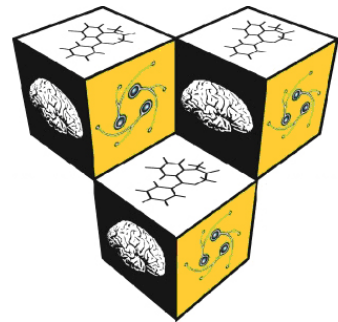


Program Handbook

IOWA

**Interdisciplinary Graduate
Program in Neuroscience**



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I. Program Administration

A. Contacts:

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B. When are You Required to Contact the Program Office?

Educational Milestones

Students should contact the Program Office (copy both Maggie and Britt) at the following milestones or whenever relevant information changes:

1. Changes to your name or contact information, including address, phone number, or office/lab information
1. Selection of rotation mentors
2. Beginning or completing a teaching assistantship (TA)
3. Selection of your thesis mentor
4. Changes to your funding source
5. Selection of thesis committee members
6. Changes to thesis committee membership
7. Scheduling a thesis committee meeting, whether you need assistance from the Program Office or schedule the meeting independently
8. Scheduling your Comprehensive Examination
9. Planning to defend during a particular semester
10. Scheduling your thesis defense

Alumni: Please keep the Program Office updated regarding changes in your position, institution, name, or contact information.

Noteworthy Accomplishments

To support Program communications, website updates, promotional activities, and training grant reporting, please notify the Program Office of noteworthy accomplishments.

Students should share:

- Fellowships, grants, scholarships, or other monetary awards
- Publications, including papers and book chapters
- Honors or awards
- Positive media coverage
- Other accomplishments or news you would like shared with the Program

Faculty should share:

- Major honors, awards, or other professional recognition
- Positive media coverage
- Teaching awards or recognition
- Particularly noteworthy publications
- Significant grants or other funding awards

C. Whom Should you Contact?

Although the Program Administrator and the Program Associate are both happy to assist you or guide you in the right direction, the table below lists the task distribution for some common Program Office requests.

First Contact	Question or Request
Maggie	Registration changes <i>(adds, drops, and change of hours forms)</i>
Britt	Website updates and corrections
Britt	Research rotations and rotation evaluations
Britt	Room reservations
Britt	Travel arrangements and reimbursements
Britt	Meeting arrangements
Britt	Invoice payments <i>(e.g. restaurant or supply bills)</i>
Britt	Reports for Committee meetings
Britt	Reports for Comprehensive Committee meetings
Britt	Poster printing
Maggie	Course evaluations
Maggie	Budget questions
Maggie	Policy questions
Maggie	Stipend questions
Maggie	U-Bill questions
Maggie	Grant and fellowship questions
Maggie	Complaints/concerns/problems
Both Maggie and Britt	At educational milestones listed above

II. Financial Support (stipend, tuition, covered fees)

Neuroscience Program graduate students are normally fully supported through a stipend, tuition, and covered fees for the duration of their training, typically four to six years. Continued financial support is contingent upon satisfactory academic and research progress and is reviewed annually. Satisfactory progress is determined by the student's mentor, the Student Advisory Committee, and the Program Director.

Graduate student appointments include a stipend that may be adjusted annually based on recommendations from the Office of the Associate Dean for Graduate and Postdoctoral Studies in the College of Medicine. Stipend levels are intended to remain competitive with peer institutions.

Students supported by federal training grants or fellowships (e.g., T32 or F31 awards) may receive a federally established stipend below the University of Iowa biomedical stipend level. When this occurs, the difference is covered by the Program, the student's mentor, or other funding sources.

For students appointed to the Neuroscience Training Grant, appointments normally run from September 1 through August 31. The Program normally covers any stipend difference through July of the appointment year, with the student's mentor responsible for the difference in August.

Tuition and covered fees include the following:

1. **Base tuition and mandatory University fees**, including technology, student activities, student services, student union, building, recreation facility, arts and cultural events, graduate professional enhancement, and student health service fees.
2. **Course-related fees** associated with core, required, and directly relevant elective coursework.
3. **Registration-related fees** resulting from registration changes, credit-hour changes, or other changes associated with required or directly relevant coursework.
4. **Summer recreation facility fees** for students who are not registered for the summer term but wish to access University recreation facilities.
5. **Matriculation fees**. At the time of matriculation, the Program will cover the one-time University Records and Documents Fee for domestic students or the International Student Matriculation Fee for international students.
6. **Fees for international students**. The Program will cover the EPE testing fee. The Program will also cover the International Student Fee during the student's first year; the student's PI will be responsible for this fee in subsequent years.

Fees that are NOT covered by the Program include:

1. **Key deposits.**
2. **Non-program coursework fees** associated with extracurricular activities or elective courses that are not relevant to the Neuroscience program of study.
3. **Fines and penalties**, including parking tickets and other fees resulting from violations.
4. **Dissertation and degree-related fees**, including degree application, publication and binding, and thesis fees.
5. **Commencement expenses**, including fees and regalia rental charges associated with participation in commencement.

Stipends, tuition, and covered fees may be funded through university or departmental funds, extramural sources, or a combination of these sources.

A. Training Grants

Students in the early years of training may be appointed to federally funded traineeships, including the Neuroscience Training Grant (T32). These appointments are merit-based and are considered an honor.

Eligible first-year, and occasionally second-year, students may be appointed to the Neuroscience Training Grant. Students in later years may be eligible for other T32 programs, such as the Interdisciplinary Training Program in Pain Research or Predoctoral Training in Pharmacological Sciences.

Training grant applications typically require specific materials submitted by established deadlines. Interested students should consult with their mentor, the Neuroscience Program Director, and the directors of other applicable training programs regarding eligibility and application requirements.

B. Neuroscience Program Graduate Research Assistantships

First-year students may be appointed to graduate research assistantships and receive tuition scholarships through funds allocated to the Neuroscience Program by the Graduate College. In some circumstances, these assistantships may also be available to second-year students.

C. Other Graduate Research Assistantships

Students in their second and subsequent years may receive graduate research assistantships funded by faculty research grants, the department in which their research is conducted, or other funds provided by the Graduate College.

D. Teaching Assistantships

Students in their second and subsequent years may be appointed to graduate teaching assistantships. These appointments may be made through the Neuroscience Program or through affiliated departments and programs, such as Psychological and Brain Sciences or Biology.

E. Other Means of Support

Students may receive support from additional sources, including University of Iowa graduate fellowships and nationally competitive individual awards from agencies such as the NIH and NSF.

F. Summer Registration

Neuroscience graduate students normally do not register for the summer term.

Exceptions may include:

1. First-year students taking required or approved summer coursework.
2. Students completing the Comprehensive Examination during the summer term.
3. Students defending their dissertation during the summer term.
4. Students receiving a summer fellowship that requires registration.

Students who do not meet one of these exceptions generally do not register for the summer term. This practice is broadly consistent with other biomedical graduate programs at the University of Iowa.

G. Tax Information

Students who are not registered for the summer term should be aware that their summer compensation may be subject to FICA withholding. The amount withheld depends on the student's individual circumstances and applicable payroll and tax regulations.

Faculty mentors may choose to provide additional summer compensation to offset FICA withholding. Students and mentors should discuss whether such additional support will be provided at the beginning of the academic year, typically in July or August, for the following summer.

Students receiving federal fellowship support, including T32, F30/F31, or NSF funding, should review University of Iowa Payroll Services guidance regarding [Fellowship Payment Rules](#) and [Fellowship Payment form](#). Students should also review their year-end tax information in Employee Self Service for applicable fellowship payment documentation and contact [UI Payroll Services](#) with questions about their individual circumstances.

III. Academic Standards

To be eligible for continuation of stipend support and tuition scholarships, graduate students must satisfy the following minimum conditions of satisfactory performance.

A. Registration

Students must maintain continuous, full-time enrollment. Prior to passing the Comprehensive Examination, students normally register for 9–15 semester hours each semester. After passing the Comprehensive Examination, students register under the appropriate post-comprehensive examination status.

Students must also meet the Graduate College requirements for continuous, full-time enrollment.

B. Coursework

Students must complete required coursework in a timely manner. Neuroscience core and elective coursework is normally completed by the end of the second year. MSTP students normally complete these requirements by the end of the first year (see [Medical Scientist Training Program \(MSTP\)](#))

C. English Proficiency

Students whose first language is not English must meet Graduate College English proficiency requirements. Students required to take the English Proficiency Examination (EPE) must complete any English as a Second Language (ESL) coursework prescribed based on their EPE results.

Required ESL coursework should normally be completed during the first year.

D. Academic Standing

Program Requirements

Students must maintain a cumulative GPA of at least 3.00 in applicable coursework. Research and independent study courses taken during graduate training are not included in the GPA for this Program requirement.

Graduate College Policy

After completing 9 semester hours of graded graduate coursework at the University of Iowa, a student whose cumulative GPA falls below 3.00 will be placed on academic probation by the Graduate College.

A student returns to good academic standing when their cumulative GPA reaches 3.00 or higher. If the GPA remains below 3.00 after an additional 9 semester hours of graded graduate coursework, the student may be dismissed from the doctoral degree program in accordance with Graduate College policy.

E. Laboratory and Seminar

Students must maintain satisfactory performance in laboratory research and seminar.

Satisfactory performance is demonstrated by grades of **S** or **P** in:

- NSCI:7305 – Neuroscience Research
- NSCI:6265 – Neuroscience Seminar

IV. Curriculum

The Graduate College requires students to complete a minimum of **72 semester hours** to earn the Ph.D. in Neuroscience. These hours are completed through a combination of required core courses, elective courses, seminars, and research credits accumulated throughout graduate training.

A. Required Neuroscience Core Courses

Students complete the required Neuroscience Program core courses listed below, and then take the Comprehensive Examination. In rare circumstances, a core course may be completed after the Comprehensive Examination, for instance, when the course is not offered within a feasible timeframe. Students who need to make alternative arrangements for taking required courses should consult with their mentor and Program Directors.

Students are expected to earn a grade of **B or higher** in each required core course. A student who earns a grade below B may be required to repeat the course or complete other remedial work as determined by the Program Directors in consultation with the student's mentor.

Students who completed equivalent coursework before entering the Neuroscience Program may request a waiver of certain core course requirements. Waiver requests should be submitted to the Program Directors for review. Students may be asked to provide supporting documentation, such as a course syllabus and transcript, to demonstrate that previous coursework satisfies the Program requirements.

Core Courses		Semester Hours
PSY:6370	Principles of Neuropsychology	3 s.h
ACB:6252	Functional Neuroanatomy	4 s.h.
NSCI/BIOL:5653	Fundamental Neurobiology I with Discussion	4 s.h.
NSCI/BIOL:5654	Fundamental Neurobiology II with Discussion	4 s.h.
NEUR:7235	Neurobiology of Disease	3 s.h

B. Elective Neuroscience Courses

To provide training in both an area of specialization and related areas of neuroscience, students are required to complete at least **3 semester hours of approved elective coursework**. The elective requirement is normally completed before taking the Comprehensive Examination.

A representative list of approved electives is provided below. Course offerings, titles, and availability may change from year to year. Students should consult **MyUI** for

current course information and confirm their elective selections with their Advisor/Mentor and the Program Directors.

Students interested in **cellular, molecular, or developmental neuroscience** often take **BMED:5207 Principles of Molecular & Cellular Biology**.

Students interested in **systems, behavioral, or cognitive neuroscience** often take **NSCI:5212 Foundations in Behavioral & Cognitive Neuroscience**, which is currently offered every other spring semester in even-numbered years. These courses are identified with an asterisk (*) in the list below.

The Spring/Fall designations in the list below indicate when courses have historically been offered and do not guarantee future availability. Students should consult MyUI to confirm current and upcoming course offerings.

Elective Courses		Fall	Spring
BIOL:3343	Animal Physiology	✓	
BIOL:2254	Endocrinology	✓	
BIOL:3212	Bioinformatics for Beginners	✓	
BIOL:5199	Critical Readings in Biology	✓	✓
BIOL:6188	Seminar: Writing in the Natural Sciences		✓
BMED:5207	Principles of Molecular & Cellular Biology	✓	
CSD:2110	Phonetics: Theory & Applications	✓	
CSD:2111	Basic Acoustics for Speech & Hearing	✓	
CSD:6230	Psychoacoustics	✓	
CSD:5234	Acquired Cognitive-Communication Disorders	✓	
HHP:6300	Motor Control Seminar	✓	✓
IMMU:6241	Writing a Scientific Proposal	✓	
MATH:5750	Mathematical Biology I	✓	
PCOL:5135	Principles of Pharmacology		✓
PCOL:5137	Neurotransmitters (1 s.h., module 3)		✓
PCOL:6207	Ion Channel Pharmacology (1 s.h., module 2)		✓
PCOL:6225	Growth Factor Receptor Signaling (1 s.h., 1st module)		✓
PSY:1001	Elementary Psychology	✓	✓
PSY:3320	Psychopathology	✓	✓
PSY:5610	Proseminar in Cognition and Perception	✓	
PSY:7210	Advanced Topics in Behavioral & Cognitive Neuroscience: Neuroscience of Learning & Memory	✓	
RHET:7940	Public Speaking for Academics	✓	
GENE:6200	Current Topics in Genetics		✓
NSCI:5212	Foundations in Behavioral & Cognitive Neuroscience (offered even numbered years)		✓

NSCI:5365	Seminar: Neuropsychology and Neuroscience ("Morning Meeting") (same as PSY:5365; NEUR:5365)	✓	✓
STAT:6300	Probability and Stochastic Processes I	✓	
MMED:6220	Mechanism of Cellular Organization (3 s.h.)	✓	
MMED:6226	Cell Cycle Control (1 s.h., 2nd module)		✓
MMED:6227	Cell Fate Decisions (1 s.h., 3rd module)		✓

All students must register for **NSCI:6265 Neuroscience Seminar** and **NSCI:7305 Neuroscience Research** each semester until they have completed the 72 semester hours required for graduation.

After completing 72 semester hours, students must continue to register for **NSCI:6265 Neuroscience Seminar** each semester until graduation.

C. Quantitative Methods, Statistics, and Programming

Required coursework

The Neuroscience Program requires students to complete a **one-semester course in quantitative methods or statistics**. This requirement is normally completed before the Comprehensive Examination.

Students with extensive prior coursework or experience in statistics may petition the Program Directors for an exemption from this requirement (see [Required Neuroscience Core Courses](#) above).

To satisfy the statistics requirement, students may take one of the following:

- **PSY:5050 Quantitative Methods in Psychology** (4 s.h.) Typically offered in the fall semester.
- **BIOS:4120 Introduction to Biostatistics** (3 s.h.) Historically offered in both fall and spring semesters.

Students seeking an introductory foundation in biostatistics may also consider **PCOL:5204 Basic Biostatistics and Experimental Design** (1–2 s.h.). This fall course is designed for biomedical graduate students but does not, by itself, satisfy the Program's quantitative methods/statistics requirement.

Recommended coursework

Students are strongly encouraged to complete a second course in quantitative methods or statistics when additional training would benefit their research. The need for additional coursework will depend on the experimental designs, analytical methods, and datasets relevant to the student's research.

Potential options for advanced quantitative or statistics coursework are listed below. Additional statistics courses may also be applied toward the Program's elective coursework requirement.

Students should consult with their **Advisor/Mentor and the Program Directors** when selecting additional quantitative coursework appropriate to their research and program of study.

Course	Title	Semester Hours
BIOS:5510	Biostatistical Computing	2 s.h. per module
BIOS:6210	Applied Survival Analysis	3 s.h.
PSQF:6243	Intermediate Statistical Methods	4 s.h.
PSY:5055	Mixed-Effects Modeling in Psychology	4 s.h.
STAT:6560	Applied Time Series Analysis	3 s.h.
STAT:4540	Statistical Learning	3 s.h.

Training in computer programming and data analysis

Students who wish to develop programming and data analysis skills beyond those used in their research laboratories are encouraged to pursue additional training in commonly used languages such as **Python and R**.

Courses that may provide relevant programming experience include:

Course	Title	Semester Hours
CS:1110	Introduction to Computer Science	3 s.h.
CS:2110	Programming for Informatics	4 s.h.
CS:5110	Introduction to Informatics	3 s.h.

Course offerings may change, so students should consult **MyUI** for current course availability, prerequisites, and scheduling information.

University of Iowa students also have access to additional opportunities for programming and data analysis training:

- **ITS Research Services** periodically offers workshops on R, data visualization, and other research computing topics. Current offerings are available on the [ITS Events](#) page.
- **LinkedIn Learning** is available to University of Iowa students and provides online training in programming, statistics, data analysis, data visualization,

Excel, SPSS, and related topics. [LinkedIn Learning](#)

D. Seminar (NSCI:6265)

The Neuroscience Seminar Series provides a weekly forum for research presentations by Neuroscience Program faculty and students, as well as invited guest speakers. Seminar is attended by students and faculty in the Program and by faculty, students, and guests from other departments and programs across campus. The Seminar meets throughout the fall and spring semesters and is designed to promote scientific discussion and interaction among students, faculty, and visiting researchers.

Attendance Requirements

Graduate student attendance is required. Students are permitted up to **two unexcused absences per semester**. Students who have more than two unexcused absences in a semester will receive an **Unsatisfactory (U)** grade for that semester.

Examples of circumstances that may qualify as excused absences include:

- Attendance at a required class (e.g., Principles of Scholarly Integrity)
- Attendance at research conferences, out-of-town meetings, or interviews
- Religious holidays
- Family emergencies

Examples of absences that will not normally be excused include:

- Testing research participants
- Research testing with an animal or participant running longer than expected
- Being unable to leave an experiment
- Illness

Some circumstances may be unavoidable; the two permitted unexcused absences are intended to accommodate these situations.

Students who are unsure whether an absence will be considered excused should contact the Chair of the Seminar Committee, **Seth Tomchik, PhD** (seth-tomchik@uiowa.edu), as far in advance as possible.

For all anticipated absences, students should notify both the **Chair of the Seminar Committee** and the Program Associate, **Britt Hokanson** (britt-hokanson@uiowa.edu) well in advance whenever possible.

Attendance Tracking and Punctuality

Attendance is documented through a sign-in sheet. Students should sign in at the beginning of Seminar as soon as they arrive. Students who do not sign in will be recorded as absent and unexcused unless the absence was approved in advance. Punctuality is also required. Students who arrive more than **10 minutes late** will receive a warning about the first occurrence. Subsequent instances will be counted as unexcused absences.

Signing in for another student or asking another person to sign in on your behalf is considered academic dishonesty.

Seminar Format

Active discussion and participation are encouraged, and presentations are monitored to maintain a high level of scientific quality. The Seminar format is intended to foster interaction among students, faculty, and visiting scientists. Invited speakers are scientists of national and international prominence and are introduced by Neuroscience graduate students.

Graduate students in the Program present at Seminar according to the following schedule:

Student Presentations

Graduate students present their research at Seminar according to the following schedule:

1. **First-Year Students – Rotation Talk**

First-year students give a **Rotation Talk**, typically near the end of the spring semester (April or May). Students select one of their three rotation projects and present the goals and results of that research in a brief presentation of approximately **10 minutes**.

Typically, four first-year students share a one-hour Seminar session. Each presentation is followed by a brief question-and-answer period.

2. **Second-Year Students and Beyond – Annual Seminar Presentation**

Beginning in the second year, students give a Seminar presentation **once each year**. Presentations are approximately **25 minutes, including time for questions**, with two students sharing a one-hour Seminar session.

3. **Students in Their Final Semester**

Students in their final semester of the Program are not required to give a Seminar presentation. However, **all students are required to attend Seminar until they officially graduate**, including after completing their final defense.

Elevator Talk

All student Seminar presentations must begin with a brief “**Elevator Talk.**” The Elevator Talk is a concise summary of the student’s research presented in lay language appropriate for an educated, non-scientific audience.

The Elevator Talk requirement also applies to first-year Rotation Talks. Its length should be proportionate to the overall presentation; for example, a 10-minute Rotation Talk should include a shorter Elevator Talk than a 25-minute annual Seminar presentation.

E. Data Blitz

One Seminar slot late in the academic year, typically during the Spring semester, is reserved for a **Data Blitz**. Data Blitz is a one-hour session featuring brief, focused research presentations by Neuroscience graduate students.

1. **Eligibility:** Graduate students who have passed the Comprehensive Examination are eligible to participate.
2. **Participation:** A maximum of 10 students may present. Presentation slots are filled on a first-come, first-served basis, and eligible students may self-nominate to participate.
3. **Presentation Format:** Data Blitz presentations follow a strict format:
 - Each presentation must include **three slides**, typically:
 1. Introduction/Background
 2. Data
 3. Interpretation/Conclusions
 - Each presentation is limited to a maximum of **five minutes**.
 - Any questions and discussion must occur within the five-minute presentation period.
4. **Additional Session:** If more than 10 eligible students wish to participate, a second Seminar slot will be reserved for an additional Data Blitz session.

F. Scholarly Integrity / Responsible Conduct of Research

First-year students must complete web-based training through the Collaborative Institutional Training Initiative (CITI). Students must complete four required modules in the fall semester (August) and four required modules in the spring semester (January), earning a score of at least 80% on each module.

Second-year students enroll in two 0-semester-hour courses.

Each course includes four 90-minute small group sessions:

1. BMED:7270 Scholarly Integrity/Responsible Conduct of Research 1 (fall)
2. BMED:7271 Scholarly Integrity/Responsible Conduct of Research 2 (spring)

Students continue their education in scholarly integrity and the responsible conduct of research throughout their graduate training. Ongoing instruction is provided through special presentations during Seminar, laboratory-specific training and education, and instruction incorporated into **NSCI:6265 Neuroscience Seminar**.

G. Laboratory Rotations

To gain broad experience in neuroscience research and assist in selecting a laboratory home and thesis project, students complete three laboratory rotations before selecting a thesis advisor. Rotations are normally completed in the laboratories of Neuroscience Program faculty. With approval from the Student Advisory Committee and Program Director, a student may complete a rotation with a faculty member outside the Neuroscience Program.

Each laboratory rotation is flexible in length and typically lasts 10–16 weeks. With approval from the Program Director and Associate Director, a student may complete two rotations in the same laboratory.

During the first week of each rotation, the student and rotation advisor should discuss and establish expectations for the rotation. These may include time spent in the laboratory, assigned readings, techniques or skills to be developed, and anticipated progress on the research project.

Rotation Evaluation

Performance in each laboratory rotation is evaluated on a satisfactory/unsatisfactory (S/U) basis. The evaluation consists of three components:

1. A **Graduate Student Laboratory Performance Rubric**, completed jointly by the student and research advisor (see [Appendix III](#).)
2. A written evaluation from the research advisor, shared only with Program Leadership, that includes whether the student would be welcome to affiliate with the laboratory for thesis research and the basis for that assessment.
3. A written evaluation from the student, shared only with Program Leadership, addressing the research and training opportunities provided during the rotation.

The Program Director and Associate Director may approve modifications to the laboratory rotation requirements when appropriate.

Rotation Schedule

Laboratory rotations generally follow the schedule below. Exact dates for each academic year are available from the Neuroscience Program Office:

- **First Rotation:** Late August (beginning of the Fall semester) through early November
- **Second Rotation:** Early November through late January

- **Third Rotation:** Early February through mid-May

The official rotation schedule and dates for each academic year follow the schedule established by the Research Training Group and the [Office of Graduate and Postdoctoral Studies](#) (OGPS). The Neuroscience Program may adjust the rotation schedule or provide accommodation when necessary to support the effective and productive completion of laboratory rotations.

H. Teaching

During their graduate studies, students are expected to gain teaching experience and develop their teaching skills. Students are required to serve as a teaching assistant for at least one semester. This requirement may be fulfilled by serving as a teaching assistant in a neuroscience-related course, such as Functional Neuroanatomy (small groups and laboratory), Fundamental Neuroscience, Neurophysiology, Neurobiology of Disease, Principles of Neuropsychology, or another related course.

Students should consult with the Program Director to determine whether a Neuroscience Program elective or other related course will satisfy the teaching requirement. Funded or partially funded teaching assistantships may be available through the Neuroscience Program or through related departments and programs, such as Psychological & Brain Sciences, Biology, or Anatomy & Cell Biology.

Students normally pursue funded teaching assistantships after completing the Comprehensive Examination. These assistantships require prior approval from the Program Director and Associate Director. Once arrangements have been made with the Program Director and the course instructor, the student must notify the Neuroscience Program Office at the beginning of the assistantship.

In addition to formal teaching assistantships, students gain teaching and presentation experience through Neuroscience Seminar presentations, journal clubs, laboratory meetings, rotations, and thesis research.

Additional Teaching Development

Additional instruction and professional development in teaching are available to graduate students through the University of Iowa. Students interested in developing their teaching skills or preparing for teaching responsibilities are encouraged to take advantage of available programs, workshops, and other resources.

Graduate Certificate in College Teaching

The Graduate Certificate in College Teaching is available to eligible University of Iowa graduate students and provides structured preparation in college-level teaching through coursework and supervised teaching experiences. The certificate includes coursework in teaching and learning in higher education, supervised practica in college teaching, and completion of a teaching portfolio.

Neuroscience students who wish to pursue the Graduate Certificate in College Teaching must obtain prior written approval from their research mentor and the Neuroscience Program (see [Appendix V - Graduate Certificate in College Teaching](#)).

Certificate requirements, including eligibility, required coursework, approved courses, semester-hour requirements, and other expectations, are established by the College of Education and may change. Students should consult the current requirements on the [College of Education: Graduate Certificate in College Teaching](#) website.

Teaching completed as part of the Graduate Certificate in College Teaching may be used to satisfy the Neuroscience Program's teaching requirement. Approval is determined on a case-by-case basis by the Program Director and Associate Director. Students who wish to have a Certificate teaching experience count toward the Program requirement must submit a written request to the Program Director and Associate Director.

For additional information about the Graduate Certificate in College Teaching, including enrollment procedures, students should consult the certificate website or contact the program directly – [Dennis R. Maki](#), Director, or [Mitchell Kelly](#), Associate Director.

I. Timetable for Course of Study

In consultation with the Program Director and Student Advisory Committee, each student's program of study is developed individually based on prior academic preparation and graduate research goals. Before beginning studies in the Neuroscience Graduate Program, each student meets with the Program Director to develop an initial program of study.

Thereafter, the Student Advisory Committee meets with the student according to the designated schedule to plan course registration, assist with the selection of faculty mentors for laboratory rotations, and assess the student's progress in the Program (see [Program Committees - Student Advisory Committee](#)). Students normally select a thesis laboratory by the end of their first year.

J. Medical Scientist Training Program (MSTP)

Some students matriculate into the Neuroscience Graduate Program through the Medical Scientist Training Program (MSTP) to complete their PhD training. Because MSTP students have typically completed some relevant coursework and research training prior to entering the Neuroscience Program, they may follow an abbreviated pre-comprehensive examination curriculum.

1. **Coursework:** MSTP students can normally complete the required Neuroscience Program coursework within one year and subsequently take the Comprehensive Examination. Coursework completed prior to matriculation into the Neuroscience Program may satisfy applicable core or elective requirements.
2. **Laboratory Rotations:** MSTP students may complete fewer than three laboratory rotations before selecting a thesis mentor. Depending on prior research experience and laboratory rotations completed through the MSTP, a student may complete one or two rotations or may enter the Neuroscience Program having already selected a thesis laboratory.
3. **Comprehensive Examination:** In most cases, MSTP students are eligible to take the Comprehensive Examination during the summer following their first year in the Neuroscience Program.
4. **Individual Program of Study:** Decisions regarding coursework, laboratory rotations, and selection of a thesis mentor are made in consultation with the Student Advisory Committee, Training Mentor, Program Director, and MSTP Directors.

V. Plan of Study for the Neuroscience Program

A. Coursework

First Year

Fall Semester

- Principles of Neuropsychology (3 s.h.)
- Fundamental Neurobiology I with Discussion (4 s.h.)
- Neuroscience Seminar
- Neuroscience Research
- Laboratory Rotations

Spring Semester

- Functional Neuroanatomy (4 s.h.)
- Neuroscience Seminar
- Neuroscience Research
- Laboratory Rotations
- Optional: Statistics or an Elective course

Students are not normally expected to take a second course in addition to Functional Neuroanatomy during the Spring semester of the first year. Functional Neuroanatomy is a time-intensive course, and most students take it as their only formal course during that semester. Students with prior formal coursework or substantial experience in neuroanatomy may, in consultation with Program Leadership, choose to take an additional course, such as Statistics or an Elective.

This first-year Spring semester plan does not apply to MSTP students, who have already completed Neuroanatomy and follow an individualized plan of study. Selection of a PhD mentor (thesis advisor) is normally finalized by the end of the Spring semester of the first year.

Summer Following the First Year

Students may take an Elective course during the summer following the first year. Depending on the student's individual plan of study, the summer may also be an appropriate time to complete a Statistics course.

Second Year

Fall Semester

- Neurobiology of Disease (3 s.h.)
- Statistics and/or Elective course(s)
- Neuroscience Seminar
- Neuroscience Research

Spring Semester

- Fundamental Neurobiology II with Discussion (4 s.h.)
- Statistics and/or Elective course(s)
- Neuroscience Seminar
- Neuroscience Research

Summer Following the Second Year

The Comprehensive Examination is typically completed during the summer following the second year. The deadline for completing the Comprehensive Examination is September 15, at the end of the second summer.

MSTP students normally follow an accelerated timeline. Because their required coursework is typically completed after one year in the Neuroscience Program, MSTP students normally complete the Comprehensive Examination during the summer following their first year.

B. The Comprehensive Examination

The Neuroscience Program Comprehensive Examination is normally completed during the second summer of a student's program of study. MSTP students follow an accelerated timeline as described in the Medical Scientist Training Program section.

The normal examination period is mid-May through the end of August. With Program approval, students may complete the examination earlier. The deadline for completing the Comprehensive Examination is **September 15 at the end of the second summer**.

Eligibility

Students are eligible to take the Comprehensive Examination when they have met the following minimum requirements:

1. **Good Academic Standing.** The student must be in good academic standing as defined by the Graduate College. Students who are not in good academic standing under Graduate College policy are not eligible to take the Comprehensive Examination.
2. **Required Coursework.** The student must have completed all required Neuroscience Program core courses with a grade of at least **B** in each course. A student who does not earn at least a B in a required course may be required to repeat the course or complete remedial work specified by the Student Advisory Committee and Program leadership.

Based on coursework completed before entering the Neuroscience Program, the Student Advisory Committee may waive certain core course requirements. However, material covered in waived courses may still be

- included in the Comprehensive Examination, and students are expected to demonstrate competencies in that material.
3. **Statistics.** In addition to required coursework, students are strongly encouraged to complete at least one course in statistics before taking the Comprehensive Examination.

Purpose of the Examination

The Comprehensive Examination is intended to ensure that students develop broad knowledge of neuroscience. Students should be able to:

- engage knowledgeably with neuroscientists across areas of the field; and
- bring a broad, interdisciplinary perspective to their own research.

The examination assesses whether students have developed the requisite breadth of knowledge while also providing an educational experience through the preparation and defense of a research proposal.

Comprehensive Examination Committee

In consultation with their advisor, students must identify a proposed Comprehensive Examination Committee by the beginning of the Spring semester of their second year, normally before Martin Luther King Jr. Day in January.

The proposed committee must be submitted to the Chair of the Standing Comprehensive Examination Committee for approval.

The Comprehensive Examination Committee consists of **five faculty members**, at least four of whom must be tenure-track faculty. The committee will usually correspond to the student's Thesis Committee, except that the student's thesis advisor is replaced by a member of the Standing Comprehensive Examination Committee. **The thesis advisor does not participate in the Comprehensive Examination.**

A member of the Standing Comprehensive Examination Committee serves as Chair of each student's examination committee. Chairs are assigned by the Standing Committee Chair, with assignments distributed across Standing Committee members.

At least three of the four committee members other than the Chair must be members of the Neuroscience PhD Program. At the committee's discretion, up to two additional members may be recruited for expertise relevant to the student's research area; students may be invited to suggest potential members. No more than three committee members may be from the same department. Faculty from outside the University may serve with Graduate College approval.

The Chair conducts the examination, coordinates committee feedback, and communicates the examination outcome to the student and the Graduate College. The Chair also prepares written feedback describing strengths and weaknesses demonstrated in both the written and oral portions of the examination.

The Comprehensive Examination Committee acts independently in evaluating the student's performance. Examination outcomes are reported to the Graduate College, with the Program Director copied, according to Graduate College procedures. Appeals of committee decisions must follow the procedures described in [Petitions, Appeals, and Academic Grievances](#).

Written Research Proposal

Students must prepare a research proposal based on the **Research Plan for an NRSA grant**.

- **Topic.** The proposal may relate to research currently being conducted in the student's home laboratory but must contain a novel component. For example, the proposal might include a Specific Aim that differs from work previously conducted or proposed by the laboratory, preliminary data collected by the student, or the student's analysis of existing data.

The form of this novel contribution may vary to accommodate different research areas and mentoring approaches. The committee will evaluate the proposal using principles similar to those applied in grant or manuscript review. The proposed research may extend existing or ongoing work but should advance the field in a meaningful way.

- **Scope.** A strong proposal should demonstrate the student's understanding of the broader implications of the proposed research across relevant levels of neuroscience. Depending on the project, this may include connections between molecular or cellular processes and systems-level function or relationships among neurophysiology, cognition, and behavior.
- **Format.** The written proposal is based on the NIH format for a **PHS SF424 (R&R) Individual Fellowship Application**. Specific instructions are provided by the Comprehensive Examination Committee and are modeled on the applicable NIH format.

Students must also address applicable NIH expectations concerning **scientific rigor, reproducibility, and transparency**.

Student Authorship and Faculty Guidance

The proposal must represent the student's own work and must be written solely by the student.

Students may receive reasonable guidance from their mentor and may consult other faculty members, including members of the Comprehensive Examination Committee, regarding matters such as aims, hypotheses, background, methods, analyses, ethics, and feasibility. However, the written proposal itself may not be edited by others.

The proposal must be accompanied by a letter from the student and signed by the mentor, describing the nature and extent of the mentor's involvement. The letter should identify portions of the work completed independently by the student and describe significant contributions or guidance provided by other individuals.

Submission and Scheduling

The written proposal must be submitted to all Comprehensive Examination Committee members at least two weeks before the scheduled oral examination.

Students should provide the Neuroscience Program Office with an updated list of committee members and information needed to complete Graduate College examination paperwork.

Students who need assistance scheduling the examination should provide the Program Office with their committee member list. The Program Office will coordinate scheduling with the committee and arrange an appropriate room once a date has been identified.

Students who have selected an examination date but need assistance reserving a room should contact the Program Office.

Students who arrange their own date, time, and room should provide those details, along with an updated committee list, to the Program Office. The Program Office will submit the Graduate College Request for Doctoral Comprehensive Examination form.

Oral Examination

The oral examination normally occurs approximately two weeks after submission of the written proposal and lasts approximately **two hours**.

The oral examination allows the committee to assess whether the written proposal accurately represents the student's knowledge and understanding. A student may therefore be asked to clarify or expand upon material presented in the proposal.

Questions may also extend beyond the immediate scope of the proposal to broader implications of the research and other areas of neuroscience.

At the beginning of the oral examination, the student will leave the room while committee members discuss their initial assessment of the written proposal and identify major areas to address during questioning.

Any potentially disqualifying or “fatal” flaw in the written proposal should be identified before the oral examination and, at the latest, **at least 24 hours before the examination**. Such concerns should not be raised for the first time during the oral defense. Other questions and concerns may be addressed during the examination, and the student must be provided with an opportunity to defend the proposed science.

Evaluation and Examination Outcomes

During at least the final 15 minutes of the examination period, the student will leave the room while the committee evaluates the student’s performance.

The written proposal and oral examination are considered in approximately equal measure. Performance in one component may therefore affect the committee’s overall assessment of the other.

The possible examination outcomes are:

- Pass
- Reservations
- Fail

For a five-member committee, a Pass requires at least four positive votes. If two or more committee members judge the student’s performance unsatisfactory and cast negative votes, the examination outcome is Fail. If two or more committee members vote Reservations and fewer than two members cast negative votes, the examination outcome is Reservations.

Committee Member Votes and Results Based on Committee Size

Committee Membership	Pass	Still pass, if:	Fail	Reservations
Seven Members	5 positive votes	2 negative votes*	3 negative votes	3 reservations votes
Six Members	4 positive votes	2 negative votes*	3 negative votes	3 reservations votes
Five Members	4 positive votes	1 negative vote*	2 negative votes	2 reservations votes
Four Members	3 positive votes	1 negative vote*	2 negative votes	2 reservations votes

**Or a member who is unable to attend*

Reservations

A vote of Reservations indicates that the committee has identified deficiencies that are considered limited in scope and reasonably correctable.

When the overall outcome is Reservations, the Comprehensive Examination Committee will notify the student, Program Director, and Graduate College. Written feedback will identify the actions the student must complete to have the Reservations removed.

Unless another deadline is established by mutual agreement between the student and the Comprehensive Examination Committee, the required actions must be completed **within four months of the original examination**.

Required remedial work may include:

- revision of the written proposal;
- assigned readings;
- an additional oral examination in a specified area;
- additional coursework; or
- other work determined appropriate by the committee.

The Comprehensive Examination Committee determines whether the student has satisfactorily completed the required actions. If the requirements are completed satisfactorily, the examination outcome changes from Reservations to Pass. If the student does not complete the required actions satisfactorily by the established deadline, the outcome changes from Reservations to Fail.

Reexamination Following a Fail

A student who receives a Fail on the initial examination, including a Fail resulting from unresolved Reservations, may request reexamination.

A second Comprehensive Examination may not occur earlier than **four months after completion of the first examination**.

A second outcome of Fail results in dismissal from the Neuroscience Program for failure to make satisfactory academic progress.

Written Feedback

For all examination outcomes—Pass, Reservations, or Fail—the Comprehensive Examination Committee will provide the student with a written summary of feedback **within 10 days of the examination**. The scope of the feedback may vary according to the student's performance and examination outcome, with more detailed feedback generally expected for Reservations and Fail outcomes.

Graduate College requirements regarding the timing and submission of documentation must also be followed.

Food and Beverages

Students are **not expected to provide food or beverages** for comprehensive examinations, committee meetings, thesis seminars, or thesis defenses. Providing food or beverages is strictly optional.

This policy also applies to the [Thesis Committee and Prospectus Meeting](#) and [Final Examination \(Thesis Defense\)](#)

C. Thesis Committee and Prospectus Meeting

Thesis Committee

After successful completion of the Comprehensive Examination, each student must establish a **Thesis Committee** to advise the student during the dissertation research phase and evaluate the completed dissertation.

The Thesis Committee normally consists of five members of the graduate faculty, although additional members may be included when appropriate. At least four members must be Neuroscience Program faculty.

The Thesis Committee will normally overlap substantially with the student's Comprehensive Examination Committee, except that the student's thesis advisor replaces the standing member who served on the Comprehensive Examination Committee.

Exceptions to these composition requirements require approval from the thesis advisor, Program Director, and, when required, the Graduate College. All Thesis Committees must be approved by the Program Director.

Following the Prospectus Meeting, the student must meet with the Thesis Committee **at least once each year** to review research progress, plans, and any proposed changes to the dissertation project.

Prospectus Meeting

Students must hold a **Prospectus Meeting no later than May 1 following successful completion of the Comprehensive Examination**. The Prospectus Meeting is a formal meeting at which the student presents and defends the proposed dissertation research before the Thesis Committee. The meeting is chaired by the student's thesis advisor.

In unusual and compelling circumstances, a student may petition the Program for an extension of the May 1 deadline. Extensions are considered by Program Leadership on a case-by-case basis.

The prospectus establishes the agreed-upon scope and expectations for the dissertation research. The proposed work must represent an original contribution appropriate for a PhD dissertation. Previously completed or published research may be incorporated into the prospectus; however, the majority of the proposed research should normally remain to be completed so that the Thesis Committee has an opportunity to provide meaningful guidance on the project.

Prospectus Document

The student must prepare a written **prospectus document**, often developed from or expanding upon the proposal prepared for the Comprehensive Examination.

The prospectus normally includes:

1. **Introduction (Chapter 1).** A broad and substantive scholarly review that establishes the scientific premise for the proposed research. The Introduction should summarize relevant literature, identify unanswered questions or limitations in existing knowledge, and establish the research questions, objectives, and hypotheses addressed by the dissertation. It is typically approximately 25 double-spaced pages, although length may vary depending on the project.
2. **Specific Aims (Chapter 2).** A description of the specific aims, hypotheses or predictions, and possible outcomes of the proposed research. When appropriate, this section should explain how the hypotheses could be supported or falsified.
3. **Methods (Chapter 3).** A detailed description of the proposed methodology, including, as applicable, participants or experimental subjects, procedures, quantitative approaches, power calculations, and statistical analyses. The Methods should provide sufficient detail to demonstrate rigorous and unbiased experimental design, analysis, interpretation, and reporting. There is no prescribed page limit for this section.
4. **Preliminary Data (Chapter 4, if applicable).** Relevant preliminary findings should be included when available.
5. **Previously Published Work (if applicable).** Published work related to the dissertation may be incorporated as a separate chapter when appropriate.

The Thesis Committee may modify this structure to reflect disciplinary practices and the needs of the individual dissertation project. Students and advisors should consult with committee members as needed before finalizing the prospectus.

The prospectus document must be distributed to all Thesis Committee members **at least two weeks before the Prospectus Meeting**. Students are encouraged to communicate with committee members beforehand to identify questions or concerns that may need to be addressed.

Prospectus Approval

During the Prospectus Meeting, the student and Thesis Committee will establish the scope of the dissertation project and an expected timeline for completing the work. The committee may require revisions to the proposed research or, when necessary, an additional meeting.

Once all Thesis Committee members have approved the prospectus, the student and thesis advisor must notify the Program Office that the prospectus has been successfully defended. The Program Office will record completion of this requirement.

The prospectus serves as the **blueprint for the student's dissertation research**. It is distinct from the Comprehensive Examination proposal, which follows an NRSA-style format and may include research that differs in whole or in part from the student's eventual dissertation project.

Role of the Thesis Committee

Following approval of the prospectus, the Thesis Committee is responsible for:

1. Reviewing the organization and progress of the dissertation research.
2. Reviewing the written dissertation.
3. Conducting the PhD Thesis Defense (Final Examination).

The Thesis Committee must meet with the student **at least annually after the Prospectus Meeting** to review research progress and approve modifications to the dissertation plan as appropriate.

Changes to the approved research plan may be necessary as the dissertation progresses. Changes to experiments, sample sizes, control or comparison groups, methods, or other substantive elements of the project should be discussed with the thesis advisor and Thesis Committee. Substantive changes must receive their approval before implementation.

D. Final Examination (Thesis Defense)

The PhD degree culminates in a **Final Examination (Thesis Defense)** administered on campus.

Eligibility and Timing

In accordance with Graduate College requirements, the Final Examination may not be held until the academic session following satisfactory completion of the Comprehensive Examination. The student must pass the Final Examination within five years of satisfactorily completing the Comprehensive Examination. Failure to meet this deadline requires reexamination to determine the student's qualifications to proceed to the Final Examination.

Final Examination procedures follow applicable Graduate College requirements and, where appropriate, the procedures described for the Comprehensive Examination (see [The Comprehensive Examination](#) above).

Scheduling and Thesis Submission

Once the student and Thesis Committee have agreed that the student is ready to defend, the student must provide the Neuroscience Program Office with the **date, time, and location of the examination**.

The Program Office will submit the Graduate College Request for Final Examination and begin other preparations associated with the student's Thesis Defense.

At least two weeks before the scheduled Thesis Defense, the student must:

1. Provide each member of the Thesis Committee with a complete copy of the thesis.
2. Complete the Application for Degree through the Office of the Registrar, as applicable.

Students are responsible for meeting all Graduate College deadlines, including the final thesis deposit deadline for the semester in which they intend to graduate. Students approaching their defense should consult the Neuroscience Program Office regarding applicable deadlines and requirements.

Final Thesis Seminar and Thesis Defense

The student will present a **Final Thesis Seminar** immediately before the Thesis Defense. The seminar is open to the public, and friends and family are welcome to attend.

Following the seminar, the Thesis Committee will conduct the **Thesis Defense**, which is a private oral examination. Other members of the Graduate College faculty

may attend and, with approval of the Thesis Committee Chair, participate in the examination.

During the Thesis Defense, the student will answer questions related to the thesis research. Questioning may address the development of the research hypotheses, relevant literature, experimental procedures, interpretation of results, future directions, and areas of knowledge directly related to the research.

The Thesis Defense must be scheduled, publicized, and conducted in accordance with the [Manual of Rules and Regulations of the Graduate College of The University of Iowa](#).

Final Examination Outcome

The Final Examination is evaluated as **Pass** or **Fail**. For a standard five-member committee, two or more negative votes result in a **Fail**.

Committee Member Votes and Results Based on Committee Size

Committee Membership	Pass	Still pass, if:	Fail	Reservations
Seven Members	5 positive votes	2 negative votes*	3 negative votes	3 reservations votes
Six Members	4 positive votes	2 negative votes*	3 negative votes	3 reservations votes
Five Members	4 positive votes	1 negative vote*	2 negative votes	2 reservations votes
Four Members	3 positive votes	1 negative vote*	2 negative votes	2 reservations votes

**Or a member who is unable to attend*

Following a **Fail**, the student is not eligible for reexamination until the next academic session. The Final Examination may be repeated only once, at the discretion of the Neuroscience Program.

E. Publication Requirement

Students are required to have a *minimum* of one first-author publication in a peer-reviewed journal prior to graduating with a PhD degree in Neuroscience. The article must be formally accepted and “in press” or published prior to graduation. A co-first-authored peer-reviewed publication will count towards this requirement.

VI. Program Committees

Program Committees provide guidance and carry out the policies and procedures of the Neuroscience Graduate Program in the major areas of PhD training. Committees operate with appropriate independence from the Program Director, with each Committee Chair serving as a liaison between the Committee and Program Leadership.

Committee membership is guided by the following principles:

1. Committees include representation from multiple departments, including both basic science and clinical departments.
2. **Faculty members** are selected based on their qualifications, interests, and willingness to participate.
3. Membership is rotated to promote a balance of experienced and newer members and to maintain continuity in committee purpose and function.
4. **Students** serve on committees where student representation is appropriate.

Faculty and students may be invited by Program Leadership or may volunteer to serve on Program Committees.

Student representatives generally serve one- or two-year terms.

Faculty Terms and Committee Leadership

The following policies apply to faculty serving on the Admissions Committee, Seminar & Research Day Committee, Outreach Committee, Comprehensive Examination Committee, Evaluation and Tracking Committee, and Awards Committee:

1. Faculty members normally serve three-year terms.
2. At the conclusion of a term, faculty members are generally expected to rotate off the Committee.
3. With appropriate justification and at the discretion of Program Leadership, a faculty member may serve a second term.
4. Committee Chairs are selected from among the Committee members by the Committee and/or Program Leadership, with final approval by Program Leadership.
5. An outgoing Committee Chair remains on the Committee for one additional year as an ex officio member to provide continuity, advice, and guidance to the incoming Chair.

A. Executive Committee

The **Executive Committee** establishes the overarching agenda and policies of the Neuroscience Graduate Program. The Committee meets approximately every two months, or more frequently as needed, to review and discuss matters of general Program importance.

Membership includes the Program Director, Associate Director, Chairs of other Program Committees, a student representative, and a Graduate College leader serving ex officio.

B. Admissions and Recruitment Committee

The **Admissions and Recruitment Committee** oversees activities related to admissions and recruitment for the Neuroscience Graduate Program. During the annual admissions cycle, generally December through March, the Committee reviews applications, selects applicants for interviews, makes recommendations for admission, and recommends candidates for recruitment fellowships.

The Committee consists of approximately seven to eight faculty members representing the breadth of research areas within the Program, from cellular and molecular neuroscience to behavioral and systems neuroscience. Three student representatives also serve on the Committee, with membership structured to provide continuity of experience and knowledge.

The Committee also coordinates recruitment activities, including targeted efforts to introduce University of Iowa undergraduates to the Program and participation in recruitment fairs and other promotional activities at colleges and universities nationwide.

C. Student Advisory Committee

The **Student Advisory Committee (SAC)** supports graduate student progress and facilitates the successful and timely completion of the PhD in Neuroscience. The SAC meets periodically with students to monitor academic and research progress, provide guidance and feedback, and identify concerns that may affect progress toward the degree.

When a student is not making satisfactory progress or significant concerns arise, the SAC brings the matter to the attention of the Program Director and may make recommendations for appropriate intervention.

The SAC consists of approximately four faculty members representing the breadth of research areas within the Program, from cellular and molecular neuroscience to behavioral and systems neuroscience. When possible, membership includes faculty with experience in psychology and/or counseling.

SAC Meetings

The SAC meets with all students in the Program on a regular basis to:

- Monitor and track progress in laboratory rotations, coursework, thesis requirements, and research;

- Establish goals related to expected Program milestones and recognize student achievements;
- Clarify the graduation process and related expectations;
- Identify challenges or concerns that may affect progress;
- Support and oversee professional development; and
- Provide faculty feedback from a neutral perspective.

Preparation for SAC Meetings

Prior to each scheduled SAC meeting, students must complete and submit the following materials to the Neuroscience Program Office. The Program Office will provide these materials to SAC members before the meeting:

1. **Progress Report.** Expectations for the Progress Report vary according to the student's stage in the Program and are described in the schedule below.
2. **Graduate Student Laboratory Performance Rubric.** This rubric is completed jointly by the student and research advisor (see [Appendix III](#)).
3. **Individual Development Plan (IDP).** The IDP supports career planning and facilitates discussions between students and mentors about professional development, networking, and opportunities that complement research training. All students are required to complete the comprehensive **myIDP** career-planning tool hosted by Science Careers at least once. Students may also use alternative IDP resources available through the Graduate College or the Program's **Ulowa Neuroscience Graduate IDP**, a simplified framework for self-assessment based on core competencies expected of neuroscience graduate students (see [Appendix IV](#)).

Meeting Schedule

The SAC will meet with students according to the following schedule.

First-Year Students

Academic Progress Review

The SAC reviews first-year students' academic progress twice during the fall semester and winter:

- Around November 1, the Program Coordinator provides the SAC Chair with midterm grade reports for all first-year students.
- Around January 1, the Program Coordinator provides the SAC Chair with final fall semester grade reports and all available laboratory rotation evaluations.

If a student is experiencing academic difficulties, including a grade below a B in any course, the SAC Chair will arrange a meeting with the student to discuss the situation, identify challenges, and recommend appropriate steps to support satisfactory progress.

Individual SAC Meeting

The SAC meets individually with all first-year students in early April. Meetings are scheduled with assistance from the Program Coordinator.

Prior to the meeting, students must complete the **Laboratory Performance Rubric** for each completed laboratory rotation and submit a **Progress Report** summarizing achievements, progress, and challenges to date.

The Progress Report should address:

- **Didactic requirements:** Coursework completed toward PhD requirements and coursework planned for the second year.
- **Publications and presentations:** Publications, presentations, abstracts, and other scholarly products. Work completed at prior institutions may be included but should be clearly distinguished from work completed at the University of Iowa. Links to ORCID or Google Scholar profiles may also be included.
- **Grants and funding:** Fellowships, scholarships, travel awards, grants, or other funding received through submitted applications.
- **Research accomplishments:** Research progress and milestones, including laboratory rotation outcomes, technical skills acquired, laboratory affiliation plans, and other notable achievements.

Students should also summarize their plans to affiliate with their preferred research advisor's laboratory and begin thesis research.

Second-Year Students

During the fall semester of the second year, each student and their research advisor must complete the student's first annual **Individual Development Plan (IDP)**. A copy must be submitted to the Neuroscience Program Office **no later than October 1**. Program Leadership reviews the IDP in lieu of an individual SAC meeting.

The IDP is intended to facilitate discussion between the student and research advisor regarding academic progress, research accomplishments, professional development, career goals, and plans for the coming academic year. Students should provide thoughtful and complete responses and address any challenges or concerns related to their academic or research progress.

Students supported by fellowships, training grants, or awards administered by the Graduate College may be required to complete an IDP earlier, including during the first year, to meet the requirements of their funding mechanism.

If concerns regarding a student's academic performance, research progress, or professional development are identified during the IDP review, Program Leadership may request additional information or schedule a meeting with the student and/or research advisor.

Post-Comprehensive Exam Students

Third-Year Students

Following successful completion of the Comprehensive Examination, the SAC meets individually with third-year students between September 15 and October 15. Meetings are scheduled with assistance from the Program Coordinator.

Prior to the meeting, students must submit a **Progress Report** addressing:

- The outcome of the Comprehensive Examination;
- Plans for forming the Thesis Committee; and
- Plans for the Prospectus Meeting.

The Progress Report, annual **Graduate Student Laboratory Performance Rubric**, and **IDP** are provided to the SAC before the meeting.

Fourth-Year Students and Beyond

The SAC meets individually with students in their fourth year and beyond annually, generally around July 15, to review progress toward completion of the PhD.

Prior to the meeting, the student and Thesis Advisor must each complete a separate Progress Report addressing the student's:

- Thesis and research progress;
- Scientific presentations, publications, and grant submissions; and
- Career planning and preparation for the next stage of training or employment.

The student's and Thesis Advisor's Progress Reports, annual **Graduate Student Laboratory Performance Rubric**, and **IDP** are provided to the SAC before the meeting.

D. Comprehensive Examination Committee

The Comprehensive Examination Committee has two components:

- the Standing Committee and
- a student-specific Comprehensive Examination Committee proposed by each student.

Standing Committee

The Standing Committee establishes the format and procedures for the Comprehensive Examination, which is offered annually during the summer. The Standing Committee consists of a Chair and Vice-Chair, each of whom normally serves a three-year term. At the conclusion of the Chair's term, the Vice-Chair normally succeeds to the Chair position.

The Standing Committee meets near the beginning of each calendar year to finalize plans for that year's Comprehensive Examination.

Student-Specific Comprehensive Examination Committee

Each student proposes a five-member Comprehensive Examination Committee. The committee will generally consist of the same faculty members who are expected to serve on the student's Thesis Committee, except that the student's thesis advisor is replaced by a member of the Standing Committee.

A member of the Standing Committee serves as Chair of each student's Comprehensive Examination Committee. Chairs are assigned by the Standing Committee Chair, with assignments distributed across Standing Committee members to balance workloads.

The Committee Chair is responsible for:

- Conducting the Comprehensive Examination;
- Coordinating and synthesizing feedback from Committee members;
- Communicating the examination outcome and feedback to the student and Graduate College; and
- Preparing a detailed written feedback letter describing strengths and areas for improvement in both the written and oral components of the examination.

Detailed written feedback is particularly important when the examination outcome is **Reservations** or **Fail**.

For additional information regarding Comprehensive Examination requirements, procedures, and outcomes, see [Comprehensive Examination](#)

E. Seminar & Research Day Committee

The **Seminar & Research Day Committee** coordinates the Neuroscience Seminar and annual Neuroscience Research Day. The Committee includes two student subcommittees, the **Seminar Subcommittee** and **Research Day Subcommittee**.

Seminar Subcommittee

The **Seminar Subcommittee** coordinates the Neuroscience Seminar series, which includes both internal and external speakers. Responsibilities include:

- Scheduling speakers and making alternative arrangements when cancellations occur;
- Inviting one to two external speakers per semester;
- Coordinating itineraries and hosting responsibilities for external speakers; and
- Working with the Evaluation and Tracking Committee to monitor faculty and student Seminar attendance.

Attendance at Neuroscience Seminar is required for all students (see [Neuroscience Seminar](#)).

Research Day Subcommittee

The **Research Day Subcommittee** coordinates the annual Neuroscience Research Day, which provides an opportunity for Program members to share recent research and scientific progress. Responsibilities include:

- Inviting and hosting a keynote speaker;
- Coordinating short presentations by Program faculty seeking laboratory rotation students;
- Organizing a student poster session; and
- Working with the Program Administrator to coordinate the event date, venue, supplies, and catering.

F. Outreach Committee

The **Outreach Committee** coordinates the Program's outreach and community engagement activities. The Committee consists of two subcommittees—the **Community Engagement Subcommittee** and the **Brain Bee Subcommittee**—each led by a faculty member.

Community Engagement Subcommittee

The **Community Engagement Subcommittee** organizes and implements community engagement activities, including events such as Kids GoSTEM and the Iowa State Fair. The Subcommittee also supports student-led outreach initiatives for high school and University of Iowa undergraduate students designed to introduce students to neuroscience and encourage interest in neuroscience education and research.

The Subcommittee also provides access to information about campus support resources, in coordination with the University of Iowa [Office of Civil Rights Compliance \(OCRC\)](#).

Brain Bee Subcommittee

The **Brain Bee Subcommittee** organizes and implements activities associated with the annual Iowa [Brain Bee](#).

G. Evaluation and Tracking Committee

The **Evaluation and Tracking Committee** monitors the quality and effectiveness of the Neuroscience Graduate Program. The Committee meets at least twice annually, or more frequently as needed, and provides findings and recommendations to Program Leadership and the Executive Committee.

The Committee's responsibilities include:

- **Program evaluation:** Soliciting systematic feedback from faculty and students regarding Program strengths, challenges, and areas for improvement and reviewing the effectiveness of Program activities and training.
- **Student progress and outcomes:** Monitoring students' timely progression through the Program and achievement of major milestones, including the Comprehensive Examination, Prospectus Meeting, fellowship applications and awards, time to degree, and post-graduation outcomes. Graduate outcomes are tracked for at least 10 years following completion of the Program.
- **Admissions:** Monitoring the admissions process, including the applicant pool, interviews, admissions, and matriculation, and working with the Admissions and Recruitment Committee to evaluate admissions and recruitment activities.
- **Faculty participation:** Monitoring faculty participation in Program activities and committee service, conducting periodic faculty evaluations, and making recommendations regarding continued Program faculty membership.
- **Training and compliance:** Monitoring completion of required training by faculty participating in admissions and other Program activities, as applicable.

Based on these evaluations, the Committee identifies areas of concern and effective Program practices and recommends appropriate changes to Program Leadership and the Executive Committee.

H. Awards Committee

The **Awards Committee** oversees the nomination, review, and selection processes for the Neuroscience Graduate Student Awards. The Committee identifies faculty and students to evaluate award nominations and makes recommendations to the Program Director regarding award recipients.

For additional information regarding award eligibility, criteria, and procedures, see [Neuroscience Graduate Students Awards](#).

I. Committee for Camaraderie in Neuroscience

The **Committee for Camaraderie in Neuroscience** fosters a sense of community and strengthens connections among Neuroscience Graduate Program students, faculty, staff, and their families. The Committee organizes and coordinates extracurricular, social, and community-building activities for Program members.

Membership includes student representation from multiple cohorts, with two students serving as Chair and Co-Chair. The Committee meets at least once each semester to plan upcoming activities and discuss event ideas and logistics.

J. Student Study Section (Mock Comprehensive Exam) Committee

The **Student Study Section (Mock Comprehensive Exam) Committee** is a student-run committee that provides formative peer feedback to students preparing for the oral component of the Comprehensive Examination.

Purpose and Activities

The Committee coordinates mock examinations designed to simulate the oral Comprehensive Examination. Mock examination committees may include students who are not regular members of the Student Study Section and are assembled based on factors such as research expertise, familiarity with the student's faculty examination committee, availability, and preferences expressed by the student. Mock examinations typically occur one to four weeks before the scheduled Comprehensive Examination.

Feedback focuses primarily on the oral presentation and responses to questions. Students are encouraged to provide their written examination document to the mock committee in advance for context. Feedback is provided by participating students' prior examination experiences and the expectations described in the Program's Comprehensive Examination rubric.

Student Participation

Participation in a mock examination is voluntary but strongly encouraged to help students become familiar with the structure, pacing, and expectations of the Comprehensive Examination. The Committee Chair may contact students before their scheduled examination; however, students are responsible for contacting the Student Study Section to initiate and schedule a mock examination.

Service on mock examination committees is also voluntary. Participation provides post-comprehensive examination students with opportunities to develop skills in providing constructive feedback and mentoring other students.

Committee Leadership

The Student Study Section Chair attends informational meetings for students preparing for the Comprehensive Examination and serves as a student point of contact for the mock examination process. The Chair also communicates with the Chair of the faculty Comprehensive Examination Committee and maintains a current list of students expected to complete the Comprehensive Examination during the upcoming year.

For official Comprehensive Examination requirements and procedures, refer to [The Comprehensive Examination](#)

VII. Neuroscience Graduate Student Awards

Neuroscience graduate students are eligible for several merit-based awards, as described below. The following general guidelines apply:

1. **Cohort-Specific Awards:** The Young Investigator Award and Rotation Talk Award are limited to specific student cohorts. The Young Investigator Award is awarded to a third-year student, and the Rotation Talk Award is awarded to a first-year student.
2. **Award Eligibility:** For all other awards, a student may receive each award only once during their tenure in the Neuroscience Graduate Program. Students may be nominated for an award multiple times if they have not previously received that award.
3. **Financial Awards:** In accordance with federal regulations, monetary awards to students are processed through the Office of Student Financial Aid and applied as credit to the student's U-Bill.

A. Gloria Lee Student Service Award

The **Gloria Lee Student Service Award** recognizes up to two Neuroscience graduate students each year for exemplary service to the Neuroscience Graduate Program during the previous year. Service is broadly defined and may include contributions to the Program, such as participation on Program committees, as well as contributions to the broader community through activities such as Brain Bee, Research Day, and outreach initiatives.

Faculty may nominate students from any year in the Program. Award recipients are selected by the Awards Committee and receive a **\$200 financial award**.

In 2019, the Student Service Award was renamed in honor of **Gloria Lee, PhD**, a 20-year Neuroscience faculty member whose longstanding contributions and commitment to the Program exemplified exceptional service.

B. Publication Award

The **Publication Award** recognizes a Neuroscience graduate student for an outstanding primary research article published or accepted for publication within the past year. The student must be the **first author or joint first author** of the publication.

Students submit their own articles for consideration, and eligible publications are evaluated by the Awards Committee. The recipient receives a **\$500 financial award**.

C. Benjamin J. DeCorte Young Investigator Award

The **Benjamin J. DeCorte Young Investigator Award** recognizes a Neuroscience graduate student who, during their first two years in the Program, has demonstrated exceptional promise for a future career in neuroscience through their performance in research and coursework.

All third-year students who have successfully completed the Comprehensive Examination are considered for the award. MSTP students who have completed the Comprehensive Examination are also eligible for consideration, even if they are in their second year. The recipient is selected by the Neuroscience Awards Committee and receives a **\$300 financial award**.

In 2026, the Young Investigator Award was renamed in honor of **Benjamin J. DeCorte, PhD, MS (Class of 2021)**, a Program alumnus whose scientific achievements and commitment to a culture of research rigor and excellence exemplified the promise recognized by this award.

D. Rotation Talk Award

The **Rotation Talk Award** recognizes a first-year Neuroscience graduate student for an outstanding rotation talk presented at the end of the first year. The award is based on the quality of the presentation, including slide design, organization, clarity, and presentation style—rather than the research findings or data themselves.

All first-year students who present a rotation talk are considered for the award. The recipient is selected based on peer and faculty evaluations completed during the rotation talks and receives a **\$25 financial award**.

E. Best Elevator Talk Award

The **Best Elevator Talk Award** recognizes a Neuroscience graduate student for an outstanding Elevator Talk presented during Seminar over the Fall–Spring academic year. All students who present an Elevator Talk during the two-semester cycle are considered for the award.

The recipient is selected based on peer evaluations collected immediately following each presentation using a Likert-scale rating. The recipient receives a **\$25 financial award**.

F. Poster Award for Research Day

The **Poster Award for Research Day** recognizes a Neuroscience graduate student for an outstanding poster and poster presentation at Research Day. Selection is based on both the quality of the poster and the quality of the student's presentation.

A committee of three faculty members selects the recipient. The recipient receives a **\$300 financial award**.

G. Data Blitz Award

The **Data Blitz Award** recognizes a Neuroscience graduate student for an outstanding presentation at the annual Neuroscience Data Blitz.

A committee of graduate students and postdoctoral fellows selects the recipient. The recipient receives a **\$25 financial award**.

VIII. Petitions, Appeals, and Academic Grievances

A. Petitions

Students may submit a written request to the Program Director for a waiver or deferment of a program requirement. The request should be prepared by the student in consultation with their Advisor/Mentor, signed by both the student and Advisor/Mentor, and include a clear justification for the request.

The Program Director will review the petition and may either decide directly or refer to the request to the Student Advisory Committee for review and recommendation.

B. Appeals

Students may appeal actions or decisions of the Neuroscience Program, including those made by the Program Director, Student Advisory Committee, other Program committees, units, or staff.

Appeals will be considered according to the following procedure:

1. **Submission of Appeal:** The student must submit a written appeal to the Program Director that clearly identifies the action or decision being appealed and the basis for the appeal.
2. **Appeal Committee:** The Program Director will appoint an ad hoc committee of three Neuroscience Program faculty members to review the appeal. Committee members must have no direct involvement in the action or circumstances being appealed and must be able to provide an impartial review.
3. **Review of Information:** The committee will review relevant documentation, including materials submitted by the student and information contained in the student's academic file or other Program records, as appropriate.
4. **Meetings:** The committee may meet with the student and other individuals involved in the matter to obtain additional information or discuss the appeal.
5. **Committee Recommendation:** Within one month of being convened, the committee will submit a written report and recommendations for resolution to the Program Director.
6. **Review of Recommendation:** The Program Director will present the committee's recommendations to the Program Steering Committee and/or the Dean of the Graduate College, as appropriate.

7. **Final Decision:** The Program Steering Committee will make the final decision on appeals involving Neuroscience Program policies within its authority. Appeals involving Graduate College rules or regulations will be decided by the Dean of the Graduate College.
8. **Notification:** The Program Director will notify the student in writing of the final decision within one week after a decision has been reached.

C. Academic Grievances

Students are generally encouraged to begin by discussing concerns with their Advisor/Mentor or Neuroscience Program leadership, including the Program Director, Associate Director, or Program Administrator, when appropriate. Whenever possible, concerns should be addressed at the most appropriate level before proceeding to a formal grievance process.

Students who are uncomfortable pursuing a concern through the Program, or who are dissatisfied with the outcome, may contact the Associate Dean for Academic Affairs in the Graduate College for guidance regarding available options.

Graduate College procedures include:

1. [Informal Academic Complaint Procedure of the Graduate College](#)
2. [Formal Academic Grievance Procedure \(AGP\) of the Graduate College](#)

Additional assistance is available through the [University Counseling Service](#), [Office of the Ombudsperson](#), and [Office of Civil Rights Compliance \(OCRC\)](#). These offices can provide guidance to graduate students and assist in identifying the appropriate process for addressing a concern.

IX. Scientific Ethics: Guidelines and Other Resources

A. Policy on Authorship of Publications

Authorship should reflect meaningful intellectual and scientific contributions to the research. To merit authorship, an individual should:

- Contribute significantly to the ideas and/or experimental design of the project;
- Participate meaningfully in the experimentation and/or analysis of data; and
- Be able to present and defend the work in a scientific setting.

Exceptions may be appropriate when an individual has made a unique or highly specialized contribution to a study or analysis.

Students should also consult *Ethical Obligations of Authors*, published in *Accounts of Chemical Research*, 18(12), 356–357 (1985), for additional guidance on responsible authorship and publication practices.

B. Scientific Misconduct

All students are expected to maintain the highest standards of integrity in the conduct and reporting of research. Research misconduct includes **fabrication, falsification, or plagiarism** in proposing, performing, or reviewing research or in reporting research results.

- **Fabrication** is making up data or results and recording or reporting them.
- **Falsification** is manipulating research materials, equipment, or processes, or changing or omitting data or results so that the research is not accurately represented in the research record.
- **Plagiarism** is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

Research misconduct does not include honest error or differences of opinion. Students must also comply with applicable federal and University policies governing the responsible conduct of research, including requirements related to human subjects, animal welfare, and other areas of research compliance.

Allegations of research misconduct will be addressed in accordance with University and applicable federal policies and procedures. Findings of research misconduct may result in disciplinary action, up to and including dismissal from the Neuroscience Ph.D. Program.

The U.S. Public Health Service has a formal policy dealing with misconduct. It is described in a special July 19, 1985, issue of the NIH Guide to Grants and Contracts.

At the very least we must respect this statement. It says in part:

It is the policy of the PHS to maintain high ethical standards in research and to investigate and resolve promptly and fairly all instances of alleged or apparent misconduct.

As defined by the policy, "misconduct" is:

1. Serious deviation from accepted practices in carrying out research or in reporting the results of research. This includes fabrication, falsification, or plagiarism of data.
2. Other examples include material failure to comply with Federal requirements affecting specific aspects of the conduct of research; e.g. the protection of human subjects and the welfare of laboratory animals.

Misconduct does not include errors of judgment, errors in the recording, selection, or analysis of data or differences in opinions involved in the interpretation of data.

D. Academic Misconduct

Students are expected to uphold the University's standards of academic integrity in all coursework and other curricular requirements. Academic misconduct includes cheating, plagiarism, unauthorized collaboration, and other actions that violate University academic integrity policies.

Plagiarism is the use of another person's ideas, words, data, or creative work without appropriate acknowledgment or attribution.

Allegations of academic misconduct will be addressed in accordance with University and Graduate College policies and procedures. Findings of academic misconduct may result in disciplinary action, up to and including dismissal from the Neuroscience Ph.D. Program.

C. Sexual Harassment

The University of Iowa prohibits sexual harassment and other forms of sexual misconduct. Students are expected to comply with University policies regarding sexual harassment, sexual misconduct, and related conduct.

Students seeking information about University policies, reporting options, supportive resources, or procedures for addressing concerns should consult the University's current sexual harassment and sexual misconduct resources.

D. Counseling and Wellbeing Resources

Graduate education can be demanding, and students are encouraged to seek support when personal, academic, or other concerns affect their well-being.

The **University Counseling Service (UCS)** provides counseling and mental health services for University of Iowa students, 3223 Westlawn, 335-7294), for faculty at Faculty Services (5101A D, 335-2085), and online resources with [Build a Career Build a Life](#). Additional health and well-being resources are available through the University.

Students may contact these resources directly. Students may also speak with the Program Director, Program Office, or another trusted faculty or staff member when they would like assistance identifying appropriate University resources.

E. Office of the Ombudsperson

The **Office of the Ombudsperson** provides confidential, neutral, informal, and independent conflict management and problem-solving services to members of the University of Iowa community. The office can assist students with concerns, conflicts, or questions about options for addressing difficult situations.

Appointments are recommended and may be scheduled by phone at **319-335-3608** or by email at ombudsperson@uiowa.edu. Additional information is available on the [Office of the Ombudsperson website](#).

F. Office of the Civil Rights Compliance (OCRC)

The **Office of Civil Rights Compliance (OCRC)** supports the University of Iowa's compliance with federal and state civil rights and nondiscrimination laws, including Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and the Americans with Disabilities Act.

OCRC provides information and resources related to discrimination, harassment, accessibility, and other civil rights concerns, as well as information about reporting options and University procedures. Additional information is available on the [OCRC website](#).

X. Guidelines for Faculty Membership

A. Roles and Responsibilities of Faculty Members

Neuroscience Program faculty serve as the primary training mentors for graduate students and are expected to participate actively in Program activities. Faculty responsibilities may include service on Program committees, participation in courses and seminars, involvement in outreach activities, and supervision of student laboratory rotations.

Many Program faculty members also serve as training preceptors on the Neuroscience Training Grant and maintain research funding sufficient to support graduate students in their laboratories.

B. Protocol for Appointment to the Neuroscience Program Faculty

Applications for membership on the Neuroscience Program Faculty are reviewed as they are received.

Eligibility Criteria

Candidates for initial appointment should demonstrate:

- An interest in neuroscience;
- An active research program involving neuroscience-related research;
- A record of peer-reviewed publications, including publications relevant to neuroscience;
- Extramural research funding or evidence of the potential to obtain such funding;
- Demonstrated mentoring ability or potential; and
- Demonstrated teaching ability or potential.

Application Process

Faculty interested in joining the Neuroscience Program should first contact the Program Director. Applicants must submit:

- A **Letter of Interest** briefly describing their background and interests in neuroscience research, teaching, and mentoring; and
- A **Curriculum Vitae (CV)** or NIH- or NSF-style biosketch.

The Letter of Interest and CV or biosketch must include a statement of the applicant's commitment to inclusive excellence.

The Program Director will meet with the applicant to discuss their interests and the expectations of Neuroscience Program faculty membership. If the Program Director approves the application, the process will proceed as follows:

1. **Departmental Support:** The applicant must request a letter of support from their Departmental Executive Officer (DEO). The letter should confirm support for the applicant's participation in Program activities, including committee service, teaching, supervision of laboratory rotations, potential mentorship of PhD students, seminar attendance, and promotion of inclusive excellence.
2. **Faculty Vote:** The Program Administrator will distribute the applicant's Letter of Interest, CV or biosketch, and DEO support letter to the Neuroscience Program Faculty for an electronic vote via Qualtrics. Appointment requires positive endorsement from at least 60% of responding faculty.
3. **Graduate College Appointment:** Following a positive faculty vote, the Program Administrator will submit the recommendation for faculty membership to the Graduate College for formal appointment.

Appointment and Renewal

Faculty appointments are for three years and are renewable based on appropriate activity and engagement in the Neuroscience Program (see Section III below). New faculty members will be asked to provide a brief description of their research interests for inclusion in Program materials and on the Program website. New members will also be announced by email at the time of appointment and introduced at the opening Seminar of the Fall semester.

C. Reappointment of Program Faculty

At the end of each three-year appointment term, the Evaluation and Tracking Committee will review each faculty member's participation in Neuroscience Program activities. Faculty may contribute to the Program in a variety of ways, including student mentoring, teaching, service, recruitment, outreach, and other activities that support the success of Neuroscience students and the Program.

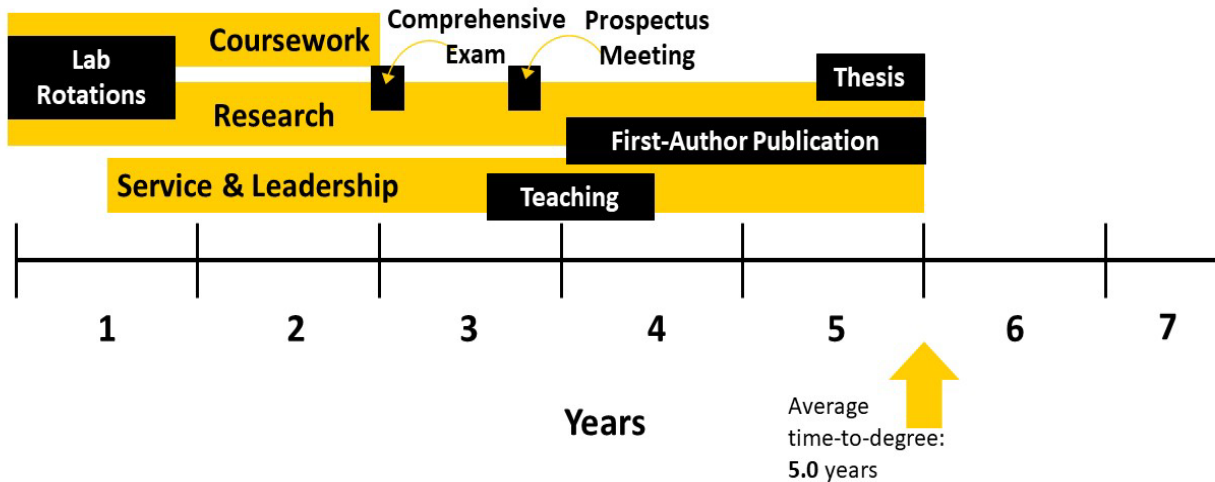
Faculty are expected to accumulate a minimum of **5 participation points during each three-year appointment term** to be eligible for reappointment. Faculty who do not meet this threshold will not be reappointed to another three-year term but may request a one-year extension. Requests for an extension must be submitted by email to the Program Director and include a plan for increasing participation in Program activities. Extensions are subject to approval by the Program Director.

Faculty Participation Rubric

Activity	Participation Point Value
Serve as the PhD thesis advisor or co-advisor for a Neuroscience graduate student	5/year/student
Sponsor a lab rotation for a Neuroscience graduate student	2/student
Serve on the comprehensive exam committee of a Neuroscience graduate student	1/exam
Serve on the dissertation committee of a Neuroscience graduate student in another lab	1/year/student
Serve on a Neuroscience Program committee	3/year, 4/year for committee chair
Teach in a required Neuroscience course	4/semester, 1/semester for guest lectures/discussions
Teach in an elective course taken by 2 or more Neuroscience graduate students	3/semester
Lead a module of Responsible Conduct of Research training	1/year
Attend biannual faculty meetings	0.5/meeting
Serve as a poster judge at Neuroscience Research Day	1/year
Attend Neuroscience Seminar and submit an evaluation of a student's presentation	1/semester
Interview applicants or give a presentation during a graduate interview weekend	1/year
Represent the program at a conference (MidBrains, SfN, SACNAS, ABRCMS, etc.)	3/meeting
Participate in the Neuroscience-affiliated postbac program, iDREAM	3/student if research mentor, 1/student for faculty advisory committees
Host a Summer Neuroscience BSURP student	1/student
Additional activities that promote the success of Neuroscience students and the Program	2/activity at the Director's discretion

Appendix 1: Timeline to PhD

Timeline to PhD



IOWA

Interdisciplinary Graduate Program in Neuroscience

Graduate Student Milestones Checklist

Students are responsible for completing the following coursework, program requirements, and degree milestones. Refer to the cited handbook sections for additional requirements and procedures.

Coursework

First Year	Second Year
☐ Principles of Neuropsychology ☐ Fundamental Neurobiology I ☐ Functional Neuroanatomy ☐ Elective ☐ Neuroscience Seminar ☐ Neuroscience Research	☐ Neurobiology of Disease ☐ Fundamental Neurobiology II ☐ Statistics/Quantitative Literacy ☐ Elective ☐ Neuroscience Seminar ☐ Neuroscience Research ☐ Scholarly Integrity/RCR I ☐ Scholarly Integrity/RCR II

See [Curriculum for detailed coursework requirements](#).

Degree Milestones

Milestone	Typical Timing / Deadline	Handbook Section
Comprehensive Examination	Summer after Year 2 for PhD students; summer after Year 1 for MSTP students	The Comprehensive Examination
Prospectus Meeting	By May 1 following completion of the Comprehensive Examination	Thesis Committee and Prospectus Meeting
Teaching Assistant Requirement	Typically, Year 3 or 4	Curriculum - Teaching
First-Author Publication	Typically, Year 3 or later	Plan of Study - Publication Requirement
Thesis Seminar, Dissertation Defense, and Thesis Deposit	Final stage of degree completion	Final Examination (Thesis Defense)

Ongoing Program Requirements

Requirement	Frequency / Timing	Handbook Section
Thesis Committee Meeting	Annually	Thesis Committee and Prospectus Meeting
Student Advisory Committee Meeting	Annually	Student Advisory Committee
Service and Leadership	Typically beginning after the first semester	Program Committees

Service and Leadership

To support students' development as well-rounded professionals, the Program expects all students to participate in service and/or leadership activities within the Program or University.

Appendix 2: Best Practices for Graduate Students and their Research Advisors

The progress, professional development, and success of graduate students depend on a shared commitment between students and their research advisors. Effective mentoring requires clear expectations, open communication, and responsiveness from both parties. The guidelines that follow outline practices intended to support productive mentoring relationships and successful graduate training.

Graduate students should understand their responsibilities for their academic and research progress, while research advisors should foster an environment that supports students' scholarly development, professional growth, and progress toward degree completion.

Mentoring practices and expectations vary across disciplines, research environments, and individual mentoring relationships. The following guidelines are intended as general best practices for students and research advisors in the Neuroscience Program. Not every guideline will apply equally to every student, advisor, or research setting.

I. Expectations of Graduate Students

Graduate students are expected to:

1. **Take primary responsibility for their academic and research progress** and demonstrate commitment to their graduate education through professionalism, self-motivation, engagement, scholarly curiosity, ethical conduct, and sustained effort in coursework and research.
2. **Meet regularly with their research advisor** and provide updates on the progress, results, and challenges associated with their research.
3. **Understand and follow applicable policies and degree requirements** of the Neuroscience Program, Graduate College, and University, including academic milestones and teaching responsibilities.
4. **Work with their research advisor to develop a thesis/dissertation project**, including establishing reasonable goals and timelines for each phase of the work and making consistent progress toward those goals.
5. **Work with their research advisor to establish a thesis committee** and meet with the committee as required by the Neuroscience Program. Students should consider and respond appropriately to the committee's advice and constructive feedback.

6. **Discuss expectations for authorship, publication, and participation in professional meetings** with their research advisor. Students should work with their advisor to prepare and submit research findings for publication in a timely manner, including relevant work that is ready for publication before graduation.
7. **Attend and actively participate in required meetings, seminars, journal clubs, and other activities** that are part of the Neuroscience Program's educational and professional environment.
8. **Contribute to a research and learning environment** that is intellectually stimulating, supportive, safe, professional, and free from harassment.
9. **Complete required Responsible Conduct of Research (RCR) training** and apply responsible and ethical research practices throughout their graduate training.
10. **Discuss expectations regarding work schedules, leave, and planned absences** with their research advisor and communicate anticipated absences in advance whenever possible.
11. **Take an active role in career and professional development.** Students are encouraged to seek guidance from their research advisor, thesis committee, other mentors, career and professional development resources, and other appropriate sources as they prepare for careers following completion of the doctoral degree.
12. **Comply with applicable University, Graduate College, and Neuroscience Program policies and expectations** throughout their graduate training.

II. Expectations of Research Advisors

Research advisors are expected to:

1. **Be committed to the education, training, and professional development of graduate students** as future members of the research and scholarly community.
2. **Meet individually with their graduate students on a regular basis** and provide timely, constructive feedback on research progress and written work, including the thesis/dissertation.
3. **Understand applicable Neuroscience Program, Graduate College, and University requirements and deadlines** and provide appropriate guidance to help students meet academic, research, teaching, and professional expectations.
4. **Work with students to develop and guide their thesis/dissertation research**, including establishing reasonable goals, expectations, and timelines. Advisors should ensure that obligations associated with externally funded research do not

interfere with a student's ability to make appropriate progress toward completion of the degree.

5. **Assist students in establishing their thesis committees** and support regular committee meetings as required by the Neuroscience Program to review progress and provide guidance.
6. **Discuss expectations for authorship, publication, and presentation of research** with students. Advisors should appropriately acknowledge students' contributions and support the timely presentation and publication of their research.
7. **Encourage participation in scientific and professional meetings** and, when possible, assist students in identifying and securing financial support for these activities.
8. **Foster a research and learning environment** that is intellectually stimulating, supportive, safe, professional, and free from harassment.
9. **Discuss relevant intellectual property and research dissemination policies** with students, including expectations related to disclosure, patent rights, and publication of research findings.
10. **Ensure that students' responsibilities support their academic, research, and professional development** and avoid assigning duties that are unrelated to their graduate training.
11. **Support students' career and professional development** by providing guidance, discussing career goals, offering appropriate feedback, and providing honest and timely letters of recommendation.
12. **Model responsible and professional research practices** and support students in developing skills necessary for successful research careers, including oral and written communication, grant writing, research or laboratory management, responsible conduct of research, applicable human and animal research requirements, and scholarly professionalism. Advisors should also encourage students to pursue appropriate teaching and other professional development opportunities.
13. **Provide appropriate resources to support students' thesis/dissertation research**, consistent with disciplinary practices, available funding, and University and program policies. Advisors may elect to cover allowable student expenses associated with completion and submission of the dissertation but are not required to do so unless otherwise specified by applicable policy or funding requirements.

Appendix 3: Graduate Student Laboratory Performance Rubric

I. Graduate Student Laboratory Performance Rubric Instructions:

The **Graduate Student Laboratory Performance Rubric** is designed to support the holistic, formative development of graduate students in the skills necessary to become independent, successful scientists. Mentors and students should complete the rubric collaboratively and use it to guide an open and constructive discussion of the student's development across each category. The sample descriptors included in the rubric are intended to help guide this discussion and clarify expectations.

Use of the Rubric

When completing the rubric:

- **First-Year Laboratory Rotations:** Mentors should consider the student's early stage of professional development when evaluating performance. The **Independence** category and **Goals for the Upcoming Semester** section should be left blank for rotation students.
- **Post-Comprehensive Examination Students:** An overall rating of **Meets Expectations** across categories represents successful progress. Ratings of **Exceeds Expectations** or **Outstanding** should be reserved for performance that meaningfully exceeds what would typically be expected of a student at a comparable stage of training.

Areas for Improvement and Goals

After completing the rubric, the mentor and student should summarize the key points of their discussion in the space provided below the table. A separate page may be used if additional space is needed.

Areas for Improvement should correspond directly to skills identified in the rubric. These should focus on the student's professional and research-development skills rather than specific products or accomplishments, such as completing a manuscript or submitting a grant.

For post-comprehensive examination students, **Goals for the Upcoming Semester** should address the identified areas for improvement and be written as **SMART goals**: Specific, Measurable, Achievable, Relevant, and Time-Bound.

Relationship with the Individual Development Plan

Mentors and students may naturally focus on larger goals, such as completing manuscripts or grant applications, learning specific research techniques, or reaching other research milestones. Although these goals are important, they are better addressed through the student's **Individual Development Plan (IDP)**.

The IDP complements the Laboratory Performance Rubric by identifying long-term career aspirations and the broader goals needed to achieve them. The Laboratory Performance Rubric instead provides a framework for assessing and developing the skills that support progress toward those goals.

Sample Application

A fourth-year student has made limited progress on a manuscript. Rather than treating completion of the manuscript itself as the skill being evaluated, the mentor and student can use the rubric to identify factors that may be contributing to the lack of progress. For example, the discussion may identify challenges related to **Independence, Attentiveness, Research Progress**, or a combination of these areas.

The relevant category or categories can then be identified as **Areas for Improvement**, and the mentor and student can establish SMART goals focused on developing those skills during the upcoming semester.

II. Graduate Student Laboratory Performance Rubric Link:

An editable version of this document is available on the [website](#)

Appendix 4: Neuroscience Student Individual Development Plan (IDP)

I. What is the IDP?

The **Individual Development Plan (IDP)** is a tool that helps graduate students reflect on their training progress, identify professional and career goals, develop manageable plans for achieving those goals, and receive feedback from their mentors.

Students are encouraged to complete [myIDP](#), a comprehensive career-planning tool hosted by *Science Careers*, at least once during their graduate training. Additional IDP resources and formats are available through the [Graduate College](#).

Because students' developmental needs and approaches to career planning may change throughout graduate school, the Neuroscience Graduate Program also provides a simplified IDP framework. This framework supports self-assessment of the core competencies graduate students are expected to develop during their training, based on competencies identified by the Society for Neuroscience.

II. Process

1. **Self-reflection** – Take time to reflect on your graduate school experience and progress. *This is a private exercise intended for your own reflection.* Consider the following questions:
 - Are you in good physical, mental, and emotional health?
 - Is your research stimulating and meaningful to you?
 - Is your laboratory environment supportive?
 - Have you identified a career you would like to pursue after completing your PhD?
 - **If yes:** Do you know what skills, experiences, and qualifications you will need to pursue that career?
 - **If no:** What steps can you take to learn more about potential career options?
2. **Complete the Milestones chart** – Select the description that best reflects your current skill level in each of the five core competencies: conceptual knowledge, research skill development, rigorous and responsible conduct of research, communication skills, and career development. Be candid in your assessment. If your current skill level differs from the milestone associated with your stage of training (pre-comps, post-comps, or approaching graduation), discuss your specific development needs with your mentors.
3. **Identify Two Accomplishments or Challenges** – Reflect on experiences since your last IDP, or within the past year if this is your first IDP. These may include research methods or results, coursework, relationships within your research

group, department, or program, confidence in seminar or conference presentations, or your ability to network with peers and senior scientists.

4. **Identify Two Goals for the Coming Year** – Develop two specific **SMART goals** (Specific, Measurable, Achievable, Relevant, and Time-Bound). Goals should identify practical and achievable ways to build on accomplishments, address challenges, and continue developing the core competencies outlined in the Milestones Chart.
5. **Discuss Your Progress and Goals with Your Mentors** – Review your Milestones Chart and goals with appropriate mentors, such as your research advisor, Student Advisory Committee, or Thesis Committee. Use these conversations to discuss your progress, identify areas for continued development, and explore additional opportunities for professional growth.

III. Visual Example of IDP Planning Guide

Milestones for Graduate Training in Neuroscience			
	Pre-Comps (~years 1-2)	Post-Comps (~years 3-4)	Ready to Graduate (~years 4-6)
Conceptual knowledge	☐ Identify, understand, and discuss primary literature.	☐ Critically evaluate papers, apply concepts and methodology from the literature to your work.	☐ Synthesize a historical perspective on the development of ideas and methods in your specialty.
Research skill development	☐ Replicate experimental results and recognize when controls indicate technical problems.	☐ Design experiments, execute an unfamiliar protocol, and/or teach others how to perform experiments.	☐ Design sets of experiments to test a hypothesis, modify existing methods as needed, teach others how to interpret results.
Rigorous & responsible conduct of research	☐ Describe the rules and policies for ethical research practice.	☐ Identify and discuss how bias or external pressure can lead to misconduct.	☐ Act as a role model of integrity, assess nuance in situations, and report unethical practices if encountered.
Communication skills	☐ Describe your field of neuroscience, comfortably giving a short oral presentation on your current work, write a logical description of your methods.	☐ Design and explain a conference poster, give a platform presentation at a national meeting, draft a grant/project proposal.	☐ Give a 45 min seminar and feel comfortable handling questions throughout, be able to write both technical research papers, and distill your work so that non-scientists can understand you.
Career Development	☐ Identify different career opportunities, prioritize tasks to meet deadlines, start building a local professional network.	☐ Build/expand your professional network, identify resources to give you practical experience in a career of interest.	☐ Identify potential projects to further neuroscience research, education, or advocacy, and compete successfully for a job interview.

Adapted from Vederame et al., eLIFE 2018 by Sheila Baker

Recent Accomplishments and/or Challenges
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Goals for the next year

IV.Link to IDP Planning Guide

An editable version of this document is available on the [website](#)

Appendix 5: Graduate Certificate in College Teaching (GCCT) Agreement for Neuroscience Program Students

Student: _____

Research Mentor: _____

Students should submit this completed form to the Program prior to starting coursework.

For details of the Certificate, the student and mentor should consult the GCCT website: <https://education.uiowa.edu/services/office-graduate-teaching-excellence-ogte/graduate-certificate-college-teaching>

The student plans to complete the Graduate Certificate in College Teaching by enrolling in the courses checked below.

A. Part 1: Coursework (minimum 6 s.h. required)

At least one of the following courses **MUST** be taken:

- ☐ EDTL/EPLS/GRAD/RCE/PSQF:7385 Teaching and Learning in Higher Education 3 s.h.
- ☐ GRAD/PSQF:6217 Seminar in College Teaching 3 s.h.
- ☐ EPID:7200 teaching in Epidemiology 3 s.h.
- ☐ SOC:7010 Teaching Sociology 3 s.h.
- ☐ PSQF:6205 Design of Instruction 3 s.h.

One of the following courses **MAY** be taken:

- ☐ PSQF:6211 Universal Design and Accessibility for Online Learning 3 s.h.
- ☐ PSQF:6215 Web-Based Learning 3 s.h.
- ☐ PSQF:6216 Tools and Utilities for Online Teaching 3 s.h.

B. Part 2: Required Teaching (minimum of 2 practica and 3 s.h. required)

Please fill out the semester hours you plan to take for each practicum (1 - 2 sh per practicum).

- ☐ EDTL/EPLS/RCE/PSQF:7380 Practicum in College Teaching, supervised by a College of Education faculty member.

Number of practica: __, Total sh: _____

- ☐ GRAD:7400 Practicum in College Teaching, supervised by a faculty member outside of the College of Education.

Number of practica: __, Total sh: _____

C. Part 3: Required Portfolio (3 s.h. minimum)

☐ EALL:7475 PhD ePortfolio in College Teaching 3 s.h.

D. Tuition Agreement for Teaching Certificate

Tuition for Teaching Certificate Coursework will be paid by:

- ☐ Student
☐ Mentor
☐ Other (describe)

By signing below, I agree to complete the Graduate Certificate in College Teaching as prescribed above.

Student Signature: _____

Date: _____

By signing below, I agree to the student completing the Graduate Certificate in College Teaching as prescribed above.

Mentor Signature: _____

Date: _____

The Neuroscience Graduate Program approves this plan and consents to student completion of the Graduate Certificate in College Teaching.

Program Director Signature: _____

Date: _____