UNIVERSITY of WASHINGTON

GRADUATE PROGRAM IN NEUROSCIENCE

STUDENT & FACULTY HANDBOOK 2026-2027

Last Updated: Fall Quarter 2026

TABLE OF CONTENTS

Table of Contents 2

Program Introduction 5

Leadership 5

Administrative Committees (Program Governance) 6

Communication 6

OneDrive Student Folder 6

Canvas 7

Providing Feedback 7

Annual Program Events 7

Certificate Programs 8

Neural Computation and Engineering Certificate 8

Science, Technology, & Society Studies (STSS) Certificate 8

Ethics Certificate 8

Campus Information 8

Room Reservations 9

IT Connect Software 9

Campus Resources 9

Employment Information 10

Insurance 10

Financial 10

UW Assistantships 11

Washington State Residency 11

Student Employment 11

Workload Expectation 12

Employment Verification 12

Payroll 13

Workday 13

New Employee Required Trainings 14

Requesting Workplace Accomodations 14

Student Fiscal Services 14

Training Grants and Fellowships 14

Travel Funding/Awards 15

Academic Information 16

Overview of PhD Requirements 16
Academic Expectations Policy 17
Milestone Requirements 17
Grade Point Average Requirements 17
Satisfactory Academic Progress 18
Actions for Unsatisfactory Performance and Progress or Academic Misconduct 18
Grievance Procedure 20
Leave 21
Degree Requirements 22
Program Curriculum 22
Core Course Requirements (47 Credits) 23
Electives (at least 12 credits) 24
Course Registration 33
Quarterly Curriculum Schedule 34
Year 1 34
Faculty Advising 34
Trainings 34
Animal Use 34
Lab Safety 35
Lab Rotations 35
Choosing a Rotation Lab 36
Rotation Talks 36
Dissertation Lab Selection 37
Fourth Rotations 37
Annual Individual Development Plan (IDP) for 1st Year Students 38
Year 2+ 38
Teaching Requirement 38
Supervisory Committee 39
Members of the Supervisory Committee 39
Graduate Faculty Locator 40
Changes Made Through MYGRAD 40
General Examination 40
Components of the General Exam 41
Dissertation Proposal Meeting 42
Annual IDP Progress Report for Year 2+ 42

Final Years and Graduation 43
Reading Committee 43
Final Examination 43
Dissertation Guidelines 44
Thesis Binding 44
Graduation Requirements 44
Appendix A. New Student Checklist 45
Appendix B. MSTP Requirements 47
Appendix C. Student-led Events 48
Appendix D. Faculty Codes 49
Appendix E. Program Milestones Checklist 52
Appendix F. Rotation Talk Rubric 53
Appendix G. Faculty On Committees 55
NPR Eligible Faculty 55
Faculty With GPN Appointment 55
Appendix H. General Examination Checklist 56
Appendix I. General Exam Timeline 57
Appendix J. General Exam Format 58
Appendix K. Post General Exam Timeline 60
Appendix L. Final Exam Checklist 61

PROGRAM INTRODUCTION

Welcome to our community. This handbook serves as your essential guide to navigating the academic and administrative aspects of your journey with us. Whether you are just beginning your studies or are already advancing towards your goals, this handbook aims to provide you with crucial information and resources to support your academic, professional, and personal growth.

This handbook is a living document, updated quarterly to provide access to the most current information regarding program requirements, academic policies, and available resources, changes can be tracked on the website. If you encounter any questions or inconsistencies, please do not hesitate to reach out to the Graduate Program Advisor (GPA) or program leadership for clarification.

Within these pages, you will find details about program expectations, academic policies, resources for student support, and detailed milestone checklists. Our commitment is to partner with students so that your graduate experience is both fulfilling and transformative, equipping you with the knowledge, skills, and networks necessary for success in your chosen field.

You are responsible for familiarizing yourself with the contents of this handbook and refer to it regularly throughout your academic journey. Your success is our priority, and we are dedicated to supporting you every step of the way.

Once again, welcome to your PhD journey. We look forward to your contributions and achievements as a valued member of our graduate community.

LEADERSHIP

Maureen Neitz, PhD
Co-Director,
mneitz@uw.edu

Steve Perlmutter, PhD
Co-Director
perl@uw.edu

Céline Abell, M.Ed.
Director of Operations
celinea@uw.edu

Jennifer Simpson
Graduate Program Advisor (GPA)
Ph:206-685-1647
neurogrd@uw.edu

Natalia Montes
Program Operations Specialist
Ph:206-616-8253
neurofinance@uw.edu

STREET ADDRESS

University of Washington
Graduate Program in Neuroscience
1959 NE Pacific Street, T-471 HSB, Box 357270
Seattle, WA 98195-7270

FACULTY

For a list of all faculty, contact information, and research interests, please visit: https://gpneuro.uw.edu/people/faculty/.

ACRONYMS

- Graduate School (GS)
- Graduate Program in Neuroscience (GPN)
- Teaching Internship (TI)
- Graduate Program Advisor (GPA)

ADMINISTRATIVE COMMITTEES (PROGRAM GOVERNANCE)

See website for current listing of committees and program organizational chart.

Students interested in joining a committee will receive a sign-up form from the program office at the end of Spring Quarter. After the form closes, students who wish to join a committee must contact the committee chair directly. If the chair approves the late request, they will need to contact neurofinance@uw.edu to add the student to the committee's email group.

COMMUNICATION

All current students can be reached through listserv: uw_grad_neuro_students@uw.edu. Current individual student emails can also be found on the website.

Other listerv emails:

- Program Directors: uw_grad_neuro_directors@uw.edu
- Program Staff: uw_grad_neuro-staff@uw.edu
- All GPN Faculty: uw_grad_neuro_facutly@uw.edu

Program communication will be through emails. It is the student's responsibility to read program communications.

ONEDRIVE STUDENT FOLDER

Documentation related to students' academic progress in the program can be found in OneDrive.

- Log into OneDrive using UW Net ID and password.
- Students personal and private folder will be found under the **'Shared' folder**.

It is the student's responsibility to ensure that all academic milestones are met and properly documented. In the GPN's commitment to transparency, any document that the student's faculty advisors complete related to their academic progress will be in this folder for their access and review.

CANVAS

Students can access Canvas by logging in at Canvas.uw.edu using their NetID and password. Once logged in, you should see **GPN Support** on your dashboard.

The GPN Support modules include:

- *General Resources* relevant to all students
- Year 1 and Year 2 Student Resources
- Dissertation Stage Student Resources
- Graduate School Hidden Curriculum and Tips for Success

Students are encouraged to post questions on the relevant discussion boards. These boards are monitored by GPN staff to provide guidance and support. Direct links to committee One Drive (SharePoint) folders are also available within Canvas for easy access.

PROVIDING FEEDBACK

GPN values and encourages student feedback. We welcome constructive comments on all aspects of the program, including the curriculum, program policies, the website, and this handbook. Thoughtful input helps us strengthen the program and enhance the student experience. Please note that while all feedback is carefully reviewed, not all suggestions can be implemented exactly as proposed.

You may share feedback through the following avenues:

- **Talk to Directors or Staff.** Request an informal meeting or send feedback directly via email:
  - uw_grad_neuro_directors@uw.edu and uw_grad_neuro-staff@uw.edu
  - You may also email directors and staff individually.
- **Talk to a Course Liaison.** This option allows students to share comments confidentially with designated peers regarding NEURO courses they are currently taking.
- **Program Lunches.** First-year students have a quarterly opportunity to share feedback with the Directors and the Curriculum Committee over lunch. Students may also send feedback to the committee directly:
  - uw_grad_neuro_curriculum-committee@uw.edu
- **Talk to the Dean.** The Graduate School dean hosts a monthly office hour with no appointment required. After joining the Zoom session, attendees enter a waiting room and will be admitted individually. Please look for email announcements regarding upcoming office hours or contact the advisor for the current schedule.

Students seeking support for more serious or sensitive concerns, or for guidance on formal processes, may refer to the Campus Resources and Grievance Procedure sections of this handbook.

ANNUAL PROGRAM EVENTS

ART NEUREAU

An annual neuroscience-themed art show organized every year by students of the Graduate Program in Neuroscience. This is a community outreach event where GPN invites anyone to attend and submit artworks.

PROGRAM KICKOFF

Every Autumn, Neuroscience has a Program Kickoff. Students are required to attend.

CERTIFICATE PROGRAMS

The certificate programs are non-degree granting programs; participation requires that a student be already admitted to the University of Washington. A list of all UW Graduate Certificate Programs can be found here.

NEURAL COMPUTATION AND ENGINEERING CERTIFICATE

The Graduate Certificate Program in Neural Computation and Engineering provides interdisciplinary training for students engaged in quantitative, mathematical, engineering, and computational approaches to problems in neuroscience. The Certificate Program allows enrolled students to receive formal recognition for their studies and facilitates connections within the neural computation and engineering community.

SCIENCE, TECHNOLOGY, & SOCIETY STUDIES (STSS) CERTIFICATE

The Graduate Certificate in STSS offers graduate students an opportunity to pursue a richly interdisciplinary program of study. The field of STSS seeks to understand how natural and social knowledge of the world is produced and authorized, how it evolves and is inflected by the contexts of its production and use, and what its normative implications are. They draw on the resources of a wide range of disciplines, including the cognate fields of history and philosophy of science, social and cultural studies of science and technology, and interdisciplinary studies of ethics, equity, and policy issues in the STEM fields.

ETHICS CERTIFICATE

The Program on Ethics' Graduate Certificate in Ethics is designed to provide students with the knowledge and skills necessary for integrating ethics and ethics scholarship into their chosen field. The curriculum is designed to accommodate diverse student interests and to facilitate cross-disciplinary conversations and scholarship. All students in this program will be required to take either ETHICS 511: *Ethics Matters* or ETHICS 512: *Justice Matters*, additional graduate-level values-laden courses, and a capstone workshop.

CAMPUS INFORMATION

ID CARDS & BUILDING ACCESS

The Husky ID Card is the official identification card for members of the UW community, and it provides access to services and buildings on campus. New UW Seattle students will receive a Husky ID Card by:

1. Visiting the Husky Card Office during walk-in hours to have it issued in person (students can take a picture at the office or submit a picture beforehand). Students will need to bring their 7-digit student ID number and a photo ID, such as a driver's license or passport.
    a. The Husky Card Account and ID Center is located on the ground floor of Odegaard Undergraduate Library, near the By George Café. There is another Husky Card Account and ID Center in the Health Sciences Building BB-120. Operating hours: Monday–Friday, 8 am–4 pm (closed for lunch 12:00-1:00pm) and closed for University Holidays.
2. Submit a request via email to have it printed and/or mailed. Students will need to submit a photo online, get their photo reviewed and approved, and send an email to huskycrd@uw.edu directly from their UW email account (for identity verification purposes).

For more information about the Husky ID Card, visit the Husky Card Services website or email huskycrd@uw.edu.

ROOM RESERVATIONS

Students who need to reserve rooms for committee meetings should first check with their faculty advisor's home department. If the student would like an NBIO room such as G-328 or G-417; then contact the Neuro GPA to request from NBIO. Students may also submit a request for other rooms using Mazevo (sign in with your UW credentials and select "University of Washington, Academic Technologies, Event Services" under Organizations.) For Event Type, choose Exam/Dissertation/Thesis, and Organization as Department of Neuroscience. On the Questions page, under Room Rates, choose "Not Applicable" (because academic events should qualify for a no-charge exception.)

The T469 Overpass Lounge is available for event reservations after 3:30 p.m. during the school year, and available all day during break weeks and summer break. Registered Student Organizations may reserve the lounge as a tabling space using the form below:
RSO Tabling Reservations - CRS Tabling Request Form - Formstack

RSO Tabling Policy - Helpdesk : UW Health Sciences Classroom Services

IT CONNECT SOFTWARE

Here are resources for students to obtain needed software for PC, Mac, iOS, or Android for a full or partial discount through the university.

PRODUCTIVITY PLATFORMS

- UW Microsoft 365 provides access to Outlook, Word, Excel, PowerPoint, OneNote, Teams, OneDrive, etc. for up to 5 computers or tables and 5 smartphones.
- UW Google is UW-IT's implementation of the Google productivity, collaboration, and email platform known as Google Workspace for Education. It is free of advertising and has greater privacy protections.

UWARE

The University of Washington makes several software programs available at low or no cost for students, faculty, and staff. Relevant software includes Matlab, SAGE, Tableau, Mathematic, and SolidWorks.

CAMPUS RESOURCES

Graduate School Handbook

Program, Teaching, and Graduate resources are located on our website.

Students are encouraged to familiarize themselves with Disability Resources for Students (DRS) and Disability Services Office (DSO) and to request accommodations as soon as they anticipate they may be needed.

Additionally, the Civil Rights Office encourages students to submit a form to learn about available resources "If you are pregnant or have experienced a related condition, you may be entitled to modifications, support, and accommodations to help you stay in or return to the University's learning and working environments."

Students experiencing harassment or discrimination are encouraged to seek support through SafeCampus, UAW4121, or the Office of the Ombud. These resources offer guidance on navigating informal processes, understanding formal reporting protocols, and preparing supporting documentation to address their concerns.

EMPLOYMENT INFORMATION

INSURANCE

All Neuroscience students receive their UW-paid medical/dental/vision coverage via the Graduate Appointment Insurance Plan (GAIP). The student is automatically enrolled in GAIP once their appointment in WorkDay is complete. A student must have a GSA (or fellowship/stipend appointment) to qualify for this insurance.

The insurance becomes effective the month after the student is enrolled. After Neuroscience students enroll in September, the insurance will become effective **October 1st.** GAIP insurance cards are typically sent out by mail during the middle of October. A digital copy of the insurance card can be found on the Lifewise website if needed before then.

GAIP also provides student-paid coverage for student dependents (spouse/children/SSDP). If students need dependent coverage, please check the website carefully for instructions and deadlines. The deadlines are strict and usually earlier than for the UW-paid coverage for the student.

Summary PDFs of GAIP Benefits can be found here.

TROUBLESHOOTING LAPSE IN INSURANCE

Contact the UW GAIP office (Uwgaip@uw.edu), the UW Benefits director (bnemeth@uw.edu), and LifeWise (studentinsurance@lifewiseac.com) in a single email to determine the cause of the lapse (departmental delays, UW Benefits delays, LifeWise delays) use RUSH in the subject line. If you do have a GAIP-eligible appointment confirmed in Workday, then UW Benefits can initiate an emergency add to LifeWise which usually processes in 1-2 business days.

FINANCIAL

All students who have a Academic Student Employees (ASE) or fellowship appointment will qualify for a tuition waiver.

Here is an outline of the fees that students will be required to pay. By law, state budgets are not allowed to pay these student fees. Incoming students have already paid a deposit on their fees when accepting their offer and that will be applied towards the fees in their first quarter.

Each student's tuition bill will include any additional charges chosen during registration.

The students' portion is **ALWAYS** due at the end of the 3rd week of the quarter.

TUITION SCHEDULE

The tuition schedule is outlined on the Tuition Dashboard.

Often tuition waivers and payments are often not completed until right before the tuition deadline. If the tuition is still unpaid after the tuition deadline, students should reach out to their appointing departments, and if they are on a training grant, they should reach out to their training grant manager.

STUDENT FEES

Student fees change based on quarters and additional options that students can opt into and includes any additional accrued fees. Students are **required** to pay all their fees before the tuition deadlines (even if their tuition has not yet been paid).

Students can calculate how much fees are owed with the tuition dashboard. Select Payment required. Then include any additional fees that may been opted into or accrued; those should be outlined in the tuition detail account.

RETIREMENT

ASEs can opt into the following tax-advantaged savings plans:

- 457(b) Deferred Compensation Plan
- 403(b) Voluntary Investment Program

Other resources:

- UW Fidelity Net Benefits
- Washington State Department of Retirement Systems

Students are encouraged to meet with a UW Fidelity Representative with any questions about retirement and UW savings accounts or reach out to benefits@uw.edu for questions about general UW benefits.

UW ASSISTANTSHIPS

Students receiving Research Assistantships (RAs) and Teaching Assistantships (TAs) must be enrolled for at least ten credits (two credits in summer quarter) to receive a graduate tuition waiver. When working in these assistantships at a .50 FTE (half-time, 20hrs/week) they will AUTOMATICALLY receive the following benefits:

- Resident Operating Fee Waiver (most of resident tuition, students are responsible for a few fees).
- Graduate Appointee health insurance paid for by the University for the appointee, and half the cost of insuring the student's dependents.
    - Students should fill out the dependent insurance form and submit it by the quarterly due date (see GAIP information) and be registered for 10 credits (2 in summer) by the 10th day of the quarter.

WASHINGTON STATE RESIDENCY

Documentation for establishing residency with the UW Residency Office are:

- Tax forms
- Lease documents
- Driver's License/ID card (w/in 30 days)
- Car registration
- Voter's registration documentation
- Local bank account documentation
- Employment documentation (NEURO offer letter or Workday Info)

STUDENT EMPLOYMENT

One of the most important concepts for students to understand is that they have two concurrent roles within the UW administrative system: they are students, **and** they are employees.

All students who maintain satisfactory academic progress will be supported with a salary, medical/dental benefits, UPASS and tuition waivers (excluding the student activity fees).

Each student's initial payroll appointment at UW will be a GSA, which has automatic benefits and waivers, but is dependent on being enrolled as a full-time (10 credits minimum) graduate student during regular academic year (Autumn, Winter, Spring).

If a student isn't enrolled, then they are not paid and may be disenrolled from the insurance plan if they are on extended leave. The UW payroll system checks the UW student database to determine whether students have registered for classes. If for some reason a student goes off the UW payroll during a quarter, the student's tuition waiver will be cancelled, and that student and any dependents are disenrolled from the insurance plan.

WORKLOAD EXPECTATION

Doctoral training in Neuroscience is a full-time academic and research commitment that combines coursework, independent research, and research service through ASE appointments.

ASE APPOINTMENTS AND WORKLOAD LIMITS

For students holding ASE appointments, workload expectations are governed by the applicable union contract:
ASEs with a 50% FTE appointment are not required to work more than:

- 220 hours per quarter, or
- An average of 20 hours per week,
- Not to exceed 30 hours in any given week without the ASE's consent.

More details of workload should be outlined in the departmentally issued annual reappointment letter.

ACADEMIC CREDIT AND DISSERTATION REGISTRATION

After advancement to candidacy (typically after the second year), doctoral students are generally enrolled in 10 credits of dissertation research per quarter.

UNIVERSITY POLICY DEFINES ACADEMIC CREDIT AS FOLLOWS

1 credit ≈ 3 hours of total student effort per week over a 10-week quarter
Equivalent to 30 hours of total effort per quarter per credit. Dissertation research-related activities include but are not limited to:

- Learning and refining methodology
- Data analysis
- Reading primary literature
- Writing manuscripts, dissertations, or grant materials
- Meetings with advisors and research groups

Actual workloads may vary depending on research stage, coursework, teaching, and individual progress. Students should work closely with their faculty advisors and supervisors to ensure that expectations remain consistent with both educational goals and contractual workload protections.

EMPLOYMENT VERIFICATION

If a student needs to provide verification of employment or income (e.g., for housing, international travel, loans, etc.), they may submit an Employment Verification Request through the Integrated Service Center (ISC).

PAYROLL

The current salary rate for Neuroscience students is listed on the current variable rate tables, check the variable RA Salary Schedule: Biomedical Research Departments.

This income is taxable so there will be federal income tax withholding (except for international students: depending on their country's treaty with the United States). There is no personal state income tax in Washington except for annual income more than $1 million. Each student will pay their portion of workers' compensation.

The GPN is the home payroll for all first-year students during their first 3 rotations. Responsibility for payroll is then transferred to the dissertation advisor's home department when each student enters their dissertation lab. If students work as a TA during their time in their dissertation advisor's department, the salary should continue to be paid at the same rate.

Pay slips generally become available on the 10th and 25th of each month. They each reflect the preceding pay period just completed. **The first pay slip for Autumn Quarter is October 10th** and reflects appointments starting on September 16. Check here for more questions about paydays. If a pay discrepancy is noticed, students should reach out to their department's payroll coordinator. Overpayments will be required to be returned to the University.

WORKDAY

WorkDay is a portal for HR, benefits, and payroll. It's a centralized and standardized cloud-based system for financial and employee management.

Once a job appointment has been set up, employee will receive an automated email about the onboarding activities needing to be complete, in WorkDay:

- I-9s (click for more information about I-9)
- W-2s
- Direct Deposits

Things to do in WorkDay:

- Look at pay slips.
- Get end of year tax information.
- Review and change deductions.

How to enter absences: https://isc.uw.edu/user-guides/enter_absence/

How to access WorkDay using Duo: https://isc.uw.edu/using-workday/accessing-workday/

Direct link here: https://wd5.myworkday.com/wday/authgwy/uw/login.htmld

CHANGING A HOME ADDRESS

1. Log on to Workday on the ISC Page
2. Go to Personal Information
3. Click on Addresses
4. Highlight Home Information
5. Click on Edit
6. Make Sure Primary Address is Seattle and Additional Address is secondary address

7. Edit if needed.

UPDATING YOUR LEGAL NAME IN WORKDAY

Refer to ISC information here: https://isc.uw.edu/user-guides/edit_personal_information/#2-legal-name

Note: there is a separate process at UW if you'd like your preferred name to replace your legal name in UW systems, and/or if you would like to set pronouns: https://identity.uw.edu/

NEW EMPLOYEE REQUIRED TRAININGS

New employees will need to complete the following trainings:

- Husky Prevention & Response (Title IX) – ASEs will need to complete both the employee, *and* the student training courses, as these are separate and contain different information relevant to each role.
- Violence Prevention & Response
- Reporting Suspected Child Abuse
- Asbestos Awareness
- Hazing Prevention

REQUESTING WORKPLACE ACCOMODATIONS

If at any point during your ASE appointment you need to request accommodation, visit Disability Services Office (DSO) for assistance related to your working environment as a student employee.

STUDENT FISCAL SERVICES

It is important to set up a student account direct deposit. Please follow the instructions here: https://finance.uw.edu/sfs/how-set-direct-deposit

FINANCIAL AID

Some students may require additional funding for books, childcare, etc. If so, students may consider applying for financial aid through the University of Washington's Financial Aid Office or various other outside funding agencies. These sources are not generally available to international students.

TRAINING GRANTS AND FELLOWSHIPS

While the Faculty Advisors home department provides funding for students maintaining satisfactory academic progress, it is strongly encouraged for all eligible students to apply for independent funding.

INDIVIDUAL FELLOWSHIPS

- NSF Fellowships
- Paul & Daisy Soros Fellowships for New Americans

Note that the NSF fellowships are unusual in that individuals may apply for support before they have been accepted into a graduate program.

TRAVEL FUNDING/AWARDS

Graduate and Professional Student Senate's Travel Grant

Neuroscience students who will be presenting their research at scientific conferences are eligible to apply for travel awards provided by the Graduate and Professional Student Senate and University of Washington Graduate School.

Students who wish to apply for the Graduate and Professional Student Senate's Travel Grant should apply directly through the student application on Graduate and Professional Student Senate website. The requirements, eligibility, and application process can be found through their website.

University of Washington Graduate School's Conference Presentation Award

Students who wish to apply for the University of Washington Graduate School's Conference Presentation Award should contact the Neuroscience Graduate Program Advisor (GPA) (see request process below). The GPN will submit applications to the Graduate School each quarter on a rolling basis as they are received.

The Graduate School has limited funding, so not all applications submitted from the GPN are guaranteed to be funded. The Graduate School states that "Individual awards are limited to one every other year (July 1 - June 30)" and "Priority will be given to graduate students who do not have other funding available for the conference and/or who have not received a Graduate School Conference Presentation Award in the past."

Conference presentation awards assist graduate students with travel fares and conference registration fees for conferences at which they will present papers, posters, performances, or installations.

The Graduate School awards cover travel costs up to:

- $300 for virtual conference registration fee
- $300 for domestic travel and conference registration fee
- $500 for international travel and conference registration fee

Award eligibility, priorities, and requirements can be found on the website listed above.

Request Process

Email the GPA prior to the conference with the following information:

- Title of the paper, poster, presentation, or installation
- Conference dates and website address
- Travel dates and location of conference
- Confirmation of presentation at the conference (e.g. acceptance letter or conference schedule)
- Whether the student applied for or been offered other funding for the conference (e.g. from the conference, department, faculty or GPSS). If yes, source and amount offered.
- **Check that you are registered for the quarter of the conference.** Per the Grad School's requirements: *Is the student registered at UW in the quarter the conference occurs (or the previous spring and upcoming autumn for summer conferences)?*

ACADEMIC INFORMATION

OVERVIEW OF PHD REQUIREMENTS

GRADUATE SCHOOL MINIMUM REQUIREMENTS

It is the responsibility of the student to meet the minimum graduate school requirements. Most are met by the GPN course requirements, but they should be considered when selecting elective courses.

CORE COURSES

During the first year, Neuroscience students are required to take a series of seven graduate level courses that provide exposure to core principles of Neuroscience: NEURO 501, NEURO 502, NEURO 503, NEURO 504, NEURO 527, NEURO 529, NEURO 545, and NEURO 559. And all students are expected to attend the GPN seminar series (NEURO 510) throughout their graduate careers. Students will receive credit for this course during their first two years. For more information, see course requirements.

ELECTIVES

Students complement their coursework with general and DEI-related electives in their areas of interest. Students must complete electives totaling at least 10 general elective credits and 2 DEI-related credits. After their first year, students should consult with their dissertation advisor and Supervisory Committee to determine an appropriate curriculum for elective courses. A list of electives and more information can be found in the elective requirements.

LAB ROTATION

During the first year, students are required to complete three one-quarter laboratory rotations (NEURO 526). At the end of each rotation, students will deliver a short oral presentation describing their research. For more information, see lab rotations.

TEACHING REQUIREMENT

Students are expected to develop proficiency in teaching neuroscience to undergraduate and/or graduate students. A minimum of 6 course credits (Teaching Practicum, NEURO 515) is required for graduation. For more information, see teaching requirements. Students are encouraged to review teaching resources.

GENERAL EXAM

Students MUST take their General Examination by the end of the Spring Quarter of their 2nd Year. The General Exam consists of two written components and two oral sections. The student must pass the General Exam to advance towards Ph.D. candidacy. Registration as a graduate student is required in the quarter the exam is taken. For more information, see general examination.

FINAL EXAM

The Final Exam is the culmination of each student's graduate career and an opportunity for the student to present their dissertation research in a public forum and discuss their research in depth with the supervisory committee. Students must pass the defense of the dissertation. Registration as a graduate student is required the quarter the exam is taken, and the degree is conferred. To graduate with a doctoral degree, students must complete the final submission of their thesis/dissertation. For more information about preparing for and completing the Final Exam, see final exam.

ACADEMIC EXPECTATIONS POLICY

Students are expected to complete their coursework, exams, and dissertation research in a professional manner and to positively represent the University of Washington Graduate School and the GPN. Students, faculty, and staff should use the following guidelines and the linked UW and Graduate School policies to determine parameters for academic performance, progress, and misconduct. For students struggling with these expectations, the program will make every effort to provide early, appropriate, and consistent interventions to support student success.

The GPN follows the UW Graduate School's general guidelines for defining academic progress and performance.

MILESTONE REQUIREMENTS

Timely completion of the program milestones is an important component of satisfactory progress for GPN students. A full list of program milestones are given in Appendix E. Key milestones include the following.

- Enter a dissertation laboratory by the end of the third lab rotation at the end of the third Quarter.
- Meet with their Supervisory Committee at least once a year to provide an update on dissertation research and review and update the Individual Development Plan (IDP).
- Complete each academic milestone in a timely manner.
- Complete the PhD within 5-6 years upon entering the program. Taking more than 7 years may be considered unsatisfactory progress and result in the loss of financial support (salary/benefits/tuition).

After the student's Annual Supervisory Committee meeting, a revised IDP will be submitted by the student, along with an evaluation section completed by the student's dissertation advisor. This document will be reviewed by the Student Advancement Committee.

YEARLY REPORTING REQUIREMENTS

Item	Deadline	Action Items
Annual Supervisory Committee Meeting	Held before the IDP submission	Begin coordinating with committee members in Spring Quarter to ensure the IDP can be completed in a timely and efficient manner. Review previous year's IDP for review at Annual Supervisory Committee Meeting.
Annual Individual Development Plan (IDP)	Last day of Summer Quarter	Submit new IDP to neurogrd@uw.edu.
Run a DARS Audit in MyPlan	Recommended Quarterly / when planning registration	Notify GPA of any inaccuracies or missing waivers.

GRADE POINT AVERAGE REQUIREMENTS

Grades will be monitored on a quarterly basis by the GPA and faculty leadership. The following standards must be met to be considered satisfactory progress.

All students must:

- Achieve quarterly and cumulative grade point averages of at least 3.0 throughout their graduate career.

- Receive a grade of at least 2.7 in any 400-500 level course taken during their graduate studies.
- Receive a Credit for all required (i.e., core) Credit/No Credit courses.

Cumulative and quarterly GPAs are computed on courses taken while the student is enrolled in the UW Graduate School. Computation is based only on courses numbered 400-599; courses graded S/NS, and CR/NC/N are excluded, as are the 600-800 series. Refer to the Graduate School policy and catalog for further information on grades.

Grades are available for view via MyUW the Wednesday after the grading deadline(first Tuesday after the end of a quarter). Neuroscience administrative staff monitor grade reporting and send reminders to faculty about the deadlines. If you have a concern about a grade, please reach out to your instructor and/or the GPA.

It's recommended that students communicate with instructors to resolve an "Incomplete Grade" as soon as possible. Note: Our program discourages instructors from recording "X" or "N" placeholder grades for 600/800 dissertation credits because students should be receiving accurate quarterly feedback about their progress.

ACADEMIC MISCONDUCT

Any infraction of academic misconduct qualifies as failing to meet expectations for performance and progress. Academic misconduct includes plagiarism, multiple submissions of a single paper, cheating on an exam, illegal collaboration, and falsification of research. For more information, see the Student Conduct Code. The GPN follows the University of Washington's procedures for Academic Misconduct, and the Student Conduct Process. In addition to the school's process, faculty, students, and staff are asked to inform the program director in cases of suspected misconduct.

SATISFACTORY ACADEMIC PROGRESS

Satisfactory academic performance and progress consist of maintaining minimum grade point averages, CR grades, completing academic milestones by deadlines (see milestones and GS Policy 3.7) and meeting satisfactory scholarly (lab/research) performance defined by faculty advisor.

ACTIONS FOR UNSATISFACTORY PERFORMANCE AND PROGRESS OR ACADEMIC MISCONDUCT

Per Graduate School Policy 3.7, three sequential levels of disciplinary action may be taken if determination of unsatisfactory performance and progress is made in consideration of a student's progress in the program or to an individually negotiated schedule - Academic Notification, Academic Alert, Final Academic Alert. At each level, students will be provided with a written explanation of performance expectations, clear descriptions of performance benchmarks and outcomes that would demonstrate improvements, and a timetable for demonstrating progress or achievement of these benchmarks. If unsatisfactory performance or progress or misconduct is not resolved, a student may be subject to Academic Drop from the program.

In each situation, student should meet with the GPA and can request to meet with program leadership to review a letter from the program advancement committee including: 1) The circumstances involved and evidence that the action requested is supported by program leadership, 2) necessary steps and a timeline articulating what a student must do to return to good standing, and 3) consequences if the plan is not acted on.

Recommendations for academic alert, final academic alert, and academic drop will be reviewed by the Dean of the Graduate School. Recommendations are noted on a student's unofficial transcript. In addition to notification from the program, students will receive final academic alert and academic drop status letters from the Dean of the Graduate School. No action will appear on the transcript for any subsequent quarter unless a new recommendation is made by the Dean.

Funding will be revoked for students who are unable to secure a lab in the first year. For students in year two and above, up to two consecutive Academic Alert quarters will continue to be funded (Academic Alert and Final Alert). If student corrects the condition outlined in the alert letter they will move back to satisfactory progress status.

In circumstances where the program has previously sent multiple Notifications or Alerts to a student, or where continued failure in laboratory puts community members or partnerships at risk, the program may bypass statuses and move students directly into Final Academic Alert or, rarely, Academic Drop.

ACADEMIC NOTIFICATION – MISSED MILESTONE (MM)

A Missed Milestone Acknowledgement Letter, also known as an 'academic notification' is issued in the following circumstances:

1. Student's cumulative GPA drops below 3.0, or received a 2.6 or lower in a core course they will stay on MM until course has been retaken for a 2.7 or higher.
2. Student missed submitting an IDP (or other required milestone program form).
3. Faculty advisor can choose to start a student at MM rather than Academic Alert for not meeting expectations for performance and progress.

This step can be skipped at the discretion of the program.

ACADEMIC ALERT

A previous academic alert or missed milestone notification is not necessary for a student to be placed on Academic Alert.

Academic Alert is issued in the following circumstances:

1. Student has not corrected the condition that caused the Academic Notification action within the time limit specified.
2. Students failed to meet expectations for performance and progress, including a missed milestone or their cumulative GPA stayed below 3.0 for two consecutive quarters.

As outlined in the student offer letters, funding is contingent upon maintaining satisfactory academic progress. Once a student is on academic alert, they are no longer considered to be making satisfactory academic progress and therefore are no longer guaranteed financial support.

Please note that during leave, the Academic Alert action will stay stagnant and will escalate upon return.

FINAL ACADEMIC ALERT

A previous academic alert or missed milestone notification is not necessary for a student to be placed on Academic Alert if student has previously been sent multiple Notifications or Alerts or puts community members or partnerships at risk.

Final Academic Alert is issued in the following circumstances:

1. Student has not joined a lab after three rotations.
2. Student has not corrected the condition that caused the Academic Alert action within the time specified.
3. Student has not progressed toward timely completion of the program.
4. Student has not met expectations for performance and progress, including a missed milestone or their cumulative GPA stays below 3.0.

As outlined in the student offer letters, funding is contingent upon maintaining satisfactory academic progress. Once a student is on academic alert, they are no longer considered to be making satisfactory academic progress and

therefore are no longer guaranteed financial support. If a student has been on two consecutive quarters of Alert they will no longer receive funding. Once student's funding is revoked, they may seek alternative funding (via financial aid, grants, external fellowships, loans etc.) or opt to pay tuition out-of-pocket.

The program only provides one quarter of Final Alert. If it is determined that near completion or graduation can reasonably be achieved within one additional quarter, the program may offer the student the opportunity to enroll in an additional unfunded (self-paid) quarter. The program makes that determination in conjunction with the committee by evaluating the progress made toward the outlined milestones in the alert letter.

Please note that during leave, the Academic Alert action will stay stagnant and will escalate upon return.

ACADEMIC DROP

An Academic "Drop" from the program is issued as a final action for students who have not corrected the condition(s) that caused the Final Academic Alert recommendation within the time limit specified. A student cannot continue in the program after Academic Drop.

GRIEVANCE PROCEDURE

Occasionally, students may encounter significant challenges during their time at the University. Students should review the information below and are encouraged to consult with GPN leadership to seek resolution. If the issue cannot be resolved through Informal Conciliation, the Graduate School Policy: Academic Grievance Procedure outlines the next steps.

Certain matters such as grades, discrimination, and disciplinary actions, follow specific separate procedures.

- **Grading:** If a student believes they have been graded inappropriately on an assignment or exam or given a final course grade that is inappropriate, please refer to the Grade Appeal process.
- **Academic Misconduct:** If a student has been accused of cheating, plagiarism, or other academic misconduct, please refer to the Academic Misconduct process.
- **Discrimination or Retaliation:** If a student has experienced harassment by a UW employee, including in the classroom or while otherwise engaged in an academic experience, please refer to the University's Civil Rights Compliance Office (CRC), which responds to reports that fall within the University's Executive Order No. 81: Prohibiting Discrimination, Harassment, and Sexual Misconduct. UW employees are required to report any instances that involve harassment or discrimination and can do so anonymously/named.
- **ASE Issues**: If a student has experienced unfair or inappropriate treatment directly related to their employment as a TA, RA, or SA, please refer to the ASE union website for information on Academic Student Employee Grievances.
- **Faculty Conduct Violations:** If a student is alleging that a faculty member has violated a rule or regulation of the University, please refer to procedures outlined in the Faculty Code Section 25-71 on "Standard of Conduct.

Students who believe they have been unfairly treated in the administration of academic policies may file an academic grievance in accordance with Executive Order 58.

INFORMAL CONCILIATION

Students are required to attempt good-faith resolution with the involved faculty or staff member within 90 days (including weekends and holidays) of the incident. The Office of the Ombud is also available for confidential consultation.

STUDENT ACADEMIC GRIEVANCE COMMITTEE APPOINTMENT

If the grievance is not resolved via informal conciliation, to initiate a grievance the student should complete and submit a Request for Academic Grievance Form.

The directors will review the submitted and completed form. If there is a reasonable case that a policy was not followed the directors will appoint an ad hoc committee composed of three GPN faculty (not the directors) and two GPN students (one faculty member will serve as chair). The committee must be fair and impartial.

Hearing Procedures

1. The GPN directors notify all involved parties and share the written grievance. The committee chair schedules a hearing within **15 business days** of the formal request.
2. Parties may personally present relevant evidence and testimony. Only information presented during the hearing will be considered.
3. Hearings are closed unless all parties agree to open them.
4. The record of proceedings will be maintained for **five years**.
5. Within **10 business days** after the hearing, the committee submits a report (including findings, conclusions, and recommendations) to the GPN directors and all parties. A majority vote determines the outcome; dissenting opinions may be included.
6. Within **10 business days** of receiving the report, the GPN directors will issue a decision and outline any actions to be taken. This decision stands, unless appealed.

APPEALS PROCESS

Per GS Policy 3.8.3, if there are grounds of non-uniformity in the application of this grievance procedure, students may appeal the decision within **15 business days** to the **Dean of the Graduate School**. Refer to the policy for appeal instructions.

LEAVE

SINGLE QUARTER

If students do not plan on registering for credits during any Quarter, they will need to submit an online Request for On-Leave Status through MyGrad. Students should email the GPA to inform them of any requests, petitions, or changes made through MyGrad. Review the GS Policy regarding on-leave for information about privileges and important considerations during leave status; students on F-1 and J-1 visas must work with ISS.

For any given quarter, they may submit the request as early as two weeks prior to the beginning of the quarter and no later than the last day of instruction for the quarter. Once leave has been requested, please promptly email the GPA to review the request. Typically singe-quarter leave requests are approved, but the Program Directors reserve the right to deny a leave request if there are concerns about academic progress and/or other issues raised by the dissertation advisor. Students must also submit the on-leave fee by the last day of the quarter; see deadlines.

NOTE: As soon as students know they are planning to take leave**,** students must notify the GPN and student's PI's home department (after first year) because payroll will need to be updated.

ASEs may keep their insurance while on a GAIP: leave of absence, if all eligibility requirements are met; review instructions outlined on their website and file a LOA request.

SUMMER QUARTER

Summer quarter is a “vacation” quarter for many graduate programs, and graduate students do not request leave in MyGrad. However, GPN students are typically registered for 2 dissertation credits as they continue work and

research in their advisor's lab and receive payment for their ASE appointment. GPN students who are planning to not register in Summer and not work, must communicate their leave plans to their advisor and the GPN program so payroll and work arrangements can be made.

EXTENDED LEAVE OF ABSENCE (CONTINUOUS & MULTIPLE QUARTERS)

An extended leave of absence is a temporary interruption of a student's enrollment in the program and can be requested after completion of the first year in the program. It can be requested for various personal, academic, or professional reasons. Students may request a leave of absence for up to four quarters, including the summer quarter during their PhD.

Students planning on multiple quarters of leave must review the Request for Extended Leave Form with their dissertation advisor and then submit to the GPA at least one quarter in advance.

Leave requests will be reviewed by the Program Directors. Leave approvals will be granted on a case-by-case basis, taking into consideration the student's academic and research progress, as well as the reason for the leave. The Program Directors reserve the right to deny a leave request if there are concerns about academic and research progress, performance issues, and/or other issues raised by the dissertation advisor.

WASHINGTON'S PAID FAMILY AND MEDICAL LEAVE PROGRAM (PFML)

Paid Family and Medical Leave is a benefit for Washington workers. It's here for you when a serious health condition prevents you from working or when you need time to care for a family member, bond with a new child or spend time with a family member preparing for military service overseas.

The program cannot advise on the process: https://paidleave.wa.gov/

DEGREE REQUIREMENTS

The degree may be completed in five to six years, through two years of coursework with the remaining time for dissertation research, primary data collection, writing, and a dissertations defense. Students are responsible for knowing and meeting the Graduate School Minimum Requirements.

PROGRAM CURRICULUM

All students are required to complete a minimum of 90 credits. This includes a minimum of 47 credits in the core requirements, 31 dissertation credits, and 12 credits in the elective courses.

CURRICULUM REQUIREMENTS	CREDITS
CORE CREDITS	**47**
NEURO 501 - Introduction to Neurobiology I	(3)
NEURO 502 - Introduction to Neurobiology II	(5)
NEURO 503 - Cognitive and Integrative Neurobiology	(4)
NEURO 504 - Biophysics of Nerve, Muscle, and Synapse	(3)
NEURO 510 - Seminar in Neuroscience	(3)
NEURO 515 - Teaching Practicum	(6)

NEURO 526 - Introduction to Laboratory Research	(12)
NEURO 527 - Current Topics in Neuroscience	(3)
NEURO 529 - Experimental Design & Grant Writing	(2)
NEURO 545 - Quantitative Methods in Neuroscience	(3)
NEURO 559 – Neurobiology of Disease	(3)
ELECTIVES Elective Courses Elective Course with DEI focus	**12** (10) (2 MIN)
Dissertation (Neuro 800)	**31**
Total Credits Required	**90**

CORE COURSE REQUIREMENTS (47 CREDITS)

All First-Year students are required to take all core courses except NEURO 515, 600 and 800 (these are taken after the completion of the first year). A general overview of the course registered by quarter of a Neuroscience student's first and second year can be found here.

NEURO 501 Introduction to Neurobiology: Molecular & Cellular Neurobiology (3) ***Autumn***
Survey of molecular, cellular, and development neuroscience, including gene regulation, the cytoskeleton, protein sorting in the secretory pathway, neuronal pathfinding, synaptogenesis, glial cells, growth factors, programed cell death, and neurotransmitter receptors. Includes lecture discussion of original literature.

NEURO 502 Introduction to Neurobiology: Sensory & Motor Systems (5) ***Winter***
Systems level survey of vertebrate system, focusing on sensory system, on motor system, and on neuroanatomy. Lectures cover topics in sensory and motor systems. Laboratory includes brain dissection and study of intact, prosecuted, and sectioned brain and spinal cord. Emphasis on human nervous system.

NEURO 503 Cognitive and Integrative Neuroscience (4) ***Spring***
A discussion of higher neural processes like learning, memory, and decision making. Lecture and discussion of original literature, exercises in data analysis and quantitative reasoning.

NEURO 504 Biophysics of Nerve, Muscle, and Synapse (3) ***Spring***
Introduces biophysical properties of nerve and muscle cells. Topics include intrinsic electrical properties of neurons, ion channels, receptor signaling, calcium signaling, contraction of muscles, and synaptic function. Offered: jointly with P BIO 504.

NEURO 510 Seminar in Neuroscience (.5, max. 30) ***Autumn, Winter, and Spring***
Weekly seminar on current topics in neuroscience. Attendance is expected throughout graduate training. Required for first- and second-year students. Credit/No-Credit only.

NEURO 515 Teaching Practicum in Neuroscience (3-6) ***Autumn, Winter, Spring, Summer***
Supervised training in the teaching of neuroscience and related scientific topics. Prerequisite: graduate standing in the neuroscience graduate program and permission of the instructor. Credit/No-credit only.

NEURO 526 Introduction to Laboratory Research in Neurobiology & Behavior (4)
Autumn, Winter, Spring, Summer
Students carry out research projects in the laboratories of different faculty members on a quarterly rotation basis. Required for first-year students. Credit/No-Credit Only.

NEURO 527 Current Topics in Neuroscience (1) *Autumn, Winter, and Spring*
Presentation and critical discussion of classic and contemporary impactful neuroscience research articles. Required for first year graduate students in neuroscience graduate program and by permission of instructor. Credit/No-Credit only.

NEURO 529 Experimental Design and NSF Grant Writing (2) *Summer*
Students take this course during their first summer quarter. Students taking this course should not register for NEURO 600 simultaneously, as students are only required to register for 2 credits during summer quarter.

NEURO 545 Quantitative Methods in Neuroscience (3) *Autumn, Winter, and Spring*
Provides exposure to a variety of quantitative methods that are applicable to the study of the nervous system. It provides an intensive tutorial on mathematical methods and their application to neuroscience research. The course format revolves around computer exercises and discussion of journal papers. Topics can include linear systems theory, Fourier analysis, ordinary differential equations, stochastic processes, signal detection theory and information theory. Required for all first-year students.

NEURO 559 Neurobiology of Disease (3) *Spring*
Introduces medically important neurological and psychiatric diseases and experimental approaches to understand the basis for disease and their treatments. Covers stroke, epilepsy, autoimmune diseases of the CNS, neurodegenerative diseases, neuromuscular disease, substance abuse disorders, psychosis, anxiety disorder, and mood disorder.

NEURO 600 Neurobiology & Behavior Research/Independent Study (variable, max. 10)
Autumn, Winter, Spring, Summer
Independent research. Taken prior to General Examination. Students should begin registering for NEURO 600 in the Autumn of the 2nd year in the program. These credits act as a filler to help students build a full-time schedule around their elective credits. For example, for students taking one 5 credit elective course in Autumn, they must register for 5 credits of NEURO 600 to bring schedule to 10 credits needed to remain a full-time student during the regular academic year.

NEURO 800 Doctoral Dissertation (variable – max 10 cr.) *Autumn, Winter, Spring, Summer*
Dissertation research. Taken after completion of General Examination. Limited to candidate-level graduate students in the program (GS Policy 2.1).

ELECTIVES (AT LEAST 12 CREDITS)

Elective credits are flexible and should relate to the students' interests. The courses included below are to provide students an idea of what courses can and have been used to meet program requirements. Course offerings are continuously changing, and the listings below might not accurately reflect what is current, please refer to the online time schedule for most updated course offerings. Please be aware that not every course is offered every year. Also note that while the GPN lists electives that have been taken by NEURO students in the past, depending on who the

instructor is each year, the instructor *may* restrict the course enrollment to disallow non-majors. If the listed course has been discontinued, please contact the Neuro GPA.

Neuroscience Elective Courses is a living document maintained by the Neuro GPA (log in with your UW Net ID for viewing access) to try to provide clarification about what electives are active and when they are offered.

Students may take an elective either as graded or S/NS (if allowed by the course instructor).

Students are encouraged to speak with other students and dissertation advisors to find courses that best meet their interests and needs. All students MUST discuss their Elective Course Plan with their dissertation advisor.

During students' first year, most students should enroll for only the required core courses; if a first-year student is interested in taking an elective course that will not be offered during their second year, the student should submit an Elective Petition Form. Students may also petition for permission to use a course which is not listed below, but which has been determined to be useful for their dissertation research. It must be submitted two weeks before the quarter the student plans on taking the elective.

ELECTIVES OPTIONS

AMATH 422/522 Computational Modeling of Biological Systems (3-5)
Examines fundamental models that arise in biology and their analysis through modern scientific computing. Covers discrete and continuous-time dynamics, in deterministic and stochastic settings, with application from molecular biology to neuroscience to population dynamics; statistical analysis of experimental data; and MATLAB and/or Python programming from scratch. Prerequisite: either a course in differential equations or permission of instructor.

AMATH 533 Neural Control of Movement: A Computational Perspective (3)
Systematic overview of sensorimotor function on multiple levels of analysis, with emphasis on the phenomenology amendable to computational modeling. Topics include musculoskeletal mechanics, neural networks, optimal control and Bayesian inference, learning and adaptation, internal models, and neural coding and decoding. Prerequisite: vector calculus, linear algebra, MATLAB, Python, or permission of instructor. Offered: jointly with CSE 529.

BIOEN 498 Special Topics in Cardiac Physiology (1-6, max. 15)
Topics of current interest in the field, offered as lectures, conferences, or laboratory.

BIOL 418 Biological Clocks and Rhythms (4)
Examines circadian rhythms and other forms of biological rhythmicity, including annual and tidal rhythms. Includes theoretical background as well as aspects that range from the molecular and cellular basis to the ecological and evolutionary implications of biological rhythms. Prerequisite: BIOL 350 or BIOL 355.

BIOL 429 Organ Development, Homeostasis and Regeneration (3)
How essential organ systems are built during development and maintained throughout life. Analyses of selected organs (hear, limbs, and skin) in vertebrate model organisms. Examines the promise that regeneration-competent systems hold for improving outcomes after severe organ damage in humans. Prerequisite: BIOL 355; and either BIOL 401, BIOL 405, BIOL 411, BIOC 405, or BIOC 440.

BIOL 580 Seminar in Biostatistics (*, max. 30)
Presentation and discussion of special topics and research results in biostatistics. Speakers include resident faculty, visiting scientists, and advanced graduate students. Offered: AWSp.

BIOST 517 Applied Biostatistics I (4) *Autumn*
Introduction to the analysis of biomedical data. Descriptive and inferential statistical analysis for discrete, continuous, and right-censored random variables. Analytic methods based on elementary parametric and non-parametric models for one sample; two sample (independent and paired), stratified sample, and simple regression problems.

BIOST 518 Applied Biostatistics II (4) *Winter*
Multiple regression for continuous, discrete, and right-censored response variables, including dummy variables, transformations, and interactions. Introduction to regression with correlated outcome data. Model and case diagnostics. Computer assignments using real data and standard statistical computer packages. Prerequisite: BIOST 517 or permission of instructor.

CONJ 532 Signal Transduction from the Cell Membrane to the Nucleus (2) *Autumn*
Intracellular signaling pathways leading from cell membrane receptors to nucleus. Pathways activated by seven transmembrane receptors and G-proteins, insulin/PI3 kinase, nitric oxide and WNTs and mechanisms of signal termination. Cytokine/Jak/Stat signaling and role of subcellular localization in signal transduction. Prerequisite: basic knowledge of biochemistry. Offered: jointly with PHCOL 502.

CONJ 534 Selected Problems in Nervous System Development (1.5)
Introduces students to current issues in developmental neurobiology. Topics include regionalization of the neuroectoderm, mechanisms of neurogenesis, axon patterning and plasticity, and cell death. Not intended to be comprehensive; examines the experimental basis for current views in the field of a few topical issues.

CONJ 541 Molecular Biology of Cellular Processes (1.5) *Spring*
Translational control; cytoskeleton and molecular motors; protein targeting, sorting and secretion; apoptosis; regulation of cell function by extracellular matrix. Prerequisite: comprehensive undergraduate course in biochemistry and molecular biology or permission of instructor.

CONJ 542 Cell Biology of Development (3) *Autumn*
Molecular mechanisms of development with emphasis on cell biological processes. Prerequisite: comprehensive undergraduate courses in biology, molecular biology, or permission of instructor.

CONJ 556 Drug Addiction: Mechanisms, Prevention, and Treatment (2) *Autumn*
Key advances, insights, methods, and challenges for our understanding of drug addiction from psychological, pharmacological, psychiatric, community prevention, legal and neurodevelopmental perspectives. Enhances familiarity with the multidisciplinary approaches required to understand addiction as a disease.

CSE 599 Special Topics in Computer Science (1-5, max. 30)
Studies of emerging areas and specialized topics in computer science.

NEURO 511 Seminar in Advanced Neurobiology (1-3, max. 30)
Weekly faculty lectures, student presentations, and discussions of past and current scientific literature in neurobiology and behavior.

NEURO 512 Readings in Advanced Neurobiology and Behavior (1-3, max. 30)
Guided study of the primary literature of neurobiology and behavior. Emphasizes critical analysis, accuracy of expression, bibliographical technique, and other factors of good scholarship. Prerequisite: permission of instructor. Credit/no-credit only.

NEURO 528 Computational Neuroscience (3)
Introduction to computational methods for understanding nervous systems and the principles governing their operation. Topics include representation of information by spiking neurons, information processing in neural circuits, and algorithms for adaptation and learning. Prerequisite: elementary calculus, linear algebra, and statistics, or permission of instructor. Offered: jointly with CSE 528.

NEURO 541 Neuroendocrinology (3)
Emphasizes the cellular and molecular aspects of several topics in neuroendocrinology, including neuropeptide genes, reproduction, steroid hormone regulation of gene expression, mechanisms of hormone action, endocrine rhythms, and neural oscillations. Prerequisite: BIOL 220; BIOC 442 or permission of instructor. Offered: jointly with P BIO 509.

NEURO 548 Molecular Mechanisms of Synaptic Plasticity (2)
Discusses recent primary literature on the molecular mechanisms underlying structural and functional changes of dendritic spines and synapses in the mammalian brain as result of synaptic activity and experience. Offered: jointly with P BIO 548.

NEURO 550 Biophysics of Calcium Signaling (1)
Introduction to cellular calcium signaling including theoretical and technical issues of calcium signal detection and biological conclusions. Prerequisite: CONJ 531. Offered: jointly with P BIO 550.

NEURO 554 Motor Learning: Cellular and Network Mechanisms (1)
Five-week mini-course reviews the current state of research on cellular and network mechanism of motor learning. After an introductory overview of behavioral and physiological examples of motor learning in various species and systems, students choose specific topics for discussion, using the primary literature as a source. Offered: jointly with P BIO 554.

NEURO 556 Axon Pathfinding Mechanisms (1)
Examines mechanisms governing axon growth cone behavior during embryonic development and during regeneration in injured adults. Discusses approaches employing both invertebrate and vertebrate model systems. Offered: jointly with P BIO 556.

NEURO 557 Ion Channel Gating (1)
Compares and contrasts mechanisms of gating in ligand-gated and voltage-gated ion channels. Covers basic of ligand gating and voltage gating, kinetic schemes, inactivation and desensitization, gating currents and partial agonists, and ion channel structure. Offered: jointly with P BIO 557.

PHCOL 529 Ion Channel Pharmacology (2)
Current topics in ion channel structure, function, genetics, and pharmacology, including consideration of role in electrical signaling in cell membranes and information transfer and processing in nervous system, inherited diseases of ion channels, and sites and mechanisms of action of drugs and toxins. Prerequisite: CONJ 532 and CONJ 536 or permission of instructor.

PHCOL 530 Neuronal Signaling Pathways (2)
Advanced consideration of the molecular events between drug or hormone binding to receptors and the resulting responses. Emphasizes roles played by signal transduction pathways in regulation of synaptic plasticity, memory formation, neuronal apoptosis, and developmental neurobiology. Prerequisite: UCONJ 532 or permission of instructor.

PHCOL 534 Molecular Basis of Addictive Drug Action (2)
Advanced consideration and discussion of current literature addressing the basis of opiate, psychostimulant, and cannabinoid effects on signal transduction events, electrical activity of neurons, and drip-motivated behaviors in animal models of human drug abuse. Prerequisite: PHCOL 512 or permission of instructor.

PHCOL 562 Molecular Basis For Motivated Behavior (1)
Discussion of research strategies and methodologies involved in the regulation of motivated behavior by understanding signal transduction and synaptic physiology. Emphasis on practical problem solving, data analysis, and presentation methods important to modern scientific work. Prerequisite: Permission of instructor.

PSYCH 408 Neuroethology (4)
Comparative exploration of the neural, hormonal, and genetic mechanism that control behaviors necessary for survival and reproduction in animals. Model systems discussed include animal communication, mate choice, escape behavior, spatial orientation, homing and migration, and biological rhythms. Students are expected to understand fundamental concepts of neuroscience from any of the following prerequisite courses. Prerequisite: either PSYCH 333 OR BIOL 220. Offered: jointly with BIOL 408.

PSYCH 420 Drugs and Behavior (3)
Animal and clinical research on the behavioral consequences of drug intake. Prerequisite: PSYCH 322.

PSYCH 421 Neural Basis of Behavior (5)
Anatomical and physiological principles and resultant behavior are involved in the integrative action of the nervous system. Prerequisite: minimum 2.0 grade in PSYCH 202.

PSYCH 426 Neurobiology of Learning and Memory (4)
Theory and research on how animals learn and remember, including basic concepts of brain plasticity, how brain areas and neurons adapt to changes in experiences throughout the lifespan, and cellular and structural substrates of a “memory.” Prerequisite: a minimum grade of 2.0 in either PSYCH 302, PSYCH 322, PSYCH 333, or PSYCH 421.

PSYCH 504 Core Concepts in Behavioral Neuroscience (3)
Historical and contemporary perspectives in behavioral neuroscience. Current methodologies and research strategies. May include sensory processing, genetics, behavioral neuroendocrinology, developmental neural plasticity, neurobiology of learning and memory, lifespan perspectives on behavioral neurobiology, and psychopharmacology. Prerequisite: graduate standing in psychology, or permission of instructor.

PSYCH 538 B Programming for Psychology and Neuroscience (4)
Introduction to programming skills with the goal of teaching how to design, program, and analyze experiments. Topics include principles of programming, the programming environment, presentation software, and data collection, management, and analysis. Prerequisite: graduate student standing in psychology, or permission of instructor.

PSYCH 541 Advances in Animal Behavior (3-5, max. 30)
Intensive reading from the current literature on an emerging topic or theoretical perspective in animal behavior. Student presentations and discussion. Prerequisite: graduate standing in psychology, or permission of instructor.

PSYCH 542 Advances in Behavioral Neuroscience (3-5, max. 30)
Intensive readings from the current literature on an emerging topic or theoretical perspective in behavioral neuroscience. Student presentations and discussion. Prerequisite: graduate standing in psychology, or permission of instructor.

PSYCH 551 Seminar in Animal Behavior (1-2, max. 30)
Weekly meeting for discussion of current topics. Prerequisite: graduate standing in psychology, or permission of instructor.

PSYCH 552 Seminar in Behavioral Neuroscience (1-2, max. 30)
Weekly meeting for discussion of current topics. Prerequisite: graduate standing in psychology, or permission of instructor.

PSYCH 554 Racism in Neuroscience (4)
Explores how power, colonization, and racism influence our conceptualization of neuroscience as an enterprise of knowledge production. Investigates topics such as eugenics, medical racism, contemporary diversity, equity, and inclusion (DEI) initiatives, and bias in artificial intelligence (AI). Connects systems of oppression to the modern practice of the neurosciences. Offered: jointly with BIOL 554.

SPHSC 594 Capturing Brain Dynamics: A Combined Neuroscience and Engineering Approach (4)
Introduces methods for capturing brain dynamics using an emerging neuroimaging technique known as magnetoencephalography (MEG). Uses techniques to examine perception and cognitive processes and their implications for future brain-computer-interface (BCI) design. Prepare students for interdisciplinary research in neuroscience and engineering. Offered: jointly with LING 582.

UCONJ 510 Introductory Laboratory Based Biostatistics (2)
Introduces methods of data description and statistical inference for experiments. Covers principles of design and analysis of experiments; descriptive statistics; comparison of group means and proportions; linear regression; and correlation. Emphasizes examples from laboratory-based biomedical sciences and provides demonstrations using standard statistical programs.

UCONJ 524 Developmental Neurobiology (3)
Survey of contemporary issues in developmental neurobiology, including neurogenesis and differentiation electrophysiological, morphological, and neurochemical regulation of cellular phenotype; neuronal pathways and synaptic contracts; cellular and synaptic plasticity; and behavior. Examination of molecular biological, morphological, electrophysiological, and behavioral approaches. Prerequisite: background in neurophysiology, neuroanatomy, molecular neurobiology.

DEI ELECTIVES OPTIONS (AT LEAST 2 CREDITS)

AES 450 American Ethnic Health: Race, Gender, And Status Groups (5)
Introduces newer social science and health science related work on race, ethnicity, culture, socio-cultural, and environmental issues affecting American racial minorities. Considers differential rates of physical and medical problems such as cardiovascular disease rates, diabetes statistics, low birth weight children, etc.

ANTH 409 Queer Health (5)
Examines the relationship between Western biomedicine and Queer theory. Critically analyzes the modes of thinking, caring, being, and expressing that emerge as a result of the "merger" of these two fields with contradicting views of gender, sex, health, wellbeing, and sexuality.

ANTH 410 Discourse and Health (5)
Intersection of language and health. Topics include discourse analysis of health narratives and media; cross-cultural differences in naming illnesses; narrative medicine; dynamics of doctor-patient encounters; and linguistic discrimination, racism, and inequities in healthcare access.

ANTH 417 Surfacing the Stories of Hanford: Local and Global Health Disparities (5)
Stories and experiences of people whose lives and land are shaped by the Hanford plutonium processing facility in central Washington. Students conduct research, including interviews and critical discourse analysis, and contribute to public education regarding health disparities and the intergenerational impacts of radiation exposure.

ANTH 420 The Social Life of Psychiatry (5)
Anthropological perspective on social and cultural aspects of contemporary psychiatry. Explores psychiatry as a social practice, an arena for competing cultural assumptions about mental illness and treatment, and a source of diagnostic categories and interpretive methods that influence larger society. Considers how psychiatry influences and is influenced by the cultural history of Europe and the United States.

ANTH 474 Social Difference and Medical Knowledge (5)
Explores relations between medical and social categories: how social differences become medicalized; how medical conditions become associated with stigmatized social groups; and how categories become sources of identity and bases for political action. Considers classifications (race, gender, sexuality, disability) and how each has shaped and/or been shaped by medical science/practice.

ANTH 476 Culture, Medicine, and the Body (5)
Explores the relationship between the body and society, with emphasis on the role of medicine as a mediator between them. Case study material, primarily from contemporary biomedicine, as well as critical, postmodern, and feminist approaches to the body introduced within a general comparative and anthropological framework.

ANTH 477 Medicine in America: Conflicts and Contradictions (5)
Introduction to the pragmatic and theoretical dilemmas of current biomedical practice with emphasis on social and cultural context. Case studies in technological intervention, risk management, and other health-related issues are used to explore connections among patients' experiences, medical practices, and the contemporary social context.

ANTH 574 Culture, Society, and Genomics (3)
Examines social and cultural issues of human genome sequencing and control of genetic expression. Attitudes and behaviors toward health, illness, and disability are studied using historical, contemporary, and cross-cultural case study materials.

ANTH 575 Cultural Construction of Illness: Seminar in Medical Anthropology (5)
Historical and comparative examination of depression, neurasthenia, somatization, hypochondriasis, and hysteria. Anthropology of psychosomatics and psychiatry, including cultural analysis of selected biomedical, indigenous folk medical, and popular common-sense conceptualizations of illness.

BH 430 Epidemics and The Politics of Blame: Eugenic and Racial Logics in Shaping U.S. Health Policy (3)
Explores how social inequality affects both public sentiment and public health measures during epidemics. Students develop a critical understanding of how enduring lines of social inequality shape public sentiment, medical knowledge, and public health policies during epidemics.

BH 444 Ethical Implications of Emerging Biotechnology (3)
Introduces students to select biotechnology innovations and invites consideration of the ethical and policy implications surrounding their development and potential use.

BH 456 Social Justice and Health (5)
Examines the moral grounds for the view that social inequalities in health are unjust using contemporary literature

from moral philosophy and bioethics, case studies, and film. Explores basic questions integral to determinations of social injustice as well as moral constraints on the pursuit of health equity.

BH 460 Reflections on Research, Responsibility, and Society (3)
Explores ethical and policy issues that emerge in the conduct of basic, applied, translational, community-based, and collaborative research. Addresses the ethical debates that arise in the context of planning, implementing, and disseminating research.

BH 481 Racism and The Institution of Medicine: Racial Knowledge, Professional Power, and Black Health (3)
Covers the historical provenance of the move to find and account for racial differences in health. Students develop a critical understanding of the impact of the transatlantic slave trade on the contemporary production of medical knowledge and health inequities.

BH 550 Critical Race Theory and Medicine (1)
Understanding race and racism, their applicability to medicine, and their effects on marginalized communities. Explores the necessities of critiquing and bettering medicine through a Critical Race Theory lens in order to eliminate bias and decrease health disparities within marginalized communities.

BH 560 Genomics, Ethics, and Policy (2)
Explores the intersection of genomics, ethics, and policy, with a particular focus on examining the benefits of genomics for medically underserved communities.

BIOL 505 Evidence-Based Teaching in Biology: Teaching for Equity in STEM (1-3. Max 10)
Designed to help STEM graduate students gain skills in teaching at any level, from undergraduate to the public. Pays special attention to making STEM education accessible to minoritized populations. Includes hands-on practice in a variety of learning strategies and teaching practices.

DISST 421 History of Eugenics (5)
Examines the history of ideas, policies, and practices associated with eugenics and human genetics from the late nineteenth century to the present in American society and other national contexts.

DISST 437 Crime, Law, and Mental Illness (5)
Explores experiences of those with mental illness in the criminal justice system and involuntary civil commitment system. Emphasis on societal responses including the emergence of therapeutic courts and specialized police training. Examines how courts, legislature, and communities balance public safety and civil liberties.

ENVH 417 Case Studies in Children's Environmental Health Disparities (3)
Introduces students to the ways in which children are disproportionately affected by environmental health hazards. Through a series of engaging case studies, students learn the core scientific concepts of children's environmental health while exploring the social, cultural, regulatory, political, and economic factors that lead to children's health disparities.

GWSS 485 Issues for Ethnic Minorities and Women in Science and Engineering (3-5)
Addresses issues faced by women and ethnic minorities in physical sciences and engineering. Focuses on participation, barriers to participation, and solutions to those issues for women and ethnic minorities in physical sciences and engineering.

GWSS 487 Advanced Psychobiology of Women (5)
Intensive reading on current issues relevant to women's psychology and physiology.

GWSS 488 Women and/in Science (5)
Explores science as a method of inquiry and as a profession while also expanding knowledge about women using biographies of women scientists, discipline-based and feminist critiques, and the psycho-social concept of socially defined identities.

GWSS 577 Women of Color in Academia (5)
Examination of the ethical problem of allocating scarce medical resources. Emphasizes the fundamental principles of justice that support alternative health policies.

PHIL 411 Justice in Health Care (5)
Examination of the ethical problem of allocating scarce medical resources. Emphasizes the fundamental principles of justice that support alternative health policies.

PHIL 442 Neuroethics (5)
Neurotechnological advances offer novel ways to address problems of movement, mood, and communication, but also call into question fundamental philosophical assumptions about the kinds of creatures we are. Explores questions of personal identity, moral and legal responsibility, privacy, security, normality, and justice in the context of neurotechnologies.

PSYCH 439 Psychology of Health Disparities (4)
In the United States, race and ethnicity, socioeconomic status, and other identities and experiences affect risk for a range of health outcomes. Reviews psychological research on the sources of these disparities and potential solutions to address them. Covers topics such as the role of discrimination, interactions with healthcare providers, and how to change the social context to improve health. Prerequisite: PSYCH 209. Offered: AWSpS.

PSYCH 540 Advances in Psychology: Racism in Neuroscience (3-5. Max 30)
Intensive readings from the current literature on an emerging topic or theoretical perspective in psychology. Student presentations and discussion. Prerequisite: graduate standing in psychology, or permission of instructor.

SOC 430 Social Determinants of Health and Health Disparities (5)
Examines the social conditions related to the health of populations. How patterns of health vary by social class, race/ethnicity, and gender and some mechanisms that produce and maintain these differences.

UCONJ 548 Current Issues in First Nations Behavioral Health: Mental Health and Substance Abuse (3)
Historical and intergenerational antecedents of tribal psychiatric and substance abuse disorders. Oppression, economic circumstances, and family functioning as shaping mechanisms for attachment. Implications of insufficient attachment for neurodevelopment and developmental psychopathology. Traditional vs. mental health and substance abuse assessment and treatment. Self as provider to tribal clients, communities, systems.

UCONJ 550 Healthcare in The Underserved Community (1)
Gives graduate/professional students in health sciences an introduction to health-related issues faced by underserved populations.

COURSE LIAISON

Course liaisons are students on the curriculum committee that act as a resource for both students and course instructors. They are impartial contacts for students for questions or suggestions about a course, or if any issues arise. That information will then be passed on to an instructor or course director (effectively anonymizing the feedback). They also provide course directors with a resource to get feedback on ideas about how to change a

course from conversations with students and help to enact changes. Course liaisons are available by email, please reach out to students on the CC directly.

COURSE REGISTRATION

Students must be registered or on-leave during the Autumn, Winter, and Spring quarters. **During the academic year, all students will need to enroll for 10-18 credits to be eligible for tuition waivers and graduate student insurance (GAIP).** Students who are not taking courses and not receiving funding will need to be on-leave during the Autumn, Winter, and Spring quarters.

For the Summer quarter, students should register for 2 credits if they are seeking to keep their funding. Registering for more than 2 credits is only permissible with the advanced written permission of the student's faculty advisor. (Students will typically register for 2 credits of 800 dissertation credits in Summer. However, if the student is taking another class such as Neuro 529, then the 800 credits are not necessary.)

Students CANNOT drop any classes during a quarter and go below 10 credits without discussing this with the GPA. Dropping classes to below 10 credits (2 in the summer) will invalidate a student's tuition waiver, **students will be responsible for FULL tuition charges and lose GAIP coverage**. If a student enrolls for more than 18 credits, they will pay a per credit cost (~ $800 per credit; $1,400 for non-resident) for the excess credits. It is recommended that every student **enrolls for at least the minimum 10 (2 in summer) credits BEFORE the 1st day of the quarter** to avoid any penalty fees or problems with tuition waiver and insurance. Students should check the Academic Calendar and Registration Periods for relevant dates, especially registration deadlines (consider adding the registration deadlines for the entire year into your calendar/phone as reminders).

HOW TO REGISTER

Students can use the Time Schedule to find courses offered or use MyPlan to browse courses to register. The University of Washington has two systems for students to navigate academic options and register for classes:

1. MyPlan
2. Registration with SLNs (Schedule Line Numbers). Here is the Neuroscience Course Catalog.

For more information on how to register, visit the Office of University Registrar's Registration Resources website.

Note: at any point during your academic career, you may need to access classroom accommodations. You are encouraged to request accommodation as early as possible; there are timelines for each quarter. Visit Disability Resources for Students (DRS).

DARS DEGREE AUDIT (MYPLAN)

Students should check the MyPlan degree audit regularly to confirm they are completing the required program courses. Click "Degree Audit (DARS)" to run the Doctor of Philosophy (Neuroscience) audit. Use the Key to DARS if you need an explanation or check with the Neuroscience GPA.

FINAL QUARTER

Once the graduation quarter is known, students are encouraged to make an appointment with the Graduate Program Advisor to review their degree audit and discuss any graduation requirements or concerns.

Students may petition the Graduate School's Fellowships & Awards Office to enroll in only two credits during their final quarter if they do not need a full ten credits. We recommend you submit this petition and receive approval before the final quarter starts. Students on an F-1 or J-1 visa may also petition the ISS office for reduced enrollment their final quarter.

QUARTERLY CURRICULUM SCHEDULE

The course schedule below shows the coursework students should be taking. Students should meet with their advisors to discuss the courses best suited for them depending on their research interests and schedule.

	Fall	Winter	Spring
Yr. 1	NEURO 501 (3) NEURO 504 (3) NEURO 510 (0.5) NEURO 526 (4) NEURO 527 (1)	NEURO 502 (5) NEURO 510 (0.5) NEURO 526 (4) NEURO 527 (1) NEURO 545 (3)	NEURO 503 (4) NEURO 510 (0.5) NEURO 526 (4) NEURO 527 (1) NEURO 559 (3)
Yr. 1 Summer	NEURO 529 (2)		
Yr. 2	NEURO 510 (0.5) NEURO 515 (6) NEURO 600 DEI or General Electives	NEURO 510 (0.5) NEURO 600 DEI or General Electives	NEURO 510 (0.5) NEURO 600 DEI or General Electives
Yr. 3+	NEURO 800: Doctoral Dissertation (2nd years should begin registering for Neuro 800 the quarter following the general exam, which is usually the second summer) DEI or General Electives		

YEAR 1

FACULTY ADVISING

During their first year, each student will be assigned a faculty mentor by the Student Advancement Committee. After the student's three lab rotations, student will find their dissertation advisors. Students should meet with their advisor once per quarter to discuss progress, rotations, dissertation lab choice and any other topics that might arise.

TRAININGS

ANIMAL USE

Any individual at the University of Washington who wishes to carry out research using vertebrate animals must receive appropriate training and prior approval. This involves several steps intended to ensure the welfare of the animals, compliance with State and Federal laws, and the health and safety of the researcher.

Students can access the Office of Animal Welfare's Trainings page. To complete their online courses, choose "Take a Course or Exam" and select the option student wishes to complete. Or to view/print course completion certificates, choose "View Your Course Certificates." If a student finds any missing exams they've previously completed, please contact Jennifer Linton, Training Coordinator from the University of Washington's Office of Animal Welfare, at auts@u.washington.edu with full name and UW Net ID.

LAB SAFETY

Incoming students are required to take the Annual Graduate Student Safety Seminar before Autumn Quarter. Students need to familiarize themselves with safety information and requirements at the University of Washington. Students interested in any additional safety training can access and sign up with EH&S Training.

For **all wet lab** users:

- ☐ Asbestos Training
- ☐ Managing Chemicals Training
- ☐ GHS/Hazcom Training
- ☐ Fume Hood Training
- ☐ Fire Extinguisher Training
- ☐ Biosafety Training
- ☐ Compressed Gas Safety Training
- ☐ Formaldehyde Safety Training

All students should become familiar with MyChem requirements in different labs during their lab rotations. Students should report all lab and work-related injuries and illnesses or near miss incidents to their lab supervisor as soon as possible and submit a report of the incident within 24 hours to EH&S via the Online Accident Reporting System (OARS).

Students should familiarize themselves with the safety equipment and protocols for their labs – even during a rotation. Each student should know the safety coordinator in the lab and make sure that they receive at least a safety walk through the lab. At minimum, all students should know the quickest route for evacuating the lab and the building.

LAB ROTATIONS

First year Neuroscience students will complete rotations in a different lab in Autumn, Winter, and Spring quarters; students will complete three lab rotations in total (minimum, with exceptions). By the end of three rotations, students are required to join a lab. Students should have direct conversations with potential faculty advisors and can also discuss options with their first-year faculty mentors.

Each student must collaborate with their rotation advisor to make sure that all lab safety and training procedures are completed at the beginning of the rotation. Students working with vertebrate animals should talk with their rotation advisors about being added to the rotation lab's Animal Protocol before starting any research with animals.

CHOOSING A ROTATION LAB

Here are some things that should be considered:

- Rotation labs do not need to be set up before arriving at UW. When students arrive for Autumn Quarter, orientation programming and retreats include faculty presentations which will help students make informed decisions about their lab rotations.
    - Students are expected to provide the GPA (neurogrd@uw.edu) with their Autumn Quarter lab choice by the Monday of the week that classes start.
    - Students are expected to provide the GPA with their Winter Quarter lab choice no later than Autumn Quarter finals week.
    - Students are expected to provide the GPA with their Spring Quarter lab choice no later than Winter Quarter finals week.
    - However, students are welcome to provide lab choices as soon as they are identified to assist with faculty coordination and planning.
- There are 150+ faculty members, so students have many choices.
    - If a student is interested in a faculty member who is not currently on the program list, that faculty member can apply to join the GPN training faculty group. The process can be lengthy, and it is best to plan (1 quarter in advance) for this.
    - **Students should only plan on rotating in labs that do not have funding (training/learning rotation) after they have an agreed upon lab placement, likely spring quarter.**
- Ask direct questions to the faculty members:
    - Do they have funding for grad students?
    - Do they have room for a grad student?
    - Do they have time for a grad student?
- Students shouldn't assume that because they said they had money and they had room, that students have a slot in that lab (Some faculty like small labs). If students want to enter that lab – they should ask PIs directly and honestly.
- Students may find the Lab Expectations Worksheet useful for learning what kinds of questions to ask.
- If students have concerns about finding a lab match, they should reach out to the program (GPA, first year mentor, or directors) as soon as possible.

ROTATION TALKS

Upon completion of each lab rotation, students are required to present a short talk on their project; the purpose of the talk is for students to develop confidence in sharing their research in public. Students will also practice answering and asking questions in an academic setting. The Rotation Talks are to be held on the final day of the Finals week.

The titles for the presentations are due the Monday of Finals Week, since the GPA prepares the schedule, all students need to meet the deadline. The GPA will provide more details approximately one month before the Rotation Talks.

See rotation talk rubric in Appendix F.

At the end of each lab rotation, students are evaluated. Students should review their rotation evaluations in their Personalized OneDrive Rotations Folder. Rotating faculty are asked to provide constructive feedback on both strengths and areas for improvement.

DISSERTATION LAB SELECTION

If a student decides to join their first or second rotation lab, they can petition to not complete a third lab rotation. Failure to join a lab at the end of the third rotation will be considered unsatisfactory progress and will result in Final Academic Alert. Students who started the program in Autumn quarter must submit their dissertation lab choice to the GPA by June 1st. Students who will join a partner institution lab (Fred Hutch, Allen, VA, or SCRI) should notify the GPA no later than May 15th due to payroll transitions.

Students can meet with their assigned faculty mentor from the Student Advancement Committee to facilitate the lab selection process. Students should check-in with the GPA about rotations if students are uncertain or see that they might be having some problems. Don't wait until the deadline!

Once a dissertation lab is chosen, the GPA will generate an advisor letter that will be signed by the student, the dissertation advisor, and the dissertation advisor's department chair. The dissertation advisor (and their department) will take fiscal responsibility for the support while the student completes their Ph.D. course of study. The support will include salary, benefits, and tuition waivers. And the responsibility for the student's payroll will also transfer from the Neuroscience Program to the dissertation advisor's department.

CHANGING LABS

Graduate students may change laboratories if their academic or research needs would be better supported in a different environment or their advisor left the UW. Students are strongly encouraged to carefully consider this decision and consult with the graduate program before pursuing a change. The GPN cannot make arrangements for such a change or provide funding.

A laboratory change may proceed only if the student identifies a faculty member who agrees to serve as the new advisor and confirms they have sufficient funding to support the student through completion of the PhD. The prospective advisor should discuss expectations, research direction, and funding arrangements with the student prior to making a commitment.

Once a new advisor has agreed to accept the student and provide financial support, the student must contact the graduate program to initiate the formal change process. The program requires written confirmation from the new advisor regarding their willingness to accept the student, availability of funding, and agreement on a general research direction.

Final approval of laboratory changes is granted by the GPN, which may consult with the current advisor, prospective advisor, and program leadership. The program reserves the right to review each request individually and determine whether the proposed change is feasible within program policies and timelines.

FOURTH ROTATIONS

Students are expected to secure a permanent lab placement within their first three rotations. The program does not guarantee funding beyond these initial three rotations.

A fourth rotation may be considered only under exceptional circumstances, specifically when a student has been unable to identify a suitable laboratory match due to unexpected funding limitations, despite positive rotation evaluations. All requests for a fourth rotation will be reviewed by the program directors. Approval will be contingent upon the following conditions:

- The proposed rotation must be with a faculty member who has confirmed their intent to accept the student into their laboratory, contingent upon a successful rotation outcome.
- The faculty advisor commits to funding the rotation.

Finding a lab within the three rotations is an academic milestone, and if a fourth rotation is permitted, a final alert will be issued. Students who have not identified a lab will be academically dropped from the program.

ANNUAL INDIVIDUAL DEVELOPMENT PLAN (IDP) FOR 1ST YEAR STUDENTS

After joining a dissertation lab, each student will collaborate closely with their faculty advisor on an IDP, so it is ready to be discussed at the first Supervisory Committee meeting. The initial IDP must be submitted to the GPA before the end of Summer Quarter. The most recent version of the IDP form is posted on the GPN website.

YEAR 2+

TEACHING REQUIREMENT

The GPN provides its students with teaching experience in the basic concepts of neuroscience and related disciplines at the university level. Students are expected to develop proficiency in teaching neuroscience to undergraduate and/or graduate students.

- A total of 6 course credits are required for graduation (Teaching Practicum NEURO 515).
- Students can receive 6 credits by being a Teaching Intern for a class with a lab for one quarter OR receive 3 credits for a class without a lab (when option is available).

The teaching internship assignments are primarily for the undergraduate Neuroscience Program (NeuSci) courses and are for students after their first year in the program. **Students needing to complete their teaching requirements must respond to the teaching practicum match survey sent by the program.**

MATCHING PROCESS

The GPN conducts an annual survey in Spring Quarter to understand students teaching needs, program progression, interests, and availability for the following academic year. The objective of the match is to help the smooth functioning of undergraduate courses while also considering the interests of the graduate students. The GPN understands the importance of managing student workload and academic commitments effectively and therefore aims to assign TIs for quarters that students are not completing their GE (although if a student would like to do both in the same quarter, the program will consider that). Responding to the Spring TI survey is a milestone, and thus failure to respond to the survey will result in delayed completion of required credits and can result in academic alert and delayed graduation. Students who do not respond to the survey may not be matched. The GPN evaluates each student's availability, background, and area of interests individually and aims to strike a balance between student preferences and course requirements. ***While striving to accommodate these preferences whenever possible, the ultimate decision is based on the specific needs of Neuroscience Undergraduate Program***.

In all courses, student teaching interns will discuss testing and other evaluative procedures with instructors before being given the assignments. They will predict the utility of the assignment, analyze the accuracy of their predictions

during assignment grading, inferring whether an alternate assignment would have served course students better. In all courses, Neuroscience practicum students will receive a written evaluation from their faculty instructors.

JOURNAL CLUB

Students interested in teaching the Undergraduate Neuroscience Journal Club (NeuSci 450) must submit a draft course proposal and syllabus no later than Spring (for the next academic year) for approval by the directors and Journal Club mentor. This is a team-taught course (students may partner with another Neuro PhD, or another Biomedical PhD student). This does not currently count for TI or elective credits but is valuable experience for those seeking careers in academia. For a sample syllabus, please contact neurogrd@uw.edu.

SUPERVISORY COMMITTEE

Students must establish a Supervisory Committee by the last day of Autumn Quarter of the second year in the Neuroscience Program. The Supervisory Committee serves several important functions, including evaluating students' progress, advising students on their research, and conducting students' General Examination. The Committee meetings are not examinations and will consist of presentations on student progress, plans, and extensive discussions on progress. Students can meet with their Supervisory Committee as often as necessary, but a minimum of one meeting per year is required to confirm adequate and timely progress toward the PhD degree. The first Supervisory Committee must take place by the end of the Winter Quarter of the second year, well before the General Exam is scheduled. The Committee should approve the students' progress before the General Exam is scheduled.

Submit a Request to Form a Supervisory Committee to the GPA for Directors and Graduate School approval.

MEMBERS OF THE SUPERVISORY COMMITTEE

The Committee is made up of faculty members that the student selects, in consultation with their dissertation advisor. Each Supervisory Committee consists of around 4-7 faculty members from the program. Student's dissertation advisor(s) will serve as the Supervisory Committee Chair(s).

The Supervisory Committee must include:

- Chair(s) of the Supervisory Committee: These are the dissertation advisor(s) from the student's lab(s).
- At least one general member that should represent an area of neuroscience outside the student's immediate area of research.
- A Neuroscience Program Representative (NPR): The NPR is a faculty member that had been the advisor to a student who successfully completed a PhD in the program. See Appendix F for a list of these faculty.
- A Graduate School Representative (GSR): The GSR represents the interests of the student and must meet requirements per Graduate School Policy 4.2:
  - Check that the member is endorsed to chair/GSR via Graduate Faculty Locator link.
  - Check the GSR Eligibility Chart for conflicts with the student's home department (Neuroscience) or the chair (dissertation advisor)'s department; the GSR cannot be in the same department as the student or the chair. See Appendix F for a list of these "Neuro-only" faculty.
  - The GSR should also not be a member of the Steering Committee as the GSR should represent the interests of the student and act with independence from the GPN. For this reason, the Neuro co-directors should also not serve as the GSR.
  - Upon student request, the GPA can use a committee validation tool in MGP to test for any potential conflicts.

- Per GS policy, the GSR must attend the General and Final Exam. Regarding the annual Supervisory Committee Meeting, the GSR's attendance is not mandatory (but it is recommended that the student extends the GSR an invitation).

The members, except for the GSR, must be productive scholars in the student's major field and/or subfields. If a student wishes to have as a committee member an individual who is not a faculty member at the University of Washington, the student should confirm with their Chair[s] whether this individual can serve on a doctoral committee based on their academic credentials and potential to be a contributing member to a doctoral committee. The committee will oversee the students' progress, evaluate performance, and conduct all examinations. It is expected that the dissertation advisor will play the strongest mentorship role, but all members will meet with the student regularly and contribute mentorship.

GRADUATE FACULTY LOCATOR

The Graduate School Faculty Locator can be used to verify faculty eligibility for Supervisory Committee and who is ineligible to be the GSR on student's Supervisory Committee.

1. Search for the dissertation advisor and locate their Primary Appointment Department.
2. Conduct a new search by finding the faculty's Primary Appointment Department under "Organization."
3. Any faculty member listed in the same Primary Appointment Department as the student's dissertation advisor is not eligible to be the GSR.
4. Any faculty member with a Neuroscience appointment as their only graduate school appointment shares a home department with the student (Neuroscience) and is not eligible to be the GSR. Also see Appendix F for a list of these faculty.

CHANGES MADE THROUGH MYGRAD

The GPA is not emailed notification of requests, petitions, or changes made through MyGrad. Thus, students will need to email the GPA if any changes are made to ensure that the GPA can help keep processes moving along.

GENERAL EXAMINATION

Students must take their General Exam by the end of Spring Quarter of their 2nd year in the program. The General Exam is a requirement of the Graduate School for the advancement of the student to candidacy towards the PhD. It also serves several important purposes in the training of students in the Graduate Program in Neuroscience.

The General Examination is designed to:

(a) **Emphasize independent scientific thinking** by requiring the student to formulate a novel research question and develop a rigorous approach to address it.
(b) **Promote timely academic progress** by ensuring the student is advancing appropriately through the program toward completion of the PhD.
(c) **Maintain academic rigor** by assessing the student's breadth and depth of general knowledge in their field.
(d) **Ensure consistency and fairness** by providing a standardized framework for evaluating all students.

It is the responsibility of the students' Supervisory Committee to evaluate the performance of the General Exam. The NPR from the student's Supervisory Committee will serve as the General Examination Administrator and will be responsible for collecting written questions and administering the General Examination. The Supervisory Committee should approve the students' progress before the General Exam is scheduled. Students should contact their Supervisory Committee at least 6 weeks before their General Exam to set the time and date for the exam. Then the

student can submit a request for the General Exam in MyGrad Program. The GPA will confirm attendance with the Supervisory Committee before approving the General Exam Date & Time in MyGrad Program.

After approving the General Exam Date & Time, the GPA will ask the student if they want the exam listed on the program's Trumba calendar, and if they want an announcement sent to the Neuro listserv (students & faculty). The exam will NOT be announced without the student's emailed approval response. While the program encourages students to become comfortable with public presentations as part of their professional development, it is up to the student to decide if they want an audience outside of their committee present at the exam.

To make a room reservation for the exam, please follow the outlined process.

Note: If the student's dissertation advisor (or other critical Supervisory Committee members) plans to be on sabbatical or family leave during Spring Quarter of the student's second year, then the student is expected to take the exam before the advisor (or other committee members) goes on leave. If a general member goes on sabbatical, the student can add another member to take their place for the time being.

During the General Exam, at least four members of the committee, including the Chair (dissertation advisor), GSR, and two additional general committee members must be present physically or virtually. In accordance with the Graduate School Policy on Virtual Doctoral Examinations, the GPN allows any format of exam (virtual, in-person, or hybrid) as long as the student and the student's committee approves of the format. If the student has any concerns about the format of the exam, the student should contact the GPA.

COMPONENTS OF THE GENERAL EXAM

- The Written section consists of
  1) a brief research proposal (thesis proposal) either completed during the summer NEURO 529 class or a new research proposal. This is submitted to the committee three weeks before the exam.
  2) answers to three short answer questions on prepared topics.
- The Oral section is a 20–30-minute presentation on the thesis proposal and questioning (Q&A) about topics related to the area of the dissertation and general knowledge.

*See Appendix G for the format of the General Exam.

Students are required to meet with Supervisory Committee members (not the GSR) either individually or in a pre-exam meeting before the examination to identify one or two topics of general knowledge for each member in which to prepare. These areas are selected by the committee members in an area of their expertise but tailored to the student's area of interest. Although the supervisory committee members will ultimately serve to advise the student on progress toward the dissertation, their role before the General Exam is to identify areas of neuroscience in which depth and breadth knowledge are likely to be helpful to the student's training.

The Supervisory Committee members and the student should clarify the scope of the topics, but there is much latitude. For example, the area may be broadly defined (e.g., development, the olfactory system, ion channels, learning and memory, etc.) or more focused (apoptosis, tyrosine kinase signaling, voltage gating, signal to noise determinants in retina, role of superior colliculus in gaze control, etc.). Together, the student and the committee members should develop a reading list based on standard texts, review papers, and primary scientific literature. The committee members should keep in mind that the student will be preparing in several areas, depending on the number of committee members and the number of topics they require.

To schedule the General Exam, the student's dissertation advisor and the committee must be satisfied that the student is making progress in the laboratory. A student who has not demonstrated dedication and some degree of

acumen in areas relevant to conducting the thesis research will not be eligible to take the General Exam, however, in this situation the student is not making satisfactory progress, so this will be a rare occurrence.

FAILING THE GENERAL EXAM

A student whose performance on the General Exam is not satisfactory may be allowed to have a reexamination if the Supervisory Committee considers this to be appropriate. A student who does not pass the General Exam on the second attempt may be allowed a third and final attempt to pass the exam, but only with the approval of the GPN Directors. There must be exceptional circumstances that are clearly defined by the Supervisory Committee in a letter to the Directors that explains why a 3rd attempt is justified.

DISSERTATION PROPOSAL MEETING

After passing the General Exam, the candidate must remain in good academic standing by meeting the program requirements and by making progress on the dissertation. The program requires that the student assemble a meeting of the thesis committee at least once per year. The GSR is not required to attend, but they should be invited. The first thesis committee meeting should be held by the end of Spring Quarter in the 3rd year. Prior to this meeting, the student should edit/modify the original thesis proposal from the General Exam in three ways:

1. incorporate any comments and suggestions from the General Exam; and
2. add a complete set of specific aims; and
3. provide or update a general description of experimental design and methods, which should be limited to two pages. The student can include some preliminary data as available.

The revised proposal should be a maximum of 10 single spaced pages. It should be distributed to the Supervisory Committee at least one week prior to the meeting. The goal of this meeting is for the committee members to provide the student with constructive suggestions for the student's dissertation research, and the meeting will not be held in an exam format. This proposal is not a milestone for the student, rather this is meant to inspire a conversation between the student and their committee members about how the project has evolved since the GE.

ANNUAL IDP PROGRESS REPORT FOR YEAR 2+

Each student will collaborate with their mentor on an Individual Development Plan (IDP). Then, every year before each student's annual committee meeting, the student and their mentor will sit down to update the student's IDP, addressing any unmet Milestones or other program requirements.

The annual committee meeting should consist of at least a majority of members (e.g., 4 out of 6 members or 3 out of 5). At least one chair and the NPR must account for two of the present members.

The IDP should be considered a living document that will evolve over time as students move through training. It is expected to be updated in consultation with student's faculty advisor and other chosen faculty committee members before the annual committee meeting and it should be discussed at the committee meeting, and perhaps also updated after quarterly or semi-annual meetings with mentor(s). For each of the sections, students should indicate the progress they have made since the last update of the IDP, as well as their plans for further development.

The IDP should be reviewed at the beginning of each annual committee meeting. If the students have not yet completed their elective requirements, this would also be a good opportunity to discuss course options that would be most useful to student development. The student must submit the updated IDP to the GPA, **before the end of the summer quarter**. The Annual Committee Meeting Milestone will not be met until this paperwork is submitted. The IDPs will be reviewed by the Student Advancement Committee, and any concerns are referred to the Directors.

FINAL YEARS AND GRADUATION

READING COMMITTEE

The Reading Committee consists of at least three members of the Supervisory Committee. And at least one of the members of the Reading Committee must hold an endorsement to chair doctoral committees. Please refer to GS Policy 4.2.2.6-7.

The Reading Committee is appointed to read and approve the students' dissertation. It is the responsibility of a Reading Committee to (a) ensure that the dissertation is a significant contribution to knowledge and is an acceptable piece of scholarly writing; (b) determine the appropriateness of a candidate's dissertation as a basis for issuing the Committee Signature Form for a Final Examination; and (c) approve a candidate's dissertation.

Students will establish and gain approval of a Reading Committee two months before their planned Final Examination; the Graduate Program in Neuroscience Request to Form a Reading Committee form must be completed.

FINAL EXAMINATION

The Final Examination is an opportunity for students to showcase their dissertation research in a public forum and to discuss their research in depth with the Supervisory Committee. A Final Examination may be scheduled if (a) the student passed a General Examination in the previous quarter; (b) a Reading Committee is established and has read an entire draft of the dissertation; and (c) the entire Supervisory Committee has agreed that the student is prepared and has approved the student to schedule a Final Examination. During the Final Exam, at least four members of the committee, including the Chair (dissertation advisor), GSR, and two additional general committee members must be present physically or virtually. In accordance with the Graduate School Policy on Virtual Doctoral Examinations, the GPN allows any format of exam (virtual, in-person, or hybrid) as long as the student and the student's committee approves of the format. If the student has any concerns about the format of the exam, the student should contact the GPA.

Prior to the Final Exam, students must contact their Supervisory Committee to set a date and time for their defense at least eight weeks before their defense and follow the room reservation outlined process. Additionally, students should send a copy of their thesis to their Supervisory Committee members at least six weeks before the defense. Students will need to formally request a Final Exam through the "request a final exam" in MyGrad Program; it's recommended students submit this request once the Supervisory Committee has approved a date and time.

The GPA will contact the committee members to confirm their availability for the date and time, and that the reading committee is satisfied with the dissertation draft. Then the GPA will email the supervisory committee form to the student to bring it to the Final Exam.

The GPA will also ask the student if they want the exam listed on the program's Trumba calendar, and if they want an announcement sent to the Neuro listserv (students & faculty). The exam will NOT be announced without the student's emailed approval response. While the program encourages students to become comfortable with public presentations as part of their professional development, it is up to the student to decide if they want an audience outside of their committee present at the exam.

The Final Examination for the PhD degree consists of a one-hour long defense/presentation of the student's dissertation orally before the committee members. Students must successfully defend their research for the degree to be granted. Following the presentation, the PhD candidate will meet with the committee, and each member will have

the opportunity to question the student on any aspect of the presentation. If a majority of the Supervisory Committee members in attendance agree that the evaluation is positive, the recommendation is made to the Dean of the Graduate School (via the Supervisory Committee Form) that the degree be awarded. If members of the doctoral supervisory committee do not agree with the majority recommendation concerning the examination, they will indicate so on the committee signature form, and they are also encouraged to submit a minority report to the Dean of the Graduate School.

After the Final Exam, the written thesis is evaluated by the student's Reading Committee members. The reading committee also needs to approve the written thesis through the MyGrad Program by the final day of the quarter.

Before the last day of the quarter when students complete their dissertation defense, students must submit an Electronic Thesis/Dissertation (ETD) to the Graduate School through the UW ETD Administrator Site by the final day of the quarter. For more information, review ETD Resources.

DISSERTATION GUIDELINES

There is no clear-cut definition of a minimum requirement for a thesis. However, the dissertation should describe original research that advances the field of neuroscience and clearly indicates training in research. A reasonable goal for many students is two first-author articles targeted for professional, peer-reviewed journals, such as The Journal of Neuroscience. The dissertation should include an introduction that provides the scientific background supporting the rationale for the thesis work. This chapter should briefly review the literature and help put the work into a broader context. Subsequent chapters should include the dissertation work itself and may be in the format of submitted or accepted publications. The thesis should conclude with a final chapter synthesizing the major findings and proposing future directions for the work.

THESIS BINDING

If students want to order bound copies of their thesis, they may do so through the UW Copy Centers or through ProQuest.

Questions should be directed to the UW Copy Centers or to ProQuest at 1.800.521.0600, ext. 77020 – available 8:00 a.m. – 5:00 p.m. EST, Monday through Friday (excluding U.S. holidays).

When order from UW Copy Centers and using the online ordering form, make sure to do the following:

- In special instructions put Thesis Binding
- For Account Manager, put Copy Center
- There will be a cost for binding a thesis that students will be responsible for.

GRADUATION REQUIREMENTS

The Graduate School unit GEMS (Graduation Enrollment Management Services) processes final graduations for GPN students who have passed their final exam. GEMS also reviews and accepts dissertations after the reading committee has approved the dissertation.

Please carefully review GEMS' Graduation Requirements page, especially > Checklists > Doctoral Students. Students needing proof of degree completion before the end of the quarter should review the Request for Letter of Certification.

APPENDIX A. NEW STUDENT CHECKLIST

FOLLOWING ADMITTANCE

- ☐ Set up a UW NetID and email.
  - Admitted students receive their student number and PAC (personal access code) after accepting the offer of admission. With a student number and PAC, a UW NetID can be set up. A student's UW NetID will precede @uw.edu and become the student's UW email address.
- ☐ Get student immunizations cleared.
  - https://wellbeing.uw.edu/medical/immunizations/immunization-requirement/
- ☐ Register for courses (requires a UW NetID).
  - Reference the UW Academic Calendar for dates of instruction, registration deadlines, school holidays, and more. International students must also complete an online check-in.
    - NEURO 501 Intro to Neurobiology
    - NEURO 510 Seminar
    - NEURO 504 Biophysics of Nerve, Muscle, and Synapse
    - NEURO 526 Lab Rotations
    - NEURO 527 Current Topics
- ☐ Find housing:
  - Most students live off-campus in shared housing. Campus housing information can be found through UW Housing and Food Services. For off-campus housing, Craigslist is often used. The UW School of Law has a list of neighborhood descriptions to assist with identifying housing.

ONCE ARRIVED ON CAMPUS

- ☐ Research transportation options.
  - Most students utilize the U-PASS to travel by Metro bus around town. Students are automatically charged for the pass each quarter they are registered for. Extensive bike and walking trails are around Seattle as well. The closest airport is SeaTac International Airport.
- ☐ Get the Husky Card.
  - The Husky Card is the official identification card for members of the University of Washington community. The U-PASS is electronically embedded into the Husky Card (scan it when boarding the bus or light rail). The Husky Card Account & ID Center is located on the ground floor of the Odegaard Undergraduate Library or in HSB BB-120.
- ☐ Apply for Washington state identification.
  - New Washington state residents are legally required to get a Washington state driver's license or ID card within 30 days of moving to the state. Check out the Washington State Department of Licensing

website to find locations and information on what type of identification is needed when applying for an ID or driver's license.

- ☐ Explore UW resources.
  - The UW Student Guide is a comprehensive reference for UW students and includes information on Academics, Finances, Student Life, University Policies, and much more. The University Bookstore is where students can purchase Husky products and textbooks.

BEFORE THE FIRST DAY OF COURSES

- ☐ Prepare for the first day of courses.
  - Helpful maps include a campus map and a Health Sciences Building (HSB) map. The Health Sciences Building is where many courses will be held. It is a very confusing building! Students are highly encouraged to locate their classrooms in advance of the first day of courses.
- ☐ Attend programmatic and school orientations.
  - Attendance at the program orientation is required for all entering students. Typically, it is held the week prior to the beginning of Autumn Quarter.

AFTER THE FIRST DAY OF COURSES

- ☐ Inform GPA of rotation lab choice.
  - Due the Monday of the first week of Autumn Quarter.
- ☐ Pay the remaining portion of **tuition** (student activity and building fees).
  - Due the 3rd Friday of Autumn Quarter.

APPENDIX B. MSTP REQUIREMENTS

The Graduate Program in Neuroscience Medical Scientist Training Program (MSTP) Requirements includes:

Neuroscience Requirement	MSTP Requirement
Core Courses	Required (another 3 CR course may be substituted for 559)
Lab Rotations	2 Separate rotations required, unless completed before joining GPN program
Attend JumpStart	Optional
Attend Listening Lunches	Optional
Seminar	3 credits (6 Quarters)
Teaching Internship Practicum	6 credits
Elective Credits	4 credits (courses must be GPN approved)
DEI Elective Course	2 credits
Annual Committee Meeting & IDP	Required
General Exam	Required
Thesis Defense	Required

MSTP Students will be formally considered a part of the Neuroscience Program when they have selected the program for their degree and have been accepted into a Neuroscience Program laboratory for their dissertation research via the signed dissertation advisor letter. With approval of the Neuroscience program, the MSTP program advisor will petition the Graduate School to add the Neuro PhD Degree code to the student's UW record.

Note: All central Graduate School requirements must also be satisfied before a UW PhD degree will be conferred.

APPENDIX C. STUDENT-LED EVENTS

QUARTERLY GATHERING

- ☐ Budget total of up to $2,500.00 annually (for purchase of food, drinks, and permits).
  - Total cost cannot exceed $32 per person (this includes taxes, tip, delivery fees, drinks) and **alcohol (beer, wine, seltzer, cider) will not be reimbursed at more than $6 a person.**
- ☐ An **attendee list** for each event must be sent to neurofinance@uw.edu.
  - Students should use RSVPs/Sign-Up to allocate funds per gathering, e.g., students may wish to use $500 for four (4) total gatherings in one year which would accommodate 15-16 students per event.
- ☐ The program can help book a room when contacted by the students with details for their gathering.
  - HSB G-328 is the preferred departmental room.
  - South Campus Center Crow's nest is preferred if a room reservation needs to be purchased.
- ☐ **Alcohol Service Request (ASR):** If alcohol is served, an ASR must be completed **two weeks** before the event.
  - Per the ASR agreement, a **Banquet Permit** must be purchased.
  - When a Banquet Permit is issued online, it's automatically sent to the local LCB office. Liquor Enforcement Officers may visit LCB-registered events at any time, so please remember to have your permit printed and displayed at any student gathering where alcohol is served.
  - The cost of the Banquet Permit ($25) will come from the student budget.
- ☐ For **reimbursement**, please send the original itemized receipt(s) to neurofinance@uw.edu.
  - Alcohol purchases must be made separately, with alcohol appearing on its own itemized receipt.
  - To ensures that the program can document compliance with the WA Liquor and Cannabis Board (LCB) regulations when reporting to the Graduate School, alcohol receipt(s) must be submitted for reimbursement alongside the Banquet Permit receipt.

POPCORN TALKS

- ☐ Budget total of up to $1,200.00 annually (for the purchase of food and non-alcoholic beverages).
  - Total cost is not to exceed $5 per person (this includes taxes, tips, delivery fees, drinks, etc.).
  - **Alcohol is not approved for this event.**
- ☐ An **attendee list** for each event must be sent to neurofinance@uw.edu.
- ☐ For **reimbursement**, the original itemized receipt(s) must be sent to neurofinance@uw.edu.
  - Purchases made in bulk must include an estimate of how many participants and sessions you expect the purchase to provide for.

ACCESSING AND TRACKING REIMBURSEMENTS IN WORKDAY

1. Log into Workday
2. Open the **Menu** (In the upper left corner, click on the **Menu** icon.)
3. **Add the Expenses Hub App to your Menu**
   - Select **+ Add Apps** at the bottom of the Menu.
   - In the search bar, type **"Expenses Hub"** and add it to your apps.
   - Once the Expenses Hub is added, go back to the **Menu** and select the app.
4. **Check Reimbursement Status**
   - Under **Expense Reports**, you'll be able to view the status of your reimbursement.
   - Reach out to neurofinance@uw.edu if you encounter any issues with payment.

FUNDING FOR ACTIVITIES

For any new request for event ideas or purchases please contact the Events Committee who can then reach out to neurofinance@uw.edu as needed.

APPENDIX D. FACULTY CODES

Code Number	By Last Name	Code Number	By Last Name
10279	Ahmed, Osama	10299	Moreno, Claudia
10239	Ailion, Michael	10233	Moritz, Chet
10280	Asbury, Charles	10264	Murray, Scott
10281	Baertsch, Nathan	10217	Neitz, Jay
10238	Bair, Wyeth	10218	Neitz, Maureen
10016	Bajjalieh, Sandra	10145	Neumaier, John
10282	Barker-Haliski, Melissa	10246	Ojemann, Jeffrey
10274	Basso, Michele	10275	Orsborn, Amy
10263	Bruchas, Michael	10300	Page, Damon
10251	Brunton, Bing	10034	Palmiter, Richard
10283	Bryant, Astra	10206	Pasupathy, Anitha
10242	Buffalo, Elizabeth	10309	Perkel, David J.
10284	Cabernard, Clemens	10228	Perlmutter, Steven
10151	Catterall, William	10201	Phillips, Paul
10311	Cherry, Tim	10009	Raible, David
10285	Chudler, Eric	10158	Rao, Rajesh
10286	Cler, Gabe	10278	Rasmussen, Jeff
10321	Coffey, Kevin	10005	Reh, Thomas
10287	Collman, Forrest	10298	Pravetoni, Marco
10288	Daggett, Valerie	10144	Rieke, Fred

10289	Darvas, Martin	10231	Mizumori, Sheri
10203	de la Iglesia, Horacio	10326	Ngodup, Tenzin
10310	Dembrow, Nikolai	10325	Poo, Cindy
10322	Driscoll, Laura	10301	Rokem, Ariel
10154	Fairhall, Adrienne	10302	Ruohola-Baker, Hannele
10277	Fang, Angela	10267	Sabesan, Ramkumar
10229	Ferguson, Susan	10269	Schindler, Abigail
10291	Garcia, Jose M.	10273	Shih, Andy
10317	Geng, Yijie	10253	Singhvi, Aakanksha
10292	Gillespie, Anna	10323	Smith, Alec
10252	Gire, David	10261	Smith, Stephen
10265	Golden, Sam	10313	Soden, Marta
10308	Golub, Matt	10137	Spain, William
10153	Gordon, Sharona	10209	Stella, Nephi
10293	Grannan, Ben	10271	Steinmetz, Nick
10294	Grill, Brock	10270	Stocco, Andrea
10268	Herron, Jeffrey	10262	Stuber, Garret
10295	Heshmati, Mitra	10303	Svoboda, Karel
10210	Horwitz, Greg	10314	Ting, Jonathan
10318	Inbal, Israely	10249	Tuthill, John
10324	Jain, Aakanksha	10312	Valdmanis, Paul
10266	Keene, C. Dirk	10304	Vivas, Oscar

10272	Kraemer, Brian	10276	Walker, Edgar
10319	Land, Benjamin	10260	Weaver, Kurt
10320	Latimer, Caitlin	10328	Weinstein, Jonathan
10296	Li, Li	10305	Wood, Thomas Ragnar
10297	Liachko, Nicole	10259	Yadav, Smita
10315	Laursen, Willem	10306	Young, Jessica
10248	Manookin, Michael	10307	Z Yan Wang
10316	Max, Ludo	10327	Zhao, Christina
10240	Miller, Dana	10237	Zweifel, Larry

APPENDIX E. PROGRAM MILESTONES CHECKLIST

OVERALL

- ☐ Maintain at least a 3.0 GPA throughout Graduate Career.
- ☐ Receive at least a 2.7 in all courses (400-500 level) taken during graduate studies.
- ☐ Complete all core courses.
- ☐ Complete 12 elective credits (Do not need to be graded but do need to be approved).
- ☐ Complete 6 credits of NEURO 515 (Teaching Internship).

YEAR ONE

- ☐ Receive credit for all three lab rotations (NEURO 526).
- ☐ Notify the GPA of your lab rotation choice. Notification deadlines: Autumn Quarter, Monday of the first week; Winter Quarter, no later than Autumn finals weeks; Spring Quarter, no later than Winter finals week.
- ☐ Respond to Spring Neuro 515 TI survey.
- ☐ Join a dissertation lab: Due June 1st. Partner Institution Labs (Fred Hutch, Allen, VA, SCRI): Due May 15th.
- ☐ Submit an Individual Development Plan (IDP) by the last day of Summer Quarter.

YEAR TWO

- ☐ Establish a Supervisory Committee by the final day of Autumn Quarter.
- ☐ Host the first Supervisory Committee meeting by the final day of Winter Quarter.
- ☐ Choose time and date for General Exam at least 6 weeks before exam with the Committee, and then schedule in MyGrad Program.
- ☐ Print Committee Signature Form once received from GPA, have signed at the General Exam.
- ☐ Respond to Spring Neuro 515 TI survey (if applicable)
- ☐ Pass the General Exam by the final day of Spring Quarter to advance to PhD Candidacy.
- ☐ Have 18 graded credits (400-500 level) by the final day of Spring Quarter.
- ☐ Submit an IDP after annual committee meeting, by the last day of Summer Quarter.

YEAR THREE

- ☐ Respond to Spring Neuro 515 TI survey (if applicable).
- ☐ Hold Dissertation Proposal Meeting with Supervisory Committee (*recommended* by the last day of Spring Quarter but no later than the last day of Summer Quarter).
- ☐ Submit an IDP after annual committee meeting, by the last day of Summer Quarter.

YEARS FOUR

- ☐ Host a Supervisory Committee Meeting (*recommended* by the last day of Spring Quarter but no later than the last day of Summer Quarter).
- ☐ Submit an IDP after annual committee meeting, by the last day of Summer Quarter.

FINAL YEAR

- ☐ Coordinate with the Supervisory Committee to finalize a time and date for the Dissertation Defense (Final Exam), at least 8 weeks in advance.
- ☐ Establish a Reading Committee (submit form) to GPA at least 8 weeks before Dissertation Defense; indicate Final Exam date on form.
- ☐ Submit an IDP after the annual committee meeting (if scheduling Defense Spring/Summer).

~OR~

- ☐ Request the Final Exam through MyGrad (if scheduling Defense Autumn/Winter).
- ☐ Follow steps outlined in Final Exam Checklist.
- ☐ Submit Dissertation Draft to reading committee 6+ weeks before Dissertation Defense.

- ☐ Pass the Dissertation Defense (Final Exam).
- ☐ Submit dissertation to the Graduate School; see Electronic Thesis Dissertation (ETD).

APPENDIX F. ROTATION TALK RUBRIC

Rotation talks are not graded. This is meant to help students improve their presentation and public speaking skills.

Category	Excellent	Good	Fair	Needs Improvement
Organization, Clarity & Accessibility	Talk flows logically with a clear structure; complex ideas are explained accessibly for a general science audience; jargon is minimal or well-explained.	Structure is mostly clear with minor issues; ideas are understandable, though some jargon or technical language may be unclear.	Organization is uneven or transitions are weak; explanations may be overly technical, confusing, or lack clarity.	Disorganized and hard to follow; ideas are poorly explained or inaccessible due to excessive jargon or incoherence.
Timing & Delivery	Presentation fits within 8–10 minutes; pacing is smooth; speaker is confident, clear, and well-prepared.	Slightly over/under time; pacing is mostly steady; speaker is generally clear, with minor reliance on notes or filler words.	Noticeable timing issues; delivery is flat or inconsistent; may rely heavily on notes or have pacing problems.	Major timing issues; rushed or excessively long; delivery is unclear, disengaged, or disorganized.
Engagement	Speaker connects well with the audience through nonverbal gestures, tone, enthusiasm, curiosity, and expressiveness; invites interest and maintains attention.	Speaker is generally engaging and expressive; they may occasionally lose audience connection or energy.	Some attempt at engagement, but delivery is flat, monotone, or overly scripted.	Little to no audience engagement; speaker is difficult to hear, follow, or connect with.
Research Content: Background	Provides a strong, relevant foundation; clearly establishes the rationale and research question.	Background is appropriate and mostly clear; some areas may lack depth or connection.	Background is superficial or loosely connected to the research topic.	Background is vague, missing, or irrelevant.
Research Content: Process/Method	Methods are clearly described, appropriate	Methods are generally clear; some	Methods are partially described or only loosely	Methods are unclear, inaccurate, or not described.

	for the question, and logically presented.	steps may lack detail or justification.	connected to research aims.	
Research Content: Results	Results are clearly explained and well-organized; visuals (if used) enhance understanding.	Results are presented clearly but may lack full clarity or integration with visuals.	Results are vague, minimal, or poorly supported by visuals.	Results are confusing, inaccurate, or missing.
Research Content: Interpretation/Discussion	Offers insightful interpretation; clearly discusses significance, limitations, and future directions.	Interpretation is solid; touches on relevance and implications with some depth.	Interpretation is surface-level or lacks reflection on broader meaning.	Little or no interpretation; lacks discussion of significance or future impact.

APPENDIX G. FACULTY ON COMMITTEES

These two lists are updated periodically. The NPR list is updated when a faculty graduates a Neuro PhD student for the first time. The Faculty with GPN Appointments list is updated when a new faculty joins the GPN program and has a Neuro-only appointment within the Graduate School. Contact the GPA with any questions.

NPR ELIGIBLE FACULTY

Bair, Wyeth	Kalume, Franck	Reh, Tom
Barría, Andres	Manookin, Michael	Rieke, Fred
Bosma, Martha	Moritz, Chet	Sabesan, Ramkumar
Bruchas, Michael	Neitz, Maureen	Shea-Brown, Eric
Brunton, Bing	Neitz, Jay	Schindler, Abigail
Buffalo, Elizabeth	Neumaier, John	Shih, Andy
Collman, Forrest	Ojemann, Jeff	Smith, Stephen
Chavkin, Charles	Palmiter, Richard	Singhvi, Aakanksha
Dacey, Dennis	Pasupathy, Anitha	Steinmetz, Nick
de la Iglesia, Horacio	Perkel, David	Stocco, Andrea
Dhaka, Ajay	Perlmutter, Steve	Stuber, Garret
Fairhall, Adrienne	Phillips, Paul	Tuthill, John
Ferguson, Susan	Raible, David	Waters, Jack
Gire, David	Ramirez, Nino	Wong, Rachel
Golden, Sam	Rao, Rajesh	Yadav, Smita
Herron, Jeffrey		Zweifel, Larry
Horwitz, Greg		

FACULTY WITH GPN APPOINTMENT

The following faculty may serve on Neuroscience committees, except for the role of GSR.

Carlson, Erik	Millen, Kathleen	Smith, Stephen
Ferguson, Susan	Mossa-Basha, Mahmud	Weaver, Kurt
Gust, Juliane	Neitz, Maureen	Weinstein, Jonathan
Kraemer, Brian	Ojemann, Jeffrey	Wood, Thomas
Liachko, Nicole	Schindler, Abigail	

APPENDIX H. GENERAL EXAMINATION CHECKLIST

Before beginning the General Exam (written and oral) process, students are responsible for knowing Graduate School General Examination policies.

View the General Exam Timeline.

BEFORE SCHEDULING THE GENERAL EXAMINATION

- ☐ Complete Preliminary Written Thesis Proposal (NEURO 529).
- ☐ Be on schedule to complete required courses by the end of 2nd year (as outlined on Page 27).
- ☐ A supervisory committee must be established formally – minimum of four members – Request to Form a Supervisory Committee due Year 2 by the end of Autumn Quarter.
    - If the committee has changed, let the GPA know so the committee can be updated in MyGrad Program.

BEFORE SCHEDULING THE ORAL GENERAL EXAMINATION

- ☐ Set up a Winter Quarter meeting with the Supervisory Committee to prepare for General Exam and determine dates suitable for the GSR/Committee.
- ☐ Develop a reading list with the committee members due one month before the questions or 7 weeks before the General Exam.
- ☐ Submit the Preliminary Written Thesis Proposal (from NEURO 529) or a new proposal to the committee 3-4 weeks before the General Written Exam.
- ☐ Take the General Exam (Written).
    - This is administered by the student's committee.
- ☐ Submit the "General Exam Request" (for the Oral Exam) in MyGrad at least three weeks prior to the exam. Inform the GPA via email (the GPA will confirm committee availability before approving the request).
    - See GS Policy 4.2.2.2 for Committee requirements.
    - Note: In MyGrad, students will be asked to confirm prior completion of the "Use of Human and Animal Subjects" form. **Students do not need to complete this form, however.** Students may check "yes" because the appropriate IRB/IACUC protocol forms have already been filed by the PI (dissertation advisor).
    - **Exception:** if a student IS the lead researcher on an IRB/IACUC protocol, then forms must be filed.
- ☐ To make changes to the submitted MyGrad exam request, contact the GPA, not the Graduate School.
- ☐ The GPA will email the student the committee approval form for the general exam. Give the form to the Chair (dissertation advisor) at the Oral Exam.

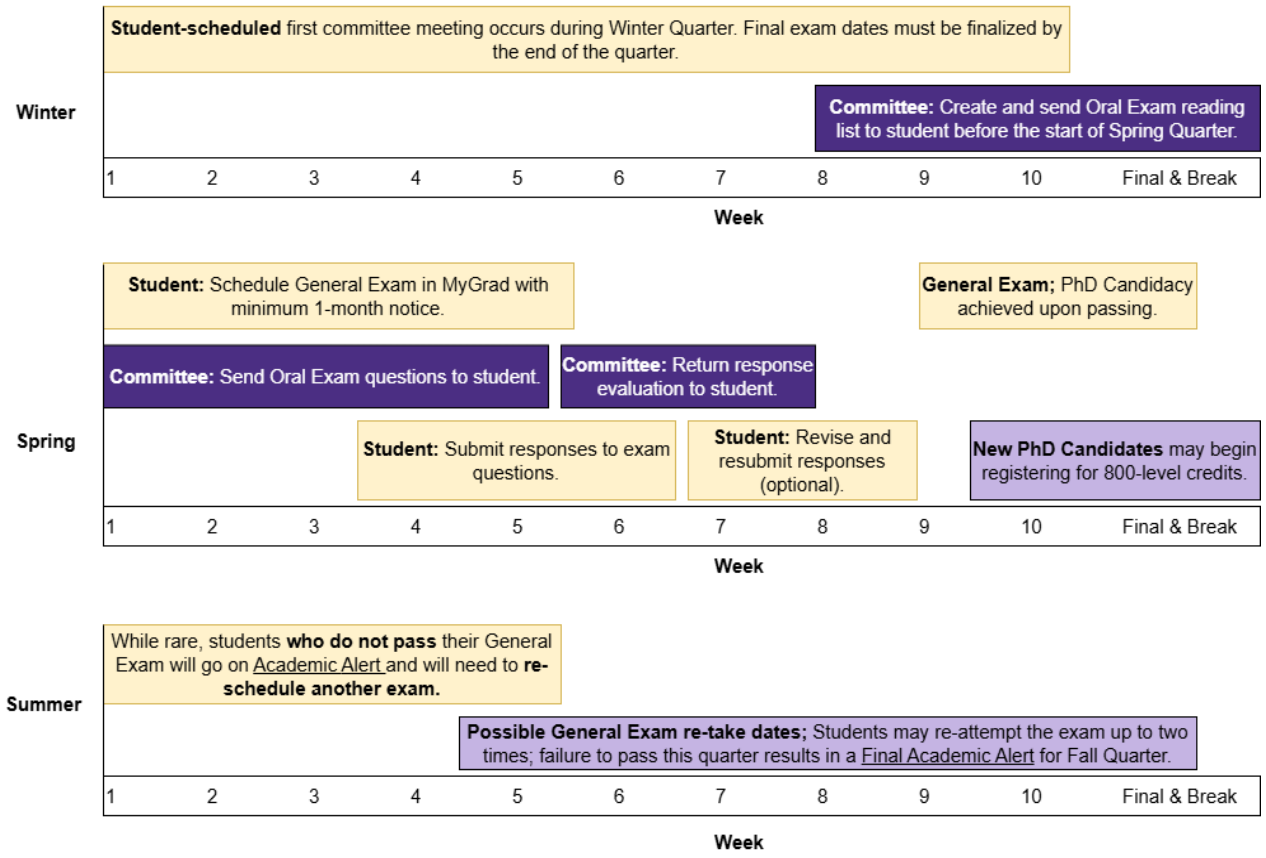
FOLLOWING THE ORAL EXAMINATION

- ☐ All committee members who are present must sign the form.
- ☐ The Chair (dissertation advisor) must indicate the exam outcome on the form.
- ☐ Submit the signed committee form to the GPA ASAP (before 5:00PM on the last day of the quarter). This is used to record the exam outcome (e.g., "Pass") in MyGrad and convey the outcome to the Graduate School.
- ☐ Students will become a candidate during the quarter that they pass the general exam (Written and Oral). If the student passes between quarters, they will become a candidate in the following quarter.

APPENDIX I. GENERAL EXAM TIMELINE

General Exam Timeline

Tasks and timeline for 2nd year students and their committees.



APPENDIX J. GENERAL EXAM FORMAT

FORMAT OF THE WRITTEN EXAM

The format of the written exam consists of two parts: (1) a brief thesis proposal with emphasis on background and rationale; (2) answers to three "knowledge" questions, which are submitted by the committee.

THESIS PROPOSAL

The document should develop the background and rationale for the proposed dissertation research, and it should outline an experimental plan to address one fundamental question. While the proposal will usually relate to the students' intended dissertation research, it could be on a different topic should the student and the committee decide that this would be appropriate.

Requirements:

- No more than 5 pages, single spaced, plus bibliography.
- Emphasize published studies pertinent to the proposed research area.
- Develop the rationale for the proposed study, emphasizing gaps in current knowledge in the proposed research area.
- Advance one or two hypotheses.
- Describe an experimental strategy to test the hypothesis.
- Preliminary data is not required but may be presented if available.
- Detailed methodology and a formal list of specific aims can be deferred until the first thesis committee meeting after the general examination has been passed.
- This should be submitted to the committee 3 weeks before the exam.

For the purposes of the general examination, the student will be evaluated on scholarship, clarity and content of the proposal, logical development of a scientific hypothesis, and overall merit of the strategy. **Students who complete and pass the class in the summer (NEURO 529) are not required to complete another thesis proposal. The NSF GRFP Proposal will count towards this requirement. This should be submitted to the committee 3 weeks before the exam.** A more complete research plan is expected at the first thesis committee meeting after the general exam has been passed, which is to be held by the end of Spring Quarter in the 3rd year. The meeting is flexible and not part of the General Exam.

QUESTIONS ON GENERAL KNOWLEDGE

Three weeks prior to the examination date and at least one month after the student received the reading list, the NPR will obtain a written question from each member of the committee including the NPR. The questions can be essay, problem format, or analysis. The answers should require no more than 2 pages per examining committee member. The NPR will select and forward to the student questions from three committee members. The dissertation advisor is not expected to submit questions, but they may do so at the discretion of the NPR. The GSR may also submit questions at the choice of the NPR. The student has 1 week to complete all the answers. The answers to all questions shall be provided to all committee members 2 weeks before the oral examination. The student's committee chair (dissertation advisor) + exam administrator, or NPR) is expected to give feedback 1 week before the oral examination. If the committee feels it is necessary, the students may be required to revise their answers to the questions provided, which would be due the day before the general exam. A PDF attachment to an email is the preferred format.

FORMAT OF THE ORAL EXAM

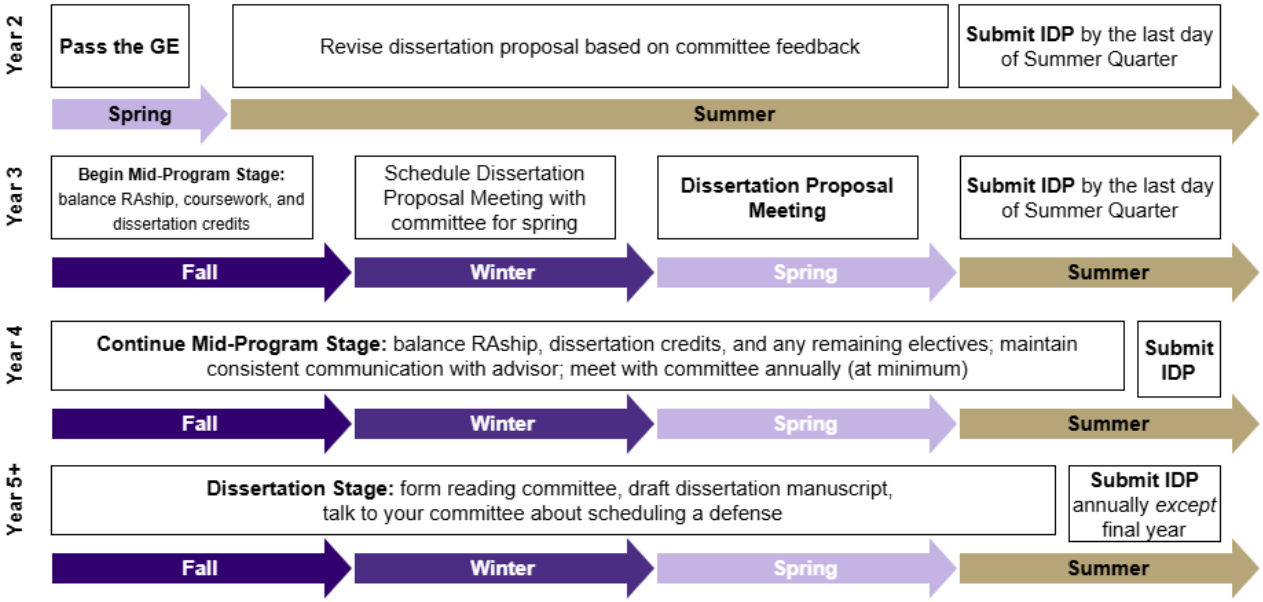
The examination begins with a 20 minute "chalk-talk" about the proposed research. The focus is on the rationale for the project and the proposed experimental strategy; background information should be presented only when directly relevant. Though preliminary data are not required for the oral exam, data slides may be presented as supporting material. This presentation is open to the public and followed by a period for public questions. Following the "chalk-talk," the committee will examine the student on themes related to the proposal, principles of experimental design, and any other areas that are seen as pertinent to the goal of developing a rigorous scientific inquiry in the student's proposed dissertation area. This part of the exam is expected to last approximately one hour. The second part of the exam will focus on general knowledge. The topics are expected to include the areas previously identified by committee members with the student. **Questions on general knowledge covered in the 1st year course curriculum are also to be part of the process.**

Students should ensure that they have assimilated and consolidated the information presented in the first-year coursework to be adequately prepared for this part of the exam. The NPR will control the conduct of the oral exam. While the dissertation advisor may correct a misstatement or misinformation offered by the student, the advisor should not participate in general discussions and questions during the exam.

APPENDIX K. POST GENERAL EXAM TIMELINE

Congratulations on passing your General Exam! What's next?

A timeline of key requirements and milestones following GE completion.



APPENDIX L. FINAL EXAM CHECKLIST

Before beginning the final exam (dissertation defense) process, students are responsible for knowing the UW Graduate School's doctoral degree policies and the relevant dates and timelines.

BEFORE SCHEDULING THE DISSERTATION DEFENSE

- ☐ Complete General Examination (Written and Oral).

BEFORE THE DISSERTATION DEFENSE

- ☐ Coordinate with the supervisory committee to finalize a time and date for the dissertation defense, at least eight weeks in advance.
- ☐ Set up the reading committee.
    - Reading committee must agree that the dissertation is appropriate for fulfillment of the doctoral degree and that necessary changes can be made prior to the end of the quarter.
    - Indicate the dissertation defense time and date on the reading committee request form.
- ☐ Schedule a dissertation defense (final exam) via MyGrad – Student View.
    - This can be scheduled once the reading committee is established.
    - At least four members must be present at the student's final exam.
    - The GPA will send the student the "supervisory committee form" to bring to the final exam defense.
- ☐ Send the supervisory committee the dissertation draft.
    - At least six weeks prior to the final exam, unless otherwise agreed.

FOLLOWING THE DISSERTATION DEFENSE

- ☐ All committee members who are present must sign the Supervisory Committee Form.
    - The Chair (dissertation advisor) must indicate the exam outcome on the form.
- ☐ Submit the signed form to the GPA (before 5:00PM on the last day of the quarter).
- ☐ Obtain the necessary signatures on Doctoral Dissertation Reading Committee Approval Form in MyGrad.
    - Send reading committee members instructions to approve written thesis in MyGrad.
- ☐ The dissertation must adhere to the Graduate School regulations.
- ☐ SUBMIT (1) dissertation, (2) SED Certificate of Completion via the UW Electronic Thesis/Dissertation (ETD) Administrator Site by the quarterly deadline.
- ☐ Confirm submission: after a successful submission, the message "Your dissertation/thesis has been submitted" will appear in the UW ETD Administrator site.
    - Student will also receive a confirmation e-mail from "Administrator of University of Washington."
- ☐ The degree will be posted after the end of the quarter in which the final dissertation is submitted.
- ☐ A diploma will be mailed to the student by the Registrar about 4 months after graduation. The student should keep their address up to date through the MyUW system.
- ☐ Please keep contact information up-to-date and keep the GPA (neurogrd@uw.edu) apprised of future work, research, and accomplishments!