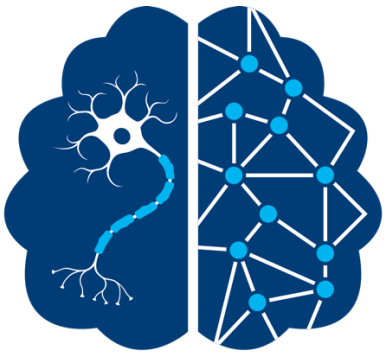

Yale Interdepartmental Neuroscience Program

https://medicine.yale.edu/inp/

INP HANDBOOK

GUIDELINES FOR GRADUATE STUDENTS
AND PARTICIPATING FACULTY

Updated July 2024

NEUROSCIENCE TRACK ADMINISTRATIVE OFFICES

INP Leadership

Marina Picciotto	INP Director of Graduate Studies	301 Cedar St., 4th Floor	Ext. 7-2041	Marina.picciotto@yale.edu
Junjie Guo	Co-Director of Graduate Studies	100 College St., Room 235	Ext. 7-4439	Junjie.guo@yale.edu
Damon Clark	Co-Director of Graduate Studies	YSB, Room C148	Ext. 2-0750	Damon.clark@yale.edu
Alicia Che	Director of Graduate Admissions	34 Park St., Room W215	203-974-7762	Alicia.Che@yale.edu
Maria Eugenia Panero	Assistant Director of Academic Affairs	Hope Bldg, Room 212B	Ext. 5-5932	Mariaeugenia.panero@yale.edu
Kirstin Dion	Administration	Hope Bldg, Room 210		Kirstin.dion@yale.edu
Leslie Ann McClashie	Financial Assistant	55 College St		Leslieann.mcclashie@yale.edu

DGS – Director of Graduate Studies
DGA – Director of Graduate Admissions

Biological & Biomedical Sciences (BBS) Leadership

Craig Roy	Director	BCMM 354B	737-2408	Craig.roy@yale.edu
John Alvaro	Associate Dean	55 College St.	785-3735	John.alvaro@yale.edu
Bonnie Ellis	Associate Director		785-5663	Bonnie.ellis@yale.edu
Jennifer Claydon	Senior Associate Director Program Assessment		737-1388	Jennifer.claydon@yale.edu
Jennifer Franzoni	Senior Administrative Assistant	55 College St.	737-5659	Jennifer.franzoni@yale.edu
Anton Bennett	Director of Minority Affairs	B226D SHM	737-2441	Anton.bennett@yale.edu
Karina Gonzalez	Associate Dean, Diversity and Inclusion Program			

Medical Scientist Training Program (MD/PhD) Leadership

Barbara Kazmierczak	Director	barbara.kazmierczak@yale.edu
Reiko Fitzsimonds	Assistant Director	reiko.fitzsimonds@yale.edu
Alexandra Mauzerall	Associate Director	alexandra.mauzerall@yale.edu
Kayla McKay	Registrar	kayla.mckay@yale.edu

YALE GRADUATE SCHOOL OF ARTS AND SCIENCES (GSAS) WEBSITE

(Chances are, you can find the information you're looking for by starting here!)

https://gsas.yale.edu

ADDITIONAL UNIVERSITY WEBSITES

Campus Police 203-432-4400
http://publicsafety.yale.edu/
Yale Shuttle Services
http://to.yale.edu/shuttle
Graduate Housing
http://www.yale.edu/gradhousing/
Yale Health Plan
https://yalehealth.yale.edu
Office of International Students & Scholars, 432-6460
http://www.oiss.yale.edu/
Cushing Medical Library
http://library.medicine.yale.edu/
ITS Helpdesk, 432-9000
http://www.yale.edu/its/
Yale Portal
yale.edu/portal

THE GRADUATE PROGRAM

INP Mission Statement

The primary mission of Yale's Interdepartmental Neuroscience Program (INP) is to prepare a new generation of neuroscientists to be forward-thinking leaders in academic research, education, government, industry, and society. Our graduate program draws on the knowledge and expertise of more than 120 faculty members, representing over 20 departments, ranging from psychiatry and pharmacology to cell biology and computer science. Our unique interdepartmental structure encourages students to pursue a breadth of interdisciplinary collaborations, while access to Yale's state-of-the-art core facilities allows students to conduct groundbreaking, cutting-edge research.

Our program, which places a strong emphasis on community and mentorship, fosters a cohesive and supportive environment through student-organized seminars and one-on-one peer mentorship to promote long-term personal growth and professional development. The INP cultivates an inclusive environment free of harassment and espouses tolerance and accountability in the pursuit of exceptional science.

Policy and Personnel

The Neuroscience Track is composed of the faculty and graduate program of the Interdepartmental Neuroscience Program (INP). The INP is overseen by three co-directors who represent the Biomedical Sciences from each end of the Yale campus. The day-to-day functioning of the INP is handled by the Assistant Director of Academic Affairs and the Senior Administrative Assistant who are located in the INP offices in the Hope Building. Educational policy for the INP is decided upon and reviewed by the INP Executive Committee.

Responsible Conduct in Science

All first year graduate school INP students are required to take the Bioethics in Neuroscience course (INP 580). Yale University believes that all individual research and research training should be conducted in a scientifically responsible and ethical manner. Yale's Guidelines for the Responsible Conduct of Research set forth the responsibilities of the faculty together with specific comments relating to the management, date, authorship and the evaluation of the scholarly efforts and research. This guideline builds upon information provided in the Faculty Handbook and various University policy statements: Policy on Collaborative Research; Patient Policy; University Policy on Academic Misconduct; and The University Policy on Conflict of Interest. It is Yale policy to encourage research and scholarly activities essential to the training of students, to the advancement of knowledge, and essential to the intellectual growth of the faculty. Yale expects that scholarly activities will be conducted with the highest ethical and professional standards. While professional standards may vary across fields, the University has developed a set of guiding principles and policies that are applicable to all research and scholarly activity at Yale.
http://www.yale.edu/provost/handbook/handbook_x__university_policies_concerni.html#T4

Additional specific policy and procedure govern the use of animals in research, the involvement of human subjects and experimentation with radioisotopes and other hazardous materials. All students are expected to complete required training in the areas that affect their research as soon as possible after joining a lab for a rotation or for thesis work.

All fourth-year INP students, including MD/PhD students, are required to take INP 503 Bioethics Refresher course, which includes BBS modules and an INP-specific course.

REQUIREMENTS FOR THE Ph.D. DEGREE

Advisory Committee

Each entering student will meet with an advisory committee. This committee will be responsible for establishing the student's course of study and for monitoring progress during their first year. The committee will meet with each student in September and the DGS will meet with each First-Year student in January and June, as needed.

Courses

A complete list of courses available can be found in the BBS Course Guide, Current course offerings can be found at Courses.yale.edu. Students are required to take 3 core courses, two ethics courses, a course in statistics and data analysis, and one elective course. Additional degree requirements are successful completion of both terms of Lab Rotation for First-Year Students (INP 511 and 512) and both terms of Second-Year Thesis Research (INP 513 and 514).

The Neuroscience Track requires the following courses:

First year

- Principles of Neuroscience (INP 701) - Fall
- Foundations of Cellular and Molecular Neurobiology (INP 702) - Fall
- Foundations of Systems Neuroscience (INP 703) - Spring
- Bioethics in Neuroscience (INP 580) - Spring
- INP 511 (Fall) & 512 (Spring), Lab Rotations for First-Year Students

Second year

- INP 513 (Fall) & 514 (Spring), Second Year Thesis Research

Fourth year

- INP 503 Bioethics Refresher course (Spring)

Years 1-3, and must be completed to be admitted to candidacy:

One graduate level (500+) course in statistics and data analysis. The course can be selected from the following list; substitutions must be approved by the DGS. Students are encouraged to check which semester their preferred course will be offered.

- Statistics and Data Analysis in Neuroscience (INP 599)
- Modeling Biological Systems II (INP 562 / MCDB 562)
- Computational Methods in Human Neuroscience (INP 558 / PSYC 558)
- Machine Learning for Biology (GENE 555)
- Multivariate Statistics (PSYC 518)
- Introductory Statistics (S&DS 500)
- Introduction to Statistics: Life Sciences (S&DS 501)
- Introduction to Statistics: Data Analysis (S&DS 506)
- Intensive Introductory Statistics (S&DS 520)
- Data Exploration and Analysis (S&DS 530)
- Algorithms of the Mind (PSYC 561 / PSYC 261a / CGSC 274a / NSCI 361a)
- Statistics for Neuroscience (INP 560)
- Statistics (PSYC 200a)
- Dynamical Systems in Biology (INP 562 / MCDB 361/562)
- Computational Vision and Biological Perception (INP 575 / CPSC 575)
- Genomic Methods for Genetic Analysis (GENE 760)
- Introduction to Biostatistics in Clinical Investigation (IMED 645)

One additional elective course that may come from the following list, or from other Graduate level course listings in related departments. When selecting the elective course students should consult the course listings from the GSAS at the time of registration. Examples include:

- Cellular and Molecular Mechanisms of Neurological Disease (INP 507)
- Structural and Functional Organization of the Human Nervous System (INP 510)
- Tutorial (INP 519), external courses such as Cold Spring Harbor
- Neuroimaging in Neuropsychiatry II: Clinical Applications (INP 521)
- Imaging Drugs in the Brain (INP 523/ENAS 880)
- Principles of Signal Transduction (PHAR 528)
- Neurobiology of Cortical Systems (INP 532) (only if INP 703 NOT taken)
- Function and Dysfunction of the Visual System (INP 533)
- How to Give a Talk (INP 540)
- Fundamentals of Neuroimaging (INP 585)
- Molecular Cell Biology (CBIO 602)
- Neurobiology (INP 720)

<u>Years 2-6, “Placeholder” Courses</u>

In order to maintain student status, you must be registered during the Fall and Spring semesters. If you are not taking a formal course, you must register for a 999 course, as applicable.

- QUAL 999 while preparing for Qualifying Exams
- CAND 999 while preparing for Candidacy
- DISR 999 while actively doing research towards a thesis

Grades

At the completion of a course, students are normally assigned a grade of Honors, High Pass, Pass or Fail. Seminar or research courses are usually graded either Satisfactory or Unsatisfactory. The Graduate School requires that Ph.D. students obtain a minimum of two grades of Honors in regular term courses by the end of the second year of study. Courses graded Satisfactory/Unsatisfactory may not be used to fulfill the Honors requirement. All students will be reviewed academically at the end of each year. If any student fails to meet this standard, they will be put on academic probation with specific instructions on how to show appropriate academic improvement.

Students must also maintain at least a High Pass average (for purposes of calculating this average, Honors=3, High Pass=2, Pass=1, and Fail=0). The High Pass average must also be met for all Neuroscience graduate courses. A grade of Pass is generally considered an unsatisfactory grade, its name notwithstanding. To remain in good standing throughout their time in the Ph.D. program, students are expected to actively participate in classes, seminars, and lab meetings, to produce high quality written work, and demonstrate regular progress toward completion of the thesis.

Laboratory Rotations

Laboratory rotations are an essential component to interdisciplinary training and each student is required to complete a minimum of three rotations by the end of their second semester. Completing four rotations is encouraged. The rotations must be in different laboratories and, preferably, in different areas of Neuroscience from at least two different departments. At least one of these rotations must be in the lab of an INP faculty member. Below is a sample schedule of rotation lengths (exact dates are subject to change each year). Should a particular laboratory not meet the needs of a student, they are encouraged to discuss this with the DGS and consider moving to another lab. At the end of each rotation, the student and P.I. will complete the Rotation Evaluation form and they will email the completed form to the INP office, INP@yale.edu.

	Start	End	Duration
Rotation 1	September 15	October 31	8 weeks (includes Fall Break)
Rotation 2	November 1	January 14	11 weeks (includes Thanksgiving, finals, and Winter Break)
Rotation 3	January 15	February 28	7 weeks
Rotation 4	March 1	May 1	9 weeks (includes Spring Break)

Track and P.I. Affiliation

At the end of their laboratory rotations, first year students are expected to affiliate with the INP and select an INP faculty member as an advisor to begin pursuing research that will lead to their Ph.D. Affiliation forms are due on May 15th of the end of the

student's first year. Failure to meet the May 15th deadline is likely to result in delays to the student's stipend support in their second year.

The Qualifying Examination

A primary objective of an interdisciplinary program is training well-rounded students. The qualifying examination is viewed as one means of obtaining that goal. The INP qualifying examination involves directed reading with 4 members of the faculty, as well as a written and an oral component. The Qualifying Examination must be completed by June 1 of the end of the student's second year. Exemption from this deadline requires the approval of the INP Director of Graduate Studies (DGS).

During the second year, each student will choose a qualifying examination committee, which is to be comprised of four faculty members from at least two different departments representing four different areas of specialization. The student's advisor may not be a reader on the Qualifying Exam Committee. A fifth, non-reading, member of the committee (when not included in the original four faculty members) will chair each examination. This committee should be approved by Marina Picciotto or Junjie Guo

Each of the four faculty members, in discussion with the student, will select ten - fifteen important papers from their field of specialization that the student will read, study, and discuss with the faculty member. It is recommended that the student meet on a regular basis with each faculty member to discuss the assigned papers over a six-week period. A typical scenario would involve a minimum of four to six sessions with each faculty advisor.

No later than three months after receiving the papers, each committee member will prepare two essay questions based upon the readings. These eight questions will be presented to the student by INP staff, who will select three questions representing three different areas of specialization. The student will have 48 hours to submit their essays. Library and literature resources may be used, and the student may complete the exam in the location of their choice. Any one of the answers should not exceed the equivalent of three type-written pages single-spaced; references may be included at the discretion of the student or at the request of the faculty. The complete assigned reading list should be submitted with the final written examination.

No later than one week after the written exam is started, an oral examination focusing on the readings will be held with the student and the members of the committee (including the Chair). The oral exam typically lasts for 2 hours.

As described above, the Qualifying Examination has three parts, all of which are evaluated. The student's performance in meetings and discussions with faculty committee members, the written examination, and the oral examination are assessed when the committee members are all present for the oral examination. A unanimous Pass vote from the Qualifying Examination committee is required. Students who do not pass the Qualifying Examination will be put on academic probation and will be required to either re-take parts of the qualifier and/or complete additional coursework. At the discretion of the committee, the student may be offered a second full attempt at the exam. If so, then a new committee may be formed by the DGS. The student will receive a letter from the DGS explaining why their performance was unsatisfactory and that they may be dismissed from the graduate program if they do not show improvement within one semester. Areas of weakness will be outlined as well as specific guidelines as to

how they can demonstrate improvement. Proof of timely continual academic progress will be required.

Thesis Prospectus

A student's thesis committee includes the student's advisor and 3 additional ladder faculty. At least 3 of the thesis committee faculty must be members of the Yale faculty. Prior to writing the thesis, the student will attend at least 2 formal meetings with their advisor and committee.

At the first meeting (presentation of the Prospectus), the committee members should select a member of the committee, who is NOT the advisor, to chair the committee. Two weeks prior to the first meeting, the student will distribute a short document of no more than 6-10 pages which includes a title for the project, a brief introduction to the problem(s) being studied, the techniques being employed, and a short discussion of potential outcomes and/or pitfalls. This document should be modeled on the NIH NRSA Predoctoral fellowship guidelines and eligible students are encouraged to submit the final document for consideration by NIH. It is expected that the written prospectus be developed in close consultation with the student's advisor.

The first meeting of the thesis committee must occur prior to the end of the student's third year. It is strongly recommended that this meeting occur early in the third year as to gain the maximum benefit from the committee members in the design of the thesis project. The student will make a concise presentation to the committee and then this meeting should address the strengths and weaknesses of the proposed research. The thesis prospectus must be approved by the committee and submitted to the Graduate School of Arts and Sciences (GSAS) by May 31 in partial completion of the requirements for admission to candidacy for the Ph.D. degree. (The student must be admitted to candidacy to be eligible to register for the seventh semester.) Additionally, the student must submit the Prospectus Approval Form to INP@yale.edu by June 1.

All subsequent committee meetings will take the form of an interim progress report before which the student sends a short (no more than two pages) progress report to the committee. At the committee meeting, the student makes a presentation of progress to date and the committee discusses the progress and/or problems relevant to the thesis. These meetings typically last approximately one hour. The chair of the committee will write a summary of the meeting using the INP Thesis Committee Form which will be copied to the committee members, the student, and go to INP@yale.edu. Students are required to meet with their committees every 6 months or more often, as deemed appropriate by the thesis committee. Annual registration with GSAS is dependent on fulfillment of this requirement.

It is expected that the thesis prospectus committee will also serve as the final thesis defense committee. Changes in a student's thesis committee require approval of the DGS. It is expected that the student will be in continual communication with the thesis committee during completion of the research and preparation of the written thesis.

Admission to Candidacy

Following the GSAS guidelines, students who have satisfied the program's course requirements (excluding the 4th year ethics refresher course), laboratory

rotations, second year thesis research, the Graduate School Honors requirement, have successfully completed the qualifying exam, and have an approved thesis prospectus will be formally admitted to Candidacy for the Ph.D. degree. The Graduate School requires that this be completed before the beginning of the seventh semester (4th year). Students who do not meet this deadline will be required to petition the Graduate School for permission to register for the following semester and will be placed on academic probation until these requirements have been met.

Thesis Defense

During the final stages of thesis research, the student should maintain especially close communication with their advisor and committee to most effectively establish the content and composition of the thesis. As the thesis nears completion to the satisfaction of the thesis committee, a date for the defense should be scheduled by the student and the committee. There must be at least 6 months between the final thesis committee meeting and the defense date. No later than two weeks before the defense is to take place, the "final draft" of the thesis shall be distributed to the committee members. In addition, the INP requires students to publicly defend their thesis prior to submitting their thesis to the GSAS.

The thesis defense consists of two parts: 1) An open seminar to which all members of the academic community will be invited; and 2) An oral defense of the thesis, which will include only the student and the thesis committee. The final oral defense should not exceed two hours. When the defense has been completed, the student will leave the room and the committee will discuss acceptance of the thesis (with or without revisions) or remand it to the student for further work. Once all changes have been made to the satisfaction of the committee, the student can submit the thesis and all required paperwork to the Graduate School. An official Reader Report is then sent to each committee member who will submit this written report to the Graduate School and the Directors, who will approve the award of the Ph.D.

The student will notify INP@yale.edu two weeks in advance of defending on what day the student's funding will end.

Thesis Dissertation Submission

Full instructions on petitioning for degree, formatting your thesis and all required forms are found here: https://registrar.yale.edu/students/dissertation-submission. Very importantly, the Notification of Readers (NOR) deadline and Thesis Submission deadline are set by the Grad School and must be met.

Teaching Requirement

INP students, as well as others in the BBS, have a two-semester Teaching Fellows (TF) requirement. First-year students may not TF without written permission from the DGS. It is strongly recommended that both TF requirements be fulfilled by the end of the third year, as students are increasingly focused on full-time laboratory work and find it difficult to fit in teaching responsibilities at this point. At least one semester of teaching must be completed by the end of the student's third year. If this requirement is not met by the end of the third year, a written petition (email) must be made to the DGS and must include information on how and when the requirement will be met.

Teaching assignments in Principles of Neuroscience, Foundations of Cellular and Molecular Neurobiology, Foundations of Systems Neuroscience, Bioethics in Neuroscience, and Data Analysis and Statistics in Neuroscience are “owned” by INP and can only be filled with INP students. Students who have taken Neurobiology (INP 720) and Structural and Functional Organization of the Human Nervous System (INP 510) may apply to teach in these courses. Other opportunities may be chosen from the list of TF positions circulated annually by the BBS. If a course you are interested in is not in that list of courses, you must obtain must have approval of the DGS. Reach out to course instructors to express your interest in teaching and do so sooner than later; TF slots are competitive.

Master’s Degrees

The Neuroscience Track does not admit students for a terminal master's degree, but the Graduate School provides for the optional awarding of a Master of Philosophy (MPhil) degree. The minimum general requirements for this degree are that a student shall have completed all requirements for the Ph.D., except the prospectus, thesis defense, and teaching. Students will be automatically petitioned for the MPhil during the semester after they have completed these requirements.

The terminal M.S. is awarded only to students who are not continuing for the Ph.D. degree and have successfully completed our equivalent of 30 credit hours in the doctoral program. This includes a passing grade in all required courses, a minimum of 2 Honors grades, and successful completion of both First-Year laboratory rotations (INP 511 and 512) and both semesters of Second Year Thesis Research (INP 513 and 514). Students are not admitted for this degree.

INP REQUIREMENTS FOR THE MD/PhD DEGREE

Questions related to the MD/PhD Program should be addressed to the Director of the Medical Scientist Training Program (MSTP), Barbara Kazmierczak or the Assistant Director, Reiko Fitzsimonds. All INP MD/PhD students must meet with DGS Marina Picciotto to discuss their program of study.

Course Requirements

Three Graduate School courses are required. Students must obtain a grade of Honors in two of these courses. The Honors requirement must be completed by the end of the second year of full-time graduate work.

The INP has two specific required courses, Principles of Neuroscience (INP 701) and Structural and Functional Analysis of the Human Nervous System (INP 510). INP 510 is part of the Connections to the World curriculum and is taken in the Fall of the 2nd year of the Medical School curriculum.

One elective graduate level course is required. Graduate courses taken during the first two years of medical school will count towards the student's elective requirement in the INP, provided the student has registered to receive a graduate grade in the course. Examples are CBIO 601 and MB&B 800. In the case of students

accepted into the MD/PhD Program during their first year of medical school, a letter from the faculty member in charge of the first-year course indicating the grade achieved in the course is required and an official transcript from the Medical School must be submitted to the Graduate School.

The INP also requires affiliated MD/PhD students to register for INP 513 and 514, Second-Year Thesis Research in the first two semesters of affiliation with the graduate program, and complete INP 503, The Bioethics Refresher Course, in year 5.

Laboratory Rotations

Two rotations are required; rotations in another department/program will count towards this requirement upon approval of the INP Director of Graduate Studies. These are typically completed during the summer between the first and second year of medical school.

Affiliation requirement

By May 15th of student's 2nd year of medical studies, students are expected to affiliate with the INP and select an INP faculty member as an adviser to begin pursuing research that will lead to their Ph.D. Failure to meet the May 15th deadline is likely to result in delays to the student's stipend support.

Teaching Requirements

MD/PhD students are required to TF one term. Previous teaching (as TF) in the histology labs or other M.D. curriculum courses does count toward this requirement, if the student taught while enrolled at Yale as an MD/PhD student.

Qualifying Exam

MD/PhD students must complete their qualifying exam before the end of their first year as an affiliated graduate student. If affiliation begins in September of the third year, then the qualifying exam must be completed by the end of May of that year.

Prospectus

MD/PhD students must complete and submit their thesis prospectus by the end of the second year as an affiliated graduate student. If affiliation begins in September of the third year, then the prospectus must be submitted and approved by the end of May of the fourth year.

Please note that every thesis prospectus must be approved by the Student's Thesis Committee and a Prospectus Approval Form should be completed and emailed to INP@yale.edu.

Admission to Candidacy

MD/PhD students are required to have been admitted to candidacy by the end of the second year as an affiliated graduate student. Generally, the submission of the thesis prospectus is the final requirement for admission to candidacy and paperwork for both is submitted to the Graduate School at the same time.

Typical Timeline

First Year

MD/PhD students complete courses in the Medical School and register for selected courses in the Graduate School. Those identifying INP as their probable Ph.D. field should take the required course Principles of Neuroscience in the Fall semester. This is the recommended timing. Other medical school curriculum courses with graduate school listings may be taken for graduate school credit to fulfill our requirement and, indeed, it is recommended that this be done. Two laboratory rotations should be completed in the summer. The DGS may be of assistance in identifying appropriate laboratories based on the student's interests.

Second Year

Courses in the Medical School are typically taken. MD/PhD students should take INP 510 in the Fall of the second year for graduate school credit/grade. Part 1 of the Boards is taken.

Third Year

Students will join their thesis lab in September of the third year. All paperwork should be completed (affiliation form completed and copy of student's med school academic record documenting coursework taken for credit in the GSAS to INP@yale.edu). Qualifying Examination must be completed within one year of laboratory/program affiliation. This is a graduate school rule and graduate school registration for the following semester may be held up if this requirement is not fulfilled in a timely manner.

Fourth Year

The Thesis Prospectus must be approved and submitted to the Graduate School by the end of the second year of laboratory/PI affiliation. Registration for the following semester may be held up if this requirement is not fulfilled in a timely manner. The Thesis Committee approves the prospectus and required paperwork is then emailed to INP@yale.edu by the student. The INP Office will then complete the Admission to Candidacy paperwork and submit it to the Graduate School. The Prospectus must be submitted to the Graduate School at least six months before the thesis is submitted.

Fifth Year

Thesis research in residence continues. Thesis committee meetings are required every 6 months. Students will register for and complete the Bioethics Refresher Course, INP 503, held during the spring semester.

Sixth - Seventh Year

We require that MD/PhD students defend their thesis before returning to fulfill the remaining Medical School requirements. Students must complete all remaining requirements to graduate in May.

While this is considered a guideline for a typical MD/PhD student, we recognize that not every student will follow this path. Any digression from this timeline must be

discussed and approved by the INP DGS, with appropriate notes to the student's file and copies to the MD/PhD Office. Continued participation in the INP is subject to the satisfactory completion of requirements in a timely fashion and if any question arises about the satisfactory progress of a student and the qualifying examination committee or the thesis committee cannot agree on an appropriate resolution, then the INP Executive Committee will have the authority of the INP faculty to determine a course of action.

EVALUATION

As each requirement towards degree is fulfilled, the INP student will receive a formal evaluation of progress. First year students will receive summaries of rotation and academic standing evaluations, second year students will receive a summary of the Qualifying Examination performance, which will include their current academic standing. Third year students and beyond will receive written feedback on the prospectus and subsequent thesis committee meetings, to be written by the committee chair, with copies to the committee members and the INP office. Each student's file will be reviewed annually to ensure that milestones are met.

PUBLICATIONS

The Graduate School requires that publications based upon the thesis results should include a statement to that effect. For example, the author should state that the paper is based upon: "a dissertation submitted to fulfill in part the requirements for the Degree of Doctor of Philosophy at Yale University".

The INP is supported by a Training Grant funded by NINDS. To cite that support, the following statement is to be included in both the thesis and ALL publications on which the student is an author: "This investigation was supported by T32 NS041228 from the National Institute of Neurological Disorders and Stroke."

Other funding which the student has received (i.e. Gruber, NSF, individual NRSAs, etc.) should be similarly acknowledged.

RESIDENCE REQUIREMENT

The minimal residence requirement for the graduate school is three years; the maximum period of enrollment for the Ph.D. degree is normally six years. The maximum time may be extended by special petition, but only if all requirements for the Ph.D., except for the completion of research and submission of the thesis, have been fulfilled. If you must petition for Extended Registration, please do so in a timely fashion.

REGISTRATION

https://gsas.yale.edu/resources?type_support=11&category=49&sort_bef_combine=featured_DESC&sort_by=featured&sort_order=DESC

General Information

All students in residence or in absentia are required to register with the Graduate School. Failure to do so will result in ineligibility to use University facilities, including the Libraries and the Health Services.

Students are typically given a couple of weeks at the end of the semester and the first couple of weeks at the beginning of each semester to register for courses, called the add/drop period. You will receive email notification of the Online Course Selection deadline each semester.

Enrollment Verification

Requests for proof of enrollment letters, regardless of purpose, should be sent to the University Registrar's Office: registrar@yale.edu; registrar.gsas@yale.edu.

Alternatively, students may also obtain an enrollment certificate at the National Student Clearinghouse, which is linked in this page: https://registrar.yale.edu/students/verifications

International Student Registration

International students must register at the Office of International Students and Scholars (https://oiss.yale.edu/) before registering with the Graduate School. International students are strongly encouraged to use this office as a resource for any problems related to their foreign-student status.

In Absentia Registration

Students whose circumstances require full-time study at another institution, or thesis research on a full-time basis outside the New Haven area can register in absentia provided they receive prior written approval of the DGS and the Dean of the Graduate School. Students who register in absentia do not qualify for Yale Health Plan services unless they are paying full tuition but may enroll themselves and their dependents at full cost.

LEAVES OF ABSENCE

There are 3 categories of leave: parental, medical, and personal. Policies governing leaves of absence can be found at https://gsas.yale.edu/resources/leaves-absence

TIME OFF POLICIES

Vacation, sick and personal time policies for Graduate Student Workers are established by the Local 33 Union Contract.

TUITION

Full tuition is charged for all Ph.D. students for 8 semesters, except in the case of students who have completed all degree requirements (including submission of the thesis) in less than four continuous years from the date of entry into the Ph.D. program. After eight semesters, the student must continue registering until the thesis is submitted or the terminal date is passed. A continuous registration fee (CRF) will be charged in year 5 and beyond.

Tuition charges for students who are considering leaves of absence or registration in absentia should be arranged in consultation with the Graduate School.

FINANCIAL AID

https://gsas.yale.edu/resources/graduate-financial-aid

Stipend Support

For the 2024-2025 year, all students will receive tuition plus a stipend of $51,045 (12 months).

Employment or income verification requests (such as those required for apartment leases) should be sent to Human Resources: employee.services@yale.edu; 203-432-5552.

Other sources of support

If you plan to apply for an external award, or receive and award, please notify us at inp@yale.edu

- U.S.P.H.S. National Research Service Awards (NRSA): Each year, the National Institute of Health (NIH) provides Yale with funds for graduate student tuition and stipends. The Graduate School and/or the Medical School provides students with a stipend supplement. These awards are available for a maximum of 5 years. There is no "Payback" obligation for pre-doctoral support.

- External Fellowships: Several external fellowships which are administered by federal or private sources are also available to graduate students in Biomedical Sciences. The INP strongly encourages students to apply for any outside fellowships. In particular, those awarded by the NIH, National Science Foundation, the Department of Defense and the Homeland Security Office as well as private foundations. More senior students are strongly encouraged to submit Predoctoral NRSA applications. Assistance in completing the business aspect of the applications is provided by your PI's Business Office. Students who are awarded NSFs and other outside fellowships (exclusive of NRSAs) may activate these awards only as of September 1. All Fellowship Activation dates must be discussed with the INP office prior to submission.

- University Fellowships: These fellowships are awarded by the Graduate School and/or the Medical School.

- Research Assistantships: Research grants and contracts awarded by outside agencies to support the research projects of individual faculty members may provide funds for Research Assistantships for graduate students. These appointments are decided by faculty negotiation. In most cases, these appointments are given to senior students who are engaged in full-time thesis research in the laboratory of the P.I. granting the funds.

Pay Periods

The Graduate and Professional student payroll runs on a semi-monthly schedule of payments (the 15th and last business day of each month). Instructions to set up Direct Deposit and for using all the features of the "My Pay and Info" site are available at: http://your.yale.edu/ using the "Workday" link. Incoming graduate students will receive their first paycheck on August 31.

Dean's Emergency Fund

Developed in consultation with the Graduate Student Assembly, the Dean's Emergency Fund enables terminal Master's and PhD students in the Graduate School of Arts and Sciences to continue making academic progress despite unanticipated, extreme financial hardships that cannot be resolved through fellowships, loans, or personal resources. The maximum award for eligible requests is $2,000. https://gsas.yale.edu/deans-emergency-fund

Travel Funds

First-year and second-year INP students are provided with travel funds for use towards travel to the Society for Neuroscience Conference (SfN) in the Fall semester. First-year students will have all expenses covered towards attending SfN. Second-year students will have lodging covered while attending SfN. These travel funds can be used for SfN only and cannot be applied to another conference. Additional travel costs for SfN or other conferences must be provided by each student's PI, if available.

The GSAS offers a Conference Travel Fellowship. The CTF aims to support the professional development of graduate students by providing financial assistance to present papers and posters at conferences on a competitive basis. Conference funds are disbursed three times per year with application deadlines on October 15th, February 15th, and May 1st. For more information and details to apply, go to https://gsa.yale.edu/ctf

LECTURES, SEMINARS, AND TALKS

Yale graduate students in the Biological and Biomedical Sciences have access to a large number of relevant research seminars, retreats, and symposia. INP students are expected to attend:

Seminar Series
The seminar series sponsored by the Department of Neuroscience provides an opportunity for students and post-docs in the neuroscience community at Yale to interact on a one-to-one basis with visiting neuroscientists in an informal setting. The seminars are held on Mondays at noon September through June in the Medical School. Neuro students may nominate speakers, drawing from the fields of cellular and molecular neurobiology, neurophysiology, developmental neurobiology, and systems/computational neuroscience. In addition, the INP will sponsor a small group of speakers chosen, invited and hosted by INP students. A student host coordinates lunch and dinner with interested graduate students and the speaker. Following each seminar, graduate students are invited to have dinner with the speaker. Contact INP@yale.edu for additional information.

Student Research Talks
To maintain regular interactions among the student body, INP students participate in a regular “In Progress” seminar series. At these seminars, students make short presentations of research-in-progress to other neuroscience students, postdocs, and faculty. This gives INP students a unique opportunity to have their work evaluated by their peers and faculty.

Second-year students, working with a faculty committee, coordinate the scheduling of the talks on Tuesdays at noon; lunch is provided. All INP students are expected to attend. Talks will be given by 2nd, 3rd, 4th, and 5th year students. 2nd year students should plan on a 10-minute talk with an additional 5 minutes for discussion. 3rd and 4th year students give a 15-minute talk with an additional 5 minutes for discussion. 5th year students give a 20-minutes talk with an additional 5 minutes for discussion.

Guidelines for these presentations are as follows:

- Talks should consist of a clear and well-organized presentation of the background and rationale for the research, and the recent findings.

- Begin your talk by introducing yourself and announce in whose lab you are working. For clarity, you should make sure that the first few slides give adequate background for your presentation. Your audience is quite diverse. After giving the background, go through your data, presenting it in as clear a fashion as possible. Pay attention to the order in which you present your information and to the manner in which your data slides are set up. Make sure you arrange the data in a fashion that is logical and easy to interpret. This will avoid confusion and save time. End by clearly stating your conclusions. Practicing your talk in front of a mentor, members of your lab, and/or a few friends is a good idea.

- Second-year students are often nervous about giving these seminars because they feel they do not have sufficient data. This should not be a concern. Use the opportunity to practice presenting.

- More senior students should focus on their more recent experiments. Do not try to gloss over problem areas. Remember that a primary function of these seminars is to get feedback from your colleagues. Someone in the audience may have an idea which could help, and you should encourage such ideas to come out.

Annual Interdepartmental Neuroscience Program NeuroDay

This annual event is open to all members of the Yale Neuroscience community. It features presentations by faculty, students, and postdocs. There is also ample time for informal discussion to enable attendees to become acquainted with current neuroscience research on the Yale campus, as well as opportunities to interact with students, postdoctoral fellows, and faculty from all areas of neuroscience at Yale.

OFF-CAMPUS NEUROSCIENCE COURSES

INP students are encouraged to take advantage of the several Neuroscience Summer and Short Courses which are offered in various regions. First and second-year students must have permission from an INP Director to apply for these courses. Although many summer courses are offered internationally, those offered by the Marine Biological Laboratory (Woods Hole, MA) and Cold Spring Harbor Laboratory (Cold Spring Harbor, NY) are among the very best. Course listings can be found on the home pages of these institutions.

- Marine Biological Laboratory, Woods Hole, MA
  (508) 289-7401, admissions@mbl.edu, http://www.mbl.edu
- Cold Spring Harbor, Cold Spring Harbor, NY
  (516) 367-8345, meetings@cshl.org, http://www.cshl.org/

GRADUATE STUDENT ORGANIZATIONS & RESOURCES

https://gsas.yale.edu/graduate-student-life-and-community

The McDougal Graduate Student Center

At Yale, there is no general campus center or student center for the entire University community. For graduate students, much of student life is based in their respective departments and schools, and dormitories or apartment complexes. The McDougal Center (135 Prospect St.) is a place where graduate students from across the campus regularly meet and share interests.

A generous gift from Mr. Alfred McDougal, a Yale alumnus, and his wife, Ms. Nancy Lauter, enabled Yale in 1997 to create the McDougal Graduate Student Center. The McDougal Center provides space and program funding for building intellectual, cultural, and social life, and for facilitating professional development activities across the departments of the Graduate School of Arts and Sciences. The McDougal Center warmly welcomes the participation of students from other Yale Graduate and Professional Schools, postdoctoral fellows, faculty, staff, alumni/ae of the Graduate

School, and members of the larger Yale community. The Center provides members of the graduate student community with a place of their own on campus. https://gsas.yale.edu/mcdougal-graduate-student-center

The Graduate-Professional Student Senate (GPSS)

GPSS is a university-wide organization representing the interests of all graduate and professional students and provides a means of voicing concerns to the University administration as well as to the various departments and schools. http://gpss.yale.edu/

Graduate Student Committee

The Graduate Student Assembly is an elected body of Yale students in the Graduate School of Arts and Sciences. The Assembly's goals are to identify the needs and concerns of graduate students, consider possible solutions, and present these to the Dean and other administrators. They also discuss, propose, and advise on possible changes to Graduate School policy proposed by the administration. The assembly provides a means for communication and deliberation both among graduate students and between graduate students and other members of the Yale community. https://gsa.yale.edu

Gryphon's Pub

Gryphon's Pub provides a central meeting place for graduate and professional students, faculty, and alumni. Open only to members and their guests, Gryphons Pub operates a full-service bar with reduced prices, sponsors receptions, dances and parties, and hosts conferences, rehearsals, and exhibitions. https://gryphonspub.com

There are many other formal student organizations at Yale, covering a broad spectrum of interests and activities including an active graduate-professional intramural sports league.
https://sportsandrecreation.yale.edu/graduate-professional-intramurals

Grievance Procedures

Grievance procedures are governed under the Local 33 Union Contract. Additional info can be found at https://gsas.yale.edu/resources/conduct-grievance-procedures

HEALTH AND WELLNESS

https://gsas.yale.edu/resources?type_support=12&category=48&sort_bef_combine=title_ASC&sort_by=title&sort_order=ASC

University Health Services

The Yale Health Plan (http://yalehealth.yale.edu/) is a comprehensive health care program, located at the University Health Care Services Center (55 Lock Street) which is available to all faculty, students, and staff. All Yale students who are enrolled in graduate study at least half-time are automatically members of the YHP and are eligible for ambulatory care services and the use of the infirmary at no additional cost. Yale requires that students have hospitalization and specialty care coverage as well. For all

graduate students who do not have this coverage from another source, it will be provided at no cost to the student. If this coverage is not wanted, each student must complete the waiver form online by September 15.

Students may also enroll their spouses and dependents by filing an application with the YHP. The Graduate School will pay for half of this fee. The rest of the fee is applied through the Bursar's office. Only those spouses and dependents specifically enrolled are eligible to receive YHP benefits and services. In addition to primary and emergency care, a full range of specialty services are available, including Allergy, Dermatology, Otolaryngology, General Surgery, Mental Hygiene, Neurology, Obstetrics and Gynecology, Ophthalmology, Orthopedic Surgery, Optometry, Contact Lenses, and Urology.

For first-year students, YHP membership begins mid-August. Prior to registration, a complete medical examination form and health report must be submitted to the YHP. If these forms are not available, YHP will provide the necessary examinations, and will bill the student a charge. Additional information can be obtained by contacting the Member Services Office at (203) 432-0246.

Mental Health & Counseling

Yale Health Mental Health & Counseling provides free, confidential mental health treatment to members of the Yale student community. We offer a wide range of services including individual therapy, group therapy, and medication consultations and management. https://yalehealth.yale.edu/department/mental-health-counseling

CAMPUS FACILITIES, MISCELLANEOUS INFORMATION

Libraries

Extensive library services are available that can help with research, access to rare books, etc. Full information and guidelines can be found at: https://web.library.yale.edu/collection-development/biological-and-biomedical-sciences

Shuttle Buses

Yale offers numerous shuttle options including weekday, weekend, night-time door-to-door, Trader Joe's Grocery Shuttle, and Yale Safe Rides via TapRide. Shuttle service is free with a valid Yale identification card. Schedules and routes can be found here: http://to.yale.edu/shuttle.

Parking

Parking is available in various locations around campus on both a regular and a special service basis. Inquiries and applications for permits should be directed to the Medical School Parking Office, Basement of SHM (203-785-4201) for the Medical School Area or the Office of Parking and Transit Services, 155 Whitney Ave (203-432-9790) for the Science Hill district.

Security

Yale Security emphasizes that the campus is not immune to crime, property loss, or personal injury. Individuals are urged to walk in groups, or request to be escorted by the Student Patrol Service which has been set up by the University Police to provide for safety on the streets and in the parking lots. Night-time transportation is available for students working late in the evenings (see 'Shuttle Buses' link above).

Identification Card

During registration, incoming students will receive an identification card for access to campus facilities. In case of a lost or stolen ID card, a new ID can be issued for a fee at the Medical School Support Center (CE 1 SHM) 9:00am-12:00pm

Email Addresses

All neuroscience students and faculty can be reached by email. The generic Yale address format of firstname.lastname@yale.edu.

Computer Accounts

Each incoming graduate student is set up with a free computer account, including email access. Username (netid) and PIN number are sent to incoming students in the summer. This account gives you access to WiFi, MedLine, ORBIS, etc.

Keys

Most areas on campus are accessible by swipe-access with your Yale ID. Departmental keys (for labs, etc.) should be obtained through the specific department's business office.

ATM

In the Medical School area, there is an ATM and Bank of America branch at 330 Cedar Street, between the Clinic Building and FMB on the first floor (go to the Information Desk and turn left). There is another ATM located on the main floor of the hospital.