

REQUIREMENTS FOR THE NEUROSCIENCE MASTER'S PROGRAM

The purpose of this handbook is to provide more programmatic details than are included in the Neuroscience Bulletin for the MS program. Please make sure you read the Bulletin carefully:

<https://www.brandeis.edu/registrar/bulletin/provisional/courses/subjects/5200.html>

Please be aware that the University Bulletin is a legal document governing all academic regulations. If anything in this handbook contradicts the Bulletin, the Bulletin will take precedence. In addition, please be aware that in the event of a public health emergency or other major event, the procedures listed in this handbook may change.

Program Chair/Director of Graduate Studies:

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Program Administrator, Graduate Affairs Office: Anne Lazerson, lazerson@brandeis.edu

Summary of requirements for candidacy to the Neuroscience Master's program:

All Neuroscience Master's students must complete and pass the following six graduate level courses with a grade of B- or better:

- **NBIO 140: Principles of Neuroscience**
- **BIOL 205A: Masters Proseminar**
- **One laboratory- or research-based course (see below)**
- **Three life-science electives, numbered 100 or above**

In addition, students must register for and attend the following required non-graded courses/seminars:

- **Responsible Conduct of Science Minicourse on Tuesday, January 9, 2024**
- **Two semesters of BIOL 350A/B**
- **Two semesters of Journal Club (see below)**

COURSE REQUIREMENTS:

When the degree is to be completed in one year, this will be done at a rate of three courses per semester for two semesters. However, some students may instead elect to finish the degree in two years (e.g. when they introduce a heavy research component into the program or write an optional thesis). Students completing a thesis may, with the permission of their research advisor and the Program Chair, take classes in their second year. In all cases, readmission into the second year is not guaranteed and is based on research and class performance. Students must pass each of the six courses with a grade of B- or better. Elective courses outside of the life sciences will be considered on a case-by-case basis by the Program Chair. Transfer credit is not accepted for the Master's Program to reduce course load.

Courses

A total of six graduate-level courses (passed with a grade of B- or better), along with the attendance of Journal Clubs and Graduate Student Research Seminar for two semesters, are required for the degree. The courses must include the following required courses: NBIO 140 (Principles of Neuroscience), BIOL 205A (Master's Proseminar), and one laboratory or research based course. The three remaining electives must be agreed upon by the Program Chair. The Data Analysis and Statistics Workshop (BIOL107A), offered each fall is strongly recommended for students hoping to pursue a PhD.

Laboratory- or Research-Based Course Requirement

There are two options for completion of the research requirement:

- 1) Completion of a permitted Project Laboratory with a grade of B- or better
- 2) One semester of Master's Research Lab (NEUR 296A/B) with a grade of B- or better

See page 3 for more information

Additional Requirements

Journal Clubs: Students should register and attend two semesters of "Topics in Neurobiology" Journal Club (NBIO 306). Students can register for Systems/Computational Journal Club (NBIO 340), Topics in Molecular Genetics and Development (BIOL 305), or Psychology Research Seminar (PSYC 316A) in addition to NBIO 306 with permission of the Program Chair.

Graduate Student Research Seminar (BIOL 350A/B): All students are required to register for and attend two semesters of the Graduate Student Research Seminar Pizza Talks, held on Fridays at 12:45 pm. Master's students are **not** required to present at the seminar.

Responsible Conduct of Science: Students must register for and attend the Responsible Conduct of Science Minicourse on Tuesday, January 9, 2024.

Tuesday Colloquia Series: All students should attend the regular Joint Biology & Neuroscience Seminar on Tuesdays at 4pm.

RESEARCH REQUIREMENT

There are two options for completion of the research requirement:

1. **Project Laboratory** with a grade of B- or better

The project laboratory provides a semi-independent, guided research project experience. In some cases a student may complete a project lab and also complete NEUR 296A/B. In this case, NEUR 296A/B will fulfill the research requirement and the project lab will fulfill an elective. Project Lab courses for the 2023-2024 academic year the fall semester include:

Fall 2023:

- NBIO 157A - Project Laboratory in Neurobiology and Behavior
- BIOL 256A - Project Laboratory in Biotechnology
- BIOL 152B – Virus Hunter Project Lab

Spring 2024:

- BIOL 151B – Project Laboratory in Biochemistry
- BIOL 159B - Project Lab in Microbiology

2. **Master’s Research Lab** (NEUR 296A/B) with a grade of B- or better

The Master’s Research Lab offers students an opportunity to engage in biological research by working in the laboratory of a faculty member for at least 15 hours/week for one semester. Research faculty and Program Chair approval is required. Students who choose to do a Master’s Research Lab should register for NEUR 296A/B with the respective faculty member.

The choice of laboratory is made jointly by the student and the faculty member in whose lab the research is to take place. Students may choose from any faculty member listed as [Life Sciences faculty](#) on the [Life Sciences website](#). To find a research advisor, define a list of potential advisors using the graduate bulletin and faculty listing as a starting point, and then email and speak with the professors you are most interested in. The Program Chair is available to give advice on research advisors.

Students who wish to complete NEUR 296A in the fall semester are encouraged to wait to contact faculty regarding potential lab work until they arrive on campus for orientation. They should attend the “Faculty Bazaar” held during orientation week to aid in lab selection for graduate students. It is the responsibility of the student to find a lab for their Master’s Research Lab and Master’s students are not guaranteed a spot in a lab.

Students who wish to complete NEUR 296B in the spring semester are encouraged to reach out to faculty a few weeks before the start of the spring semester to ensure that they secure a spot.

Only one semester of NEUR 296A/B will be counted toward program requirements. Additional semesters of NEUR 296A/B or NEUR 299A/B will be counted in GPA calculations and will be listed on transcripts but will not count towards the six courses required for graduation.

All students will submit a written research lab report at the end of the semester and may also be asked by the research advisor to do deliver a research seminar. **Research reports are due by 5pm to the research advisor, Program Chair and the Graduate Affairs Office no later than one week before the first day of Final Exams.**

OPTIONAL MASTER'S THESIS

An optional Master's Thesis continues research initiated during a Project Lab (less common) OR following one or two semesters of Master's Research Lab NEUR 296A/B in the same lab (more common). **It is up to the discretion of the research faculty advisor and Program Chair whether a student may continue in the lab to complete a thesis. To be readmitted into the MS program as an extended MS student and complete a thesis, students must perform satisfactorily in research and coursework.**

NOTE: Completing a thesis in one year is discouraged. The thesis should be more than can be reasonably accomplished within one year. **Students who complete a Master's thesis generally extend their total time in the program to 1.5 or 2 years, after first completing one or two semesters of Master's Research Laboratory (NEUR 296A/B), all within the same lab.**

The student will continue a research project lasting a minimum of one semester, but usually two or more semesters following one semester of NEUR 296A/B, in a single lab and submit a thesis. Students who register for a Master's Research Project (NEUR 299A/B) will typically register for Master's Lab NEUR 296A/B and work in the same lab for one or more previous semesters and make substantial research progress. It is the responsibility of the student to find a research advisor for the thesis work.

NOTE: NEUR 299 can only be taken ONCE.

Thesis Intent Form

Submission of a Master's thesis requires mutual agreement between the student, advisor, and Program Chair. Students who wish to complete a Master's thesis should indicate their interest to their research advisor at the beginning of the semester that they register for the Master's Research Lab NEUR 296A/B. A student who plans to register for NEUR 299A in the second year must submit a **thesis intent form** to the Program Chair and the Graduate Affairs Office no later than **March 1st** of their first year. Note: The intent to complete a thesis does not guarantee the ability to do so. Readmission into the second year will be determined based on research performance in the semester in which the thesis intent form is filed and performance in coursework.

Thesis Format and Deadlines

Deadlines and guidelines for submission and acceptance of the Master's thesis are set by the Graduate School and the Registrar. Please see the Graduate School website for details.

A complete draft of the thesis is due by 5pm to the research advisor, the Program Chair and the Graduate Affairs Office no later than two weeks before the deadline to submit the Certification of Master's Thesis Acceptance Form - December 27th for Fall submission and April 4th for Spring submission. Students should ask their research advisor if they would like to see drafts ahead of this deadline.

TIMELINE:

Meeting with Program Chair:

All students should meet with the Program Chair to discuss their plan for the year. These meetings will typically take place during the week of Orientation through the first week of classes.

Non-Thesis Track:

Students in their **first semester** (Fall 2023) will register for the Topics in Neurobiology Journal Club (NBIO 306), the Graduate Student Research Seminar (BIOL 350A), and three lecture courses: NBIO 140 (Principles of Neuroscience), BIOL 205A (Master's Proseminar) and one course to be agreed upon by the Program Chair. The Data Analysis and Statistics Workshop (BIOL107A) is strongly recommended for students hoping to pursue a PhD.

Students in their **second semester** (Spring 2024) will register for the Topics in Neurobiology Journal Club (NBIO 306), the Graduate Student Research Seminar (BIOL 350B), the Responsible Conduct of Science Minicourse, and three courses to be agreed upon by the Program Chair.

Thesis track:

First Year:

Students in their **first semester** (Fall 2023) will register for the Topics in Neurobiology Journal Club (NBIO 306), the Graduate Student Research Seminar (BIOL 350A), and three lecture courses: NBIO 140 (Principles of Neuroscience), BIOL 205A (Master's Proseminar) and one course to be agreed upon by the Program Chair. If the student hopes to complete a thesis, they should consider enrolling in either a Project Lab or Master's Research Lab (NEUR 296A). Any student with an interest in extending their degree into a thesis should discuss this with the Program Chair. The Data Analysis and Statistics Workshop (BIOL107A) is strongly recommended for students hoping to pursue a PhD.

Students in their **second semester** (Spring 2024) will register for the Topics in Neurobiology Journal Club (NBIO 306), the Graduate Student Research Seminar (BIOL 350), the Responsible Conduct of Science Minicourse, and three courses to be agreed upon by the Program Chair. Students may wish to enroll in a second semester of Master's Research Lab (NEUR 296B) but should be aware that only one semester of this course can count toward degree requirements. A second semester of NEUR 296 will be recorded on the student's transcript and will be included in GPA calculations. If the student progressed far enough in one semester of Master's Research Lab work to complete a thesis (not common, discouraged), they will register for Master's Research Project NEUR 299. The intent to write a thesis in the 2024-2025 academic year needs to be declared by March 1st, 2024.

Summer:

Students have three options for the summer between years (relevant to students completing a thesis) – they may:

- 1) Leave Brandeis (to go home, work, etc.).
- 2) Stay at Brandeis and continue to work in their thesis lab as a volunteer or for pay if the PI is able.
- 3) Stay at Brandeis and register for NEUR 296 in the summer. NOTE: this may not be possible for all labs or students; this option should be discussed with and approved by the Program Chair. There will be a tuition cost for the summer.

Second Year:

Students who have been readmitted with the intention of completing a Master's Thesis following one or

two semesters of Master's Research Lab NEUR 296 will typically register for the Master's Research Project (NEUR 299A) course in the fall semester of the following year. A tuition credit is applied for students who *only* register for NEUR 299A (along with NBIO 306 and BIOL 350). The thesis must be completed in the semester that the student registers for NEUR 299.

PROGRESS:

Students' progress will be reviewed by the Program Chair at the end of each semester. Students must complete all courses, including the research requirement, with a grade of B- or better and may be withdrawn from the program at the end of a semester if the student's record is unsatisfactory. Students wishing to be admitted to a second year of study must demonstrate adequate progress. Intent to complete a thesis will be reassessed at the time of readmission.

RESIDENCY:

The minimum residence requirement is one year. Students may take an additional one or two semesters to complete the MS degree as an Extended Master's student with approval of the Program Chair. International students may extend their time one semester if they are still completing required coursework. International students who have completed all required coursework and wish to complete the optional Master's Thesis may stay an extra semester with advance approval from the advising faculty, the Program Chair, and ISSO by March 1st, 2024.

Important Dates and Deadlines

July 19- September 14	Registration period for Fall 2023 Term
Thursday, September 14	Last day to add classes Fall 2023 Term
Wednesday, November 1	Last day for February graduate degree candidates to file Application for Degree.
TBD	Early Registration Period for Spring 2024 Term
Dec. 5, 2023 - Jan. 24, 2024	Registration Period for Spring 2024 Term
Tuesday, November 14	Last day to drop a Fall 2023 course OR change grading option to audit (instructor's permission required).
Tuesday, December 5	Deadline for submission of Research Report for 296 courses to Research Advisor, Program Chair and Grad Affairs Office.
Tuesday, December 27	Deadline for submission of Master's Thesis to Thesis Advisor, Program Chair and Grad Affairs Office.
Tuesday, January 9	Deadline for submission of Certification of Master's Thesis Acceptance Form.
Tuesday, January 9	Responsible Conduct of Science Minicourse
Wednesday, January 10	Final day for February graduate degree candidates to electronically deposit their dissertations or theses: 4pm deadline.
Wednesday, January 10	First Day of Instruction Spring 2024
Wednesday, January 24	Last day to add classes Spring 2024 Term
Thursday, February 1	February degrees conferred.
Friday, March 1	Last day for Master's students to submit thesis intent form to Program Chair and Grad Affairs Office to pursue a thesis in 2023-2024
Friday, March 1	Last day for May graduate degree candidates to file Application for Degree.
Wednesday, March 27	Last day to drop a Spring 2024 course OR change grading option to audit
Thursday, April 4	Deadline for submission of Master's Thesis to Thesis Advisor, Program Chair and Grad Affairs Office.
Wednesday, April 17	Deadline for submission of Certification of Master's Thesis Acceptance Form.
Thursday, April 18	Final day for May graduate degree candidates to electronically deposit their dissertations or theses.
Friday, April 26	Deadline for submission of Research Report for 296 courses to Research Advisor, Program Chair and Grad Affairs Office.
Sunday, May 19	May degrees conferred at Commencement.

Resources for Graduate Students and ways to get help

At many points during your graduate career you will probably have questions you'd like to ask someone, great ideas you'd like to share, or concerns you'd like someone to address. Please know that there are many people here on campus to answer those questions, help, and support you. Before we go into specifics of who to ask for help, please know that the majority of people on campus are "responsible reporters." This means that they are obligated to share any information that has been disclosed to them regarding discrimination, harassment, or sexual misconduct with the Office of Equal Opportunity. If you are hoping to have a confidential conversation about one of these topics, you will find a list of confidential resources later in this section.

Most issues can be best addressed by those closely associated with your graduate program or with Division of Science staff and faculty so we encourage you to seek assistance from this group first. We recognize that sometimes there may be a particular person that you are more comfortable speaking with or that one faculty member may be holding multiple roles/positions, but we suggest that you reach out to for assistance in the following general order (see schematic at the bottom as well):

- **Your PI/Advisor:** If you choose to join a Brandeis lab during your time here, your PI/advisor is a good resource. Your PI will have the most intimate knowledge of your research and career goals, and is here to help train and guide you. PIs usually have regular meetings with their students and you are encouraged to use this time to talk about anything that's on your mind—not just your latest research results. If you don't join a lab, the program DGS is also your advisor.
- **DGS (Director of Graduate Study, or chair of your grad program):** This faculty member oversees your grad program as a whole, and is here to support all students in the program. They will be extremely knowledgeable in the program's requirements and are also tuned in to the current GSAS and University policies. The specific faculty member who fills this role may change from year-to-year, so check with your program administrator or check your program website for the current DGS first. In academic year 2023-2024, your DGS is Maria Miara.
- **Your program's Department Chair:** This faculty member oversees the department that your grad program falls under and is a step above your DGS. If you have concerns that aren't necessarily specific to your grad program but are relevant to the department as a whole, the chair may have good insight. Chairs are good to talk to if concerns are shared with other populations in the department such as staff, postdocs, or undergraduates. The specific faculty member who fills this role may change from year-to-year, so check with your program administrator or check your program website for the current Chair. In academic year 2023-2024, your department chair is Liz Hedstrom.
- **The Head of the Division of Science:** This faculty member oversees the entire Division of Science, and works to support all of the departments and graduate programs within the sciences. The head of the Division of Science has frequent meetings with individual program and department chairs, as well as with leaders across the University, so they will be knowledgeable about current Division and University practices. They are here to support and advocate for the entire science community. Talk to them if people from different graduate programs or departments have a shared concern or to raise. In particular, concerns about research integrity should be brought to the attention of the Head of the Division of Science. As with the DGS, the faculty member in this role can change from time-to-time. In academic year 2023-2024, the chair of the Division of Science is Bulbul Chakraborty.

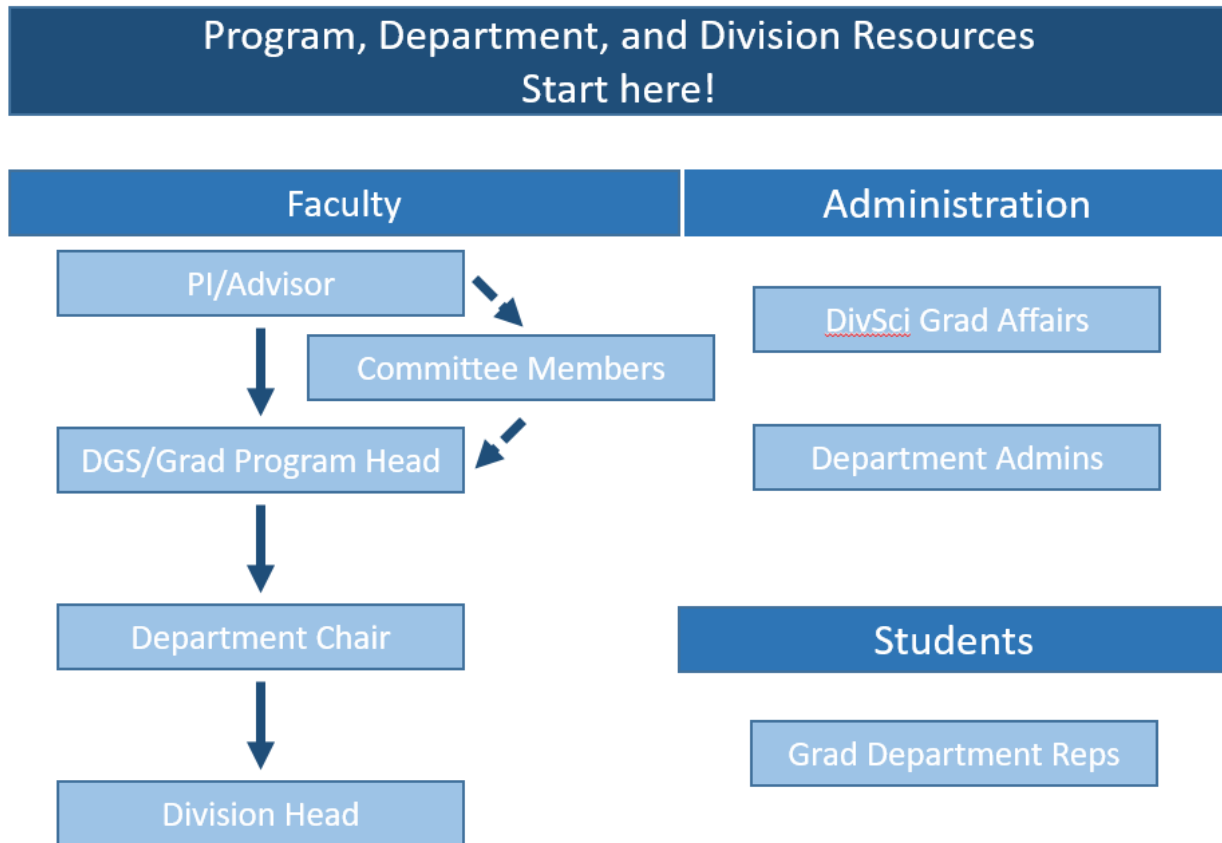
In parallel to these program-level and Division-level faculty resources, there are non-faculty resources within the Division who you can go to for help. The following are good places to go to for help:

- **The Division of Science Grad Affairs Office:** This office is the administrative home for most of the graduate programs within the Division of Science. The staff here work closely with grad students and faculty to administratively oversee those graduate programs and to monitor student progress. The staff in this office know your program's faculty, are well-versed in your program's requirements and

policies, and are up-to-date with the other sources of support on-campus. If you are unsure about who to talk to first the DivSci Grad Affairs Office is often a good place to start as they can help you decide who to approach and how to have that conversation. Within this office, Anne Lazerson is the primary contact for your graduate program. You should also feel free to contact Maryanna Aldrich, who oversees this group.

- **Your Department Administration:** These staff work in your department’s office and are here to help their entire department community. These staff may be a bit less familiar with your graduate program requirements, but they know your department’s faculty and any non-grad-program details about your department well.
- **The DivSci Pre-Award Office:** If you are applying for grants or fellowships, please loop these staff in. They may be able to provide guidance and help you navigate the submission process.
- **Your program’s Grad Department Representatives (GDRs):** These graduate students were elected to represent the student body in your graduate program. One of the roles of the GDR is to bring concerns from students as a whole to the program faculty or to GSAS, so if you have a concern that you are comfortable discussing with your GDR it’s a good idea to let them know. They cannot bring these concerns to the faculty to advocate for all students if they don’t know about them, and there may be other students with similar concerns. Your GDRs may hold a student “town hall” once a semester or year to bring up issues, and this is a good forum to discuss some topics that may be weighing on your mind.

Below is a flow chart demonstrating the general hierarchy of sources of support:



Outside of the general hierarchy of Division of Science places to go to for help, that are various other entities on campus here to support students. These resources on campus are dedicated to supporting graduate students:

- [The Graduate School of Arts and Sciences \(GSAS\)](#): GSAS oversees all graduate programs within the school of Arts & Sciences at Brandeis and is invested in the success of all graduate students in these

programs. If you have a topic that you'd rather discuss with someone outside of the Division or want a non-DivSci perspective on, the staff in this office are a great resource for graduate students. GSAS is also a good resource if you are uncomfortable discussing a topic with any of the resources mentioned so far or if you have not made sufficient progress in those discussions. Depending on the topic that you have raised with faculty or administrative staff, they may have already contacted GSAS for advice/assistance on how to help or to handle the next steps. GSAS and your program/department faculty or the Head of the Division of Science frequently work together to support students, resolve problems, and enact positive changes. Please visit their [staff directory](#) to explore the areas GSAS can help with. If you are in a research group with limited funding, GSAS provides conference and research awards for [PhD students](#) and [Master's students](#). They also strongly encourage students to [apply for external fellowships and grants](#).

- [The Office of Graduate Affairs](#): This office is a home and source of support for all graduate students at Brandeis, including those studying at the Heller School, the Rabb School, or the International Business School. Graduate Student Affairs provides students with information and events about graduate life at Brandeis and community resources.
- [The Graduate Student Association \(GSA\)](#): Supported by The Office of Graduate Affairs, the GSA is an independent student body that represents all graduate students and provides a platform for graduate students to raise issues and concerns and build community. If you have a concern about an issue affecting graduate students that extends past your program, department, and the Division of Science, the GSA is a good group to talk to. To connect with them, visit their website to see the current year's grad student executive committee.

There are some offices on campus that specialize in specific topics and who will almost always be the best resource for those topics:

- [The Office of Research Administration \(ORA\)](#): ORA, which reports to the [Vice Provost for Research](#), can help with issues related to research integrity and compliance. If you want to discuss the possibility of research misconduct, you may wish to report things there directly.
- [The International Students and Scholars Office \(ISSO\)](#): ISSO supports all of Brandeis' international students and scholars. This office determines visa eligibility and prepares and issues visa documents. If you ever have any questions about your Visa or any of the associated regulations (e.g. travel, CPT, OPT), you should reach out to your ISSO advisor. They can advise students on rights and responsibilities and provide guidance regarding issues that may impact your legal status. Their website also has a collection of useful information for international students.
- [Student Accessibility Support](#): If you are a student with a disability and in need of academic or non-academic accommodations, this office can support you and help you navigate this process. The definition of a person with a disability is broad, and many students who do not think of themselves as students with disabilities may qualify for support under the law. Even if you are not sure if you will qualify, you are encouraged to reach out to SAS.

As mentioned at the start of this section, there are some topics that responsible reporters on campus cannot keep confidential, and those are issues of discrimination, harassment, or sexual misconduct. The office on campus that addresses these issues is the [Office of Equal Opportunity \(OEO\)](#). OEO provides information regarding support resources, information about taking action (internal resolution processes and criminal action), inquiries and investigations into concerns, processes to address grievances, and training for the Brandeis community. Please visit their website for contact information and steps (and an online form) to file a report. You are welcome to contact a resource listed above for support or advice about these topics, but they will be obligated to share the issue with OEO.

If you would like to have a *confidential* conversation with someone on campus, the following are our on-campus confidential resources:

- [The Brandeis Counseling Center \(BCC\)](#)
- [The Brandeis Health Center](#)
- [The Prevention, Advocacy, and Resource Center \(PARC\)](#)
- [The University Ombuds](#)
- [The Chaplains in The Center for Spiritual Life](#)