School of Computer Science

Graduate Student Handbook
Academic Year 2023-2024

Machine Learning
Ph.D. Degree Program

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1   Welcome

Welcome to CMU's Ph.D. program in Machine Learning, and to the Machine Learning Department. We are proud to be the world's first Ph.D. program in Machine Learning, with a deep and diverse pool of students and researchers who study all aspects of machine learning, from its theoretical basis, to new algorithms and problem framings, to novel applications.   We are also proud of our graduates, many of whom have gone on to become professors at other universities, to start their own companies, or to join top research laboratories elsewhere. We are sure you will find your time in the Ph.D. program rewarding and we look forward to getting to know you.

This book will introduce you to the Ph.D. program as well as a static text document can, and you should certainly read it. But we urge you also to get to know its people - our students, faculty and staff have a wealth of knowledge and practical advice which they are happy to share, and they look forward to learning from you as well. When our students graduate, most look back to find that they have learned a tremendous amount here, but that beyond the technical expertise they have gained, they have made lifelong friends and contacts, who will continue to be colleagues throughout their careers. We look forward to welcoming you into our department family.

Director of the PhD Program in Machine Learning

While this handbook is specific to your academic experience in the department, there are several other resources and offices graduate students are encouraged to consult during their tenure at Carnegie Mellon University. Information about The Word, the student handbook, the Office of Graduate and Postdoc Affairs, the Office of the Dean of Student Affairs and others are included in Appendix A of this handbook.

If you would like a printed copy of this handbook, please send a request to your PhD Program Manager.

2   Vision, Mission & Philosophy

Vision

Carnegie Mellon University will have a transformative impact on society through continual innovation in education, research, creativity, and entrepreneurship.

CMU Mission

To create a transformative educational experience for students focused on deep disciplinary knowledge; problem solving; leadership, communication, and interpersonal skills; and personal health and well-being.

To cultivate a transformative university community committed to (a) attracting and retaining diverse, world-class talent; (b) creating a collaborative environment open to the free exchange of ideas, where research, creativity, innovation, and entrepreneurship can flourish; and (c) ensuring individuals can achieve their full potential.

To impact society in a transformative way — regionally, nationally, and globally — by engaging with partners outside the traditional borders of the university campus.

Philosophy

Machine Learning is a scientific field addressing the question "How can we design machines that automatically improve through experience?" We study learning from many kinds of experience: predicting which medical patients will respond to which treatments by analyzing experience captured in databases of online medical records, or building mobile robots that learn to navigate and manipulate their environment through experience gained from their sensors, or large language models trained on vast quantities of unlabeled internet text. To tackle these problems, we develop new algorithms and new theories of learning processes that characterize the fundamental nature of the computations and experience sufficient for successful learning in machines and in humans.

The mission of the Machine Learning Department is to help lead the development of the discipline of machine learning, by performing leading research in this field, by developing and propagating a model academic curriculum for the field, and by helping society to benefit from the knowledge gained by the field.

We are committed to the principle that students can achieve competence through a variety of experiences, including courses, seminars, projects, and independent and guided research. Our curricula are designed to give students the tools they need to solve real-world problems by using advanced machine learning techniques and developing their own learning algorithms. We are dedicated to providing exceptional training for future leaders in the field.

3   Degrees Offered

PhD in Machine Learning
Joint PhD in Machine Learning and Public Policy
Joint PhD in Neural Computation and Machine Learning
Joint PhD in Statistics and Machine Learning
Master's in Machine Learning Research (on the way to the PhD)
Primary Master's in Machine Learning
Fifth-Year Master's in Machine Learning
Master's in Machine Learning – Applied Study

4   Using the Graduate Student Handbook

This PhD Student Handbook is an important tool that provides information about the MLD PhD program and requirements and also about Department and University policies.

5   Carnegie Mellon University Statement of Assurance

Carnegie Mellon University does not discriminate in admission, employment or administration of its programs or activities on the basis of race, color, national origin, sex, handicap or disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status or genetic information. Furthermore, Carnegie Mellon University does not discriminate and is required not to discriminate, by federal, state or local laws or executive orders.

Inquiries concerning the application of and compliance with this statement should be directed to the university ombudsperson, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-1018. Obtain general information about Carnegie Mellon University by calling 412-268-2000.

Carnegie Mellon University publishes an annual campus security and fire safety report describing the university's security, alcohol and drug, sexual assault and fire safety policies, and containing statistics about the number and type of crimes committed on the campus, and the number and cause of fires in campus residence facilities during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The annual security and fire safety report also is available online at www.cmu.edu/police/annualreports.

Information regarding the applicable grievance procedures for alleged violations of the Statement of Assurance is available at

https://www.cmu.edu/policies/forms-and-documents/soa-violations.pdf.

The Office for Institutional Equity and Title IX may be reached at 412-268-7125 or institutionalequity@cmu.edu.

6   The Carnegie Mellon Code

Students at Carnegie Mellon, because they are members of an academic community dedicated to the achievement of excellence, are expected to meet the highest standards of personal, ethical and moral conduct possible.

These standards require personal integrity, a commitment to honesty without compromise, as well as truth without equivocation and a willingness to place the good of the community above the good of the self. Obligations once undertaken must be met, commitments kept.

As members of the Carnegie Mellon community, individuals are expected to uphold the standards of the community in addition to holding others accountable for said standards. It is rare that the life of a student in an academic community can be so private that it will not affect the community as a whole or that the above standards do not apply.

The discovery, advancement and communication of knowledge are not possible without a commitment to these standards. Creativity cannot exist without acknowledgment of the creativity of others. New knowledge cannot be developed without credit for prior knowledge. Without the ability to trust that these principles will be observed, an academic community cannot exist.

The commitment of its faculty, staff and students to these standards contributes to the high respect in which the Carnegie Mellon degree is held. Students must not destroy that respect by their failure to meet these standards. Students who cannot meet them should voluntarily withdraw from the university.

The Carnegie Mellon Code can also be found on-line at:

https://www.cmu.edu/student-affairs/theword/

7   University Policies & Expectations

It is the responsibility of each member of the Carnegie Mellon community to be familiar with university policies and guidelines. In addition to this departmental graduate student handbook the following resources are available to assist you in understanding community expectations:

- The Word/Student Handbook:

https://www.cmu.edu/student-affairs/theword//index.html

- Academic Integrity Policy:
  https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html

- University Policies Website:
  https://www.cmu.edu/policies/

- Office of Graduate and Postdoctoral Affairs:
  https://www.cmu.edu/graduate/policies/index.html

- Additional Policy Resources (e.g. college/department specific policies)

Please see **Appendix A** for additional information about The Word and University resources.

8 Academic Calendar

The Academic Calendar can be found at:

https://www.cmu.edu/hub/calendar/index.html

and provides information on all deadlines including registration dates, class start dates, add/drop deadlines, exam dates and more.

There is a separate Doctoral course calendar which can be found at:

https://www.cmu.edu/hub/calendar/index.html

9 Departmental Information

Departmental Personnel

For Emergencies, contact Campus Police 412-268-2323

- Martial Hebert, Dean of School of Computer Science (SCS)
- Robert Frederking, Associate Dean for Doctoral Programs, SCS
- David Garlan, Associate Dean for Master's Programs, SCS
- Roni Rosenfeld, Department Head, Machine Learning Department (ML)
- Tom Mitchell, Director, Doctoral Programs in ML
- Nihar Shah, Director, Master's Programs in ML
- Matt Gormley, Director, Undergraduate Programs in ML
- Diane Stidle, PhD Programs Manager
- Dorothy Holland-Minkley, Master's Programs Manager

- Laura Winter, Academic Programs Coordinator
- ML Core Faculty
- ML Affiliated Faculty
- ML Related Faculty
- ML Staff

The PhD Director serves as ombudsperson for graduate students to assist with academic or personal situations where a confidential sounding board and/or an intermediary can be helpful. Examples of situations where students are encouraged to seek advice or assistance include:
- Difficulty in communications with advisor, particularly when those difficulties may lead to considering changing advisors or leaving the program
- Conflict with other group members that is difficult to resolve within the group
- Issues related to diversity or the departmental climate for those in groups who are historically underrepresented in science, or
- Personal concerns that interfere significantly with the ability to make timely progress in research or program requirements. These might be due to health, family or financial challenges.

Upon the student's request, information shared will be kept in confidence, as long as no laws require otherwise. Should help be needed from additional sources, the student would be asked before sharing confidential information.
In the event that a difficulty cannot be resolved within the department, please see the grievance procedures for resolving difficult matters, which are available here:
https://www.cmu.edu/graduate/policies/appeal-grievance-procedures.html
Students can also confer with Angie Lusk, alusk@andrew.cmu.edu, the SCS Student Affairs contact. Angie Lusk is listed as an emergency contact for all graduate students in SCS, since she serves as a liaison, and students are particularly welcomed to reach out to her with inter-departmental concerns.

Departmental Resources

The Machine Learning Department is located on the 8th floor of Gates Hillman Center (GHC).

- Information about public computer clusters and printers can be found at: http://www.cs.cmu.edu/~help/printing/index.html
- Office keys: Please see your PhD Program Manager for a key if you have assigned office space.
- Mailboxes are located on the 8th floor of GHC, next to the printer. If you need to send a package you will have to go to the US Post Office, located in the basement of the Cohon University Center (CUC).

There is a bin for outgoing mail that the post office will pick up, located next to the Gates 8th floor

printer. Please make sure it is campus mail or stamped mail only. If you have department sponsored mail, it will require filling out a form with the correct charge string.

For package delivery:

Use the following address:

ANDREW ID: - SCS/MLD
CMU BUILDING: WEAN HALL - RECEIVING - ROOM #3613
311 HAMERSCHLAG DRIVE
PITTSBURGH, PA 15213
United States

For regular mail:

Your Name
School of Computer Science – MLD *[Omit this line if necessary]*
Carnegie Mellon University – GHC 8009
4902 Forbes Ave.
Pittsburgh, PA 15213

Purchasing and Reimbursement Procedures and Policies
- The university has detailed and strict policies relating to the purchase of goods, services, equipment, etc., whether using a general ledger account, restricted account, or grant. There are also reimbursement policies, along with tax exempt considerations that graduate students must adhere to.Previously approved legitimate business expenses can be reimbursed. Receipts must be submitted within 30 days of the expense. Any receipts submitted after 90 days will be considered income and you will be taxed. Your advisor's administrative assistant will help you claim reimbursement provided you have the following:
- receipt indicating item purchased and proof of payment
- business purpose for purchasing item
- account to be charged for reimbursement
- Approval (by faculty) in email, for reimbursement
- Signed expense report

Please consult with your advisor **prior** *to* incurrent the expense, and check with your advisor"s assistant prior to incurring the expense for any additional instructions.

Reimbursement of Travel Expenses
Previously approved legitimate travel expenses can be reimbursed. Receipts must be submitted within 30 days of the expense. Any receipts submitted after 90 days of the dates of travel will be considered income and you will be taxed. Your advisor's administrative assistant will help you

claim reimbursement provided you have the following:
- Flight receipts must show full itinerary (dates/times), class that was traveled, and last 4 digits of your credit card number.
- Hotel receipts must show a zero balance with proof of payment and your name
- Receipts for meals must be collected, unless you claim per diem meals; both daily meals and per diem meals cannot be claimed for the same travel expense report
- Personal car mileage is calculated at $0.56 per mile; mileage covers gas, but not tolls.
- Business purpose for travel
- Account to be charged for reimbursement
- Approval (by faculty member) in email, for reimbursement
- Signed travel expense report

Conditions:
All receipts must have proof of purchase indicated. For business expenses, tax will not be reimbursed under any circumstance, except for non-travel business meals. To avoid paying tax, see if a staff member can purchase the item for you with a University-provided Procurement Credit Card.
Tax will be reimbursed for expenses incurred due to normal business-related travel (hotel, airfare, meals), but NOT for miscellaneous expenses such as the purchase of a replacement mouse for a department laptop, poster board for a presentation, etc., purchased while traveling or preparing for travel. These items should have been purchased through a department approved buyer thus not incurring tax expense.

Department Office/Building Security, Repairs and Services

Please contact (building@cs.cmu.edu) for reporting damages, needed repairs, security concerns for routine items. **For immediate security concerns, please contact the CMU Campus Police at 412-268-2323**

Department committees consist of the Doctoral Review Committee (DRC), PhD & MS Admissions Committees, Open House Committee, Presentation Skills Committee, Social Committee, PhD Student Retreat Committee and Wellness Network.

We also have a student representative for the department for the University Graduate Student Assembly (GSA).

10 Doctoral Degree Completion and Certification

Standard Degree Requirements & Degree Certification

Doctoral students are expected to complete their degree requirements typically in 5 years. Upon completion of the graduate program degree requirements, the degree will be certified by the student's academic program in the semester in which the student completes the requirements.

Early Completion

Graduate students who consider the completion of all degree requirements in less than the standard length of time for their program of study may consult with their degree-granting program or department to determine if early degree certification is allowed and under what circumstances.

Extended or Longer-than-Standard Completion

Longer-than-standard degree completion may occur due to academic interruptions in making progress toward the degree, interruptions of full-time study or progress towards the degree due to serious, documented medical issues, or other unusual or unforeseen circumstances.

Doctoral students who require an extended period to complete their degree requirements must consult with their academic program, and are subject to the CMU Policy on Doctoral Student Status (https://www.cmu.edu/policies/student-and-student-life/doctoral-student-status.html), specifically the "Time to Degree" section.

Additional Guidance for Students

Program of Study

Students seeking guidance about their program of study and degree requirements should consult with their academic advisor and/or appropriate associate dean.

Financial Aid and Student Account

Students are expected to make normal progress toward their degree in order to graduate within the standard timeframe for their program of study. Under U.S. Federal Title IV regulations, student eligibility for federal financial aid is contingent upon enrollment in and successful completion of courses that are counted as credit toward their current degree program. To receive the maximum amount of federal financial aid for which they may be eligible, students must enroll each semester in at least 36 units that count toward their current degree level. (See separate guidance regarding integrated degree completion.)

Students should consult with their designated college liaison in The HUB regarding billing and financial aid, particularly for early completion, longer-than-standard completion, or integrated undergraduate and master's degree programs.

International Students

Immigration status for students in F-1 and J-1 non-immigrant status is tied to making normal progress toward completing degree requirements. Therefore, F-1 and J-1 students who are considering completing their degree requirements early, anticipating longer-than-standard completion, or moving from an undergraduate to a graduate student classification (integrated undergraduate-graduate study) should consult with their designated advisor in the Office of International Education (OIE) to ensure compliance with immigration regulations.

Statute of Limitations

As outlined in the Doctoral Student Status Policy:

> https://www.cmu.edu/policies/student-and-student-life/doctoral-student-status.html

Students will complete all requirements for the Ph.D. degree within a maximum of ten years from original matriculation as a doctoral student, or less if required by a more restrictive department or college policy. Once this time-to-degree limit has lapsed, the person may resume work towards a doctoral degree only if newly admitted to a currently offered doctoral degree program under criteria determined by that program.

Under extraordinary circumstances, such as leave of absence, military or public service, family or parental leave, or temporary disability, a school or college may, upon the relevant department's recommendation and with the written approval of the dean, defer the lapse of *All But Dissertation* status for a period commensurate with the duration of that interruption. Students, who are pursuing the Ph.D. degree as part-time students for all semesters of their program, as approved by their program, may also appeal to their program or department for extension of the time to degree limit.

Residency Requirements and Expected Timeline

The university requires PhD students to have a minimum of one year in residency on a CMU campus. However in order to reach your program milestones we estimate your residency would be a minimum of 3-4 years. If milestones are not met, it will be discussed at the Doctoral Student Review meeting and you will be informed of the needed requirements.

- **By the end of the third year**, coursework, presentation skills, writing skills and TA requirement should be completed.
- **During the third or fourth year**, a thesis proposal should be presented to the MLD community.

By the end of the fifth year, the dissertation should be completed and the student should give the final defense of the thesis.

Registration Process/Procedures

Students are able to register for courses by going to SIO (Student Information Online).
For the very first semester the PhD Program Manager will register incoming students in the MLD PhD program for their courses. In subsequent semesters students should register themselves always making sure to register for Reading & Research and always register for at least 36 units. To be considered in full-time status you must be registered for at least 36 units every semester. **If you are below 36 units it will affect how your stipend is taxed and may cause immigration problems for international students.**

During the during the fall and spring semesters, PhD students should normally be registered for 36-48 units. During the summer, students should be registered for 36 units.

Registering for Directed Research
There are official course numbers associated with directed research in MLD, 10-920 Reading & Research or if you have proposed your thesis topic and finished all program requirements, 10-930 Dissertation Research. Active PhD students (excludes Leave of Absence and All But Dissertation in Absentia status) should strive to complete 24-36 units of Graduate Reading and Research each Fall and Spring semester.

Registering for External Internships
There are official course numbers associated with external internships. Your faculty advisor will assign a pass/fail grade that will count towards your program research requirements. Advisors are individually responsible for adequately supervising this portion of the program.

10-935 Practicum course – If internship will be during the academic year and within the dates defined in the semester by the university.

10-936, Section I, PhD Internship course (summer semester only)

If PhD students will end their internship after the summer semester end date but before the fall classes begin they must use the extended PhD timeline as set by the university for PhD students.

11   Doctoral Degree Requirements and Related Policies/Protocols

Core Courses

The four set core courses and two menu core courses listed below together provide a foundation in machine learning, statistics, probability, algorithms, and AI. They also provide depth in both

theory and the practice of applying machine learning to problems in the real world. The elective can be used to deepen the student's knowledge in their chosen subfield.

*Set Core All PhD students take **all four** courses from the following Set Core:*
- 36-705 Intermediate Statistics
- 10-715 Advanced Introduction to Machine Learning
- 10-716 Advanced Machine Learning: Theory and Methods
- 10-718 Machine Learning in Practice
  (This course is designed to give students hands-on experience in using ML to tackle real-world problems and develop a sensitivity to the issues surrounding transitioning machine learning algorithms to practice, including working with stakeholders to frame the problem appropriately, developing machine learning pipelines, taking into account concerns such as fairness and bias, and measuring the impact of the adopted system.)

Menu Core

PhD Students take their **choice of two** courses from the following Menu Core:
- 10-703 Deep Reinforcement Learning *or* 10-707 Topics in Deep Learning
- 10-708 Probabilistic Graphical Models
- 10-725 Convex Optimization
- 10-805 Machine Learning with Large Datasets
- 15-750 Algorithms in the Real World *or* 15-850 Advanced Algorithms
- 15-780 Graduate AI
- 36-707 Regression Analysis
- 36-709 Advanced Statistical Theory I
- 36-710 Advanced Statistical Theory II

Note: The Menu Core courses must be chosen from two different lines (e.g., if 15-750 Algorithms in the Real World , then 15-850 Advanced Algorithms may not be the second Menu Core course).

Proficiencies in Teaching, Presentation and Writing Skills

Teaching Requirement

Each PhD candidate must participate in two terms of instruction, either through teaching assistant (TA) duties or serving as the instructor for a class to fulfill the teaching requirement. For a student to be considered for a Teaching Assistant (TA) position for one of our courses, they should have previously taken that course or a similar course. MLD PhD students are asked to TA for MLD courses. It is possible to TA for a course outside of MLD but you will need permission from Matt Gormley to do so.

If the student's native language is not English, they will be required to receive International Teaching Assistant (ITA) certification: https://www.cmu.edu/student-success/programs/ita-certification/index.html

Evaluation and Certification of English Fluency for Instructors

Graduate students are required to have a certain level of fluency in English before they can instruct in Pennsylvania, as required by the English Fluency in Higher Education Act of 1990. Through this Act, all institutions of higher education in the state are required to evaluate and certify the English fluency of all instructional personnel, including teaching assistants and interns. The full university policy can be reviewed at: https://www.cmu.edu/policies/faculty/evaluation-certification-english- fluency-instructors.html.

The fluency of all instructional personnel will be rated by Language Support in the Student Academic Success Center to determine at what level of responsibility the student can be a TA. In addition to administering the International Teaching Assistant (ITA) Test (a mandatory screening test for any non-native speaker of English), Language Support in the Student Academic Success Center helps teaching assistants who are non-native English speakers develop fluency and cultural understanding to teach successfully at Carnegie Mellon. Visit the Student Academic Success Center website for additional information: https://www.cmu.edu/student-success/

MLD also holds a TA training for our courses.

The responsibilities of a TA vary with different courses. Examples are:
- Help design homework assignments and other instructional materials
- Give recitations
- Grading
- Help with organizing poster sessions (if applicable)
- Advise small groups of students for class projects (if applicable)
- Hold office hours for individual tutoring

Presentation (Speaking) Skills Requirement

In order to satisfy the Speaking Skills requirement, students must give a talk that is at least 30 minutes long and invite members of the Speaking Skills Committee to attend and evaluate it. You may give a talk in one of the existing seminars or schedule a separate talk. The committee evaluation form is found at: Speaking Skills Form

Sign up for your talk and view the committee at: https://docs.google.com/spreadsheets/d/1oE6PtWUbQGXVvaBIuums-vDisqkh9cd7xn_hHufHz2g/edit?usp=sharing

Writing Skills Requirement

In order to satisfy the Writing Skills requirement the student must be the first author on a paper. The quality of the paper must be such that if submitted to a major conference or journal it has the possibility of acceptance. It doesn't have to actually be submitted. The student must have a Review Committee of two reviewers.

The Review Committee consists of one faculty from Carnegie Mellon, who may be the faculty advisor, and one PhD student who is not a co-author on the paper. If the Faculty Reviewer is a co-author, they must explicitly indicate the student's contribution to the writing. The Review Committee fills out the Writing Skills Review Form and must unanimously approve the paper to satisfy the requirement. If the student fails, the evaluators give guidance on the necessary revisions and the student tries again.

A ML PhD student may waive the writing skills requirement if the student already has a first author paper accepted at a top ML conference/journal since these papers already went through peer review.

Conferences: AISTATS, AAAI, COLT, ICML, ICLR, KDD, NeurIPS, etc.
Journals: JMLR, Machine Learning

To waive the Writing Skills requirement based on this criterion, please fill out the Writing Skills Waiver form and send to your PhD program manager.

Required Units for Degree Attainment

PhD students must complete the (7) 12 unit courses for a total of 84 units.

Electives

PhD students must take **one elective,** while in the program, which may be any course at the 700 or higher level in the School of Computer Science or Department of Statistics and Data Science (36-xxx), including additional courses from the Menu Core, or other courses by approval. The elective is chosen in consultation with the student's advisor. Courses outside SCS or Statistics and Data Science must have approval from the student's Advisor. Have your advisor send the approval to the PhD Program Manager.

Note: All courses, including the electives, must be 12 units or greater. Two 6-unit mini courses can count as a single 12-unit elective.

Department Policy on Double Counting Courses

Some students will have taken some of the required courses at CMU before entering the PhD program: for example, as a ML MS student entering the ML PhD program or coming in from another MS program at Carnegie Mellon. If students have previously taken the above-named courses at Carnegie Mellon before joining the program, those may be used to satisfy the requirements and do not need to be repeated in the PhD program. (Note that courses can only be

used for a single Master's degree and may not be double-counted for the Master's in Machine Learning Research degree.)

If a student entering the MLD PhD program has already taken 10-701 and received an A (A+, A, A-) as the final grade you are able to waive the 10-715 requirement. If the final grade is a B+ or below, then you should take 10-715 to fulfill the requirement.

Department Policy for Courses Outside the Department/College

Some students will have taken similar courses at other universities before entering the ML PhD program. Based on such equivalent coursework, any student can apply to replace (not reduce) up to two courses with either menu cores or electives. All electives must be supported by the advisor, and will be evaluated by the PhD Director.

PhD Students who want to replace a course should send a formal request to the PhD Program Manager (Diane Stidle). The document should contain the transcripts and contents of those courses. Student must also identify the replacement course. The course instructor and the PhD Director of the program must approve the course replacement.

Department Policy/Process for Incompletes

The Department policy is the same as the university policy, which is: Carnegie Mellon students are expected to complete a course during the academic semester in which the course was taken. However, if the instructor agrees, a grade of I (incomplete) may be given when a student, for reasons beyond his or her control, has been unable to complete the work of a course, but the work completed to date is of passing quality and the grade of incomplete provides no undue advantage to that student over other students.
In awarding an I grade, an instructor must specify the requirements for completing the work and designate a default letter grade where no further work is submitted. Students must complete the required course work no later than the end of the following academic semester, or sooner if required by prior agreement. The instructor must record the permanent grade by the last day of the examination period of that following semester, or Enrollment Services will administratively assign the default grade.

Petition Procedures

Add policy language.

Department Policy/Process for Withdrawing from a course

We adhere to the University Policy found at:

https://www.cmu.edu/hub/calendar/index.html

Drop/Add/Withdraw Procedures

Students are able to add, drop, and withdraw from courses for a limited time after the first day of class. The university's policies can be found at the HUB website:
https://www.cmu.edu/hub/registrar/course-changes/

There is a separate Doctoral course calendar found at:
https://www.cmu.edu/hub/calendar/index.html
Students taking undergraduate and Master's level courses must follow the procedures and deadlines for adding, dropping, or withdrawing from courses as identified on the academic calendar. Information can be found at
https://www.cmu.edu/hub/registrar/course-changes/index.html

Course Audit Policy

Auditing is presence in the classroom without receiving academic credit, a pass/fail, or a letter grade. Audited courses will not count towards your degree requirements. The extent of a student's participation must be arranged and approved by the course instructor. A student wishing to audit a course is required to register for the course, complete the Course Audit Approval Form, obtain permission of the course instructor and their advisor, and return the form to the Registrar's Office prior to the 10th day of class. Any student enrolled full-time may audit a course without additional tuition charges. Part-time students who choose to audit a course will be assessed tuition at the regular per-unit tuition rate.

Department Policy/Protocol for Make-Up Exams

Instructors are requested to provide notification of the major in-term examinations in the course syllabus. The final examination date is posted early in the semester, after the CMU registrar makes this information available. It is the responsibility of the student to give his or her instructor sufficient notice and to work with the instructor to re-schedule examinations if this is needed.

Course Waiver Policy

Some students will have taken similar courses at other universities before entering the ML PhD program. Based on such equivalent coursework, any student can apply to replace (not reduce) up to two courses with either menu cores or electives. All electives must be supported by the advisor, and will be evaluated by the PhD Director.

PhD Students who want to replace a course should send a formal request to the PhD Program Manager (Diane Stidle). The document should contain the transcripts and contents of those courses. Student must also identify the replacement course. The course instructor and the PhD Director of the program must approve the course replacement by sending email to the PhD Program Manager.

Transfer Courses and Pittsburgh Council on Higher Education (PCHE)

Carnegie Mellon University offers students the opportunity to take courses for credit

through a cross-registration program (see Pittsburgh Council on Higher Education (PCHE) and Cross-registration below) and through the receipt of transfer credit from other accredited institutions. The Carnegie Mellon University transcript will include information on such courses as follows: Carnegie Mellon courses and courses taken through the university's cross-registration program will have grades recorded on the transcript and be factored into the QPA. All other courses will be recorded on this transcript indicating where the course was taken, but without grades. Such courses will not be taken into account for academic actions, honors or QPA calculations.

https://www.cmu.edu/policies/student-and-student-life/doctoral-student-status.html

NOTE: Suspended students may take courses elsewhere; however, they may receive transfer credit only if their college's and department's policies allow this, which MLD does not.

Protocol for evaluation of transfer credit

The Machine Learning Department does not accept transfer credit. Requirements may sometimes be replaced if students have taken equivalent coursework elsewhere. The Director of the program will decide whether a certain course may be replaced based on the accreditation of the institution offering the course, the course description, the learning outcomes of the course, the course syllabus, and student work product. Refer to the Course Waiver Policy section for more information.

PhD students who follow their advisors and enter the MLD PhD program are considered exceptional cases and will be reviewed on an individual basis to determine course waivers.

Distance Education

The PhD in Machine Learning program is only offered in-person, and only at the Pittsburgh campus.

Independent Study/ Directed Reading

Research is the fundamental part of the PhD program. PhD students will work on research with their faculty advisor. The advisor has the option to give a letter grade or pass/fail grade for research courses. The default grade is a "P" pass which converts to "S" satisfactory on your transcript. The units with S grade are counted toward degree requirements but are not included in your GPA.

Requirements for those without a Bachelor's / Master's Degree in discipline

PhD students are required to enter the program with a Bachelor's degree.

Teaching Requirements

Each PhD candidate must participate in two terms of instruction, either through teaching assistant (TA) duties or serving as the instructor for a class to fulfill the teaching requirement. For a student to be considered for a Teaching Assistant (TA) position for one of our courses, they should have previously taken that course or a similar course. MLD PhD students are asked to TA for MLD courses. It is possible to TA for a course outside of MLD but you will need permission from Matt Gormley (mgormley@andrew.cmu.edu) to do so.

Evaluation and Certification of English Fluency for Instructors
Graduate students are required to have a certain level of fluency in English before they can instruct in Pennsylvania, as required by the English Fluency in Higher Education Act of 1990. Through this Act, all institutions of higher education in the state are required to evaluate and certify the English fluency of all instructional personnel, including teaching assistants and interns. The full university policy can be reviewed at:
https://www.cmu.edu/policies/faculty/evaluation-certification-english- fluency-instructors.html.

The fluency of all instructional personnel will be rated by Language Support in the Student Academic Success Center to determine at what level of responsibility the student can TA.
In addition to administering the International Teaching Assistant (ITA) Test (a mandatory screening test for any non-native speaker of English), Language Support in the Student Academic Success Center helps teaching assistants who are non-native English speakers develop fluency and cultural understanding to teach successfully at Carnegie Mellon. Visit the Student Academic Success Center website for additional information:
https://www.cmu.edu/student-success/

MLD also holds a TA training for our courses.
The responsibilities of a TA vary with different courses. Examples are:
- Help design homework assignments and other instructional materials
- Give recitations
- Grading
- Help with organizing poster sessions (if applicable)
- Advise small groups of students for class projects (if applicable)
- Hold office hours for individual tutoring

The Eberly Center for Teaching Excellence is a resource for TA and instructor
training and included in the section **Additional University Resources, Appendix A**.

Research Requirements

Grading system for research

Research is the fundamental part of the PhD program. PhD students will work on research with their faculty advisor. The advisor has the option to give a letter grade or pass/fail grade for research courses. The default grade is a "P" pass which converts to "S" satisfactory on your transcript. The units with S grade are counted toward degree requirements but are not included in your GPA.

Different students, and different advisors, have different ideas of what directed research means and how progress can be demonstrated. It is the responsibility of both the student and their advisor to formulate for each semester a set of reasonable goals, plans, and criteria for success in conducting directed research. Advisors are individually responsible for adequately supervising this portion of the graduate program.

During a PhD student's first two years, you should be working on directed research at least half time; once all coursework is completed, the directed research increases to full time (except when serving as a teaching assistant or taking additional courses).

Summer Research

During the summer semester, PhD students may choose to either secure an external summer internship or continue research with their advisor. Students must discuss their summer plans with their advisor and register for the appropriate course. Students must register for the Reading & Research course if staying to continue research with their advisor or one of the internship courses if going on a summer external internship. The student's advisor will determine the pass/fail grade for the semester. The Practicum course, PhD Internship and the Reading & Research courses will count towards the program research requirements but will not count toward coursework.

Research funding options

- The Machine Learning Department is committed to providing full tuition and stipend support for the academic year, for each full-time ML PhD student who is making satisfactory progress, for a period of 5 years. Research opportunities are constrained by funding availability. Students are strongly encouraged to compete for outside fellowships and other sources of financial support. The department will supplement these outside awards in order to fulfill its obligations for tuition and stipend support. When a student is awarded an external fellowship the student will earn their PhD stipend +1% bonus on the external funds.

GuSH Research Funding is a source of small research grant funds provided by the Graduate Student Assembly (GSA) and the Provost's Office and managed by the Office of Graduate and Postdoctoral Affairs. Students can find more information about the application process and deadlines at:

https://www.cmu.edu/graduate/professional-development/research-funding/index.html

Resources and Regulations Governing Research at Carnegie Mellon

- Office of Sponsored Programs
  https://www.cmu.edu/osp/

- Office of Research Integrity & Compliance
  https://www.cmu.edu/research-compliance/index.html

- Intellectual Property Policy
  https://www.cmu.edu/policies/administrative-and-governance/intellectual-property.html

- Policy on Restricted Research
  https://www.cmu.edu/policies/research/restricted-research.html

- Human Subjects in Research Policy
  https://www.cmu.edu/policies/research/human-subjects-in-research.html

Internship Opportunities

The Machine Learning Department recognizes that an external internship can be a valuable educational and research experience, especially if access to proprietary data is required for the student's research. We will allow PhD students to accept up to four external internships during their Ph.D. studies. Interning more than 4 times requires approval from the Ph.D. program Director. International students who wish to pursue an external internship or consulting opportunity must consult with OIE and obtain off campus work authorization before starting the work.

You must discuss your plans for an internship with your advisor for approval. The summer semester is the optimal time for an internship. Internships during the academic year are rare -- the only way to complete an internship during the academic year is to take a Leave of Absence or to adhere to the department rules for Consulting.

If your research resulting from the internship is not complete at the end you may petition to extend that internship in order to complete your research, by following the department consulting policy. Consulting is not counted towards the internship limit of 4.

An extension of a summer internship must be requested by Aug. 15th.

International students are required to consult with Office of International Education
for eligibility before seeking an internship/co-op or signing an offer contract
(required addition to ensure the university is in compliance with immigration laws
for F & J status students)

Resources to Explore Potential Internships
- Faculty Recommendations

- College Career Services

- Career and Professional Development Center
  https://www.cmu.edu/career/

- Department Internship announcements

PhD Qualifying Exam Requirement

Students in the MLD PhD program do not have a Qualifying Exam.

PhD Criteria for Advancement to Candidacy

- University Policy for Doctoral Student Status
  https://www.cmu.edu/policies/student-and-student-life/doctoral-student-status.html

- All But Dissertation (ABD) status is reached when the student has completed all requirements for the PhD program and has proposed their thesis topic and gotten approval from the thesis committee to proceed.

- As per the university policy; Students will complete all requirements for the Ph.D. degree within a maximum of ten years from original matriculation as a doctoral student, or less if required by a more restrictive department or college policy. Once this time-to-degree limit has lapsed, the person may resume work towards a doctoral degree only if newly admitted to a currently offered doctoral degree program under criteria determined by that program.

  Under extraordinary circumstances, such as leave of absence, military or public service, family or parental leave, or temporary disability, a school or college may, upon the relevant department's recommendation and with the written approval of the dean, defer the lapse of All But Dissertation status for a period commensurate with the duration of that interruption. Students, who are pursuing the Ph.D. degree as part-time students for all semesters of their program, as approved by their program, may also appeal to their program or department for extension of the time to degree limit.

- The definition of being *In Residence* and *In Absentia* for candidates is found at: https://www.cmu.edu/policies/student-and-student-life/doctoral-student-status.html

- The tuition and fees charged for candidates in each status are also found at: https://www.cmu.edu/policies/student-and-student-life/doctoral-student-stat

us.html

The ABD Status Agreement Form can be found at:

https://www.cmu.edu/hub/docs/abd-status-agree.pdf

PhD Dissertation

The thesis committee should be assembled by the student and their advisor, and approved by the PhD Program Manager to ensure the rules are met. The thesis committee must include:
- At least one MLD Core Faculty member
- At least one additional MLD Core or Affiliated Faculty member
- At least one External Member, usually meaning external to CMU
- A total of at least four members, including the advisor who is the committee chair

ML PhD students are expected to present their thesis proposal during their third or fourth year. Typically, the proposal is completed by the beginning of the fourth year. Fulfilling the requirement involves writing and orally presenting a proposal, and obtaining advice and approval from the thesis committee. Students should meet with the thesis committee members at least once to discuss the proposed work before the proposal.

Students should allocate at least 2 hours for the proposal presentation and examination. The presentation by the candidate is normally about 45 minutes. In addition to the student, at least two committee members, one of whom is the Chair, must be physically present at CMU for the proposal; other committee members may attend remotely.
The thesis proposal is a public presentation and must be announced two weeks prior to the talk. It is the candidate's responsibility to ensure that the proposal information is sent to the PhD Program Manager at least two weeks before the presentation. The draft thesis proposal document should be sent to the thesis committee members at least one month prior to the proposal presentation; committee members may require the document earlier, in some cases.

Format Guidelines
Machine Learning PhD thesis proposal should be no longer than 15 pages plus references, and will include (a) a clear statement of the research problem and proposed research, (b) a discussion of related research and how the proposed work fits into the field, (c) a description of the technical approach, (d) preliminary research results that demonstrate the proposed research is plausible and worthwhile, (e) a discussion of research issues to be pursued, and (f) a tentative schedule for completing the work.

Of course, in a proposal it is impossible to predict precisely which research issues will be solved in the future. Nevertheless, the proposal should include a list of specific research directions and questions that are likely to be addressed, and for each of these an assessment indicating what could be a baseline approach, and a discussion of ideas for pursuing the issue, along with an

assessment of what will be easy versus difficult. The student needs to show that the proposed research will be original and interesting, and that it is likely to succeed. During the later thesis defense, the student will not be required to show that he or she has done everything that was proposed. In this sense, the proposal is an opportunity to present the student's best current ideas about the thesis research and obtain some useful early feedback from experts in the research area. The proposal need not have answers to every question it raises, but it should bring up a good list of questions that will drive the research.

- For Successful Completion

The student will provide a written thesis proposal to their committee at least two weeks before a public oral presentation of the thesis proposal.   During that oral presentation, the committee and the public are invited to ask questions. After the presentation, the committee will meet in private to determine whether the PhD proposal is approved, and to decide on any advice to the student. The committee chair (the student's advisor) will inform the Graduate Programs Manager of the committee decision. In case the proposal is not approved, the student may present a new or revised thesis proposal at a later date.

Dissertation Committee

The Dissertation Committee is typically the same as the Proposal Committee but may change due to change in research or a committee member who is no longer available.

The dissertation committee must include:
- At least one MLD Core Faculty member
- At least one additional MLD Core or Affiliated Faculty member
- At least one External Member, usually meaning external to CMU
- A total of at least four members, including the advisor who is the committee chair

- The thesis committee should be assembled by the student and their advisor, and approved by the PhD Program Manager to ensure the rules are met. The final thesis defense is a public presentation and must be announced two weeks prior to the talk. It is the candidate's responsibility to ensure that the proposal information is sent to the PhD Program Manager at least two weeks before the presentation.
- Work with the PhD Program Manager to determine timing so as to avoid department and class conflicts. Contact your thesis committee to get their availability. The date should be scheduled two months in advance. You should send a draft of the thesis to your committee about one month before you plan to defend. Your committee should get back to you with their approval to defend before the announcement goes out, two weeks before your

defense date.

Communication of Committee's Review

If the student passes the oral presentation, the options of the committee are:
- To approve without corrections
- To approve subject to minor changes, to be approved later by the thesis chair only
- To require a resubmission after major changes and re-approval of the entire committee
- Not to approve the thesis

    If the student fails to pass either the oral or the written defense, the faculty will discuss their status by the next end-of-semester meeting.

Filing and Submission of Dissertation

Format of the title page:
https://www.ml.cmu.edu/current-students/thesis-title-page-format.html

Month Year (i.e. Month 2023)
Technical Report number (Both should be smaller font than your name on the page)

Request the Technical Report number from the PhD Program Manager).
Request funding information from the MLD Business Manager.

Second page is blank except for keywords at the bottom.

Once formatted and approved by your thesis committee, send the final .pdf document to the PhD Program Manager.

Needed for Hunt Library to publish your thesis:
Link to Hunt Library Dissertation Checklist

Details about the Dissertation submission

Your degree will not be certified until you send the thesis document and Dissertation Checklist.

Dissertation Retention

Your dissertation document will be retained in the department files and also
published on the department dissertation web page (unless there is an embargo).

Process for Completing a Master's Degree enroute to a Ph.D.

This degree is only available to current students in the Machine Learning PhD program or one of the Machine Learning joint PhD programs

You may be able to earn a Master of Science in Machine Learning Research degree on the way to your PhD in Machine Learning.

Degree requirements:
- Complete all course requirements (84 units) for the MLD PhD program

- Complete 48 units of Directed Research

- Complete at least one of the two TA requirements

    Once you have finished the requirements, you must make a request for the degree to the Graduate Programs Manager, it will not automatically be awarded.

A student who has already received a MS degree from another department in the School of Computer Science will not typically receive the MS degree from MLD.

* If you are a student in one of the Machine Learning Joint PhD programs you are able to choose this MS in Research degree from MLD or you may be able to earn a MS degree in your home department but you are not able to earn both.

Certification of Degree

Once requirements are met and the request for the degree is received the PhD Program Manager will enter the new degree into the student's record and will be able to certify the degree, typically in the same or future semester. We are not able to add the degree for a previous semester.

Leave of Absence

Before deciding to take a Leave of Absence, please discuss with your advisor. The department typically grants a leave of absence up to one year. Any extension of the leave beyond one year requires approval of the Department Head.

University process for leave of absence:
https://www.cmu.edu/hub/registrar/leaves-and-withdrawals/

Withdrawal of Degree

If you decide not to return to the program, we are able to withdraw you from the

program. A withdrawal may also happen if you are asked to leave the program. Withdrawal of a degree is a University level process. Please see the University Policy for withdrawal of degree:

https://www.cmu.edu/policies/student-and-student-life/withdrawal-of-a-degree.html

Student-Professor Relationship

In addition to the research fit, the quality of your relationship with your advisor is one of the biggest factors in determining your quality of life during grad school. You should think about whether your prospective advisor seems like someone you would feel comfortable approaching with any problem. Being able to communicate openly about anything on your mind with your advisor makes the PhD journey much more enjoyable and less stressful.

If you are having issues with your advisor, there are people in the department to talk to that may be able to help navigate the relationship. You are encouraged to contact any of the following for help: PhD Program Director, PhD Program Manager, a member of the Wellness Network (members) or Doctoral Review Committee.

Of course whomever you have as your advisor, you are welcome to collaborate with other students, faculty and postdocs, as many students do. But you must also keep up your primary research responsibilities, and keep your advisor informed of any such collaborations.

Advising

Role of the Advisor
The faculty advisor is a student's primary contact, both in research and in academic matters. Typically, a student has strong interests in the research area of the faculty advisor and will closely collaborate with the faculty member. The advisor is typically the primary person directing the student's research, and is also expected to provide financial support (stipend and tuition) for the student.

What does co-advising by two faculty mean?

The ideal scenario for co-advising is that both advisors are interested in working together with you on research. They might work in the same or different areas. This means the three of you would be collaborating on the same research. A typical advantage of having co-advisors is that you will have two faculty to collaborate with on your research. A possible disadvantage is that if one or both of your advisors is very busy, you might "fall through the cracks" because each assumes you can still meet with the other. It is important that the co-advisors meet jointly with you, to assure their advice is consistent.

 Your First Year

The ML Department realizes that the transition to a PhD program can put students into new situations they haven't been in before. To help with this transition, as of the 2020/2021 academic year, the Department instituted a new policy: each first year student meets 1-on-1 with the PhD Program Director in December and in May of their first year. The point of these meetings is to give each student an opportunity to discuss, confidentially, their own experiences and reflections about how things are going, and to raise any questions and concerns they might have.

Examples of things to discuss in this confidential meeting include:
How is coursework going? Are you able to keep up? Happy with your coursework-research balance?
Have you had a chance to launch your research? Are you happy with your work and plans?
How is your relationship with your advisor? Are you two well-aligned in your research interests and style of working together?
Are you happy overall with your PhD life so far? Are you happy with your interactions with other students, staff and faculty? Finding interesting things to do in Pittsburgh?
Is there anything causing you stress that the department might be able to help with?

Again, these are just possible topics, anything goes.

12   The Research Advisor Matching Process in MLD

Carnegie Mellon is a research institution. We are strongly committed to scientific excellence, both in research and education. In particular, we believe that a close personal interaction among students, faculty, and staff is of the utmost importance for educating the next generation of leaders in academia and industry. MLD students are therefore matched to a faculty advisor in the beginning of the program who will guide their research and advise them in academic matters.

Initial Matching to Advisors

Students participate in all MLD Faculty Research talks and any other relevant SCS faculty talks during Orientation. Contact and schedule a meeting with the various faculty that you are potentially interested in as an advisor.

Meet with many faculty, not just one, to ensure you have more than one option in case the first option doesn't work out. You will probably need to meet a faculty several times before you both feel comfortable choosing to work together. You should also talk with their current students to see what their advising style is so you can see if that is right for you. Attending their research group meeting would be a good idea. Having a good personal connection with your advisor is really important.

A matching form will be sent out to the PhD students to list who they would like as their advisor/co-advisors, and a form will also be sent to faculty to list who they would like as their advisee. You should inform the faculty member that you plan to list them on your form and get confirmation that they are considering you as an advisee. **You are able to submit your matching form anytime up until the deadline of October 31st.**

Once the student form and faculty form are received, the department will review the proposed match and confirm faculty financial support for the student. Once MLD confirms the match to both student and faculty, you are able to begin/continue working with that advisor. Official matches won't be announced to the ML community until after the October 31st deadline.

Here are some suggestions of topics to discuss when meeting with potential advisors:

- What is their advising style (e.g., more hands-on or hands-off)
- How often do they meet their students 1:1
  - If not very often, what's the primary source of mentorship for junior students (e.g. senior PhD / post doc)?
- What do they expect from students when evaluating whether they are making satisfactory progress toward the PhD degree?
- Their views on you collaborating part-time on independent projects with other faculty/students
- Does their funding put any constraints on the type of work you can perform as their advisee?
  - Faculty often fund students from research grants that have a particular research focus, and some grants require specific deliverables.
- What is their expectation on the balance between coursework and research in the first year? (Is it true that coursework could take more than 50% of my time?)
- Their policy on summer internships (frequency/venue/topic)
- Here is a video / some guidelines on what to ask to your potential advisor

MLD Process for Switching to a New Advisor

While most PhD students in MLD stay with the same advisor throughout their time at CMU, a significant fraction (15-20%) choose to switch advisors along the way. Some students find that they would like to switch advisors due to a change in their research interests (so that a different advisor makes more sense), or due to stylistic mismatch (e.g., mismatched expectations about frequency of meeting, or working style, etc.).   The ML Department supports changing advisors when appropriate, but expects that you will first discuss any issues with your current advisor, and try to work them out. Switching to another advisor is not considered negatively or to be a failure.

Throughout, keep in mind that we live in an imperfect world with imperfect people. Faculty are not perfect, and can be unaware of the issues that are on your mind. So try first to resolve any issues that come up with your current advisor, but if you find you cannot, then feel free to look for a new one. There is no provably correct process for changing advisors, and no guarantee that you will be more successful with a new advisor. The department recommends the three steps above as an informal process that has worked well for many students.

We recommend the following process for students who are considering an advisor switch:

Step 1:
Speak with your advisor about the issue that's on your mind. Surprisingly to many students, advisors may be totally unaware of issues that are troubling you. So speak with them, and try to work it out. If your research interests are changing to a topic outside their expertise, explain this to your advisor, and suggest that you'd like to talk with other faculty in your area of interest (perhaps take an independent study course with another faculty to see how that interest develops). If it is a stylistic difference, such as feeling your advisor is demanding more progress than you can make, but not spending enough time to help you progress, speak up. You might tell them something like "When we started working together, I was expecting we'd be meeting weekly and going over my code together, but that's not happening and I feel I need that in order to make the kind of progress you're requesting." As an opposite example, you might feel that your advisor is micromanaging you, and you would rather have more autonomy in conducting your research. Again, you should start by bringing this up to the advisor. It might be awkward, but you owe it to yourself and your advisor to discuss whatever is making you think about switching. Many problems are solvable, once identified and discussed!

Step 2:
If you can't work out the issue with your advisor, then let your advisor know that you would like to explore other possible advisors (or a co-advisor if appropriate), and meet with other faculty you'd like to work with (remember that all SCS faculty have automatic advising privileges in all SCS PhD programs). In the meantime, most students would continue to work with their current advisor who is funding their work. In addition, feel free to reach out to the MLD wellness network, and other people (e.g., Ph.D. Program Director) if you feel comfortable discussing this issue with them. If at any point in the year you find a new advisor you like, who is willing and able to take you on as a funded student, then you should notify the PhD Program Manager, who will verify the arrangement, have it approved by the Program Director, and notify all involved, after which you can immediately start working with your new advisor.

Step 3:
If step 2 doesn't work out, then you may join the fall semester advisor-matching process along with the new incoming students. This is usually the best time to look for a new advisor, because

it's the time when advisors are looking for new students. However, switching need not happen only through the fall semester matching process: see last sentence of point 2. No matter which option is pursued, please keep your advisor informed so that it is not a surprise.

Please note that the department guarantees your financial support as long as you remain in good academic standing, and this applies whether or not you switch advisors.

Review/Redress of Academic Conflicts

Please see the **Graduate Student Appeal and Grievance Procedures** university policy. https://www.cmu.edu/graduate/policies/appeal-grievance-procedures.html

Summary of Graduate Student Appeal and Grievance Procedures

Generally, graduate students are expected to seek informal resolution of all concerns within the department before invoking formal processes. If you would like to seek an appeal or have a grievance you should first contact the PhD Program Manager and or the PhD Director.

When an informal resolution cannot be reached, however, a graduate student who seeks further review of the matter is to follow the formal procedures outlined here. https://www.cmu.edu/graduate/policies/appeal-grievance-procedures.html

These appeal and grievance procedures shall apply to students in all graduate programs of the University.

Grading and Evaluation

Dept./College Grading Scale/System

University Policy on Grades www.cmu.edu/policies/student-and-student-life/grading.html
This policy offers details concerning university grading principles for students taking courses and covers the specifics of assigning and changing grades, grading options, drop/withdrawals and course repeats. It also defines the undergraduate and graduate grading standards.
For Machine Learning students, course work with a grade of C+ or lower is not acceptable toward graduate degree requirements. Students receiving a grade of C+ or lower will either have to retake the course or work with the instructor to do remedial work to prove they have learned the material.

Department policy on grades for retaking a course

Students who do not pass a core course will be asked to take the course again. Both course grades will be on your transcript and in the Doctoral Review system.

Department policy on pass/fail, satisfactory/unsatisfactory

The Machine Learning Department requires letter grades in courses for our students.

University Policy on Grades

https://www.cmu.edu/policies/student-and-student-life/grading.html

Process for Appealing Final Grades

https://www.cmu.edu/student-affairs/theword/academic/appeal-of-grades-and-academic-actions.html

Final grades will be changed only in exceptional circumstances and only with the approval of the instructor and the department, unit or program. Grading is a matter of sound discretion of the instructor and final grades are rarely changed without the consent of the instructor who assigned the grade. The following circumstances are the unusual exceptions that may warrant a grade appeal: (a) the final grade assigned for a course is based on manifest error (e.g. a clear error such as arithmetic error in computing a grade or failure to grade one of the answers on an exam), or (b) the faculty or staff member who assigned the grade did so in violation of a University policy.

Policy on Grades for Transfer Courses

https://www.cmu.edu/policies/student-and-student-life/transfer-credit-evaluation-and-assignment.html

Carnegie Mellon University offers students the opportunity to take courses for credit through a cross-registration program (see Pittsburgh Council on Higher Education (PCHE) and Cross-registration below) and through the receipt of transfer credit from other accredited institutions. The Carnegie Mellon University transcript will include information on such courses as follows: Carnegie Mellon courses and courses taken through the university's cross-registration program will have grades recorded on the transcript and be factored into the QPA. All other courses will be recorded on this transcript indicating where the course was taken, but without grade. Such courses will not be taken into account for academic actions, honors or QPA calculations.

Note: Suspended students may take courses elsewhere; however, they may receive transfer credit only if their college's and department's policies allow this. Machine Learning does not allow transfer credits.

Regular Reviews and Evaluations by Department

Every semester, in May and December, the entire faculty of the department meet to collectively discuss, evaluate, and formulate advice for every doctoral candidate. The result of the meeting is a determination of the student's status in the program (instead of a grade) and feedback about

progress and performance.

Purpose of the Review

It is the aim of the faculty that every doctoral candidate succeeds. Everyone admitted to the program is believed to be capable of completing their doctoral studies and obtaining a Ph.D. This biannual review helps to ensure that success.
The purpose of the review is to provide individualized advice and guidance to Ph.D. students so that they know what is expected of them in the coming semester and overall.
It is not the purpose of the review to eliminate candidates from the program; this may rarely occur as a consequence but it is never an objective.

Discussion of all Doctoral students

The majority of doctoral candidates are making satisfactory progress toward their Ph.D. Any difficulties must be reviewed, yet the faculty discusses every case to learn about significant developments, see what strategies are working and not, and to stay informed about everyone.
The faculty's primary source of information about the student is the student's advisor but through courses, committees, and research many of the faculty will have knowledge and perspective to impart. It is also helpful to the advisor to learn about the student from different perspectives.

Faculty Participation

By having all the faculty meet together to discuss all of the students we help to ensure uniformity and consistency in the evaluation by all of the different advisors. The faculty measure each student's progress against the goal of completing the program in a reasonable period of time. In their evaluation, the faculty consider courses taken, directed research, teaching if applicable, skill, development, papers written and lectures.
It is the responsibility of the faculty to advise and evaluate all candidates in the department. The collective nature of the review serves several purposes. The faculty and students function as a collaborative research community with knowledge and experience dispersed among the members so it makes sense to get diverse input about student activities. It is also important to have the faculty well-informed about students to help identify and foster continuing collaboration. Additionally, participation helps faculty to learn and become better advisors.
Advice and support is guaranteed, not by the individual advisor, but by the department (the faculty body). All students making satisfactory progress will receive financial support, regardless of advisor funding and similarly all students will have a doctoral advisor even if their current advisor cannot continue for any reason.
Lastly the review expresses the perspective of faculty and their consent on the advice given, so all must be able to participate in the review process.

Importance to the Department and University

The overarching goals of the faculty when advising Ph.D. students are to produce high-quality research and to graduate highly successful Ph.D. students. The number and success of a faculty member's PhD graduates is a major part of their reputation, and thus their own career success. The faculty truly want their advisees to have successful Ph.D. careers, both before and after graduation.

Similarly, the success of the departments within SCS, and the university as a whole, is judged in part by the production of successful Ph.D. graduates. Thus the departments have an interest in promoting the production of successful Ph.D. graduates, and ensuring a consistent and high level of academic quality. In order to achieve these goals, it is crucial for departments to evaluate Ph.D. students carefully, consistently, and fairly.

What happens in the Review Meeting

The meeting is held in closed session with the faculty who advise students, the Ph.D. chairperson, and the PhD program manager attending. To the greatest extent possible faculty attend in person for the entire meeting.

The discussion proceeds by annual cohort, alternating semester between seniority and reverse-seniority order, alphabetical within cohort.

The graduate student database is accessible by all faculty and during the meeting each student's record in turn is projected for common reference. The draft letter and the student statement are viewable.

The advisor is responsible for assembling information about the case and presenting it. The student should make sure their advisor is informed about participation in activities and research progress made during the semester. This can be in advisor meetings and through the online student statement.

For each student:
- present the case, initially by the advisor or designated proxy
- view the student statement and draft letter
- discuss the case with emphasis on progress
- identify any areas of concern
- formulate specific advice
- determine expected or required activities or accomplishments
- decide on status

The faculty review the student's previous semester's coursework and research progress and the student's next semester's plans to ensure that the student is making satisfactory progress. The evaluation of a student's progress in directed research often depends on the student having produced some tangible result; examples include the implementation of pieces of a software system, a written report on research explorations, an annotated bibliography in a major area, or, as part of preparation for doing research, a passing grade in a graduate course (beyond the required core courses and electives).

It is quite common for a dozen or more faculty to contribute to the discussion and advice for any

one student. The student's advisor speaks first but others, particularly committee members, course instructors, and research collaborators offer their thoughts.

The faculty decide whether a student is making satisfactory progress in the program. If so, the faculty usually suggest goals for the student to achieve over the next semester. If not, the faculty make more rigid demands of the student.

Ultimately, permission to continue in the program is contingent on whether or not the student continues to make satisfactory progress toward their degree. If a student is not making satisfactory progress, the faculty may choose to terminate the student in the program. This only happens after an N-1 warning letter and continuing lack of progress towards requirements prescribed by the faculty.

The review is serious and the tone is of constructive discussion of how to help students to succeed. Natural moments of humor almost always regard the foibles of the faculty itself.

There is very little complaining, and no insulting or demeaning is tolerated. This is not a venue for gossip or rumor, evaluation focuses on the facts of the case. Faculty hold each other to a high standard and the chair keeps the discussion positive.

The faculty limits any discussion or comment on personal lives. Personal circumstances change for better and for worse, times can be easy or hard, events can be happy or sad. The faculty recognizes that it is not fully aware of these details and cannot fairly understand or account them, certainly not for all students equally and fairly. The review focuses on public not private persona and particularly on academic performance. Advisors do not share known private information without prior permission and only when relevant to the evaluation.

Progress Status

The status indicates whether the faculty agrees the student is making reasonable progress, doing well, and on track. The highest status is Satisfactory and students should strive to maintain satisfactory progress throughout their doctoral studies. Each semester may be different in activities and accomplishment, but all may be satisfactory in the evaluation of the faculty. The faculty will assign a status that will be communicated in the student's semiannual review letter.

Your Doctoral Student Review Letter

The status indicates whether the faculty agrees the student is making reasonable progress, doing well, and on track. The highest status is Satisfactory and students should strive to maintain satisfactory progress throughout their doctoral studies. Each semester may be different in activities and accomplishment, but all may be satisfactory in the evaluation of the faculty. The faculty will assign a status that will be communicated in the student's semiannual review letter.

Progress Code Definitions

SP (satisfactory progress) means the faculty have determined that progress toward the PhD is satisfactory. This is the highest status that can be received.

USP (unsatisfactory progress) means the faculty have determined that progress is unsatisfactory. The letter will explain how progress is deficient and give instructions for how to return to satisfactory progress.

N-2 (imminent N-1 if there is no improvement); means the faculty has determined that there are significant problems with the current rate of progress. The student is in danger of receiving an N-1 letter in the next review period unless progress in the program is improved. The letter will contain specific steps for how to return to SP standing.

N-1 (continuation not guaranteed beyond the coming semester) means the faculty has determined that there are significant problems with the current level of progress. You may not be allowed to continue in the program past the next semester unless you satisfy specific conditions that will be given in the letter. The N-1 letter gives the student one semester and instructions on how to make satisfactory progress.

M-2-M (month-to-month) may rarely be applied to manage and guide student progress with monthly milestones. Like N-1 but in this case continuation is not guaranteed beyond the coming month.

History of the Doctoral Student Review

A review of student progress each semester has been part of doctoral programs in SCS for over 40 years. The review until recently has been referred to as Black Friday.
Professor Joe Traub, the second chair of the Department of Computer Science at Carnegie Mellon and founding chair of the Columbia computer science department recalls the origin of the term:
http://www.cs.columbia.edu/~traub/html/body_25th_anniversary_talk.html
As noted the Doctoral Student Review is not dark and it is not always on Friday. A more suitable name has been created.

13 Academic Integrity

Please review the University Policy on Academic Integrity (https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html). The policy includes the University expectations around academic integrity and provides definitions of cheating, plagiarism, and unauthorized assistance.

A review of the University's Academic Disciplinary Actions procedures (https://www.cmu.edu/student-affairs/theword/academic-discipline/index.html) is also recommended. These procedures outline the process for investigating, reporting, and adjudicating violations of the University Policy on Academic Integrity. The procedures also outline the appeal process.

A first violation usually has repercussions at the course level, such as failure of the course. Depending on severity,

however, a first violation may result in program-level repercussions, including dismissal from the program and recommendation for expulsion from the university. Academic integrity on research papers, including a dissertation, is also enforced strictly; citations are required to avoid plagiarism, including self-plagiarism. A second academic integrity violation usually results in dismissal from the program and recommendation for expulsion from the university.

Violations will be discussed at the end of semester review meeting and the department reserves the right to assess additional penalties to the student, as outlined in the University Policy found at: https://www.cmu.edu/student-affairs/ocsi/academic-integrity/grads.html

14   Safeguarding Educational Equity

Assistance for Individuals with Disabilities

http://www.cmu.edu/education-office/disability-resources/

The Office of Disability Resources at Carnegie Mellon University has a continued mission to provide physical, digital, and programmatic access to ensure that students with disabilities have equal access to their educational experience. We work to ensure that qualified individuals receive reasonable accommodations as guaranteed by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Students who would like to receive accommodations can begin the process through Disability Resources' secure online portal:

https://rainier.accessiblelearning.com/cmu/

or email access@andrew.cmu.edu to begin the interactive accommodation process.

Students with physical, sensory, cognitive, or emotional disabilities are encouraged to self-identify with the Office of Disability Resources and request needed accommodations. Any questions about the process can be directed to access@andrew.cmu.edu, or call (412) 268-6121.

Sexual Misconduct Policy

The University prohibits sex-based discrimination, sexual harassment, sexual assault, dating/ domestic violence, sexual exploitation, stalking, and violation of protective measures. The University also prohibits retaliation against individuals who bring forward such concerns or allegations in good faith.

The University's Sexual Misconduct Policy is available at:

https://www.cmu.edu/policies/administrative-and-governance/sexual-misconduct/index.html

The University's Policy Against Retaliation is available at:

https://www.cmu.edu/policies/administrative-and-governance/whistleblower.html

If you have been impacted by any of these issues, you are encouraged to make contact with any of the following resources:

- Office for Institutional Equity and Title IX

  http://www.cmu.edu/title-ix/
  412-268-7125
  institutionalequity@cmu.edu

- University Police

  https://www.cmu.edu/police/
  412-268-2323

Additional resources and information can be found at:

https://www.cmu.edu/title-ix/resources-and-information/index.html

Gestational and Parental Accommodations

https://www.cmu.edu/graduate/programs-services/maternity-accommodation-protocol.html

Providing holistic student support is a top priority at Carnegie Mellon. The protocols on this page are designed to support the parental needs of students and their families.

Students seeking any of the Parental Accommodations described below must register with the Office of the Dean of Students by contacting the office for an appointment by calling 412-268-2075.

Students are encouraged to register with the Office of the Dean of Students ninety (90) days in advance of the anticipated arrival of the child as applicable in the individual circumstance. At the time of registering, students will have the opportunity to consult about resources, procedures, funding options and preparation for discussing academic accommodations with the student's academic department. Students should also consult with their academic advisors either before or in conjunction with registering with the Office of the Dean of Students.

Accommodations for Gestational Parents

The birth of a child is a significant life event that may require time away from academic pursuits for delivery and recovery from delivery of a newly born child. Students whose anticipated delivery date is during the course of a semester may need to take time away from their academic responsibilities. Carnegie Mellon students seeking time away are afforded two options as possible accommodation:

- **Short-Term Accommodation for Gestational Parents** – A short term

absence from academic responsibilities up to a maximum of six (6) weeks. Short-Term Accommodation may be extended by two (2) weeks, for a total of eight (8) weeks, where a longer absence is medically necessary. Prior to the absence students must work with relevant university faculty and staff to adjust their course work, research, teaching and other academic responsibilities during the period of absence. This may include extensions of time to complete assignments, incomplete grades, and/or dropping courses, shifting research responsibilities and adjusting TA assignments. Students who take a Short-Term Accommodation will remain enrolled.

- **Formal Leave of Absence**– A formal leave of absence under the Student Leave Policy. Generally, the Student Leave Policy permits students to take a leave of absence for a full-semester, mini-semester, or for the time remaining in the semester during which the leave is taken. Students who take a Formal Leave of Absence (https://www.cmu.edu/policies/student-and-student-life/student-leave.html) drop all remaining courses for the semester and are unenrolled for the semester. International students must consult with the Office of International Education (https://www.cmu.edu/oie/) before considering this option due to visa implications.

Parental Accommodation for Doctoral Students

The university offers a Parental Accommodation for qualifying doctoral student parents to include up to four (4) weeks of time away from academic responsibilities with continued stipend support. This accommodation can be utilized within six months of the birth or placement of a child through adoption, foster care or legal guardianship. Gestational parents may utilize both the Short-Term Accommodation for Gestational Parents and the parental accommodation.

Careful planning and consultation is necessary given the unique contexts and requirements of each student's situation. Students will remain fully enrolled and will receive assistance in navigating the necessary planning and consultation processes.

Financial Assistance for Student Parents

Carnegie Mellon also offers the following options for financial assistance to students who become parents while enrolled:

Interest Free Loan – Any student who becomes a parent is eligible to apply for an interest-free parental loan (https://www.cmu.edu/student-affairs/dean/loans/) from

the Office of the Dean of Students.

Doctoral Stipend Continuation (Gestational Parents) – Doctoral students who are the gestational parent and who receive an academic stipend funded by Carnegie Mellon are eligible to continue to receive stipend funding for up to six (6) weeks during a Short-Term Accommodation for Gestational Parents or during a Formal Leave of Absence. Continued academic stipend funding may be extended by two (2) weeks, for a total of eight (8) weeks, if an absence longer than six weeks is medically necessary.

Doctoral Stipend Continuation (Non-gestational Parents) – Doctoral students who receive an academic stipend funded by Carnegie Mellon and are becoming a parent by adoption, birth, or through guardianship are eligible to continue to receive stipend funding for up to four (4) weeks during a Short-Term Parental Accommodation.

Consensual Intimate Relationship Policy Regarding Undergraduate Students

https://www.cmu.edu/policies/student-and-student-life/consensual-relationships.html

This policy addresses the circumstances in which romantic, sexual or amorous relationships/interactions with undergraduate students, even if consensual, are inappropriate and prohibited. The purpose of this policy is to assure healthy professional relationships. This policy is not intended to discourage consensual intimate relationships unless there is a conflicting professional relationship in which one party has authority over the other as in the policy.

15   Additional department and university policies/protocols

Verification of Enrollment

Enrollment Services is the only University office that can provide an official letter of enrollment, official transcript and enrollment verification.

Enrollment verification can be requested online through The HUB at:

https://www.cmu.edu/hub/registrar/student-records/verifications/enrollment.html

Change of Address

Make sure to keep your current local address up-to-date in SIO. This supports a university initiative to have accurate living information for students for official

program/department/college/university notices, the ability to facilitate wellness checks, ensure international students are in compliance with visa requirements, etc.

Requirement for providing personal computing resources

The department will provide a personal computer to incoming PhD students for their use while they are in the program. Students are able to choose a computer from the options offered through the SCS Help Desk.

New Policies / "Grandfather" Policy

It is important to be explicit with graduate students about the criteria, policies and protocols which they will be required to complete and/or follow in order to successfully graduate, and how changes in policies will be navigated by the department. When policies are changed it is because the department believes the new rules offer an improvement; any such changes will be communicated to the current graduate students. The students currently enrolled whose degree program is affected by a change in policy may choose to be governed by the older policy that was in place at the time of their matriculation. In case degree requirements are changed and certain courses are no longer offered, the department will try to find some compromise that allows those students to satisfy the original requirements.

Time Away from Academic Responsibilities

We recognize that everybody, including graduate students, need time off to relax and recharge, and we support that.   However, Graduate Students should not assume that their time-off follows the academic calendar of courses. The default assumption is that graduate students continue research during academic breaks, unless they get approval in advance from their advisor to take time off. University Holidays are student holidays as well and students need to consult with their advisor/s about coverage during University Holidays if they have challenges with taking time off during that time, i.e. if experiments are running that need to be monitored continuously. Arrangements can be made for students to take an equal number of days off at another time.

Employment Eligibility Verification

If you are receiving a stipend, are a TA, or are planning to have a position with CMU then Employment Eligibility Verification is required. Form I-9 must be completed within 3 business days of beginning work for any type of compensation (stipend or employment). Additional details are highlighted below. To ensure compliance with federal law, Carnegie Mellon University maintains the **Employment Eligibility**

Verification (I-9) Policy [pdf] covering the university's I-9 and E-Verify requirements:

- Every individual receiving a stipend from CMU or employed by CMU must comply with the I-9 Policy by completing the Form I-9 within three business days following the first day of stipend start date/employment.

- Individuals who expect to work on a federally funded project are further responsible for submitting an E-Verify Processing Request Form to the Office of Human Resources if required.

- For more information, please see CMU's **Guidance for Completing the Form I-9 and E-Verify Requirements at CMU [pdf]**, or visit the Human Resources Service website to learn more about Form I-9 and E-Verify and to schedule an appointment to complete the Form I-9.

- Students who fail to complete the Form I-9 in a timely manner may have stipend payments suspended. If employed by the university, an individual who fails to timely complete the Form I-9 may be subject to disciplinary action up to and including termination of employment.

16   Financial Support

Statement of Department Financial Support

The Machine Learning Department is committed to providing full tuition and stipend support for the academic year, for each full-time ML PhD student who is making satisfactory progress, for a period of 5 years. Research opportunities are constrained by funding availability. Students are strongly encouraged to compete for outside fellowships and other sources of financial support. The department will supplement these outside awards in order to fulfill its obligations for tuition and stipend support. When a student is awarded an external fellowship the student will earn their PhD stipend +1% bonus on the external funds.

Types of Department Funding

- Stipend is provided for the first 12 months and for the academic year thereafter. Summer funding may be available through working on continued research or through a summer internship.

Health Insurance Requirement

All Carnegie Mellon students are required to have health insurance. Please visit the University Health Services (UHS) website at https://www.cmu.edu/health-services/student-insurance/ for additional information.

In addition to the tuition, stipend, and fees support referenced above, if you elect to enroll in the Carnegie Mellon University's Student Health Insurance Plan (SHIP), the University will cover the premium cost for your individual coverage. While you will have the opportunity to purchase partner, spouse or dependent coverage under the SHIP plan, the University's support is limited to the enrolled student's coverage as an individual. Please note that if you wish to satisfy the health insurance requirement under an alternate plan you will not be eligible for the University support referenced here.

- In order to be eligible for the financial support, you must enroll in the SHIP program not later than July 31, 2023. Please be advised that we will verify your enrollment with University Health Services prior to processing the insurance premium support. For those who elect spouse or dependent coverage, the University has a payment plan available. Information can be found at:

  https://www.cmu.edu/sfs/billing/payments/monthly-plan/index.html

- The HUB's website https://www.cmu.edu/hub/new-grad/enrollment-finances.html also has information specific to health insurance coverage and waivers for doctoral students.

- University Fees (are covered by the department while you are a current student, not on leave or ABS)

  - Technology Fees

  - Student Activities Fee

  - Transportation Fee

- Travel/Conference Funding

The department encourages PhD students to travel to conferences and workshops to enhance their professional and career development.

Policy: If a PhD student wishes to attend a conference or workshop, the student's advisor or research sponsor should support the trip through either a research contract or a discretionary account. Student travel is unlimited as long as there is money available from research contracts and/or discretionary funds of a sponsoring faculty member.

If no such funding is available to the student, then limited departmental funds may be available upon request from the Machine Learning Department. Since departmental funds are

limited, the maximum to be reimbursed will be $200 plus the registration fee, if only attending the conference or workshop; $600 plus the registration fee, if presenting a paper. Department funding is only available to the student for one trip per year and will not be transferred to the following year. This funding is only available if the advisor agrees with the student's decision to attend the conference but does not have the funds.

Process: To obtain travel support, the PhD student and their faculty advisor/research sponsor must first agree that the student should take the trip. Then in advance of the trip the student must fill out and print the Student Travel Authorization Form and get their advisor's signature before forwarding the form to the PhD Program Manager.

The faculty member must (i) indicate the amount and the reason for providing partial support (be sure the charge number is filled in) or (ii) state on the Comments line that no funds are available from any research or discretional account. Student then submits the form to the PhD Program Manager to request approval from the Department Head.

University Funding

Conference Funding is a funding application process provided by GSA and the Provost's Office for students, student work groups or groups to attend a conference, whether as a participant or as a presenter. The process is managed by the Office of Graduate and Postdoctoral Affairs. Students can find more information about the application process and deadlines at:

https://www.cmu.edu/graduate/professional-development/index.html

Funding Payment Schedule

Stipend pay periods begin Aug 16 of each year. Stipends are paid semi-monthly on the 15th or the last day of the month.

Additional Sources for Financial Support

University Financial Aid

Graduate students should consult the graduate student financial aid information found on The HUB website: https://www.cmu.edu/sfs/financial-aid/graduate/index.html. Students will find the Graduate Financial Aid Guide, information about funding options and how to apply for financial aid and other helpful links.

Office of the Dean of Students Emergency Support Funding

Graduate students who find themselves in need of immediate funds for emergency situations should contact the Office of the Dean of Students:

https://www.cmu.edu/student-affairs/index.html

to inquire about the types of emergency funding available to enrolled students

17 University Research Funding

GuSH Research Funding

GuSH Research Funding is a source of small research grant funds provided by GSA and the Provost's Office and managed by the Graduate Education Office. Students can find more information about the application process and deadlines at:

https://www.cmu.edu/graduate/professional-development/research-funding/index.html

Appendix A
2023-2024
Highlighted University Resources for Graduate Students

Note: The following pages are meant to broadly include only some of the resources available to graduate students. It is not an exhaustive appendix of resources, and students are strongly encouraged to visit the various websites linked below for the most up-to-date information.

Table of Contents

Key Resources for Graduate Student Support

Office of Graduate and Postdoctoral Affairs

https://www.cmu.edu/graduate

graded@cmu.edu

The Office of Graduate and Postdoctoral Affairs provides university-wide support for all graduate students and academic programs, with a focus on supporting graduate student success at Carnegie Mellon. Examples of resources offered through the Office of Graduate and Postdoctoral Affairs include, but are not limited to:

- Website with university resources, contact information for CMU programs and services, possible financial assistance and potential funding opportunities, and various procedural and policy information

- Newsletter to all graduate students with information on activities, resources, and opportunities

- Professional development seminars and workshops, and various programming and events for the graduate student community

The Office of Graduate and Postdoctoral Affairs also works directly with the colleges and departments on issues related to graduate students and serve as a resource for developing policy and procedures. The Office of Graduate and Postdoctoral Affairs partners with many other offices and organizations, such as the Graduate Student Assembly, to support the holistic graduate student educational experience.

Office of the Dean of Students

https://www.cmu.edu/student-affairs/dean/

The Office of the Dean of Students provides central leadership of the metacurricular experience at Carnegie Mellon including the coordination of student support. Graduate students will find the enrollment information for Domestic Partner Registration and Parental Accommodations in the Office of the Dean of Students or on their website. This Office also manages the Student Emergency Support Funding process. There are currently three forms of support funding for enrolled students: emergency student loans, student parental loans, and the Tartan Emergency Support Fund. Inquiring students will be provided with additional information about the various types of funding during a consultation meeting with a member of the Dean of Students team. Tuition costs are not eligible for Student Emergency Support funding.

College Liaisons and the Student Support Resources team serve as additional resources for graduate students. College Liaisons are senior members of the Division of Student Affairs who work with departments and colleges addressing student concerns across a wide range of issues. College Liaisons are identified on the Important Contacts list in Student Information Online (SIO). The Student Support Resources team offers an additional level of support for students who are navigating a wide range of life events. Student Support Resources staff members work in partnership with campus and community resources to provide coordination of care and support appropriate to each student's situation.

The Division of Student Affairs

The Division of Student Affairs includes (not an exhaustive list):

- Athletics, Physical Education and Recreation
- Career and Professional Development Center (CPDC)
- Center for Student Diversity and Inclusion
- Cohon University Center
- Counseling & Psychological Services (CaPS)
- Dining Services
- Office of Community Standards and Integrity (OCSI)
- Office of Student Leadership, Involvement, and Civic Engagement (SLICE)
- University Health Services (UHS)
- Wellness Initiatives

Center for Student Diversity & Inclusion

`https://www.cmu.edu/student-diversity/`

Diversity and inclusion have a singular place among the values of Carnegie Mellon University. The Center for Student Diversity & Inclusion actively cultivates a strong, diverse and inclusive community capable of living out these values and advancing research, creativity, learning and development that changes the world.

The Center offers resources to enhance an inclusive and transformative student experience in dimensions such as access, success, campus climate and intergroup dialogue. Additionally, the Center supports and connects historically underrepresented students and those who are first in their family to attend college in a setting where students' differences and talents are

appreciated and reinforced, both at the graduate and undergraduate level. Initiatives coordinated by the Center include, but are not limited to:

- First generation/first in family to attend college programs

- LGBTQ+ Initiatives

- Race and ethnically focused programs, including Inter-University Graduate Students of Color Series (SOC) and PhD SOC Network

- Women's empowerment programs, including Graduate Women's Gatherings (GWGs)

Assistance for Individuals with Disabilities

https://www.cmu.edu/disability-resources/

The Office of Disability Resources at Carnegie Mellon University has a continued mission to provide physical, digital, and programmatic access to ensure that students with disabilities have equal access to their educational experience. The Office works to ensure that qualified individuals receive reasonable accommodations as guaranteed by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Students who would like to receive accommodations can begin the process through Disability Resources' secure online portal or email access@andrew.cmu.edu to begin the interactive accommodation Process.

Students with physical, sensory, cognitive, or emotional disabilities are encouraged to self-identify with the Office of Disability Resources and request needed accommodations. Any questions about the process can be directed to access@andrew.cmu.edu, or call (412) 268- 6121.

Eberly Center for Teaching Excellence & Educational Innovation

https://www.cmu.edu/teaching/

The Eberly Center offers a wide variety of confidential, consultation services and professional development programs to support graduate students as teaching assistants or instructors of record during their time at Carnegie Mellon University and as future faculty members at other institutions. Regardless of one's current or future teaching context and duties, Eberly's goal is to disseminate evidence-based teaching strategies in ways that are accessible and actionable. Programs and services include campus-wide Graduate Student Instructor Orientation events and our Future Faculty Program, both of which are designed to help participants be effective and efficient in their teaching roles. The Eberly Center also assists departments in creating and conducting customized programs to meet the specific needs of

their graduate student instructors. Specific information about Eberly Center support for graduate students is found at:

https://www.cmu.edu/teaching/graduatestudentsupport/

Graduate Student Assembly

https://www.cmu.edu/stugov/gsa/

The Graduate Student Assembly (GSA) is the branch of Carnegie Mellon Student Government that represents and advocates for the diverse interests of all graduate students at CMU. GSA is composed of representatives from the different graduate programs and departments who want to improve the graduate student experience at the different levels of the university. GSA is funded by the Student Activities Fee from all graduate students. GSA passes legislation, allocates student activities funding, advocates for legislative action locally and in Washington D.C. on behalf of graduate student issues and needs, and otherwise acts on behalf of all graduate student interests. GSA's recent accomplishments are a testament to their making a difference, and steps to implementing the vision laid out by the strategic plan.

https://www.cmu.edu/stugov/gsa/about-the-gsa/strategic-plan.html

GSA offers an expanding suite of social programming on and off-campus to bring graduate students from different departments together and build a sense of community. GSA is the host of the Graduate Student Lounge on the 3rd floor of the Cohon University Center. GSA also maintains a website of graduate student resources on and off-campus. GSA continues to rely on student feedback to improve the graduate student experience at CMU. Feel free to contact them at gsa@cmu.edu to get involved, stop by their office in the Cohon University Center Room 304 or become a representative for your department.

Office of International Education (OIE)

https://www.cmu.edu/oie/

Carnegie Mellon hosts international graduate and undergraduate students who come from more than 90 countries. The Office of International Education (OIE) is the liaison to the University for all non-immigrant students and scholars, as well the repository for study abroad opportunities. OIE provides many services including: advising on personal, immigration, study abroad, academic, and social and acculturation issues; presenting programs of interest such as international career workshops, tax workshops, and cross-cultural and immigration workshops; international education and statistics on international students in the United States; posting pertinent information to

students through email and the OIE website and conducting orientation and pre-departure programs.

Veterans and Military Community

https://www.cmu.edu/veterans/

Military veterans are a vital part of the Carnegie Mellon University community. Graduate students can find information on applying for veteran education benefits, campus services, veteran's groups at CMU, and non-educational resources through the Veterans and Military Community website. There are also links and connections to veteran resource in the Pittsburgh community. The ROTC and Veteran Affairs Coordinator can be reached at urovaedbenefits@andrew.cmu.edu or 412-268-8747.

Carnegie Mellon Ethics Hotline

https://www.cmu.edu/hr/resources/ethics-hotline.html

The health, safety and well-being of the university community are top priorities at Carnegie Mellon University. CMU provides a hotline that all members of the university community should use to confidentially report suspected unethical activity, violations of university policy, or violations of law. Students, faculty and staff can anonymously file a report by calling 1-844-587-0793 or visiting https://cmu.ethicspoint.com/. All submissions are reported to appropriate university personnel and handled discreetly.

The hotline is NOT an emergency service. For emergencies, call University Police at 412-268-2323.

Policy Against Retaliation

It is the policy of Carnegie Mellon University to protect from retaliation any individual who makes a good faith report of a suspected violation of any applicable law or regulation, university Policy or procedure, any contractual obligation of the university, and any report made pursuant to the Carnegie Mellon University Code of Business Ethics and Conduct.

Additional details regarding the Policy Against Retaliation are available at:

https://www.cmu.edu/policies/administrative-and-governance/whistleblower.html

Key Offices for Academic & Research Support

Computing and Information Resources

https://www.cmu.edu/computing/

Computing Services maintains and supports computing resources for the

campus community, including the campus wired and wireless networks, printing, computer labs, file storage, email and software catalog. As members of this community, we are all responsible for the security of these shared resources. Be sure to review the Safe Computing (https://www.cmu.edu/computing/safe/) section and the University Computing Policy (https://www.cmu.edu/policies/information-technology/computing.html)

Visit the Computing Services website (https://www.cmu.edu/computing/) to learn more. For assistance the Computing Services Help Center is available at 412-268-4357 (HELP) or ithelp@cmu.edu.

Student Academic Success Center

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https://www.cmu.edu/student-success/
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The Student Academic Success Center's (SASC) work to support success focuses on creating spaces for students to engage in their coursework and approach to learning through many group and individual program options. SASC supports student success by providing academic coaching, subject-specific tutoring, effective communication strategies, accommodations for students with disabilities, and language support for multilingual learners. SASC engages with faculty and staff to improve the coordination and professional development for academic advisors. Visit the SASC website for more information about services offered in areas such as communication and language support; language and cross-cultural support; and learning support.

University Libraries

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https://www.library.cmu.edu/
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The University Libraries offers a wide range of information, resources, and services supporting graduate students in coursework, research, teaching, and publishing. The library licenses and purchases books, journals, media, and other needed materials in various formats. Library liaisons, consultants, and information specialists provide in-depth and professional assistance and advice in all-things information, including:

- Locating and obtaining specific resources
- Providing specialized research support
- Advanced training in the use and management of data

Sign up for workshops and hands-on topic-specific sessions such as data visualization with Tableau, cleaning data with OpenRefine, and getting started with Zotero. Weekly drop-in hours for Digital Humanities and for Research Data Research Management are scheduled during the academic year. Start at

the library home page to find the books, journals, and databases you need; to identify and reach out to the library liaison in your field; to sign up for scheduled workshops; and to connect with consultants in scholarly publishing, research data management, and digital humanities.

Research at CMU

https://www.cmu.edu/research/

The primary purpose of research at the university is the advancement of knowledge in all fields in which the university is active. Research is regarded as one of the university's major contributions to society and as an essential element in education, particularly at the graduate level and in faculty development. Research activities are governed by several university policies. Guidance and more general information are found by visiting the Research at Carnegie Mellon website.

Office of Research Integrity & Compliance

https://www.cmu.edu/research-compliance/

The Office of Research Integrity & Compliance (ORIC) is designed to support research at Carnegie Mellon University. The staff work with researchers to ensure research is conducted with integrity and in accordance with federal and Pennsylvania regulation. ORIC assists researchers with human subject research, conflicts of interest, responsible conduct of research, export controls, and institutional animal care & use. ORIC also provides consultation, advice, and review of allegations of research misconduct.

Key Offices for Health, Wellness & Safety

Counseling & Psychological Services

https://www.cmu.edu/counseling/

Counseling & Psychological Services (CaPS) affords the opportunity for students to talk privately about academic and personal concerns in a safe, confidential setting. An initial consultation at CaPS can help clarify the nature of the concern, provide immediate support, and explore further options if needed. These may include a referral for counseling within CaPS, to another resource at Carnegie Mellon, or to another resource within the larger Pittsburgh community. CaPS also provides workshops and group sessions on mental health related topics specifically for graduate students on campus. CaPS services are provided at no cost. Appointments can be made in person, or by telephone at 412-268-2922.

Health Services

https://www.cmu.edu/HealthServices/

University Health Services (UHS) is staffed by physicians, advanced practice clinicians and registered nurses who provide general medical care, allergy injections, first aid, gynecological care, and contraception as well as on-site pharmaceuticals. The CMU Student Insurance Plan covers most visit fees to see the physicians and advanced practice clinicians & nurse visits. Fees for prescription medications, laboratory tests, diagnostic procedures and referral to the emergency room or specialists are the student's responsibility and students should review the UHS website and their insurance plan for detailed information about the university health insurance requirement and fees.

UHS also has a registered dietician and health promotion specialists on staff to assist students in addressing nutrition, drug and alcohol and other healthy lifestyle issues. In addition to providing direct health care, UHS administers the Student Health Insurance Program. The Student Health Insurance plan offers a high level of coverage in a wide network of health care providers and hospitals. Appointments can be made by visiting UHS's website, walk-in, or by telephone, 412-268-2157.

Campus Wellness

https://www.cmu.edu/wellness/

At Carnegie Mellon, we believe our individual and collective well-being is rooted in healthy connections to each other and to campus resources. The university provides a wide variety of wellness, mindfulness and connectedness initiatives and resources designed to help students thrive inside and outside the classroom.

Religious and Spiritual Life Initiatives (RSLI)

https://www.cmu.edu/wellbeing/resources/religious-spiritual/index.html

Carnegie Mellon is committed to the holistic growth of our students, including creating opportunities for spiritual and religious practice and exploration. RSLI has relationships with local houses of worship from various traditions and many of these groups are members of CMU's Council of Religious Advisors. They also offer programs and initiatives that cross traditional religious boundaries in order to increase knowledge of and appreciation for the full diversity of the worldview traditions. RSLI staff are available to support students across the spectrum of religious and spiritual practice and would be more than happy to help you make a connection into a community of faith during your time at CMU.

University Police

https://www.cmu.edu/police/

x2323

The University Police Department is located at 4551 Filmore Street. The department's services include police patrols and call response, criminal investigations, fixed officer and foot officer patrols, event security, and crime prevention and education programming as well as bicycle and laptop registration. Visit the department's website for additional information about the staff, emergency phone locations, crime prevention, lost and found, fingerprint services, and annual statistic reports. Carnegie Mellon University publishes an annual campus security and fire safety report describing the university's security, alcohol and drug, sexual assault, and fire safety policies. The report also contains statistics about the number and type of crimes committed on the campus and the number and cause of fires in campus residence facilities during the preceding three years. Graduate students can obtain a copy by contacting the University Police Department at x2323. The annual security and fire safety report is also available online at:

https://www.cmu.edu/police/annualreports/

Shuttle and Escort Services

https://www.cmu.edu/parking/transport/

Parking and Transportation coordinates the Shuttle Service and Escort Service provided for CMU students, faculty, and community. The Shuttle & Escort website has full information about these services, stops, routes, tracking and schedules.

The WORD

https://www.cmu.edu/student-affairs/theword/

The WORD is Carnegie Mellon University's online student handbook and serves as the foundation for the department (and sometimes college) handbook. The WORD contains university-wide academic policy information and resources, community policies and resources, and describes the university level procedures used to review possible violations of these standards. It is designed to provide all students with the tools, guidance, and insights to help you achieve your full potential as a member of the Carnegie Mellon community. Graduate students are encouraged to bookmark this site and refer to it often. University policies can also be found in full text at:

https://www.cmu.edu/policies/.