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BEHAVIORAL NEUROSCIENCE PROGRAM

Mission Statement and History of the Program

Mission Statement

Behavioral neuroscience is represented by scientists with interests in the physiological and neural substrates of behavior. The mission of the Behavioral Neuroscience Ph.D. program is to produce outstanding young scientists capable of pursuing independent research careers in the field of behavioral neuroscience by providing graduate course instruction and research training of the highest degree. It is the philosophy of the Behavioral Neuroscience Ph.D. program that this mission is best achieved by having each student obtain a firm academic foundation in both psychology and neuroscience curriculums, and to engage the student in systematic research under the supervision of one of the program faculty. Graduates of the Behavioral Neuroscience Ph.D. program have successfully obtained positions in institutions of higher learning, medical schools, research institutions, and private industry.

Historical and Current Considerations

The field of behavioral neuroscience evolved from several traditional sub-disciplines within psychology (physiological psychology, experimental psychology, sensation and perception, conditioning and learning, motivation, cognition, and regulatory biology) in order to interface with the emerging field of neuroscience. In this manner, the behavioral neuroscientist provides a vital contribution to the field of neuroscience by emphasizing behavioral and functional endpoints in their research.

Research in Behavioral Neuroscience at UAB occurs within an interdisciplinary context thereby providing a rich experience for graduate students. Faculty in the Behavioral Neuroscience Ph.D. program hold primary appointments in the Departments of Psychology, Anesthesiology, Ophthalmology, Cell Biology, Neurobiology, Neurology, Physiology, and the Behavioral Neurobiology Division of Psychiatry. This breadth of perspective is reflected both in the courses offered and the research pursued by Behavioral Neuroscience students. In this spirit, students study core areas of psychology including statistics, behavioral neuroscience, and cognitive neuroscience.

As part of their training, students also gain experience writing research proposals, manuscripts, and making public presentations.

History of the Program

The Psychology Department initially offered only a Master's degree. In 1976, meetings were held to develop a Ph.D. program in Psychology with two specialties, Behavioral Neuroscience and Medical Psychology. The Behavioral Neuroscience program was viewed as a campus-wide training program involving faculty from the Arts and Sciences and the Medical Center. The Behavioral Neuroscience program was approved by the Board of Regents in 1980 and Dr. David L. Sparks was appointed as the first program director. The Behavioral Neuroscience program was the first degree in any area of Neuroscience offered by UAB. The first class was admitted in 1981. Dr. Joan Lorden assumed directorship of the program in 1981. Dr. Donald Conner became the first student to graduate from the Behavioral Neuroscience Program in 1988. Dr. Diane C. Tucker was the director of the Behavioral Neuroscience Program from January, 1994 – August, 1998. Dr. Alan Randich assumed the position of director in September, 1998 until November of
2012. Dr. Franklin Amthor served as director from December 2012 to August 2017. Dr. David Knight has served as the director since August of 2017.

Policies and Procedures

Administration

The Director of the Behavioral Neuroscience Graduate Program has primary responsibility for administering the program in conjunction with the Steering Committee. The director is appointed by the Psychology Department Chair after consulting with program faculty. The director serves a 5-year term. Dr. David Knight is the current director. Terri Roberson is the current program manager.

Behavioral Neuroscience Steering Committee

Policies and procedures of the Behavioral Neuroscience Program are established by the Behavioral Neuroscience Steering Committee. The Steering Committee consists of the primary Behavioral Neuroscience faculty. The Psychology Faculty charges the Steering Committee with management of policies for admissions, governance, and fellowship assignments.

The Steering Committee meets on a regular basis and agenda items can be suggested by any student or faculty member. The Steering Committee reviews graduate student applicants and selects eligible candidates.

Admissions

Admission policies and procedures are overseen by the Behavioral Neuroscience Steering Committee. The Behavioral Neuroscience Steering Committee is responsible for recruiting the best-qualified behavioral neuroscience students and for balancing the interests of the behavioral neuroscience specialty with the financial resources available.

This committee meets in the winter to consider admissions. Applicants are not allowed to apply to more than one specialty in the department at a time. For those students admitted into the Behavioral Neuroscience Ph.D. program, a change to another specialty in the department requires re-application to that program. The timeline for application for admission is similar to that in the developmental and medical psychology specialties. The UAB guidelines for admissions to graduate programs are followed. Check the program website for application deadlines.

Support

The Steering Committee oversees all aspects of student support. There are several possible sources of student support including: federal research grants, federal training grants, externally-funded pre-doctoral fellowships, and university fellowships. Students are encouraged to write grant proposals for externally-funded pre-doctoral fellowships to provide themselves support during their dissertation years. NIH, NSF, and private foundations provide such funds and students in the Behavioral Neuroscience Specialty have successfully competed for such funds.

The Behavioral Neuroscience Specialty typically has funding for one-year fellowships from the UAB Graduate School. New students are often supported by these fellowships during their first year.
Overview of a Student’s Graduate Career

Academic Experience

All students in the Behavioral Neuroscience Program enroll in a series of courses that are intended to provide the necessary academic background for the student to achieve a successful academic and research career. Required coursework is typically completed by the time the student completes the Qualifying Examination.

Research Experience

Introduction to Neurobiology (PY 792)

Prior to starting the first semester of courses, students attend a course held at the Dauphin Island Sea Lab. This course introduces the incoming student to many of the basic techniques and issues in the field of neuroscience.

Laboratory Rotations (Year 1)

Laboratory research is a cornerstone of the graduate training program in Behavioral Neuroscience. During the first year, students gain research experience in 2 or 3 laboratories, selecting one laboratory rotation each semester, and one in the summer, or three rotations in the academic year (Sept. – Aug). Laboratories of both primary and associated faculty are open to the students. The laboratory rotations allow students to increase their breadth of experience in behavioral neuroscience before making a commitment to one faculty member's research program.

Based on the laboratory rotations, students select a research mentor at the end of their first year in the program. Through a close collaboration with their mentor, each student develops a systematic line of research which culminates in the doctoral dissertation.

Typical Course of Study

This course of study can vary substantially depending upon previous coursework, the level of entry, and other factors. A full-time student is required to take 21 hours per year and the program recommends a 9, 9, and 3 hour break-down across fall, spring, and summer semesters. Typically, all students take a common first year curriculum.

Year One

Summer Semester

Introduction to Neurobiology (PY 792)

Fall Semester

Foundations of Behavioral Neuroscience (PY 753)
Introduction to Statistics (PY 716)
Research Seminar in Behavioral Neuroscience (PY 756)
Pre-doctoral Research (PY 798)
Spring Semester  Behavioral Neuroscience Elective  
Applied Statistical Methods (PY 717)  
Research Seminar in Behavioral Neuroscience (PY 756)  
Pre-doctoral Research (PY 798)

Year Two Forward

Electives: Each student is required to take a total of four elective courses (totaling a minimum of 12 credit hours) during their graduate career (prior to completion of the Qualifying Examination). One of these electives is typically competed during the first year of coursework. Courses are chosen on the basis of discussion between the student, mentor, director, and steering committee (if needed). The student and mentor can maintain flexibility in their choice of elective courses.

Responsible Conduct of Research: Each student is required by the Graduate School to complete GRD 717: Principles of Scientific Integrity before advancement to candidacy.

Pre-doctoral Research: Students are required to complete 12 credit hours of Pre-doctoral Research (PY 798) prior to advancement to candidacy.

Doctoral Research: Students are required to complete 12 credit hours of Doctoral Research (PY 799) after to advancement to candidacy and before they graduate.

Research Design: Although not a requirement, students are encouraged to complete research design coursework. These courses include PY 700: Foundations in Research Design (1 credit hour focused on scientific evidence and research design) and PY 718: Advanced Research Design (2 credit hours focused on grant writing abilities).

Students may elect to take courses outside of the Department of Psychology following approval by the mentor and the director.

Progress Reports (Years 2-4)

Students must prepare a progress report at the end of each year, beginning in Year 1 that encompasses all aspects of their training and research for the previous year. These reports will include project progress, data presentations, conference attendance, manuscript publication, and class performance. Progress reports will be given to the Director, who will arrange a meeting with the student to evaluate the progress and formulate key milestones for the upcoming year. Each meeting will also include the report and milestones from the previous year. In the event that there is deemed to be insufficient progress, a meeting with the student and mentor will be arranged to address concerns.
2\textsuperscript{nd} Year Research Project Requirement

Due by April 1\textsuperscript{st} of Year 2

In year 2, students complete a 2\textsuperscript{nd} Year Project under the direction of their mentor. The project can take the form an empirical or methods paper (review papers and grant submissions will not be accepted for the 2\textsuperscript{nd} Year Project). The student is expected to be an author on any manuscript or abstract that results from the project.

To fulfill the requirement, a written research document must be submitted to the Behavioral Neuroscience Director and the project must be presented during Behavioral Neuroscience Seminar. The document should be in the format of the journal that it will ultimately be submitted to and contain a title page, abstract, introduction, results, discussion, and reference section. The Seminar presentation should include background, methods, results, and discussion of findings. The Behavioral Neuroscience Director will review the 2\textsuperscript{nd} Year Project document and the student will be informed of any changes that are needed. Behavioral Neuroscience faculty will attend the Seminar presentation to offer feedback on project content and presentation skills.

It is not required that the work be published or that the study produced conclusive or positive results. Instead, it is necessary that the student demonstrate their science writing and presentation abilities by: 1) describing their research in an appropriate context, 2) displaying a good understanding of experimental methods/design and statistical analysis, and 3) demonstrating the ability to write and present their work clearly.

Successful completion of the 2\textsuperscript{nd} Year Project requirement is required before a student can begin the Qualifying Examination. The director will retain a copy of the manuscript in the student’s file. The requirement must be completed during the student’s second year in the program and submitted by April 1\textsuperscript{st}. 
**Qualifying Examination Requirement**

**Due by September 15th of Year 3**

Over the year 2, students will complete a Qualifying Examination, which will be due by September 15\(^{th}\) of year 3. Students are expected to work on the Qualifying Exam while making progress on their 2\(^{nd}\) Year Project. The purpose of the Qualifying Examination is to evaluate the student’s ability to integrate learned material and to increase the breadth of the student's knowledge. Completion of the requirement by the specified deadline reflects the student’s ability to organize their time and plan ahead, qualities important for professional success. Successful completion of the Qualifying Examination is required for admission to candidacy for the Ph.D.

The Qualifying Examination project should be approved by the student's mentor. It is expected that students will continue to be active in their laboratory research during preparation of the Qualifying Examination. **The Qualifying Examination must be completed by the beginning of the student's 3rd year in the program (September 15) and before the dissertation proposal.** Failure to meet this deadline will be grounds for denying admission to candidacy. If a student is unable to meet the deadline for completion of the Qualifying Examination, he or she must petition the Behavioral Neuroscience Steering Committee for an extension. The petition must be made at least one month before the deadline and should be made in the form of a memo to the Director stating the reason for the delay and requesting an extension of no more than one month after the deadline.

**The Qualifying Exam will take the form of a comprehensive, integrative review paper of an area of the student's choice.** The topic should be related to the student’s primary area of research. The goal of the paper is to (1) increase the student’s breadth of knowledge in the area, including review of relevant historical papers and (2) integrate or synthesize the available research findings with the goal of achieving new insights which may guide future inquiry. The review paper should end with a 1-page discussion of open questions, next steps, and/or specific aims for future projects.

To focus the review, students are encouraged to formulate one or more questions or aims toward which their review will be directed. There is not a formal proposal meeting for the Qualifying Exam. However, students are expected to consult with their mentor and are encouraged to discuss the Qualifying Exam content with other faculty who have special expertise (e.g. their Qualifying Exam committee) in the area they plan to review about the questions posed and about the scope of the proposed paper. Students may contact committee members at any time for feedback about the review if they have specific questions with which the faculty member might be helpful in answering.

Satisfactory completion of the Qualifying Examination will be determined based on the submitted paper and oral defense of the project. **It is not acceptable to submit a rough draft or partially complete paper at the deadline.** The final paper should be between 8,000 and 10,000 words (~20 to 30 pages) in length and cite ~100 references. **When completed, the student should distribute the paper to the committee, including the Program Director, all of whom have two weeks to review the document.** Faculty will read the paper carefully and suggest substantive and editorial changes that will improve the manuscript and make it more suitable for publication. Those changes will be conveyed to the student (electronically or in scheduled meetings).
Finally, the student will present a brief summary of the scope of the review (30-45 minutes) and the questions posed. A focus on the insights gained during the review is encouraged. The student should indicate what implications the review has for future research and for the research of other laboratories. After the discussion with the student about the paper is completed, the committee will reach a consensus about whether the student has passed the examination. A decision of "pass" is based on both an acceptable written paper and on the student demonstrating adequate knowledge and a relatively sophisticated conceptualization during the oral presentation.

The student should prepare the paper in the format of the journal for which it would be an appropriate contribution. Students are encouraged to submit the paper for publication after the comments of the Qualifying Examination Committee have been incorporated. Submission of the paper for publication is not, however, necessary to meet the Qualifying Examination requirement for admission to candidacy.

**Qualifying Examination Committee**

Students form a Qualifying Examination Committee (4 members) in the fall semester of Year 2 and develop a plan for completing the Qualifying Examination. The Qualifying Examination Committee consists of four faculty members; at least three of the faculty must hold primary appointments in the Department of Psychology. The student’s mentor normally serves as the chair of this committee. Students with mentors outside of the Department of Psychology will identify a co-chair that will serve to ensure program expectations for the Qualifying Examination are met.
Dissertation Proposal

Due by April 15th of Year 3

Dissertation Proposal: Students prepare a dissertation proposal in an F31 NIH grant proposal format. The F31 format should include 1 page of specific aims and 6 pages of significance, innovation, and approach. Preliminary data can be included, but is not required for the proposal. In addition, students can include a methods-based appendix to describe methods that do not fit within the F31 page limits, but an appendix is not required. The experiments outlined in the proposal document can/will include experiments already performed as well as those to be performed – everything that will be a part of the dissertation document. Students are expected to submit their proposal to the committee at least 2 weeks before their proposal meeting.

Students will also schedule a Proposal meeting where the student presents the background and proposed experiments to the Dissertation Committee in a short (20-30 min) PowerPoint presentation. The committee examines the proposal and gives feedback on the document and presentation regarding the appropriateness of the proposed experiments. The dissertation committee is expected to evaluate and approve/disapprove each of the proposed projects. Often students propose too many experiments and the committee recommends that some be eliminated. Approval of the dissertation proposal by the dissertation committee has a contractual aspect. That is, the student agrees to complete the proposed studies and the committee agrees that completion of the proposed work (and previous work) will constitute sufficient empirical work for the dissertation.

The student should consult with their mentor about the scope of research in their area that would constitute a dissertation project. In addition, students may wish to review the dissertations on file at UAB by other students in our program. In general, the dissertation research should answer one or more substantive questions. In the dissertation, the student demonstrates his or her status as an expert in their field. Thus, in addition to reporting the results of experiments conducted, the general introduction and general discussion are important aspects of the dissertation.

The Behavioral Neuroscience program adopts the Guide to Preparation for Theses and Dissertations available from the Graduate School. However, the student may prepare the dissertation in a "traditional" format or by using manuscripts prepared for publication as chapters. With either format, an abstract which encompasses the entire project must be prepared. A general introduction and general discussion section must be included in which the student draws together the studies which comprise the dissertation. Manuscripts must be reformatted to conform to the dissertation format. The student should consult with the committee about the format planned for the dissertation during the proposal meeting. The committee should make explicit their suggestions about preparation of the dissertation. In the event that a manuscript-based dissertation is planned, the contribution of the student to each manuscript must be delineated. Furthermore, no two students can include the same manuscript as part of their respective dissertations, regardless of the effort from each.

The Private and Public Defense

The Public Defense deadline varies according to Graduate School deadlines, but is usually in July of year 5. The Private Defense should be scheduled at least 1 month before the planned Public Defense (i.e. June of year 5).
Following completion of the proposed research, the full written document is distributed to the Dissertation Committee by the student. A Private Defense meeting is first scheduled for at least 2 weeks following dissertation distribution, although the committee in some cases may require more time. The student will defend the dissertation at Private Defense meeting to the Dissertation Committee. The Private Defense meeting includes a 45-minute presentation followed by questioning by the committee. The committee may make suggestions for modifications of the dissertation document and the oral presentation that should be implemented prior to the Public Defense. The student must make these corrections and has two weeks to submit the revised dissertation back to the committee members. The committee members then normally take up to two weeks to read the dissertation prior to the Public Defense. If additional changes are required, this process may have to be repeated. At the Public Defense, scheduled after the full private defense approval by the committee, the student will present a departmental colloquium and respond to questions from the general audience. The Dissertation Committee and the student will then have a closed meeting in which the project and the area(s) of expertise of the student can be discussed more fully.

The committee may recommend further changes to the dissertation document if necessary before the Ph.D. is awarded.

**Dissertation Committee**

The student chooses a Dissertation Committee (5 members) and final approval is made by the Dean of the Graduate School on the basis of the recommendation of the Behavioral Neuroscience Director. Three members of the Dissertation Committee must hold primary appointments in the Department of Psychology and at least one must hold a primary appointment outside the Psychology Department (can be mentor). The student’s mentor serves as the chairperson of the Dissertation Committee. If the mentor is outside of the Department of Psychology, a co-chair will be selected to ensure that Departmental requirements are met. The Dissertation Committee meets with the student at the proposal meeting, the Private Defense, and the Public Defense.

The dissertation committee is best viewed as a group of individuals who have the following characteristics and should be selected on this basis. They should have some expertise in some aspect of the proposed research. They should have a commitment to working with the student to successfully complete the proposed research. This includes being actively involved in discussing the project and providing any suggestions that will improve its design, and being available to the student at mutually convenient times to discuss the project and provide assistance. Students should feel free to consult with their committee members at any time during preparation of the proposal, the collecting and analyzing of data, and the preparation of the dissertation. Viewing the dissertation committee as allies who share a commitment to the dissertation project will improve the quality of the experience and avoid unnecessary anxiety about the dissertation process. If the student is concerned that his or her committee is not functioning as described above, then the director should be informed and the situation will be investigated.

**Changes to the Proposal**

If changes from the proposed research are necessary, then the student has the responsibility of consulting with the committee about proposed changes. If a major change in the aims or research plan is considered, consultation with the committee is required. Changes in the proposed
research plan should be delineated in the form of a memo and may require an interim meeting of the dissertation committee. This memo will serve as an amendment to the dissertation proposal and will be viewed as mutually binding after approval by the dissertation committee. This memo should indicate what was deleted from the original proposal. The memo should also describe in detail the experiment(s) that will be added, including the rationale, design and specific methods. Committee members will review this memo and indicate to the student their assent or their wish to further discuss the proposed changes. The intent of these procedures is to increase communication between the student and their committee and prevent misunderstandings about the scope of the project.

**Award of the Ph.D.**

Awarding of the Ph.D. requires that (1) all course requirements be completed, (2) the dissertation is completed, (3) the dissertation be defended at a Private and Public Defense where it is presented as a departmental colloquium to which all faculty and students are invited. The Public Defense will be published in the UAB Reporter and fliers must be put up throughout the campus notifying the public of the defense. The recommendation that the Ph.D. be awarded is contingent on a written document of high quality and the judgment of the committee that the student has successfully presented and defended their work. The dissertation will be accepted by the Graduate School only in the format specified by their guidelines.
## Behavioral Neuroscience Program Requirements Checklist

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course #</th>
<th>Hrs</th>
<th>Date Completed/Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Neurobiology</td>
<td>PY 792</td>
<td>6</td>
<td></td>
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<tr>
<td>Foundations of Behavioral Neuroscience</td>
<td>PY 753</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Introduction to Statistics</td>
<td>PY 716</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Applied Statistical Analysis</td>
<td>PY 717</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Principles of Scientific Integrity</td>
<td>GRD 717</td>
<td>3</td>
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</table>

Behavioral Neuroscience Seminar (PY 756) is required each fall and spring semester.

12 credit hrs of Pre-dissertation Research (PY 798) is required before advancing to candidacy.

12 credit hrs of Dissertation Research (PY 799) is required before graduating.

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Course #</th>
<th>Hrs</th>
<th>Date Completed/Grade</th>
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<table>
<thead>
<tr>
<th>2nd Year Research Project</th>
<th>Due April 1 of 2nd Year</th>
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<tbody>
<tr>
<td>Manuscript approved by Behavioral Neuroscience Director</td>
<td>______________</td>
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</table>

<table>
<thead>
<tr>
<th>Qualifying Examination</th>
<th>Due September 15th of 3rd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committee Members (four members)</td>
<td>______________</td>
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<tr>
<td></td>
<td>______________</td>
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<td></td>
<td>______________</td>
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<tr>
<td>Qualifying Exam Topic approved</td>
<td>______________</td>
</tr>
<tr>
<td>Qualifying Exam Approved by Committee</td>
<td>______________</td>
</tr>
</tbody>
</table>
Dissertation Proposal  Due April 15th of 3rd Year

Committee selected and approved by Graduate School
Committee Members (five members)
__________________ (mentor)
__________________
__________________
__________________
__________________

Proposal approved by committee

Admitted to candidacy

Dissertation accepted by committee  Due July of 5th Year

__________________
Master’s Degree in Behavioral Neuroscience

The Behavioral Neuroscience Graduate Program does not accept students aiming to earn a Master’s Degree. However, the program does award a Master’s Degree to students under certain circumstances. These typically involve the student leaving the program prior to completion of the Ph.D. after having successfully completed the core program curriculum and research requirements listed below. The Master’s degree is a terminal degree for a student and re-admission to the program requires a new application.

Successful completion of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Course #</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Neurobiology</td>
<td>PY 792</td>
<td>6</td>
</tr>
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<td>4</td>
</tr>
<tr>
<td>Applied Statistical Analysis</td>
<td>PY 718</td>
<td>4</td>
</tr>
<tr>
<td>Principles of Scientific Integrity</td>
<td>GRD 717</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral Neuroscience Seminar</td>
<td>PY 756</td>
<td>4</td>
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<tr>
<td>Four Elective Courses</td>
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<tr>
<td>Pre-Doctoral Graduate Research</td>
<td>PY 798</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>49</strong></td>
</tr>
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</table>

Qualifying Examination

Successful completion of the 2nd Year Project and Qualifying Examination are required for the terminal Master’s Degree. Guidelines as previously noted.

**************************************************************************

Students Entering the Program with Previously Completed Graduate Work

Students that enter the Behavioral Neuroscience Program with a Master’s thesis already completed will not have to complete the 2nd Year Project, provided the thesis is shared with the Program Director and the Director agrees it meets minimum expectations for a Master’s Thesis.

Students with previously completed course work that is equivalent to required Behavioral Neuroscience courses will be exempt from completing those courses at the discretion of the Program Director.
Policies Regarding Adequate Academic Progress

Definition of Adequate Academic Progress
Adequate academic progress includes successful completion of required courses and degree requirements in a timely manner. Failure to make adequate academic progress will result in a review of the student’s academic progress by the Steering Committee. Failure to make adequate academic progress occurs when:

- A student earns two grades of “C” in required courses, including earning a “C” twice in the same course. Dropping a course because a grade of “C” is anticipated will be viewed as earning a “C” and will trigger a review of academic progress.
- A student does not meet the deadlines established for successful completion of the 2nd Year Project, Qualifying Examination, Dissertation Proposal, or Dissertation Defense.
- A student does not put forth effort in laboratory research that is commensurate with the number of credit hours taken and his or her stage of training.

The possible actions that may be taken are as follows.

- The student, the mentor, and the Steering Committee will develop a plan in order to improve the student’s progress and remediate any deficits. The plan will specify actions required of the student and deadlines for completion of each aspect of the plan. Contingencies for failure to successfully accomplish the plan to improve academic progress will also be specified.
- The student will be advised to take a leave of absence. A leave of absence is a period of excused absence from the program during which the student does not receive a stipend. This option will be used only if the student’s difficulties resulted from a situation that can be resolved during the absence.
- The student’s stipend will be suspended due to failure to make adequate academic progress.
- The student will be dismissed from the program.

Policy on Grades of “C”
In non-required courses, the program does not demand that the course must be repeated and a passing grade earned. The student may elect to retake a non-required course, e.g., to raise their GPA. In required courses, students must earn a passing grade of either A or B. Students who earn a “C” in a required course must repeat that course and earn a passing grade.

Policy on Remunerated Activities

Students on Fellowships
The fellowships awarded to first year students explicitly prohibit any outside activities for which remuneration is received. Fellowships from other sources may also prohibit other paid activities; the student is responsible for being aware of stipulations made by the fellowship.

Students contemplating additional work related to their graduate training (e.g., teaching or laboratory work) must consult with their research mentor and the Behavioral Neuroscience Director before making a commitment. Factors that will be considered include the potential for the experience to contribute to the student’s training, the student’s progress through the program and the extent to which the additional activity is likely to compete with the demands of the program. In most cases, students will be discouraged from accepting additional work until they have completed the majority of their coursework and are admitted to candidacy.
Degree Requirements and Associated Procedures
General Considerations

Formal administrative steps for completion of the doctoral degree are summarized below. Students are responsible for reviewing and following the steps described below and in the Graduate School Handbook. Students should also be aware of and meet Graduate School deadlines for submission of required forms and completion of associated steps (http://www.uab.edu/graduate/deadline-dates), and allow time for processing of forms in the Psychology Graduate Programs Office. Most forms are available from https://www.uab.edu/graduate/online-forms. Consult with the Graduate Programs Manager and Program Director if questions arise. All forms submitted to the Graduate School by Psychology graduate students must be submitted through the Psychology Graduate Programs Office.

Administrative Steps for Completion of the Doctoral Degree

The steps given below are roughly sequential, but in most cases it is efficient to complete Steps 2-4 (appointment of the committee, preparation of the written proposal, and verification of IRB/IACUC compliance) in parallel. The first two of these items are required before the dissertation proposal meeting and all three are required for admission to candidacy for the degree.

1. Selection of the Research Mentor. In consultation with the Program Director each student identifies a research mentor who will chair the dissertation committee. The research mentor/committee chair should be a doctoral-level scientist who is an active and productive researcher with Level II Graduate Faculty status (see Graduate School website) and available time to supervise the student’s research. The Program Director approves committee chairs according to these criteria. Exceptions must be approved by the faculty members of the Behavioral Neuroscience Steering Committee.

2. Appointment of Additional Committee Members. The student and research mentor confer to develop a general research plan (including study population, hypotheses, and methods including analytic strategy) and identify additional faculty members to complete the committee. These additional committee members should provide expertise that complements that of the chair. All committee members must hold Graduate Faculty Status (see Graduate School website). It is usually possible to obtain this status for a member who does not already have it. Once committee membership is settled, the student prepares a Graduate Study Committee Letter (see Graduate School Website, online forms) and submits it to the Psychology Graduate Programs Manager. The form is signed by the Program Director and forwarded to the Graduate School, where the Dean requests changes or issues final approval.

Requests for Graduate Faculty status may accompany the Graduate Study Committee Letter if not all proposed committee members already hold this status. In such cases the student or mentor provide the Program Director with brief written description of the unique expertise that the individual would contribute to committee deliberations. Students should work with the Psychology Graduate Programs Manager to gather other information required to support such requests.
3. **Documentation of IRB/IACUC Compliance.** The student and his or her mentor should secure appropriate research ethics approval. Compliance with this requirement must be documented for the Graduate School before the student can be admitted to candidacy for the degree. The instructions that accompany the Admission to Candidacy and Research Compliance Verification forms provide brief indication of how compliance should be documented. In general, **compliance should be documented by an official IRB approval form or approved amendment on which the student’s name appears, as described below:**

   a) **If the project is sponsored externally in the student’s name, or if no prior protocol covering the planned research has been submitted**, then the student should submit a protocol specifically for the project. Scientific review at the department level is required; consult the Department of Psychology website for the appropriate forms. The student should be listed as Co-PI with the research mentor.

   b) **If there is already IRB approval in place for a broader project that includes, or can reasonably be amended to include, the dissertation research, then the student may be added to the project.** A Project Revision/Amendment Form or annual Investigator’s Progress Report (IPR) can be used for this purpose. If the IPR is used, check with the IRB to determine what steps need to be followed to ensure that the student’s name appears on the approval form.

   c) **If the student is listed as a research assistant on an original protocol then the student is in compliance with IRB requirements but there is no documentation of approval that includes the student’s name.** In such cases an amendment can document the student’s role and the approved amendment will suffice for the Graduate School.

Students are encouraged to submit IRB paperwork at the earliest possible time to ensure that admission to candidacy and the project itself are not held up while awaiting IRB approval. New protocols in particular should be submitted as soon as general procedures are determined. An amendment that makes minor changes based on committee feedback will typically be approved more quickly than an original protocol. Note also that **students must maintain compliance with IRB requirements throughout the conduct of their research by timely submission of Investigator’s Progress Reports and amendments if study procedures change or the sample size is increased.** Students who are not sole PIs on their own projects should work with their mentor(s) to ensure that these requirements are met.

4. **The Proposal Meeting.** After the committee is appointed and the proposal is completed to the satisfaction of the research mentor the student may schedule a meeting to propose his or her dissertation project to the additional members of the committee. At least 2 hours should be scheduled for this meeting, and it should be scheduled such that all committee members can attend for the entire time. At least two weeks in advance of this meeting the Program Director and Program Manager must be informed of its date, time, and location, as well as the working title.

Prior to the meeting the student should obtain, review, and (to the extent possible) complete the Graduate School’s Application for Admission to Candidacy for the degree. The entire committee must sign the doctoral candidacy form so it will generally be most convenient for everyone if that form be completed ahead of time and taken along to the meeting. The part
of the application that deals with research compliance can be completed later and does not require committee signatures.

With the permission of the committee, the student has the option of completing the dissertation in the form of reprints and/or preprints. Guidelines for this format as well as the conventional format are provided in the *UAB Format Manual for Theses and Dissertations*. A student who is interested in the Preprint/Reprint option should discuss that plan with his or her research mentor before the proposal meeting, and the proposal meeting is a good time to discuss it with the committee as a whole. The program specifies no greater requirements for this option beyond those described in the *Format Manual*.

5. **Admission to Candidacy and Registration for Research Hours.** As soon as possible after the dissertation proposal has been approved the student works with the Graduate Programs Manager to submit the Admission to Candidacy and Research Compliance Verification forms to the Graduate School. The students will receive e-mail notification when he or she has been admitted to candidacy. The student is then eligible to register for dissertation research hours (PY 799). 12 hours of PY 799 are required for the doctorate.

6. **Completion of the Research.** The student completes the dissertation research and the corresponding document under the supervision of the research mentor. The student and mentor consult with other committee members as necessary at any stage in this process. The committee *must* be consulted to approve any substantial changes to methods. Such consultation may be by individual meetings with members or e-mail, with the option for any member or the student to request an interim committee meeting to discuss proposed changes. Students are strongly encouraged to summarize in writing any decisions made regarding any changes to the approved research plan and to submit such documentation to the full committee.

7. **Submission of the Application for Degree.** As the student nears completion of the thesis or dissertation, he or she should check the relevant Graduate School deadlines. Degrees are awarded on a specified date at the end of each term, and each graduation date has associated deadlines for submission of the Application for Degree (AFD), for the date of the final defense, and for submission of the final document to the Graduate School. Note that the AFD commits the student, research mentor, and committee to meet the deadlines associated with the specified degree date, and failing to meet those deadlines requires the student to submit a new AFD and pay the associated fee a second time. The AFD is submitted online (see Graduate School Website, online forms, for instructions).

8. **Planning and Preparation for the Dissertation Defense.** As completion of the dissertation approaches, committee members should be consulted regarding their availability around the projected defense date and the amount of lead time they each require to review the completed document. The Public dissertation defense is open to the public so the student must provide the date and time, along with the final dissertation title, to the Psychology Graduate Programs office at least three weeks prior to the date of the defense so it can be
adequately publicized. To facilitate attendance, all defenses are held in Room 327 of Campbell Hall.

At least two weeks prior to the public defense the student must request approval forms from the Graduate School. The Graduate School will notify the student when the forms are ready for pick-up, and the student should take the forms to the public defense so that all signatures can be obtained.

The research mentor and other committee members should be provided with a copy of the completed dissertation at least two weeks ahead of the defense unless a shorter lead time has been negotiated.

9. **The Defense and the Final Document.** The *UAB Format Manual for Theses and Dissertations* contain extensive information on the required format of the thesis and dissertation, as well as the format for the defense meeting and procedures for committee review, approval, and dissent from approval.

At the defense, the student presents the background, methods, results and conclusions, after which all in attendance are given adequate time to ask questions. The “public” is then dismissed and the committee asks any final questions. The committee should also follow up on issues regarding the student’s general level of preparation and knowledge that were raised at the proposal meeting.

Finally, the student is dismissed and the committee meets in closed session to decide whether the document is acceptable and the student should be recommended for the degree. “**Signatures of committee members and program directors on the approval forms indicate their assurance that they have examined the document and have found that it is of professional quality from all standpoints, including writing quality, technical correctness, and professional competency, and that the document conforms to acceptable standards of scholarly presentation** (Graduate School website).” If deficiencies are identified, the committee decides on specific steps that the student must complete before the document can be accepted and the student can be recommended for the degree.

At least one member of the committee – typically the chair – withholds his or her signature from the approval documents until all issues have been addressed to the full committee’s satisfaction.

10. **Final Submissions.** Once the thesis or dissertation has been successfully defended and all required changes have been made, the student submits an electronic copy of the final accepted version of the document in PDF form to the entire committee and the Program Director. The Program Director verifies with the committee chair that this final document reflects all changes required by the committee and archives the document. The student electronically submits the approved and accepted dissertation to the Graduate School, following instructions on the Graduate School website.