biotechnology

program is not obligated to sign any forms related to your visa including the Verification of Annual “Vacation” Semester & “Holiday” Form, the Reduced Courseload Form, etc.

Requesting a Change

Any changes to your course schedule or program plan, such as taking a leave of absence or altering your course load, must be approved in advance by the Program Director.

To request a change:

- Submit a written request to the Program Director.
- Include a clear explanation of the reason for the change.
- Provide any supporting documentation if needed.

Unapproved deviations from the curriculum may not be recognized by the program and could put your academic progress at risk.

Your Responsibility

It is your responsibility to understand your program requirements and to follow the approved curriculum. Meet regularly with the Program Manager II to stay on track and ensure compliance with all program and institutional policies. If you have questions or anticipate needing to adjust your academic plan, contact the Program Manager II as early as possible.

ONLINE STUDENTS

As an online student, we understand that you have varying schedules and commitments, so some flexibility is built into the program structure.

Online students have the option to adjust their course load—such as taking fewer courses in a term. While this flexibility is available, any changes should be made thoughtfully to ensure that academic progress is maintained.

Curriculum Planning and Approval

If you anticipate deviating from the standard curriculum sequence, it is important to discuss your plan with the Program Manager II in advance. Together, you can develop a customized academic plan that aligns with your goals while maintaining program integrity and meeting all graduation requirements.

Examples of curriculum deviations that require planning include:

- Reducing course load for a term or more
- Skipping a term or requesting a leave of absence
- Repeating a course

Your Responsibility

You are responsible for staying informed about your program requirements and for initiating conversations about any needed adjustments. Regular check-ins with the Program Manager II are encouraged to help you stay on track.

If you are unsure whether a course change or delay could impact your progress, please reach out before making any adjustments.

TESTING

The Biotechnology Program aims to provide an environment that is conducive to test taking and promotes academic integrity.

- Students are expected to read and comply with all academic regulations as published in the UAB catalog, the SHP catalog, and the BT Handbook.
- Students are expected to arrive at the designated testing location at least 10 minutes before the scheduled start time. Arriving in advance gives the student time to log onto the computer, log onto Canvas, etc. without disrupting others.
- Students are expected to arrive at the designated testing location with all required materials. The required materials will be designated by the course director in advance.
- Students should only have the permissible materials on their desk during an exam. All phones, tablets, etc. should be silenced and placed in the student's bag, which should then be closed. Bags should be placed under the desk or in a location designated by the course director or
    - proctor. Students are not permitted to open their bags during the exam unless the proctor grants permission.
- If a student is permitted scratch paper during an exam, it will be provided by the proctor at the start of the exam. Students are not permitted to write on the scratch paper until the exam begins. If a student writes on the scratch paper before the exam begins, it will be discarded. Students will submit the scratch paper to the proctor at the end of the exam.
- Students are not permitted to talk during an exam or while in a testing room while an exam is ongoing. Regardless of topic, talking during an exam constitutes academic misconduct and will be treated as such. If the student needs assistance, they should raise their hand and the proctor will assist.
- If extenuating circumstances, such as illness, make absence from class unavoidable, the student is responsible for communicating with the course director in a timely manner. The student is also responsible for making arrangements to reschedule any missed assignments or exams. To demonstrate an excused absence as outlined in UAB's Attendance Policy, the student must obtain a signed statement from a physician (if ill) or other relevant documentation and submit it to the course director.
- Make-up exams for unexcused absences will be conducted at the discretion of the course director. An instructor may apply a penalty or a zero for the examination if the absence is unexcused.

GRADUATION REQUIREMENTS

Graduation from the M.S. Biotechnology Program requires the following:

- Completion of all courses in the curriculum with a minimum grade of "C" or higher and an overall GPA of 3.0 or higher.
- Demonstration of an acceptable level of professionalism throughout

matriculation. Professionalism will be assessed using the Affective Evaluation.
- Completion of all financial and administrative obligations as specified by the University of Alabama at Birmingham.

Letters of Recommendation/References

- Students must complete at least one semester in the BT Program and be in good standing to receive a letter of recommendation and/or reference from a member of faculty or staff.
- Students must ask BT Faculty if they are willing to write a letter of recommendation (LOR) or provide a reference prior to submitting their names to the requesting body.
- Students should request a letter of recommendation 1-2 months before the deadline to submit.
- Failure to ask may result in the decline of the LOR or reference.
- The request must also include the completed letter of recommendation template, how many letters are required, who they are going to, and when they are due. This applies to all forms of references (job, graduate school, medical school, award, etc.).
- Students should remind the faculty or staff member as the deadlines approach.
- Faculty and staff members are not required to provide LORs.

Supplies

Students are expected to supply their own:

- Lab notebooks (see guidelines outlined in BT lab course syllabi)
- Notepaper
- Pens & pencils
- Scientific calculators
- Laboratory coat (program approved) which is fluid resistant, long sleeved, cuffed, and long- length.
- Students are expected to have access to a computer (either personal or checked out from the Lister Hill Library.) Computer applications are essential for completion of course requirements and the projects in courses.

Affiliation Agreement Policy

If a student elects to complete their BT 695 internship at an off-campus site, a signed affiliation agreement must be in place before the student can proceed. Students cannot complete their BT 695 internship at an off-campus site if an affiliation agreement is not in place.

A list of off-campus sites where an affiliation agreement is already established can be found on the MS Biotechnology Advising Canvas page using the pathway below. Students are responsible for contacting the site to determine if an internship is available and completing any application/interview processes the site has in place to secure the internship:

List of off-campus sites with affiliation agreements: ***MS Biotechnology Advising Canvas***

page > ***Curriculum*** > ***Course Info***

If a student plans on completing their BT 695 internship at an off-campus site not from the approved list, they must notify the Program Manager II at least three (3) months before their scheduled start date, so the affiliation agreement process can be initiated with the UAB Legal Department and the off-campus entity. It is important to note that affiliation agreements take time, and not all affiliation agreements can be successfully negotiated with the site and UAB, so ongoing communication between the student and the program is essential.

If an affiliation agreement is not in place by the internship's scheduled start date, students have two (2) options:

- Wait to register/withdraw from BT 695. Once the affiliation agreement is in place, register for BT 695. Students electing this path must understand this may affect their progression in the program and delay their graduation if an affiliation agreement is not secured in time for the student to complete the internship requirement before the end of the semester.
- Secure a different internship with an on-campus site or an off-campus site the program has an approved affiliation agreement with to complete the BT 695 course.

Expectations Regarding Academic Progress

In order to remain enrolled in the program, a student must maintain good academic standing as defined by UAB Graduate School. Failure to maintain good academic standing may result in the student being placed on probation or being dismissed from the Graduate School and, by extension, the Biotechnology program. For the definition of "good academic standing" and the policy in full, review the "Academic Progress" section of the Graduate School Catalog.

Students admitted into the Biotechnology Program on contingency must maintain a grade point average of at least 3.0 (B average) and meet all requirements outlined in their acceptance letter to remain in the program.

Grade Policies

Final grades and credits for each student are recorded and preserved as a permanent record at UAB.

The grades for academic courses are compiled and proportioned to develop a final course grade. At the beginning of each semester, the course instructor will provide students with a course syllabus which will include the system of proportioning scores used to develop the course grade. Minimum performance criteria designated by the course instructor must be achieved by the student. These criteria indicate the level of competency of the individual student.

Assignment of grades in the curriculum is the responsibility of the individual course director, and review of the grade by the course director can be requested.

Grades are awarded according to the level of the student's achievement in each course. The grades for academic courses are indicated by letters:

- A = Excellent
- B = Above Average
- C = Average
- F = Failure
- P = Pass
- W = Withdrawal: A notation (not a grade) assigned by the Registrar and reflects an administrative action initiated by the student in accordance with UAB regulations.
- I = Incomplete: A temporary notation assigned to a student who has not completed course requirements
    - Such a notation is the prerogative of the instructor and is normally assigned only if the student's circumstances are extenuating and if there is reasonable expectation that the course requirements can be satisfactorily completed by the end of the following term. The notation of "I" will convert to an "F" unless an extension is requested specifying the date the student will complete the course requirements.
- N = No Grade Reported: A temporary notation made by the Registrar if the course instructor does not assign a grade prior to issuing of grade reports or when the course is designated to extend beyond a single term.

INCOMPLETES

- The temporary notation of "I" (incomplete) may be reported at the discretion of the course director to indicate that the student has performed satisfactorily in the course but, due to unforeseen circumstances, has been unable to finish all course requirements.
- An incomplete is never given to enable a student to raise a deficient grade. This notation should not be used unless there is reasonable certainty that the requirements will be completed during the following semester because, at the end of the following semester, the incomplete automatically changes to an F if it has not been replaced with a letter grade.
- The policy can be viewed, in full, on the following website: Academic Progress Catalog

ACADEMIC PROBATION & DISMISSAL PROCEDURES

Students who are accepted to the program with contingencies must demonstrate their ability to perform at or above the level detailed in their acceptance letter. They are also to establish and maintain good academic standing – as defined by the UAB Graduate School - by the end of their first term. Students who do not establish this level of performance will be dismissed from the BT program.

A student who receives a grade of F in a required Biotechnology program course will be immediately dismissed from the program.

Students admitted in good academic standing who fail to obtain a minimum 3.0 GPA during any semester will be placed on academic probation by the UAB Graduate School. Students placed on academic probation must re-establish good academic standing by bringing their overall GPA to at least 3.0 within two subsequent semesters or they will be permanently dismissed from the School of Health Professions, the UAB Graduate School, and by extension, the Biotechnology Program. The policy can be reviewed by visiting the following link: Academic Progress < Catalog| The University of Alabama at Birmingham (uab.edu)

If a student is dismissed from the program, the process outlined in The SHP Policy for Dismissal of Student for Failure to Make Satisfactory Academic Progress will be followed. This policy also provides the process for student appeals.

Professionalism Expectations

Professional Expectations

Professional behaviors and attitudes are essential components of UAB's Biotechnology Program. In preparation for professional pursuits, students are expected to meet the following professionalism standards set forth by the program:

- Attend Class.
- Be on-time for all commitments (class, appointments, internship shifts, etc.).
- Thoughtfully complete and submit all assignments by the designated due date.
- Use proper grammar in written and oral assignments.
- Use proper grammar and email etiquette in all emails to faculty, staff, classmates, etc. Do not use "text speak."
- Present an appearance that reflects a professional image as defined in the BT Dress Code (see section below).
- Be courteous in the use of electronic devices: pagers, cell phones, tablets, laptops. Devices should be on silent/vibrate when in lecture, lab, and internships.
- Treat individuals with respect. Comply with applicable laws, regulations, and policies.
- Profanity is not allowed at any time.
- Use confidential information responsibly and do not violate applicable laws.
- Acknowledge and appropriately manage conflicts of interest.
- Conduct and present oneself in such a manner that reflects the high professional standard set forth by the Department of Clinical and Diagnostic Sciences and the School of Health Professions.

Students are expected to demonstrate interest and ability for professional education, as well as mature professional behavior. Acceptable behavior includes, but is not limited to, the following:

- Integrity in all program assignments.
    - Refrain from giving or receiving unauthorized aid in examinations or other assigned work. This includes talking during exams, quizzes, etc.
    - Treat knowledge concerning patients and official documents as confidential (comply with HIPAA).

        - Refrain from plagiarism and falsification of student laboratory results, patient reports, official documents, classroom assignments, and attendance records.
    - Dependability in program assignments.
        - Arrive for class (didactic and internship) ON TIME. Being late is not acceptable and could affect your grade. Plan to arrive 10-15 minutes early to get set up.
        - Attend all scheduled classes.
        - Remain in the area of assignment until dismissed (by the instructor or supervisor).
        - Inform appropriate individuals as soon as possible when absence/tardiness is unavoidable (see Attendance policies).
        - Carry out assignments as scheduled and complete them on time.
        - Record and/or report data in an accurate and orderly fashion.
        - Make up, if permissible, course work and assignments missed during excused absence.
    - Responsibility for own actions in didactic and internship courses.
        - Accept constructive criticism and use it to improve performance.
        - Refrain from personal habits that distract or disrupt the classroom and/or internship environment (e.g., excessive talking, profanity, chewing gum or tobacco, eating and drinking).
        - Maintain a neat, clean personal appearance complying with existing dress codes.
        - Comply with established safety standards.
        - Refrain from any behavior or action that jeopardizes the welfare of fellow students, faculty, staff, and others.
        - Keep the work area clean and orderly.
        - Refrain from activities which potentially damage equipment, supplies, and/or private and public property.
    - Stability
        - Refrain from the use of alcoholic beverages or illegal drugs at required school activities and during all courses/internships.
        - Adjust to changes such as workflow and procedures without sacrificing accuracy and reliability in clinical assignments.

Students are expected to abide by the UAB Student Code of Conduct. Students are also expected to report violations of "Expected Student Behaviors", or any other instances of unethical conduct in any case to the faculty or the UAB Office of Community Standards and Student Accountability.

ACADEMIC INTEGRITY

All students are required to complete the Academic Integrity Code (AIC) course in Canvas. Once admitted to UAB and registered for classes, students will be enrolled in the AIC Canvas course. The title of the course will include the enrollment term and "UAB Academic Integrity Code". To access the UAB Academic Integrity Code course in Canvas, students must use their BlazerID and password to login to Canvas and locate the course on the Canvas dashboard.

The deadline for completing the Academic Integrity Code varies each semester, and the completion date will be communicated via an announcement in Canvas. Completion of the Academic Integrity Code Canvas course is required, and failure to meet the deadline will automatically result in a registration hold (coded AI) preventing students from registering for classes for the subsequent semesters. To resolve the Academic Integrity Code hold, please contact UAB One Stop. Questions regarding the UAB Academic Integrity Code should be directed to the SHP Academic Integrity Code Coordinator.

Dress Code

Students are expected to maintain a professional appearance that reflects the standards of the Master of Science in Biotechnology Program and the School of Health Professions. Appropriate attire contributes to a safe, respectful, and professional learning environment.

The following dress code requirements apply:

- Clothing should be clean, neat, in good repair, and appropriate for the academic or professional setting.
- Business casual attire is expected during classes, seminars, presentations, professional meetings, and other program-related activities unless otherwise specified by the course instructor.
- During laboratory sessions, students are required to wear closed-toe, closed-heel shoes, long pants, and a program-approved laboratory coat that is fluid-resistant, long-sleeved, cuffed, and full-length. Additional personal protective equipment (PPE) may be required depending on the laboratory activity. Students who fail to comply with laboratory dress and safety requirements may be denied entry or dismissed from the laboratory and may receive a grade of zero for missed laboratory activities, as outlined in the course syllabus.
- Students participating in internships, clinical experiences, research laboratories, or other experiential learning activities must comply with the dress code, identification badge requirements, and safety policies established by the host facility or organization.
- The Biotechnology Program reserves the right to determine whether a student's attire is appropriate for the educational or professional environment. Students whose attire does not meet program or safety standards may be asked to leave the classroom, laboratory, internship site, or other program activity until appropriately dressed. Any missed academic activities resulting from failure to comply with the dress code may be considered an unexcused absence.

Students are expected to represent themselves, the Biotechnology Program, and UAB in a professional manner at all times while participating in program-related activities.

Social Media Policy

Students in the Master of Science in Biotechnology Program are expected to use social media responsibly and professionally. Social media platforms include, but are not limited to, Facebook, Instagram, LinkedIn, X (formerly Twitter), TikTok, YouTube, blogs, discussion forums, and other online communication platforms.

Students should exercise sound judgment when posting content online and recognize that their actions may reflect upon themselves, the Biotechnology Program, the School of Health Professions, and UAB.

Students are expected to:

- Conduct themselves in a professional and respectful manner in all online interactions.
- Protect confidential, proprietary, and sensitive information related to research activities, faculty, staff, fellow students, internship sites, industry partners, and the university.
- Comply with all applicable UAB policies regarding privacy, confidentiality, intellectual property, and information security.
- Refrain from posting content that is discriminatory, harassing, threatening, defamatory, or otherwise inconsistent with professional and ethical standards.
- Clearly distinguish personal opinions from official university positions.
- Obtain appropriate permission before using university logos, trademarks, photographs, or program-related materials in public postings.
- Respect copyright and intellectual property rights when sharing content online.

Students should be aware that social media activity may impact professional relationships, internship opportunities, employment prospects, and professional reputation. Violations of university policies or professional standards through social media may result in disciplinary action by the program, the School of Health Professions, or the university.

Questions regarding appropriate social media use should be directed to the Program Manager II or Program Director.

Lab & Fieldwork Safety Requirements

Lab Safety Policies & Procedures

Every attempt is made to provide appropriate instruction in the utilization of universal precautions and exposure control procedures. Specific requirements vary according to the curricula of each academic program. Students are expected to comply with the standards set by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) (29.CFR Part 1910.1030) and the BT program policies and procedures. The policies and procedures apply to all students, faculty, and staff. The rules and procedures described below have been developed for the protection and health of students, faculty, and staff. Noncompliance will be considered as misconduct and handled as such. These rules and procedures comply with the OSHA Standards for Occupational Exposure to Bloodborne Pathogens, CDC Recommendations for Prevention of HIV Transmission in Health-Care Settings, CDC Recommendations for Airborne Pathogens, UAB Biosafety Manual, and UAB Chemical Safety and Waste Management Manual.

General Regulations for Student Laboratory Courses

- Students are expected to arrive at least 10 minutes early to put backpacks away and put lab coats on.
- Eating, drinking, smoking, chewing gum or tobacco, applying cosmetics or lip balm, or handling contact lens is PROHIBITED in the labs (even if the lab space is being used for class or examination, and not a lab session). No items should be placed in the mouth or near the face.
- Dress must be in compliance with the program dress code.
- Standard precautions (which combine universal precautions and body substance isolation) must be observed in the laboratory to prevent contact with blood, body fluids, and all secretions and excretions.
- All procedures involving blood or other potentially infectious materials are performed to minimize splashing, spraying, spattering, and generating droplets.
- Personal Protective Equipment:
    - Long-sleeved, fluid resistant (fluid barrier) lab coats (not jackets) and shoes which completely cover the feet (not open toe, not open heel, not cloth) must be worn during all lab sessions.
    - Lab coats must be buttoned or secured completely for protection.
    - Students will not be admitted to lab sessions without lab coats or the appropriate clothes and shoes.
    - Disposable laboratory coats will not be available for student use and shoe covers will not be available.
    - Students must wear appropriate shoes and have the required laboratory coat to be able to conduct student laboratory sessions.
    - Gloves must be worn in ALL lab sessions. Non-latex gloves are used in the student laboratory sessions. Students must not use oil-based lotions, which decreases the integrity of gloves.
    - An eye and face protection unit must be worn when performing procedures that may generate droplets of blood, body fluids, secretions or excretions, or other infectious/harmful materials.
    - Plastic aprons must be worn over lab coats when performing procedures with blood, body fluids, secretions or excretions, or microbial broth cultures/simulated specimens. Contaminated aprons must be disinfected immediately using the precautions mandated for a small spill.
    - Protective goggles or safety glasses must be worn in chemistry labs when performing procedures that may result in possible splashing of harmful chemicals. Additional requirements for personal protective equipment and/or environmental controls that are required for certain procedures will be designated in individual course lab manuals.
    - Dress appropriately for all laboratory sessions.
    - Students who do not comply will not be permitted to stay in the laboratory session.
- Gloves are removed inside out aseptically (without producing aerosols) and are discarded in the biohazard container with a red bag at the end of each laboratory session or when necessary due to gross contamination, tearing, or puncturing.

- The plastic face shield should be cleaned with disinfectant spray at the end of each lab in which it is used (or when gross contamination occurs). Goggles or safety glasses should be cleaned in the same manner. If a woven nose and mouth facemask is worn, it should be discarded (in biohazard container with red bag) at the end of each lab session in which it is used (or if gross contamination occurs).
- Lab coats should be hung on the designated coat rack after each lab session. The program washes laboratory coats on a regular basis for the student. Soiled lab coats must be removed immediately.
- Lab coats and other protective equipment must be removed before leaving the lab for any reason.
- Open operations with flammable, combustible, or toxic chemicals must be carried out under a fume hood. Material safety data sheets are located in the laboratory.
- Hands must be washed (upon removing gloves) with an antimicrobial solution before leaving a lab session for any reason or when gross contamination occurs. After washing and drying hands, turn off faucet using a paper towel. This towel is potentially contaminated and must be placed in a special container located by the sinks.
- Skin (other than hands) which has come in contact with blood or other potentially infectious material must be washed immediately with antimicrobial solution and water. If eye contamination occurs the eyewash must be used immediately.
- A pipetting aid or semi-automatic pipette must be used to pipette all fluids. Mouth pipetting is prohibited.
- Food and drink must not be stored in lab refrigerators or anywhere in lab area.
- The workstation must be cleaned with disinfectant before and after each lab period and after spills of potentially contaminated material. Lamps and all objects left on the desktop must be wiped with disinfectant-soaked towels.
- The workspace should be covered with a large, white, plastic-coated absorbent towel at the beginning of each lab session. All contaminated materials should be kept on the towel. Books and papers needed for lab should be kept off the towel. Personal items MUST be stored in day lockers and not left on the floor in the prep area or in the student laboratory. Students must have a lock for use with the day lockers. The towel should be discarded (in the biohazard container with red bag) at the end of each lab session (or when grossly contaminated).
- Small spills of contaminated material may be wiped up with a disinfectant soaked gauze or towel. Wash the surface a second time with another disinfectant soaked towel. Discard towels in a biohazard (red bag) container. Never pick up broken glass with hands but use a mechanical device such as tongs, forceps, or a brush and dustpan. Large spills must be reported to the instructor or lab staff. Staff (faculty or teacher) must oversee cleanup of any spills.
- Used needles and other sharps are not bent, broken, recapped, or re-sheathed by hand. Used needles are not removed from disposable syringes. Needles and sharps are disposed of in impervious disposable containers.
- Do not remove pencils, pens, or other materials used during lab sessions because they may be contaminated. Use the materials supplied or leave your personal pencils, etc., as donations for the lab.
- Unauthorized visitors are not permitted to enter the lab. If an emergency situation

requires that an unauthorized visitor speak with a student during a laboratory session, the visitor must first approach the instructor or course director to obtain permission to speak with student. Students must remove their lab coat, wash their hands, and leave the laboratory. If a student is expecting someone the student must obtain permission from a teacher or course master before leaving the laboratory.

- Cuts or other skin abrasions must be covered by Band-Aid(s) prior to putting on gloves.
- A student may not leave the laboratory area during an exam unless he/she obtains permission from the instructor. Multiple students are not permitted to exit the area at the same time during an exam.
- Incidents and Injury Reporting
    - Cuts or other skin abrasions must be covered by Band-Aid(s) (available in First Aid Box) prior to putting on gloves.
    - All incidents/injuries occurring in lab regardless of severity must be reported promptly to the instructor or lab staff who will take appropriate action (i.e., send student to Student Health or Emergency Department).
    - An incident report will be completed by the student, signed by the instructor, and kept on file in the Program Office. Forms are available from BT faculty and teachers.
    - Access the incident report form online here.
    - Refer to UAB Body Fluid Exposure Policy.

General Regulations for Internship Sites

Students are expected to follow the General Regulations for Student Laboratory Courses while at internship sites. The internship sites will have established protocols for safety to which all students must adhere.

Requirements Prior to Beginning an Internship (For Online & In-Person Students)

- Background Check/Drug Screen through Disa Healthcare–Students are required to complete the background check and drug screen upon entry to the program and then prior to beginning their internship if the internship begins more than one year after the student began the program. Students who do not have compliant status in the Disa Healthcare system for a background check and drug screen will not be allowed to matriculate to the next semester or begin an internship until they are compliant. Please refer to the SHP portion of this handbook for specific background check and drug screen instructions.
- Immunizations – Students must fulfill immunization requirements prior to the start of their required internships. Students that do not have compliant status within the Student Health Services system will not be allowed to begin an internship. For information on immunization requirements, visit the following website: Immunizations - Students - Health (uab.edu)

    Note: In regard to immunization requirements Biotechnology is considered a Non-Clinical program.

- **Additional Requirements**

Internship sites may have additional requirements beyond the UAB School of Health Professions policy. Students are required to comply with all internship site requirements prior to their start date.

- **COST/FEES**

  The student is responsible for all costs and expenses associated with the requirements listed in this document and any requirements dictated by the internship site(s).

TRAINING & FACILITY ACCESS

LAB TRAINING

By the deadlines designated by the course instructor, students are required to complete the following lab training courses on Canvas. Failure to complete any and all training courses by the deadline will result in the student being excused from lab until the training courses are satisfactorily completed.
Students may not be permitted to make up any coursework missed due to missing lab training:

- BIO 303: Basic Biosafety Training
- CS 101: Chemical Safety Training
- OHS 101: Using PPE in the Laboratory

FACILITIES

Students are expected to treat all university, department, and program facilities with respect. When using the spaces, the following is expected:

- Use spaces for their intended purposes, observing all applicable policies (i.e. no eating in the lab).
- Treat equipment with care and respect.
- Clean up after yourself.
- Be mindful of others in the space.
- Conduct yourself professionally and in a manner that positively reflects on the BT program.
- DO NOT prop doors open or allow unauthorized individuals into the space.
- Secure all spaces when leaving.

School of Health Professions

The M.S. in Biotechnology Program is one of many programs offered by the Department of Clinical & Diagnostic Sciences (CDS) located in the School of Health Professions (SHP). Within SHP, students can find the following:

- Biotechnology Lab: The in-person curriculum includes three lab courses- BT 650, BT 651, and BT 652. All three lab courses will take place in the Biotechnology Lab, located on the third floor of SHP.
- Program Director's Office: Located on the fourth floor of SHP in office 443.

- Program Manager II: The Program Manager II will serve as your academic advisor as you matriculate through the BT program. The Program Manager II's office is located on the fourth floor in SHP 447.

Center for Biophysical Sciences & Engineering

Many classes offered by the M.S. in Biotechnology occur in the Center for Biophysical Sciences & Engineering (CBSE). Additionally, most faculty offices are located on the second floor of CBSE. Within CBSE, students can find the following:

- Biotechnology Faculty: Located in various offices on the second floor of CBSE.
- Classrooms: Located on the first floor of CBSE.
- Biotechnology Research Labs: Located on the second floor of CBSE.

All Biotechnology students should have One Card access to SHP and CBSE. Please alert the Program Manager II via email if you do not have access to one or both facilities.

FUNDING & FINANCIAL INFORMATION

The Master of Science in Biotechnology Program does not currently offer program-specific scholarships. However, students are encouraged to explore funding opportunities available through the University of Alabama at Birmingham, the School of Health Professions, federal financial aid programs, and external scholarship organizations.

Students are responsible for researching and applying for funding opportunities for which they may be eligible. Because scholarship opportunities, eligibility requirements, and application deadlines may change, students should regularly review UAB financial aid resources and scholarship announcements. Students are encouraged to plan accordingly and consult with the appropriate UAB offices regarding educational expenses, financial aid eligibility, and payment options.

TYPES OF FUNDING

Although the Biotechnology Program does not offer program-specific scholarships, students may be eligible for financial assistance through the following resources:

- **Federal Financial Aid** – Eligible students may apply for federal grants, loans, and work-study opportunities by completing the Free Application for Federal Student Aid (FAFSA). Students should contact the UAB Office of Financial Aid for additional information regarding eligibility and application procedures.
- **BSMART (Blazer Scholarship Management and Resource Tool)** – UAB students may use BSMART to search for and apply for university-wide scholarship opportunities. Completion of the BSMART application allows students to be considered for multiple scholarship opportunities for which they may qualify.
- **School of Health Professions Scholarships** – The School of Health Professions offers scholarship opportunities for eligible students through separate SHP scholarship application cycles. Students should review current eligibility requirements and application deadlines through the SHP scholarship website. Availability of scholarships varies by program and funding cycle.
- **External Scholarships and Funding Opportunities** – Students are encouraged to seek scholarships, fellowships, employer tuition assistance programs, military education

benefits, and other external funding sources offered by professional organizations, foundations, employers, and community organizations.

Professional & Student Organizations

Biotechnology Association of Alabama (BAA)

BAA is a statewide organization representing Alabama's bio related industries, research scientists, clinicians, and business professionals who are working together to foster, develop, and support the life sciences in Alabama. BAA events, programs, and member benefits are designed to enhance the progress of the Biotechnology industry and its members. The BAA is the Alabama state affiliate of the Biotechnology Industry Organization (BIO), the preeminent national association for biotechnology companies.

For more information on the BAA, visit their website.

The Biotechnology Program encourages students to join the BAA. The BAA membership application may be found online here.

Other organizations for involvement can be found here under "Get Involved" on the Graduate School website.