Iowa State University

Neuroscience

An Interdepartmental Graduate Program in the Life Sciences

www.neuroscience.iastate.edu
This Handbook...

This student handbook is provided to give general guidance about important issues and activities that you will encounter in your graduate career. Because the Neuroscience interdepartmental graduate major continually seeks to improve, as does the entire graduate education program at Iowa State, some changes may occur between the times of the annual printing of this handbook. You are expected to stay in close communication with your major professor and Neuroscience program staff regarding important issues. You are also encouraged to bring questions and comments to the Chair and members of the Supervisory Committee of Neuroscience at any time.
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INTRODUCTION

The Neuroscience Major

The Graduate Program in Neuroscience is an interdepartmental and interdisciplinary training program at Iowa State University that offers the Master of Science and Doctor of Philosophy degrees. The Neuroscience training program offers a broad spectrum of Neuroscience research opportunities, ranging from the molecular to the cellular to the systems level of analysis. The program includes over 35 faculty from the departments of Animal Science; Biochemistry, Biophysics and Molecular Biology; Biomedical Sciences; Chemical and Biological Engineering; Chemistry; Computer Science; Ecology, Evolution, and Organismal Biology; Genetics, Development and Cell Biology; Kinesiology; Psychology; Veterinary Clinical Sciences; Veterinary Diagnostic & Production Animal Medicine; and Veterinary Pathology.

The strength of the Neuroscience Program lies in the combined expertise of its diverse faculty. Neuroscience faculty in a variety of disciplines will provide you with flexibility in your choice of a research project and major professor. Other activities and organizations in the program bring faculty and students together and provide opportunities for personal and professional interaction. These interactions are central to our goals, which are to provide broad and robust graduate student training while stimulating excellence in Neuroscience research.

Administration

The Program Chair and Supervisory Committee oversee the activities of Neuroscience Program. Feel free to contact them if you have any questions about the program. For the 2013 – 2014 academic year, the Chair and Supervisory Committee are:

Program Chair & Director of Graduate Education
Matthew Ellinwood
2356D Kildee Hall
4-5136
mellinwo@iastate.edu

Supervisory Committee

Michael Kimber
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Program Coordinator
Katie Blair
2018 MBB 294-7252 kblair@iastate.edu
UPON ARRIVAL AT IOWA STATE

When you first arrive, you may find yourself overwhelmed by the number of things you must do. Here is a list of some of the most important.

1. Visit the Interdepartmental Programs office in 2018 Molecular Biology. Introduce yourself to the office staff. Dr. Don Sakaguchi, NEURO Co-chair and program DOGE, is located in 507 Science II Building. He can answer any questions you have about your academic program. Katie Blair, NEURO Program Coordinator, can help you find your way around the University administrative offices and answer your questions regarding Neuroscience and/or the University.

2. Read this Handbook. It is especially important to read the section on Administrative Matters during your first few days.

3. Register for e-mail and plan to check it regularly (at least daily). E-mail is the most common means of communication at Iowa State University.

4. Access the following references and examine them carefully. These documents contain all the University regulations and requirements for graduation. Most of these items come directly from the Graduate College and Office of the Registrar. All items in bold are required and students are expected to be familiar with this information.

   Graduate College Handbook
   http://www.grad-college.iastate.edu/
   http://www.grad-college.iastate.edu/publications/ghanndbook/

   Graduate College Thesis/Dissertation Website
   http://www.grad-college.iastate.edu/current/thesis/

   General University Catalog
   http://catalog.iastate.edu/

   Schedule of Classes
   http://classes.iastate.edu/

   Iowa State University Semester Calendar
   http://www.registrar.iastate.edu/calendar/

   Iowa State University phone/e-mail directory http://www.info.iastate.edu/
GETTING STARTED – YOUR FIRST YEAR

Graduate Student Orientation

For new graduate students, the academic year begins with an orientation period which is designed to ease the transition to graduate study at Iowa State. It is a time to become acquainted with the Neuroscience Program and its members and to prepare for registration and the start of classes. Along with this handbook, you should have received a schedule of important orientation activities sponsored by Neuroscience and the Graduate College. Please refer to them for information about your responsibilities during Orientation.

Which of the following sections you need to read is determined by how you are being funded. Students may enter Neuroscience by either of two routes: direct admission into Neuroscience or admission after acceptance into a department. Students entering Neuroscience directly are usually supported for their first year on a Neuroscience Research Assistantship and spend their first year doing rotations and choosing a major professor. They should read the entire handbook. Students entering after acceptance into a department arrange for a major professor and financial support through their home department. The latter students may skip sections dealing with temporary advisors, research rotations, and choosing a major professor.

Assignment of a Temporary Advisor

If you have entered the Neuroscience program directly, the chair of the major or another faculty mentor will serve as your temporary advisor until your major professor is selected. The temporary advisors are well acquainted with the Neuroscience laboratories at Iowa State. The responsibilities of the advisors are to guide you in selecting courses during your first year, to discuss with you the research opportunities in NEURO, and to suggest laboratories for visits and rotations.

Toward the end of the first week of the orientation period, you will meet with your advisor for counseling and preparation of your schedule for the fall semester. If it is necessary to add or drop a course, or change sections of a course or the number of credits, you may do so on AccessPlus, the University registration system.
Research Rotations – NEURO 699

First year students who enter Neuroscience directly as Research Assistants or Teaching Assistants are required to do laboratory rotations (NEURO 699, *See Program Coordinator to obtain appropriate section) to help them choose their major professor. First-year students who have already entered a department and do not receive financial support from Neuroscience are not required to do rotations; rather these students should register for their major professor’s section of NEURO 699.

The research rotations, in addition to helping you choose your major professor, provide you with an interdisciplinary research experience, give you an opportunity to actively participate in the research program of the laboratories in which you are interested, and promote interaction and exchange of information among research groups.

Neuroscience Research Assistants must do two laboratory rotations during their first year (NEURO 699); however, a total of three rotations is strongly encouraged. Each rotation should be 6-8 weeks long. Total credits of NEURO 699 per semester should be 2 to 6. Following each lab rotation, students are required to complete a research evaluation form and submit the completed form back to the Program Coordinator within one week of completion of the respective rotation. Students who fail to complete an evaluation form for any of the completed rotations will receive a grade of incomplete for their NEURO 699 research rotation credits.

Choosing Your Major Professor

If you have entered Neuroscience directly, much of your first year will be devoted to the important process of selecting a major professor, the person who will guide you in your graduate studies and whose research group you will join. Activities during orientation week provide you an opportunity to meet individual faculty members and discuss their research. You will probably wish to make appointments for additional conferences with the professors whose work interests you.

First-year graduate students in Neuroscience must choose a major professor by the end of their first year at Iowa State, preferably by the end of the second semester (i.e.: April to early May).

You should make use of the following information to help you decide on a research group and a professor with whom to rotate:

- The NEURO website, which has brief descriptions of the research programs of each faculty member.
  http://www.neuroscience.iastate.edu/
- Curriculum vitae and references to recent publications of NEURO faculty, available on many professors’ homepages.
- Discussions with individual faculty members. (This is very important!)
- Potential that the faculty member will have space and funding for a new student, and what the level of financial support will be.
When you have decided with whom you would like to rotate, you need to personally ask the faculty member whether you can rotate in his or her laboratory. If you are interested in joining that faculty member's group, you should tell him or her of your interest and determine whether there might be funding for you after you finish your rotations. Also, discuss potential projects which are ongoing in the lab. Although research will be conducted during these rotations, the completion of a project is not required. You will be asked to evaluate the rotation in a written annual report that Neuroscience graduate students submit each year they are in the program.

After you finish your laboratory rotations, ask the faculty member with whom you would like to work whether he or she can accept you into his or her laboratory and arrange for your future financial support. Once a mutual agreement has been reached, please inform the Neuroscience Program Chair and Program Coordinator. You will need to initiate a “Request to Establish a Home Department for Students Admitted to Interdepartmental Majors” form (available online at http://www.grad-college.iastate.edu/forms/forms.html).

**NOTE:** You should wait to choose a major professor until after your rotations. If a faculty member attempts to get a commitment from you before the end of your rotations, don’t do it unless you are absolutely certain it is what you want. It is best to reserve your decision until you are fully informed about the opportunities available to you.

### ACADEMIC MATTERS

#### Degrees Offered

Neuroscience offers coursework and research experiences leading to the degrees of Master of Science and Doctor of Philosophy. Because Neuroscience is a research-based discipline, non-thesis Master of Science degrees are not available.

#### Admission to a Degree Program

The degree that a student may pursue in Neuroscience (that is, MS or Ph.D.) is normally determined and specified at the time of the student’s admission to the program. Although a prior MS is not required for admission to the Ph.D. program, criteria for admission to the Ph.D. program are more stringent than to the MS program. Earning an MS in Neuroscience does not automatically qualify a student to pursue the Ph.D. degree in Neuroscience. Conversely, a student admitted to the Ph.D. program may need to change to an M.S. program in NEURO. This decision may impact the student’s funding that was awarded based on pursuit of the Ph.D. degree. Students should confer with their major professor, the NEURO chair, and notify the NEURO office if they are contemplating making such changes.
**Required Courses**

It is expected that graduate students entering the Neuroscience program will have a strong background in the biological sciences, psychology, biochemistry or computer science including work in general biology, biochemistry and physics. Your temporary advisor or major professor will help you determine if you have deficiencies in any of these areas and decide if you need to take additional background courses. If it is desirable to take such courses, you should take them as soon as possible.

To assure that all our students are trained in the major areas of Neuroscience, all students should include in their program of study a core of courses that will provide a broad coverage of the basic program in Neuroscience. Formal courses should include neurobiology, biochemistry, and statistics. All students will take the Neuroscience seminar course and Neuroscience Journal Club (or equivalent course) each semester.

A summary of the requirements is given below and on the form “Checklist for Completion of Graduate Requirements for the Neuroscience Program”, page 26.

**Curriculum Requirements for Neuroscience Students**

Ph.D.: 72 graduate credits of which 36 credits, including all dissertation research credits, must be earned under the supervision of the POS committee.

Graduate credits of B or better earned at another institution may be transferred at the discretion of the POS committee and the approval of Neuroscience and the Graduate College. Ph.D. students take the complete core requirements.

Additional coursework for both the Ph.D. and MS degrees is selected by the student in consultation with his/her POS Committee to meet departmental requirements and to satisfactorily prepare the student for their research project.

Additional information relating to credits required for graduate degrees can be found in the ISU Graduate College Handbook, [http://www.grad-college.iastate.edu/publications/gchandbook/](http://www.grad-college.iastate.edu/publications/gchandbook/).
Outline of Neuroscience Curricular Requirements

YEAR 1

Fall Semester

_____  3 credits  NEURO 556  Cellular, Molecular & Developmental Neuroscience
_____  3 credits  BBMB 404  Biochemistry
_____  1 credit  NEURO 690  Journal Club in Neuroscience
_____  1 credit  NEURO 696  Neuroscience Seminar
_____  4 credits  NEURO 699  Research*

_____  ______  ______  Elective?

Spring Semester

Depending on the semester offerings take one of the following:

_____  2-3 credits  NEURO 557  Advanced Neuroscience Techniques
(Spring of odd years)
_____  2-3 credits  NEURO 661  Current Topics in Neuroscience
(Spring of even years)

Take each of the following:

_____  3 credits  BMS 537  Neuroanatomy
_____  1 credit  NEURO 690  Journal Club in Neuroscience
_____  1 credit  NEURO 696  Neuroscience Seminar
_____  4 credits  NEURO 699  Research*

_____  ______  ______  Elective?

*NEURO 699 Research

The NEURO 699 Research in YEAR 1 is typically your three laboratory rotations. Students supported by the Graduate College need to do these three rotations.

<table>
<thead>
<tr>
<th>Rotation #1</th>
<th>Supervisor</th>
<th>Start Date</th>
<th>End Date</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Rotation #2</td>
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<td></td>
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<tr>
<td>Rotation #3</td>
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</tbody>
</table>

By the end of your first year, you need to have found a laboratory home for your PhD research and should formally declare your Home Department.

PhD Supervisor/Major Professor: ________________________________

Home Department: ________________________________
YEAR 2

Fall Semester

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>STAT 401</td>
<td>Statistical Methods for Research Workers</td>
</tr>
<tr>
<td>1</td>
<td>NEURO 690</td>
<td>Journal Club in Neuroscience</td>
</tr>
<tr>
<td>1</td>
<td>NEURO 696</td>
<td>Neuroscience Seminar</td>
</tr>
<tr>
<td>______</td>
<td>NEURO 699</td>
<td>Research</td>
</tr>
<tr>
<td>______</td>
<td>______</td>
<td>Electives</td>
</tr>
</tbody>
</table>

Establish your Program of Study (POS) Committee

By the end of the Fall semester of Year 2, you need to have your POS Committee members selected and hold your first POS Committee meeting. PhD students are required to have 5 committee members: at least three (including your Major Professor) need to be Neuroscience Faculty and at least one member needs to be from outside of the Neuroscience faculty or your Home Department faculty.

1 Major Professor
2 NEURO
3 NEURO
4 Other
5 Other

YEAR 2 Continued

Spring Semester

Depending on the semester offerings take one of the following:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>2-3</td>
<td>NEURO 557</td>
<td>Advanced Neuroscience Techniques</td>
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<td>(Spring of odd years)</td>
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<tr>
<td>2-3</td>
<td>NEURO 661</td>
<td>Current Topics in Neuroscience</td>
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<td>(Spring of even years)</td>
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Take each of the following:

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<th>Credits</th>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>1</td>
<td>NEURO 690</td>
<td>Journal Club in Neuroscience</td>
</tr>
<tr>
<td>1</td>
<td>NEURO 696</td>
<td>Neuroscience Seminar</td>
</tr>
<tr>
<td>______</td>
<td>NEURO 699</td>
<td>Research</td>
</tr>
<tr>
<td>______</td>
<td>______</td>
<td>Electives</td>
</tr>
</tbody>
</table>

Submit your Program of Study (POS)

By the end of your second year, under the advisement of your major professor and POS Committee, you should complete your Program of Study document and submit it to the Graduate College for approval. It is beneficial to refer to the POS section of the Graduate College handbook. Your POS must include all core curriculum for your major and any relevant co-majors or minors.
### Electives

Before you graduate, you need to have a total of 6 credits of regularly scheduled Elective Courses. The selection of these courses needs to be approved by your POS Committee.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Credits</th>
<th>Course #</th>
<th>Course Name</th>
<th>Semester</th>
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<tbody>
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</tr>
</tbody>
</table>

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### YEAR 3

**Fall Semester**

- _____ 1 credit NEURO 690 Journal Club in Neuroscience
- _____ 1 credit NEURO 696 Neuroscience Seminar
- _____ _____ NEURO 699 Research
- _____ _____ __________ Electives

**Spring Semester**

- _____ 1 credit NEURO 690 Journal Club in Neuroscience
- _____ 1 credit NEURO 696 Neuroscience Seminar
- _____ _____ NEURO 699 Research
- _____ _____ __________ Electives

### Preliminary Exam

By the end of your third year you should have passed your Preliminary Exam which includes your PhD research proposal. A copy of your proposal should be in your file. Please refer to the Preliminary Oral Exam section of the Graduate College handbook.

- __________ Date of Preliminary Exam
- __________ Copy of signed POS form in student’s file?
- __________ Copy of proposal in student’s file?

---

### YEAR 4

**Fall Semester**

- _____ 1 credit NEURO 690 Journal Club in Neuroscience
- _____ 1 credit NEURO 696 Neuroscience Seminar
- _____ _____ NEURO 699 Research

**Spring Semester**

- _____ 1 credit NEURO 690 Journal Club in Neuroscience
- _____ 1 credit NEURO 696 Neuroscience Seminar
- _____ _____ NEURO 699 Research
YEAR 5

Fall Semester
______ 1 credit NEURO 690 Journal Club in Neuroscience
______ 1 credit NEURO 696 Neuroscience Seminar
______ ________ NEURO 699 Research

Spring Semester
______ 1 credit NEURO 690 Journal Club in Neuroscience
______ 1 credit NEURO 696 Neuroscience Seminar
______ ________ NEURO 699 Research

A few other notes:
- You need to be enrolled in at least 9 credits to maintain 1/2-time assistantship.
- 72 total credits are required for a Ph.D.
- Excerpt from the Graduate College Handbook:

Probation and Academic Standing
If a graduate student does not maintain a cumulative 3.0 grade point average on all course work taken, exclusive of research credit, he or she may be placed on academic probation by the Dean of the Graduate College. Grades earned by graduate students in undergraduate courses are included in the calculation of the grade point average. Academic probation judgments are made on the basis of grades in course work only.

While on academic probation a student will not be admitted to candidacy for a degree and if appointed to a graduate assistantship, he/she will not receive a Graduate College tuition scholarship. If a student is to qualify for a tuition scholarship, he/she must be removed from probation by the tenth class day of the term.

To insure that registration does not take place without a review by the program, the Graduate College places a hold on future registrations by a student on probation. Before the student registers for each term, the program must review his or her record and recommend in writing if the Graduate College should permit further registration. Before graduation is approved, the student must complete all courses listed on the program of study with a minimum grade of C and have achieved a 3.0 GPA or greater.
## Course Requirements for Neuroscience Majors seeking a Doctoral Degree

Take each of the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEURO 556</td>
<td>Cellular, Molecular &amp; Developmental Neuroscience</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>NEURO 557</td>
<td>Advanced Neuroscience Techniques</td>
<td>3</td>
<td>Alt. Spring, 2013</td>
</tr>
<tr>
<td>NEURO 661</td>
<td>Current Topics in Neuroscience</td>
<td>2-3</td>
<td>Alt. Spring, 2014</td>
</tr>
<tr>
<td>NEURO 690</td>
<td>Journal Club in Neuroscience</td>
<td>1</td>
<td>Fall &amp; Spring</td>
</tr>
<tr>
<td>NEURO 691</td>
<td>Neuroscience Seminar</td>
<td>1</td>
<td>Fall &amp; Spring</td>
</tr>
<tr>
<td>NEURO 699</td>
<td>Research</td>
<td>Variable</td>
<td>Fall, Spring, &amp; Summer</td>
</tr>
<tr>
<td>BBMB 404</td>
<td>Biochemistry I</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>BMS 537</td>
<td>Neuroanatomy</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>Stat 401</td>
<td>Statistical Methods for Research Workers</td>
<td>4</td>
<td>Fall, Spring, &amp; Summer</td>
</tr>
</tbody>
</table>

Take at least 6 Credits from following list of Neuroscience elective courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Com S 474</td>
<td>Elements of Neural Computation</td>
<td>3</td>
<td>Alt. Fall, 2014</td>
</tr>
<tr>
<td>Kin 572</td>
<td>Neural Basis of Human Movement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Psych 410</td>
<td>Behavioral Neurology</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Psych 517</td>
<td>Psychopharmacology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Psych 519</td>
<td>Cognitive Neuropsychology</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

### Mandatory Ethics Training

All Neuroscience students are required to complete 1 credit hour of ethics training. This training should meet the NIH grant requirements (i.e. have an animal component).

Additional coursework may be selected to satisfy individual interests, areas of deficiency, or Program of Study Committee recommendations.

- All Non-native English speaking graduate students, if not otherwise exempt, must take the English Placement Test and meet the Iowa State University English requirements. Additional coursework may be required.
- Foreign language requirement is determined by the student’s co-major department.
- All graduate students are encouraged to teach two semesters as part of their training for an advanced degree.
  - Non-native English speaking students must complete the Speak/Teach exam and have an adequate certification level to be eligible for TA assignments.
- In addition, if applicable, your co-majoring home department or co-majoring program may have additional requirements.
Course Requirements for Neuroscience Majors seeking a Master’s Degree

Students seeking an M.S. degree must take a total of 30 credits, with not less than 22 credits earned at ISU. M.S. students have the same core requirements as Ph.D. students.

Course Requirements for Ph.D. Neuroscience Majors seeking a Co-Major in MCDB

A student co-majoring in Neuroscience and MCDB must have a different major professor from each program and they must be so designated.

NEUROSCIENCE:
The below course requirements relate to the Neuroscience PhD major. Listed below the curriculum is information relating to changes for students who are co-majoring in MCDB. It is of note that all MCDB core curriculum must also be met. Please refer to the MCDB program for further curriculum information.

Required Courses:

Take each of the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEURO 556</td>
<td>Cellular, Molecular &amp; Developmental Neuroscience</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>NEURO 557</td>
<td>Advanced Neuroscience Techniques</td>
<td>3</td>
<td>Alt. Spring, 2013</td>
</tr>
<tr>
<td>NEURO 661</td>
<td>Current Topics in Neuroscience</td>
<td>2-3</td>
<td>Alt. Spring, 2014</td>
</tr>
<tr>
<td>NEURO 690</td>
<td>Journal Club in Neuroscience</td>
<td>1</td>
<td>Fall &amp; Spring</td>
</tr>
<tr>
<td>NEURO 696</td>
<td>Neuroscience Seminar</td>
<td>1</td>
<td>Fall &amp; Spring</td>
</tr>
<tr>
<td>NEURO 699</td>
<td>Research</td>
<td>Variable</td>
<td>Fall, Spring, &amp; Summer</td>
</tr>
<tr>
<td>BBMB 404</td>
<td>Biochemistry I</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>BMS 537</td>
<td>Neuroanatomy</td>
<td>3</td>
<td>Spring</td>
</tr>
<tr>
<td>Stat 401</td>
<td>Statistical Methods for Research Workers</td>
<td>4</td>
<td>Fall, Spring, &amp; Summer</td>
</tr>
</tbody>
</table>

Take at least 6 Credits from following list of Neuroscience elective courses:

*3 credits of electives applies to NEURO-MCDB co-majors only, all others require 6 credits from electives.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Term Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Com S 474</td>
<td>Elements of Neural Computation</td>
<td>3</td>
<td>Alt. Fall, 2014</td>
</tr>
<tr>
<td>Kin 572</td>
<td>Neural Basis of Human Movement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Psych 410</td>
<td>Behavioral Neurology</td>
<td>3</td>
<td>Fall</td>
</tr>
</tbody>
</table>
### Mandatory Ethics Training

All Neuroscience students are required to complete 1 credit hour of ethics training. This training should meet the NIH grant requirements (i.e. have an animal component).

Additional coursework may be selected to satisfy individual interests, areas of deficiency, or Program of Study Committee recommendations.

### Changes for students who wish to co-major in Neuroscience and MCDB:

1. Alternate between NEURO 690 (Research/Journal Club) and MCDB 698 (Seminar); two semesters every year with one of those semesters being NEURO 690 and the other being MCDB 698.
2. For MCDB students who wish to co-major in Neuroscience: NEURO 556 would be acceptable to fulfill one of the courses in MCDB.
3. GDCB 528 (Advances in Molecular Cell Biology) may be taken as an elective course for Neuroscience students who elect to co-major with MCDB. This course also fulfills a MCDB requirement.
4. Three credits of Neuroscience electives will be waived. To fulfill the MCDB requirements, a Neuroscience Program student must take an additional semester of Biochemistry (BBMB 405) and one additional core MCDB course.

If you choose to co-major in MCDB, please stop by the Interdepartmental Graduate Program Office, 2018 MBB, to procure an MCDB handbook with the complete information about course requirements.

### NEURO 690 and NEURO 696

#### NEURO 690- Neuroscience Journal Club

All students who are formally admitted to the Neuroscience Program are expected to enroll for one credit of NEURO 690 during each Fall and Spring semester throughout their graduate program. *Enrollment is also open to students not formally in the program.*

- A minimum of 6 presentations (spread out over several years) is required for all Neuroscience doctoral students. These include:
  - 3 journal article presentations. Each presentation is at least 25 minutes long.
  - 1 overview lecture. The lecture should be 40-45 minutes long and focuses on an individually selected topic which is not directly related to one’s thesis and does not duplicate one’s own presentation topics in Neuroscience 661 or instructors’ lectures in Neuroscience 556 or 557. For example, a student may
opt to give an up-to-date research review or, alternatively, a formal practice lecture in some area of Neuroscience.

- 2 personal research presentations. These presentations are each 40-45 minutes long. One will be a “midstream” report, typically given during the student’s second year at about the time of prelims. This report will emphasize background, rationale and progress on one’s dissertation research. A second presentation will be made as a “final stage” thesis presentation.

*Note: Some of these presentations may be given as part of the normal Neuroscience Program seminar series, Neuroscience 696

NEURO 696- Neuroscience Seminar

All Students who are formally admitted into the Neuroscience Program should be enrolled in NEURO 696 each Fall and Spring semester throughout their graduate program

*Enrollment is also open to students not formally in the program.

Each semester there will be seminars that are directly sponsored, or co-sponsored by the Neuroscience Program. We strongly encourage all Neuroscience graduate students to attend these seminars.

In addition, you are encouraged to attend other seminars related to “Neuroscience” (Departmental seminars and seminars sponsored by the MCDB Program are often “Neuroscience-related”). There may also be job interview seminars for faculty positions in areas directly related to Neuroscience.

To fulfill the requirements for NEURO 696 you need to attend at least five (5) Neuroscience-related seminars and provide summaries of these seminars to the instructor in charge of the course. Each summary should have the following information indicating: 1) the student’s name; 2) the name of the seminar speaker; 3) title of the seminar; 4) date, and 5) brief summary of the seminar.

As part of Neuroscience 696 each student will present a 45-50 minute thesis research presentation, their final thesis defense. This presentation will be announced to the Neuroscience community.

*Note: This presentation will also fulfill one of the requirements for NEURO 690, Journal Club.

Graduate English Requirements for Nonnative Speakers of English

English Placement Test
This test is for non-native English speakers who DO NOT have a prior Bachelor’s or Master’s or Ph.D. degree from a U.S. college or university. If you have a Bachelor’s, Master’s, or Ph.D. degree from a U.S. college or university, where the language of instruction was English, you need to fill out a Graduate English Requirement Approval form found on the Graduate College forms webpage: http://www.grad-college.iastate.edu/forms/forms.html.
The English Placement Test should be taken at the beginning of your first semester of enrollment. It must be taken in addition to TOEFL (Test of English as a Foreign Language), which is taken as part of the admissions process. A student who does not pass this examination is assigned to one or more courses in the English 101 series. This course work must be completed during the first year of study.

Testing Information for English Placement Test:
Department of English/ESL
ENGLESLS@iastate.edu
515-294-3568
http://www.public.iastate.edu/~apling/ept.html

Certification of English Requirement:
Graduate College SPEAK/TEACH Program, 1116 Pearson Hall
515-294-1958

Testing of Nonnative Speaking Students Who Teach

SPEAK/TEACH testing is required of graduate students who fit both of the following categories:

- those who are not native speakers of American English (i.e., learned another language first), and
- those who are to be appointed to or considered for teaching assistantships or who will have some teaching responsibilities even if they are not teaching assistants (TAs).

The SPEAK/TEACH tests of oral proficiency are given before the beginning of fall and spring semesters. Registration is required prior to testing. Information regarding specific test dates, registration, testing, and scoring can be found on the program website, http://itas.grad-college.iastate.edu. TAs and faculty with questions about SPEAK/TEACH testing should call 515-294-1958 or 515-294-7996.

A prospective teaching assistant who does not pass these tests is required to successfully complete course work and be retested. Sections of the courses University Studies 180 and 511 are designed to help new teaching assistants. These courses focus upon pronunciation, listening, question handling, teaching and lecturing skills, and an introduction to the culture of U.S. university life. Because enrollment is restricted in University Studies 180, TAs cannot register for the courses through Access Plus registration. TAs must appear at the SPEAK/TEACH Office, 1137 Pearson Hall, on the first or second day of classes for fall or spring semester to obtain permission to enter the course by completing a course add slip.
PROGRESSING THROUGH YOUR DEGREE PROGRAM

Committee Appointment and Program of Study

After you have chosen a major professor and home department, you will, in consultation with your major professor, decide on a suitable program for completion of your graduate course work. It is then necessary to appoint a graduate Program of Study (POS) Committee. The composition and responsibilities of the POS Committee will be in accordance with the Graduate College guidelines. Current minimum requirements for the composition of Program of Study Committees are summarized on page 23 of this Handbook.

The POS Committee should include faculty whose research interests can aid and complement your research interests, as well as faculty whose expertise will ensure that you graduate with a breadth of knowledge. The POS Committee for a doctoral program must consist of at least five members of the Graduate Faculty. These faculty members are listed in the appendix of the Graduate College Handbook. This can be found online at the Graduate College website. The POS committee must include at least three faculty members, including the major professor, from within the Neuroscience Program. At least one faculty member must be outside the Neuroscience program or outside of your home department.

The POS committee for a master’s student must consist of at least three members of the Graduate Faculty. It must include two members, including the major professor, from inside the Neuroscience Program. One member of the committee must be outside the Neuroscience Program or outside of your home department.

Once the chosen members of the POS committee have agreed to serve, you should complete the Graduate College form “Recommendation for Committee Appointment”. Have the committee members sign it, and submit it to the NEURO program chair for approval. A copy of this form and instructions for its completion are available at http://www.grad-college.iastate.edu/forms/forms.html. On the committee form, under major, print or type: Neuroscience. After official appointment of the committee, copies of the form will be returned to you and your major professor. A third copy is placed in your file in the NEURO program office.

Changes to your committee made after the completion of the “Recommendation for Committee Appointment” form has been approved should be made on a “Request to Change Committee Appointment” form. A copy of this form is available at http://www.grad-college.iastate.edu/forms/forms.html.

The next step is to call your committee together, inform them of your research plans, and ask for their evaluation of your plans. This is also the time to complete your “Program of Study” (POS) form. A copy of this form and instructions for its completion are available at http://www.grad-college.iastate.edu/forms/forms.html. This should be done by the first semester of your second year (i.e. within six months of choosing your major professor).
Graduate College Program of Study is one of the more important documents you will encounter while in graduate school. In essence, it is a contract between you and the Graduate College indicating the minimum course work that must be taken to complete a Ph.D. or M.S. No changes can be made to it without the mutual approval of yourself, your committee, and the Graduate College. On the line identified as “Major”, the POS form should read: Neuroscience.

Changes that occur in a student’s program of study because of changed objectives, courses not available at any appropriate time, or because courses themselves are changed should be approved by the student’s committee and DOGE for the major. Such changes need not be sent to Graduate Dean for approval until the student is ready to file for graduation. When the student is preparing to graduate, the student should prepare a memo listing any changes to the originally filed program of study that were approved previously by the committee and the DOGE, the major professor should also sign the memo, and it should be sent to the Graduate College.

Other types of changes to the student’s program of study should be submitted to the Graduate College on a completed “Modifications to the Program of Study” form. A copy of this form is available at [http://www.grad-college.iastate.edu/forms/forms.html](http://www.grad-college.iastate.edu/forms/forms.html).

**Hint for completing POS form:** Be sure that you use the correct course name, number, and designation [ex. BBMB versus Biochem].

**Evaluating Your Performance**

Continued membership in the Neuroscience program and financial support is contingent upon satisfactory progress towards your degree. Students are required to meet with their POS committee at least once each calendar year. At the end of the first year, and thereafter, students will document their own progress by preparing a brief annual report of their coursework, research, exams and POS meetings and other professional activities. Progress will be evaluated by the Supervisory or Graduate Affairs Committee on the following basis:

- Grades: A cumulative GPA of at least 3.0 is required by the Graduate College for continued appointment to an assistantship
- Performance in laboratory rotations and progress in selection of a major professor (if applicable)
- Progress in initiation of your research project
- Progress in forming POS Committee, completing a Program of Study, and completion of preliminary exam
- Progress in presenting research results
- Evaluation from the major professor.

A notation of progress and recommendations for continuance in the major or corrections of deficiencies are sent to the major professor and are placed in the student’s file.
**Dismissal Policy**

Students may be dismissed from the NEURO program, that is, removed from the degree program and not permitted to register as NEURO graduate students. Dismissal may occur for any of the following reasons:

a) Failure to progress in his/her degree program
   This may be evidenced by a lack of research progress, a lack of aptitude or a failure to maintain satisfactory academic standing, as defined by the Iowa State University Graduate College Handbook.

b) Lack of a major professor
   Because graduate degrees in Neuroscience at ISU are centered about a mentored research project, it is impossible to complete a degree without a research mentor (major professor). To maintain membership in Neuroscience, a student must have a Neuroscience faculty member serving as his or her major professor. A student admitted to Neuroscience on rotation has up to 12 months to find a major professor. It is the responsibility of the student to find a faculty member willing to serve; faculty members have the right to refuse. Faculty members who have agreed to serve may chose to terminate their service by notifying and explaining to the Neuroscience Chair this intent, in writing. A student who has lost his or her major professor has up to 3 months after the date the Neuroscience Chair is notified by the faculty member to identify another Neuroscience faculty member willing to serve as his or her major professor. If the student desires assistance, the Neuroscience Chair will help the student search for a major professor; however, final responsibility for finding a major professor rests with the student.

c) Academic Dishonesty
   The proper conduct of science requires the highest standards of personal integrity. Because of this, the University and Neuroscience consider dishonesty in the classroom or in the conduct of research to be a serious offense. Students accused of academic dishonesty will be dealt with according to the procedures outlined in the University Catalog and the Faculty Handbook. Possible punishments can include dismissal from the program and expulsion from the University, depending on the severity of the offense.

**Dismissal Procedures**

A student's POS committee, or if the student has no POS committee, the student's major professor, temporary advisor, or a member of the Neuroscience Supervisory Committee has the right to recommend dismissal of any student for any of the reasons listed above. Recommendations for dismissal are made by sending a memo to the Neuroscience Chair.

Procedures for dismissal are as described in the Iowa State University Graduate College Handbook.  
[http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html](http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html)
Before a dismissal is decided, the Neuroscience Chair must give the student a written notice explaining why dismissal is being considered. It is the responsibility of the Neuroscience Chair to discuss the situation with the student, as well as their POS Committee, major professor, temporary advisor, and/or Executive Committee, in an attempt to find a satisfactory resolution. This discussion constitutes the informal conference as described in the *Graduate College Handbook*. If a satisfactory resolution cannot be reached, and the Executive Committee votes to dismiss the student, either party may bring the issue to the attention of the Associate Dean of the Graduate College for a decision. The student may appeal the decision of the Associate Dean, as described in the *Graduate College Handbook*.

*Responsibilities of Neuroscience and the Major Professor*

It is the responsibility of the Neuroscience Program to counsel students who are having academic difficulties, to help students search for an acceptable major professor or, if students are unable to overcome these difficulties, to help the students identify and apply to other appropriate degree programs. It is the responsibility of the major professor and his/her department to seek funds for a student’s assistantship and for the conduct of research.

*Relationship between Status in Neuroscience and Termination of Financial Support*

Although students in Neuroscience are normally supported on graduate assistantships, this is not a requirement for continued participation in the Neuroscience Program. Students not on assistantship will continue to have regular status in the major so long as they remain in good standing and are registered.

However, because assistantship support at Iowa State requires that a student be a member of a graduate program, dismissal from the Neuroscience Program requires that assistantship support be terminated unless the student is able to transfer to another graduate program at ISU.

In addition, termination of financial support by a major professor does not necessarily imply that the faculty member is no longer willing to serve as the student's major professor or that the student's membership in Neuroscience will change. **Decisions regarding termination and renewal of assistantships are made by the department or program offering the assistantships, which in most cases is not Neuroscience.** Students with any doubt about their status should discuss their situation with their major professor, the Neuroscience Program chair, and/or the department or program providing their assistantship support. For further information on termination of assistantship appointments, see the *Graduate College Handbook*.

*Appeal Process*

The University has established appeal processes for student grievances. These vary depending on the nature of the grievance, and are described in the *Graduate College Handbook*. Generally, these procedures begin with the program chair or the
appropriate DEO. It is usually best for all parties if a satisfactory resolution can be reached without initiating a formal appeal process. The Associate Dean of the Graduate College is available to informally consult with students and faculty.

**Graduate College Requirements for Composition of Program of Study Committees**

Below is listed the current minimum requirements for the composition of Program of Study Committees. The rules are established by the Graduate College, but are listed below in terms of a student majoring in Neuroscience. All individuals listed below must be members of the Graduate Faculty. See the *Graduate College Handbook* for a complete explanation and instructions on how to have co-major professors, additional members, etc.

<table>
<thead>
<tr>
<th>Role</th>
<th>Inside Neuroscience</th>
<th>Not Neuroscience</th>
<th>Home Department</th>
<th>Graduate Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Professor</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Committee Member</td>
<td>2X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Committee Member</td>
<td>Either not Neuroscience or not</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Any Member of Graduate Faculty</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Minimum Total</td>
<td>5</td>
<td>3</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

1. The major professor, or one of the co-major professors, must hold graduate faculty status. The list of graduate faculty in each department can be found in the Appendix of the *Graduate College Handbook*.

2. If the major professor holds a Collaborator appointment, there must be a co-major professor who holds regular faculty status.

**Dissertation Research Proposal**

Ph.D. candidates majoring in Neuroscience must present a description of their proposed dissertation research to their POS committees at or before the time they submit their proposed Program of Study to their POS Committee for approval. The proposal must include a written component submitted to the POS Committee prior to an oral presentation. The POS Committee will determine the length and formality of the written and oral components. Research proposal requirements, if any, for master’s degree candidates are determined by their home departments, if applicable.

Note: Some departments require their students to present formal, detailed research proposals later in their degree program, for example, in conjunction with a formal departmental seminar, or as a part of the preliminary exam. If a POS committee so desires, they can require a Neuroscience student to fulfill such additional proposal requirements.
Preliminary Examinations

All graduate students must pass certain examinations before obtaining their advanced degrees. A preliminary oral examination is required of Ph.D. degree students by the Graduate College. This examination should be completed by the end of your third year. Preliminary exams for students majoring in Neuroscience must include a written component as well as an oral component. The POS committee determines the nature of the written component, but it is often in the form of an NIH or NSF grant application. The Preliminary Oral Exam is given by the student to his/her POS Committee. It is the student’s responsibility to arrange an appropriate date, time, and location for the oral prelim. The “Request for Preliminary Oral Examination” form is available at the Neuroscience Program Office, 2018 Molecular Biology Building, or in the administrative office of your home department. This request form must be submitted to the Graduate College at least two weeks prior to the oral exam. Master’s degree candidates are not required to take a Preliminary Examination.

Writing Your Thesis

Neuroscience accepts theses written for M.S. or Ph.D. degrees in either the traditional format or the so-called “alternate format”, which includes one or more papers designed for submission to a journal. Writing in “alternate format” will help you learn to write papers and, at the same time, shorten the time it takes for your thesis research to be published. The Graduate College Thesis/Dissertation website, http://www.grad-college.iastate.edu/current/thesis/, is a resource developed to help all Iowa State University graduate students with this important part of their degree.

Preparing for Graduation

Each semester, the Graduate College publishes the deadline dates, http://www.grad-college.iastate.edu/deadlines/, for submission of appropriate forms and paperwork. It is a good idea for students approaching their graduation term to review this information and be sure to observe all appropriate deadlines. Early in the semester in which you expect to graduate, you must submit to the Graduate College an “Application for Graduation” form, or “Diploma Slip”. This form indicates your intended date of graduation, exact thesis or dissertation title and other relevant information. This important form can be found online at http://www.grad-college.iastate.edu/forms/forms.html. Currently, the deadline for submitting an Application for Graduation form is the Friday of the first week of the semester. If you do not graduate at the expected time, a new diploma slip must be submitted at a later time. It is of note that you are charged a graduation fee when you submit your Application for Graduation form. This fee may not be refundable.

After the dissertation or thesis has been completed and all the other requirements have been met, except for the Final Research Seminar and Final Examination, you should consult with your major professor and POS Committee to arrange a time for the Final Research Seminar and Final Examination. You must also request permission from the Graduate College to schedule the Final Examination using the “Request for Final Examination” form. The
“Request for Preliminary Oral Examination” form is available at the Neuroscience Office, 2018 Molecular Biology Building, or in the administrative office of your home department. This request form must be submitted to the Graduate College at least three weeks prior to the oral exam.

**Final Research Seminar**

All students are required to present a formal, public seminar describing their completed research. The seminar must be announced at least two weeks in advance to the Neuroscience faculty and students and other members of the Iowa State academic community. Please notify the NEURO office staff of the time and place of the seminar. The program coordinator will assist you in sending a seminar announcement to appropriate individuals.

**Final Examination (Defense)**

The Final Examination for the Ph.D. and M.S. degrees is an oral defense of your dissertation or thesis given by you to your POS Committee and any other faculty who wish to attend. This examination reviews the dissertation or thesis and your knowledge of relevant subjects. The oral defense follows immediately after the Final Research Seminar. Talk to your major professor to determine the best way to schedule your Final Research Seminar in relation to your Defense. It is best to schedule the final defense and research seminar well in advance.

The results of the examination are reported on the "Report of Final Examination" form which will be sent by the Graduate College directly to your major professor after receiving the Request for Final Examination form.
Checklist for Completion of Graduate Requirements for the Neuroscience Program

Student: ________________________________
Degree Sought: __________________________
Date Started: ____________________________
Major Professor: _________________________
Co-advisor (if any): ______________________
Major: Neuroscience
Minor or Co-Major: _______________________

For each requirement in the following sections, list the term and year you met the requirement, for example, F13, S14, or SS14. If you have not completed a requirement yet, leave the line blank. Times when you should normally complete each requirement are indicated in parentheses.

Academic Requirements

Joined Laboratory of Major Professor: ________________________________
(No later than April 15, 2014)

POS Committee Formed: ____________________________________________
(Within six months of joining your major professor’s laboratory)

Research Proposal Presented to POS Committee (Ph.D. only): _____________
(Prior to submitting your Program of Study to your POS Committee)

Program of Study Approved by the Graduate College: ___________________
(Within six months of joining your major professor’s laboratory)

Preliminary Exam (Ph.D. only): ________________________________
(First semester of third year)
*Note: The preliminary exam must include a written component in the form of a thesis proposal.

Thesis Submitted to POS Committee:
*Note: Unless an exception has been approved, your thesis must include one or more first author papers written in a form suitable for submission to a journal. The thesis must be given to your POS committee at least two weeks prior to your defense.

Final Research Seminar: ____________________________________________
*Note: This must be a public seminar and the announcement must be given to the Neuroscience Program Coordinator to distribute to all Neuroscience faculty and students. If possible, the seminar should be given during a regularly scheduled seminar series. For Ph.D students, Grad College requirement of at least 6 months between the preliminary oral exam and final defense.

Name of Seminar Series and Date Given: ______________________________

Defense Date: ____________________________________________
**Course and Training Requirements**

If more than one course is possible to meet a specific requirement, circle course taken and indicate the semester completed (ex: F11, S12, SS12). If a requirement has been waived, indicate date of approval for the waiver.

*Note: All courses and non-course training taken during an M.S. program in Neuroscience counts towards the Ph.D.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester completed</th>
<th>If requirement has been waived, indicate date of approval for the waiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuro 556. Neurobiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuro 557. Advanced NEURO Techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuro 661. Current Topics in Neurobiology and Behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuro 690. NEURO Journal Club</td>
<td></td>
<td></td>
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<tr>
<td>Neuro 696. NEURO Seminar</td>
<td></td>
<td></td>
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<tr>
<td>Neuro 699. Research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBMB 404. Biochemistry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 401. Statistical Methods for Research Workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMS 537 Neuroanatomy</td>
<td></td>
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</tr>
</tbody>
</table>

**Elective Courses (6 cr.)**
- ComS 474. Elements of Neural Computation.
- PSYCH 517. Psychopharmacology.

Elective Course Taken ____________________ Semester ____________________

Elective Course Taken ____________________ Semester ____________________

Elective Course Taken ____________________ Semester ____________________

*The transferability of credits from other institutions will be determined on a case-by-case basis by the student’s POS committee and the Neuroscience Chair. To waive a course requirement, send a memo, signed by your major professor (on behalf of your POS committee) and the instructor of the course you wish to waive, to the Neuroscience Chair. The memo should state that you have already received satisfactory instruction in the subject matter covered by the required course. Credits for seminars, workshops and colloquia are not transferable.*
Surviving It All

One of the first genuine shocks for many students in graduate school is how hard they need to work to keep up with all their classes, research, and other responsibilities. The pressures on individual students vary with their departments, professors and projects. However, most students find that they need to work harder as graduate students than at any time before in their lives. The number of hours per week can be staggering. If you are like most students and discover there simply aren’t enough hours in the day, the best way to survive is to learn how to select your priorities and focus on them. Your professor and/or more experienced students can give you advice. You are also encouraged to seek advice from the MCDB Chair or members of the MCDB Supervisory Committee. If you are feeling overwhelmed with personal or professional obligations and stress the Iowa State University Student Counseling Services office offers additional resources. Student Counseling Services are available on the third Floor of the Student Services Building. Their phone number is 294-5056. You may also access additional information on their program website, http://www.public.iastate.edu/~stdtcouns/.

FINANCIAL MATTERS

Your Appointment

Most students in Neuroscience receive some form of financial support. However, both the source of the support and the responsibilities associated with it vary from situation to situation. Students entering Neuroscience directly usually receive a research assistantship (RA) or a teaching assistantship (TA) funded by Neuroscience during their first year. Stipends for students supported by departments are governed by departmental policies. The responsibilities associated with your stipends depend on whether you have an RA or a TA. Information about these forms of support is available in the Graduate College Handbook.

Upon joining a lab the student’s stipend is determined by the major professor according to the professor’s departmental policies, unless the student has been awarded a special fellowship. This stipend may be lower than the stipend provided by Neuroscience to rotating students. Funding situations may change for a student during their years of study. Each fiscal year (beginning July 1) the student signs a new Letter of Intent that specifies the terms of funding for the coming year. All graduate students on assistantship have signed a Graduate Assistantship Letter of Intent that lists the terms and conditions of their appointment. Generally, graduate assistantship appointments are on a "one-half time" basis. "Half-time" is the maximum time appointment for graduate students since the other half of your time is spent as a student in graduate studies and research. Appointments may be terminated by mutual consent or for cause as described in the Graduate College Handbook.

The university provides a full tuition scholarship to Ph.D. graduate students with an RA or TA. In addition, such students are considered Iowa residents, for purposes of tuition assessment. While a student’s tuition may be provided by their assistantship, there are student fees which are the responsibility of the student. These fees are assessed at the beginning of each semester or term and include charges for the health facilities, technology,
etc. Additional information on fees and expenses can be found on the Tuition and Fees webpage from the Office of the Registrar, [http://www.registrar.iastate.edu/fees/](http://www.registrar.iastate.edu/fees/).

Payday at the University is the last working day of each month. Your paycheck will be sent through campus mail to you by the ISU Treasurer to the university address you have given to Human Resources in Beardshear Hall, or you may authorize the Treasurer to deposit your check in a bank of your choice by completing an authorization form available at the Records Office, 3810 Beardshear Hall, or on AccessPlus. It is strongly recommended that you have your check sent to a banking institution. If applicable, deductions are made for Federal and State income taxes and Social Security.

**Grants for Research**

The Graduate Student Senate provides funds to support graduate student research. The Senate will provide up to a maximum of $300 to each person submitting a research proposal. The projects for which you submit the proposals must be unrelated to your thesis or dissertation research.

**Grants for Professional Travel**

Attendance and presentation of research results at professional meetings are essential parts of your training. All students should, if possible, attend at least one national or international meeting during their degree program.

Students should normally seek funds for travel from their major professor or department. However, to assist your travel when funds from your major professor or department are insufficient, you may request funds from the Graduate College and/or Graduate and Professional Student Senate using the “Request for Professional Advancement Grant” form. Forms are available on the Graduate College forms webpage, [http://www.grad-college.iastate.edu/forms/forms.html](http://www.grad-college.iastate.edu/forms/forms.html). The form can also be found on the Graduate and Professional Student Senate website, as detailed above.

Some funding agencies have a 90-day limit for turning in travel expense vouchers. If your trip is being supported in part by funds from your major professor, be sure to turn in your travel expense voucher soon after you return to ensure that you will be reimbursed.

**Benefits**

**ISU Student and Scholar Health Insurance Program**

Single student coverage under the ISU Student Health Insurance Plan is provided free of charge to all graduate assistants at ISU. Additional information about the Student Health Insurance Program can be found on the Student and Scholars Health Insurance Program website, [http://www.hrs.iastate.edu/sship/homepage.html](http://www.hrs.iastate.edu/sship/homepage.html). You will need to enroll in the Student Health Insurance Program. You may do so through your AccessPlus account. Enrollment for the 2013-2014 academic year closes on September 13, 2014. You will receive insurance cards and a benefit certificate within a few weeks. Newly employed personnel should not drop any other insurance they may have until they know the beginning
date of the ISU insurance. In 2013-2014 the ISU Student and Scholar Health Insurance Program at Iowa State University is administered by Aetna. The Iowa State Student Health Insurance Coordinator may be contacted in 0570 Beardshear Hall or at 515-294-4820. The Aetna Student Health website for the Iowa State University plan is http://www.aetnastudenthealth.com/stu_conn/student_connection.aspx?groupID=812805&PageID=mp/.

All international students, whether on assistantship or not, are required to carry the ISU Student Health Insurance or to be covered by another health insurance policy. For more information, contact International Students and Scholars (ISS) in Room 3248 of the Memorial Union (294-1120).

**Prescription Drug Benefit Program**

Graduate students receive single coverage free of charge in a prescription drug benefit program that reduces the cost of generic and prescription drugs available at the Thielen Student Health Center. For details, contact the ISU Student and Scholar Health Insurance Plan, 515-294-4820. For a spouse or family to participate you must enroll in the SHC insurance health plan for your spouse or family. This option is only available through payroll deduction.

**Health Service**

As a student, you are eligible to use the ISU Health Service. A mandatory health fee of $98.00 and an $8.00 health facility fee per semester are assessed to all students registered for five or more credits per semester (may vary for summer session). This health fee pays for some services offered at the Thielen Student Health Center. The health facility fee goes towards the cost of the Student Health Center building. For students enrolled for under five credits, the health fee is optional. Please note that these fees can change without notice.

**Vacations and Sick Leave**

Vacation and sick leave does not accrue for graduate assistants and is set at the discretion of your major professor. One possible scenario is that a research assistant with a half-time appointment (C base) will earn vacation at a rate of eight hours per month. Because you are half time, this would be equivalent to two calendar days. You can take vacation with the approval of your academic advisor and by notifying your departmental secretary or, in the first year, the IMBIO office staff. Accumulated vacation time is forfeited upon completion of your appointment. (See your Graduate College Handbook for detailed information.)

To obtain approval for vacation time you need to fill out an Absence Request card. In your first year, the card needs to be signed by your temporary advisor and submitted to the Immunobiology office at least three days before you leave. In later years, Absence Requests will be handled by your home department. Students on assistantships (RA or TA) are employees of ISU and therefore are allowed time off on official university
holidays, but any absence preceding or following the official holiday is counted as vacation. For additional details, see the University Policy Manual, http://policy.iastate.edu/.

**Teaching assistants** are subject to the academic calendar and do not accumulate vacation time. However, they are not required by the University to work when classes are not in session. Graduate assistants on teaching assistantships should, nevertheless, get permission from their major professor before taking a vacation from their research responsibilities.

If you will be absent because of an illness, you should call your advisor or major professor as soon as possible on the day you are sick and must be absent. On your return, you will need to fill out an Absence Request form for sick leave. You should also use the form in advance when you have a planned absence for medical reasons. Maternity/Paternity leave can be taken as sick leave and/or vacation.

**Injuries and Injury Reports**

All accidents and injuries occurring at work or in the course of employment must be reported to the employee's supervisor (your professor or the administrative offices of NEURO or your home department), even if no medical attention is required. The supervisor and/or employee are responsible for electronically completing a First Report of Injury via AccessPlus. The Supervisor is then responsible for reviewing this and electronically submitting it to the Human Resource Services within 24 hours of when the incident is reported. Incidents that are not reported may cause an employee to be ineligible for future benefits related to this injury or illness. The filing of an accident report is not an admission of liability. Each report will be evaluated by the state's third party administrator to determine whether the claim meets the criteria to be classified as workers' compensation. Please refer to the University’s Human Resources webpage for additional Worker’s Compensation information, http://www.hrs.iastate.edu/hrs/node/73.
ADMINISTRATIVE MATTERS

Administrative Assistance

There are a number of offices on campus to help with the administration of your graduate program. The main one for Neuroscience students is the Interdepartmental Graduate Programs office, 2018 Molecular Biology Building. General program questions relating to University requirements, procedures, and deadlines may be directed to the NEURO Program Coordinator. Academic advice about courses and rotations will be provided by your temporary advisor or major professor. See the Academic Matters section of this handbook.

Katie Blair, Program Coordinator
Interdepartmental Graduate Programs
2018 Molecular Biology Building
☎ 515-294-7252
E-mail: kblair@iastate.edu

Office and Home Addresses

The Neuroscience program needs to know your local address and telephone number and also needs to be informed of any changes in your address or phone number that may occur during your tenure in the program. All first year NEURO RAs will receive campus mail in the NEURO office. Your permanent office (desk) address will be determined once you have chosen a major professor. You can update your campus and residence addresses/contact information through Access Plus:
https://accessplus.iastate.edu/frontdoor/login.jsp.

Communications

It is vital that you maintain good contact with NEURO personnel throughout your graduate program. There are a number of ways to do this:

E-mail: During orientation you will be assisted in establishing an Iowa State University E-mail account. E-mail should be checked at least daily as this is the primary means of keeping our students informed about program activities.

Internet: The NEURO home page will contain most of the information that pertains to ongoing program events. The address is http://www.neuroscience.iastate.edu/.

Mail Service: You will normally pick up your mail in your home department. If you have not yet chosen a home department, mail will be sent to you at 2018 Molecular Biology Building. You will be notified when you receive mail.

Telephone: Local calls (phone numbers in Ames) may be made on most campus phones, including the phone in 2018 Molecular Biology. Long distance calls must not be made on University phones without the prior approval of the person to whom the phone is assigned.
**Bulletin Board:** General messages about the NEURO program will be posted on a bulletin board located outside the administrative office (2018 Molecular Biology Building).

**Transportation**

**Bicycles:** You can park your bicycle at many locations on campus. Except for walks labeled as bike paths, bicycle riders must not use campus sidewalks. A bicycle used between sundown and sunrise must be equipped with a headlight, taillights or an adequate reflector, and a warning device. Bicycles used only on campus can be registered free through the ISU Parking Office. Bicycles used off campus must be registered by the city of Ames.

The city of Ames requires that all bicycles be licensed. The cost is $5 for a two-year permit. The licenses may be obtained from various locations in Ames (all bike shops in Ames, Ames City Offices (finance), the University Book Store, Cub Foods, and Hy-Vee) or from the Parking Systems Office in the Armory on campus.

**Buses:** The city of Ames has an excellent bus system called CyRide. During the school year the buses leave from most locations every 20 minutes. The fare is free for students if you show a current, paid University fee card. The CyRide website is [www.cyride.com](http://www.cyride.com).

**Cars and Parking:** A copy of the ISU Traffic and Parking Regulations can be obtained from Public Safety, Parking Division, 27 Armory, or online at: [http://www.parking.iastate.edu/](http://www.parking.iastate.edu/)

*Consult the section covering students.*

**Help in Preparing Material for Research Presentations**

The Instructional Technology Center on campus provides services relating to visual and audio media. For example, slide projectors, videotape players, etc. can be taken out on loan by departments, students, faculty, and staff. There is a section of the Instructional Technology Center, known as Creative Technology Services that prepares graphs and designs as requested by the purchaser.


**Professional Ethics**

It is imperative that you understand the ethical standards of science and conduct your scholarly activities accordingly. Scientists who commit unethical acts, whether from carelessness, ignorance, or malice, quickly lose the respect of the scientific community and may be prevented from receiving funding support. Scientific misconduct includes such activities as: falsification of data, fabrication, deceptively selective reporting, purposeful omission of conflicting data with the intent to falsify results, plagiarism, representation of another’s work as one’s own, misappropriation of the ideas of others, the unauthorized use of privileged information, misappropriation of funds or resources for personal gain, and falsification of one’s credentials. At ISU, these acts are taken very seriously and constitute “academic misconduct”. Please refer to the ISU Faculty Handbook and the Graduate College Handbook:

http://www.provost.iastate.edu/resources/faculty-handbook
http://www.grad-college.iastate.edu/publications/gchandbook/

Individuals found guilty of academic misconduct may suffer a variety of penalties, up to and including expulsion from the university.

Occasionally, you may be faced with situations in which you are tempted to act in a manner you think might be unethical. If this occurs, we recommend discussing the situation with your major professor, or another professor whom you trust, to determine whether the actions you are considering are unethical. He or she should be able to suggest alternative actions that will be free of ethical questions.

Unfortunately, not all people understand or care about ethical issues and, at some time in your career, you may be witness to an act you believe to be unethical. When the individuals committing the presumed unethical acts are members of your own laboratory, or worse yet, individuals with power over you, such as your major professor, the situation can be very awkward and you must proceed cautiously. You will find yourself torn between a fear of retribution and a desire to stop the unethical behavior before it hurts you and other members of your laboratory.

If you believe that unethical behavior is going on in your laboratory, we recommend that you first attempt to discuss the situation informally with the person whom you think might be behaving unethically. Sometimes friendly questions will resolve the problem, such as “This data looks almost perfect; how did you do this experiment?” or “Are you sure that you can omit that data point? Won’t that prejudice your interpretation”? or “This paragraph doesn’t sound like your writing; are you sure you didn’t unintentionally copy some of this?” If you feel uncomfortable in this approach, or if you have tried this approach and it didn’t resolve the problem, we recommend that you discuss the situation informally with a professor whom you trust. You may also go directly to the Chair of MCDB or a member of the MCDB Supervisory Committee. All discussions with the Chair and the MCDB Supervisory Committee members will be confidential. You may also go directly to Associate Vice Provost for Research, 2810 Beardshear Hall, who is responsible for investigating charges of academic misconduct on campus. No matter what you chose to do, you should take great care to ensure the rights of the individual whose actions you are
questioning. Frivolous accusations of misconduct and vicious spreading of rumors are just as unethical as fabrication of data or plagiarism.

**Discrimination, Sexual Harassment, Nondiscrimination and Affirmative Action**

The University Policy on Discrimination and Harassment can be read in its entirety at [http://policy.iastate.edu/policy/discrimination/](http://policy.iastate.edu/policy/discrimination/).

The University Nondiscrimination and Affirmative Action Policy can be found at the Iowa State University Policy Library website, [http://policy.iastate.edu/](http://policy.iastate.edu/). This policies website will provide guidance to you on how to proceed in addressing any concerns.
IMPORTANT FORMS

All of the forms you need to turn in to the Graduate College should either be available for download at http://www.grad-college.iastate.edu/forms/forms.html or available upon request at the NEURO Office, 2018 Molecular Biology Building; or the administrative office of your home department.

Forms mentioned in this handbook:

Available Online:

- Request to Establish a Home Department for Students Admitted to Interdepartmental Majors
- Recommendation for Committee Appointment
- Request to Change Committee Appointment
- Program of Study
- Modifications to the Program of Study
- Application for Graduation (Diploma Slip)

NEURO Office or Home Department Administrative Office:

- Request for Schedule Change or Restriction Waiver
- NEURO Annual Report of Academic and Professional Activities
- Request for Preliminary Examination
- Request for Final Examination