Machine Learning PhD Handbook

Revised: July 2024

I. Introduction

The Machine Learning (ML) PhD program is a collaborative venture between Georgia Tech's colleges of Computing, Engineering, and Sciences. The central goal of the PhD program is to train students to perform original, independent research. The most important part of the curriculum is the successful defense of a PhD Dissertation, which demonstrates this research ability. The academic requirements are designed in service of this goal.

The curriculum for the PhD in Machine Learning is truly multidisciplinary, containing courses taught in nine associated schools across three colleges at Georgia Tech:

- Computational Science and Engineering (Computing)
- Computer Science (Computing)
- Interactive Computing (Computing)
- Aerospace Engineering (Engineering)
- Biomedical Engineering (Engineering)
- Chemical and Biomolecular Engineering (Engineering)
- Electrical and Computer Engineering (Engineering)
- Industrial and Systems Engineering (Engineering)
- Mathematics (Sciences)

[ML PhD Program Faculty](#) from these nine associated schools also supervise students in the program. The advisor and student do not have to share the same home unit.

The program is administered by the Director, the Faculty Advisory Committee (FAC), the Director of Graduate Program Services, and the ML Academic Advisor. The roles of these entities are detailed below. The lifeblood of the program are the ML PhD students,

and the ML PhD Program Faculty who advise, mentor, and conduct research with these students.

This handbook is meant to detail the inner workings of the ML PhD program for students, faculty, and administrators. The sections below describe the processes in the most important parts of the program, including admissions, coursework requirements, the qualifying exam, the PhD proposal, the dissertation, and final defense, as well as the mechanisms for administration. A list of Current Personnel, Core and Elective Course Listings, Doctoral Minor information, and Health and Wellness Resources are included at the end of this guide.

This handbook does not replace or supersede the General Catalog issued by the Georgia Institute of Technology and should be viewed as a supplement to the material in the catalog. In the event of a conflict in interpretation between this handbook and the General Catalog of the Georgia Institute of Technology, the interpretation of the General Catalog shall prevail. The General Catalog can be found at http://catalog.gatech.edu/. Although we encourage students to seek advice from their faculty advisor(s), home unit's student services offices, ML program administration, ultimately, it is the student's responsibility to meet the rules and regulations for degree completion.

II. Admissions

External applications are only accepted for the Fall semester each year. Students apply to the ML PhD program through one of the participating home schools. The application deadline and requirements vary by home school, so applicants should follow the policies of the home school(s) they are applying through.

The ML PhD admissions process works bottom-up through the home schools. The FAC representative coordinates the process in their respective units, working with the associate chair for graduate studies and other faculty associated with the ML PhD program. Admissions decisions are made by the home school, and then submitted to the ML FAC for final approval.

Support for incoming students (including guarantees of teaching and research assistantships and/or fellowships) is determined by the home schools.

After the admissions have been approved by the FAC, the home school will communicate the acceptance to the prospective student and any next steps for arrival, including I-20 processing for international students. The home school will also communicate all rejections.

Transfer Admissions

Students may also transfer into the ML PhD if they are currently enrolled in another PhD program at Georgia Tech. Transfers are accepted at the ML PhD Director's discretion. A guideline for transfer admission is that the student must have a commitment for a research assistantship (GRA) for at least one year with a [ML PhD Program Faculty](#), who will be their thesis advisor.

Transfer applications are submitted via email to the Program Director. The application should include a statement of purpose by the student, unofficial transcripts for all graduate work done at Georgia Tech and other institutions, and a letter or email from their advisor guaranteeing their support for the student through a research assistantship.

If approved by the Program Director and proposed academic home school, the student will then be instructed on how to finalize the change with their current program and the ML Academic Advisor, including obtaining signatures required for the Graduate Change of Major form.

Change of major and/or transfer requests are not processed during any phase II registration periods (August and January).

Recruiting visits

Recruiting visits are organized in the Spring by the home schools along with their other degree programs.

New Student Orientation

There will be a new student orientation for all new ML PhD students the week before classes start in August. It will consist of a short presentation by the director on the degree requirements, an open discussion, and then a mixer with current PhD students and faculty. This will be in addition to the orientations the incoming students have with their home schools and Institute.

III. Coursework Requirements

The coursework for the ML PhD consists of the following, per the current GT Catalog year:
1. Core curriculum, 4 courses, 12 hours. The courses that can be used to fulfill this requirement are discussed in detail in Appendix A.
2. Area electives, 5 courses, 15 hours. The electives must be chosen from the list in Appendix B.
3. Doctoral minor, 6 hours. These courses must form a cohesive course of study and must come from outside the area of machine learning; no ML courses (core or elective) can be used to fulfill this requirement. A minimum GPA of 3.0 must be achieved in courses used for the minor. Please see Appendix C for more details.
4. Responsible Conduct of Research, 1 course, 1 hour (pass/fail). Georgia Tech requires that all PhD students complete an RCR requirement that consists of an online component and in-person training. The online component is completed during the student's first semester enrolled at Georgia Tech. The in-person training is satisfied by taking PHIL 6000 or their associated academic program's in-house RCR course.
5. ML PhD Qualifying exam, 1 course, 3 hours (pass/fail). As described in the Qualifying Exam section IV, the qualifying exam consists of a one semester literature study. To take the exam, students enroll in CS 7999 (Prep-Doctoral Qual Exams.

All coursework must be completed before the PhD proposal. All PhD coursework must be taken for letter grade with an overall GPA of 3.0 required.

A list of previously approved courses and the relevant categories for the coursework requirements is listed in the Appendix. Any course not listed will require approval - No exceptions.

The ML Academic Advisor and ML Program Director reviews and approves requests from students to count courses currently not listed as approved.

The coursework requirements are subject to change. Students can satisfy any version of them that are in effect from the date of matriculation into the program to the date of the PhD Proposal.

More information about the Institute-level requirements for the PhD degree can be found here: http://www.catalog.gatech.edu/academics/graduate/doctoral-degree-info/

Special Problems

Special problem courses (e.g., CS 8903, ECE 8903, etc) offer students the opportunity to be involved in research while earning course credit. Up to six special problem hours (two courses) can be used towards the ML PhD Area Elective Credits. Courses must be taken for a letter grade and student performance for special problems courses must be certified by the faculty instructor. A short (5 page) report detailing the student's activities during the semester should be submitted to the supervising faculty during the last week of class. Faculty must also certify that the work done for a special problem course is not simultaneously being done for pay as a GRA.

Only special problems courses taken in the first two years in the program will be counted as credit towards the ML PhD.

Home Units and Home Unit Requirements

A home unit (or home school) is an academic unit (Department, Division, or School) at Georgia Tech that has agreed to formally participate in the ML program. Each home unit has a home unit coordinator, who is a faculty member in that unit. Students and the home unit must mutually agree on home unit affiliation. An initial home unit is determined during either the admissions process or in the process of transferring to the ML program from another PhD academic program at Georgia Tech.

Each academic unit determines admission requirements (deadlines, GRE, etc), rules for allocation of space and financial assistance (e.g., teaching and research assistantships) for students applying to and who are homed in that unit. Home units may also have additional departmental requirements such as teaching apprenticeships (see more info below). Home units may also set specific requirements regarding registration for research and doctoral thesis hours. Check with the home unit directly for any specific requirements.

ML PhD students' thesis advisors must have an appointment in one of the 9 home units, in addition to being a member of the [ML PhD Program Faculty](#). Students are welcome to explore research opportunities with faculty in other units beyond their home unit. If a faculty member in another home unit becomes the advisor, students may request to change home schools, and in some cases may be required to have a co-advisor in their home unit or change their home unit accordingly, per the home unit guidance. Any changes to the home unit are at the discretion of the home units and require approval from both schools. Students should notify the ML Academic Advisor of any changes to their advisor and/or home unit.

Regardless of home unit, students must fulfill the ML degree requirements specified in this handbook to complete their program, which includes coursework, quals, thesis proposal and defense. https://catalog.gatech.edu/programs/machine-learning-phd/#requirementstext

Teaching Apprenticeship and Extra-curricular Requirements

ML PhD students are subject to their home unit's teaching apprenticeship requirements (e.g., a certain number of semesters serving as a TA) and other extra-curricular requirements. Students are responsible for ensuring that they understand and satisfy any home school requirements in addition to the ML program and Institute requirements and should contact their home unit directly for any advisement on these policies.

Academic Advising

For advice on which courses, including doctoral thesis hours, to take and when to take them, students should refer to the home school representative to the ML FAC (see the Program Personnel section), and/or their thesis advisor.

Advising on non-academic issues, including Institute policies and procedures regarding program requirements such as qualifying exam, proposal, defense, course waivers, etc, will be provided by the ML PhD Academic Advisor (see Program Personnel section) and through the resources available in the student's home school.

IV. Degree Progress

ML PhD students are expected to demonstrate consistent progress on satisfying their course requirements and on the research for their theses. If sufficient progress is not being made, a student can face dismissal from the program. Particular examples of insufficient progress include:

1. The student does not maintain the GPA requirements detailed in Section III.
2. The student receives a 'U' for the CS 7999 (ML Qualifier) course twice or fails to take the ML Qualifier exam within three years of entering the program.
3. The student receives a 'U' for their doctoral thesis hours on two consecutive occasions.
4. The student has not yet found a thesis advisor after being in the program for four or more years.
5. If a student or thesis advisor terminates the student-advisor relationship, and a new thesis advisor is not found within a reasonable amount of time—usually one or two semesters.
6. The student has not passed their PhD Proposal examination four years after they completed the ML Qualifying exam.
7. The student has not passed their PhD Defense after 8 or more years in the program.

8.   The Institute requires that PhD students (full-time or part-time) complete all degree requirements within 7 years of passing the qualifying exam.

Dismissals can be made at the discretion of the Director after consulting with the Faculty Advisory Committee.

V. PhD Thesis Advisors

ML PhD students are expected to find a thesis advisor who must be a ML PhD Program Faculty member during their first three years in the program. The thesis advisor provides general guidance and oversees the student's research progress. Once a thesis advisor is chosen, the student should register for doctoral thesis hours under the advisor's supervision. If the advisor is in a different home unit than the student, the student will register for doctoral thesis hours under their advisor's home unit. The advisor evaluates the student's research progress by providing an 'S' or 'U' as a grade for these thesis hours.

The ML PhD homeschools provide various mechanisms to match ML PhD students with advisors; ML PhD students are encouraged to take advantage of these mechanisms. Ultimately, an ML PhD student can have any faculty member (regardless of academic unit) that is affiliated with the ML PhD program as an advisor.

Once a student and advisor are matched, the student should report the advisor's name to the ML PhD Academic Advisor. The student-advisor relationship can be terminated at any time at the discretion of either the student or the advisor. Changes in advisors should be reported immediately to the ML PhD Academic Advisor.

VI. Qualifying Exam

The purpose of the Qualifying Examination is to judge the candidate's potential as an independent researcher. The ML PhD qualifying exam consists of a focused literature review that will take place over the course of one semester. In the semester in which they take the qualifying exam (fall or spring semesters only), the student registers for CS 7999 (Prep-Doctoral Qual Exam, section ML with Prof. Romberg). This is a permit restricted course; please email the ML Academic Advisor with the request and GTID for approval. All assignments and forms related to the quals will be provided on the course Canvas site.

Before taking the exam, it is expected that the student has either taken or is currently enrolled in all four core required courses and has completed their RCR requirement. As a guideline, students should plan to take the exam in the second semester of their second year in the ML PhD program.

At the beginning of the semester in which they are taking the qualifying exam, the student forms an exam committee consisting of three members of the ML PhD Program Faculty. If a student has a co-advisor, then the committee should consist of four faculty members. The committee, in consultation with the student, will approve a course of study consisting

of influential papers, books, or other intellectual artifacts relevant to the student's research field.

The student should ask one of the committee members to be the chair. The chair is in charge of managing the qualifying exam, making sure that the time of the presentation is appropriate, and that questions are asked and responded to in a reasonable manner. Although the student's thesis advisor can be on the committee, the advisor cannot be the chair.

Near the end of the semester, the student will submit to the committee a written summary of each artifact which highlights their understanding of the importance (and weaknesses) of the work in question. Subsequently, the student will have a closed oral exam with the faculty members of the committee. The exam will start with a short presentation by the student that summarizes their report. The exam will be interactive, with the student and the committee discussing and criticizing each work and posing questions related to the student's research field to determine the breadth of student's knowledge in that specific area.

The oral exam should be scheduled on or before the last week of class in the semester; the written report should be submitted to the committee at least one week prior.

The success of the examination will be determined by the committee's qualitative assessment of the student's understanding of the theory, methods, and ultimate impact of the assigned syllabus.

The evaluation for qualifying exam will be completed by the committee members online after their presentation. The ML Academic Advisor will provide the online evaluation form, which the student will be responsible for sending it to their committee members immediately after their presentation, and it should be encouraged that the faculty complete the form immediately.

The student will be given a passing grade for meeting the requirements of the committee in both the written and the oral part. Unsatisfactory performance on either part will require the student to redo the entire qualifying exam in the following semester. Each student will be allowed only two attempts at the exam.

Student Guidelines:

- Complete Qualifying Committee Exam form at the beginning of the semester. Details will be provided on the Canvas site after week one of class.
- The written report should be presented to the committee at least one week before the oral exam.

- Ninety (90) minutes should be allocated for the exam. The talk should be no longer than 40 minutes; the rest of the time is meant for question and answer.
- Submit the written report and slides via Canvas after the oral exam.
- Provide committee members with the required post-presentation survey link.

Faculty committee guidelines:
- Each faculty member should make their expectations about the content of both the written report and the oral exam clear at the beginning of the semester.
- Each committee member should come to the oral exam prepared with at least one technical question that tests the student's depth of knowledge about the artifacts on the syllabus.
- The evaluation forms should be filled out independently, and away from the site of the exam. Private discussion amongst committee members is acceptable, but the evaluation form should be completed and returned to the ML Academic Advisor (via online survey provided by the student). This allows each faculty member to provide an independent evaluation.
- If a student receives a 'fail' from any committee member, their case will be discussed at a year-end FAC meeting along with the faculty on the qualifying exam committee.

VII. Admission to PhD Candidacy and PhD Proposal

To qualify for PhD candidacy, a student must have completed the following:

1. Complete the requirements for training in [Responsible Conduct for Research (RCR)](.).
2. Complete all course requirements.
3. Achieve a satisfactory scholastic record.
4. Pass the qualifying exam.
5. Submit a formal proposal naming the dissertation reading committee and delineating the research topic for approval to the school chair and Office of Graduate Education.

The recommended timeframe to be admitted to PhD candidacy and present the thesis proposal is by the end of the fourth year.

Upon satisfactory completion of these requirements and the processes as outlined below, the Office of Graduate Education will formally admit the applicant to PhD candidacy for the degree on behalf of the Vice Provost for Graduate Education and Faculty Development.

PhD Proposal

The final requirement to admission to candidacy is the PhD proposal, which consists of a

short document describing the student's thesis, and a presentation to a proposal committee chosen by the student and approved by the ML Academic Advisor. **The proposal must be at least six months before the PhD defense.**

The proposal document should be solely authored by the student and should be no longer than 30 pages, including biography and citations. The proposal should describe the context of the research, including relevant references to the literature, the work that has been completed, and the research left to be done. It should be made clear throughout what the original research contributions of the thesis will be. For formatting, it is recommending following the Institute guidelines at: https://grad.gatech.edu/sites/default/files/documents/thesisDissertationManual.pdf

The following steps are taken to fulfill the ML PhD proposal thesis requirement:

1). The student forms a Proposal Committee consisting of three ML PhD Program Faculty, one of which is the thesis advisor. If a student has a co-advisor, then the committee should consist of four faculty members. Note this committee will serve as the student's Reading Committee for their final defense.

2). The student submits their written proposal to their committee for review ~one month prior to the anticipated timing of the thesis proposal presentation.

3). The student contacts the ML Academic Advisor one month prior to express the intent of submitting their thesis proposal, review coursework and committee requirements, and clarify details of the process as outlined below to ensure everything is in order for admission to PhD candidacy. All coursework must be completed before the proposal can be scheduled.

At this time, the student must submit the following for review to the ML Academic Advisor:
- ML PhD Proposal Request form, signed by the thesis advisor and student
- ML Coursework Completion form
- Doctoral Minor forms (both ML internal form and Institute-required forms) should also be turned in at this time if they have not already been submitted. See Appendix C for more details on the minor course of study requirements.

All aforementioned thesis proposal forms can be found here. Note forms should be sent via docusign as an envelope for signatures.

Students should check with their home units for additional requirements (ie, all CoC schools require a gap semester between the proposal and defense, effective fall 2021).

4). After all the above requirements are approved, the student schedules the proposal presentation with their committee. This presentation should be scheduled for 90 minutes

and can be in a virtual, in person or hybrid format. Students are responsible for organizing the date, time, location, and/or online meeting.

- The student should ask one of the committee members to be the Committee Chair. The Chair is in charge of the meeting, making sure that the time of the presentation is appropriate, and that questions are asked and responded to in a reasonable manner. It is recommended that the thesis advisor is not also the Chair, but another committee member.

5). The student submits a pdf of the final approved thesis proposal to the ML Academic Advisor. Upon receipt of this, the ML Academic Advisor will provide a template for the announcement and final steps for the thesis proposal, including required faculty survey links and other information and institute forms for after the presentation.

6). The announcement should be sent out *after* the ML Academic Advisor has approved and provided the final steps. *Do not send without permission.* The student is responsible for sending their announcement, which must be made at least one week prior to the proposal presentation.

> For the announcement, please send to:
> 1 - phd-ml-official@cc.gatech.edu
> 2 - ml-fac@cc.gatech.edu
> 3 - "cc" proposal committee
> 4 - (optional) home unit listserv - contact them if unsure of what to use.

7). The proposal presentation consists of a talk by the student (~50 minutes) and questioning from the committee. Both the proposal document and the presentation are evaluated by the committee. The committee members provide feedback on the proposed research directions, comments on the strength of writing and oral presentation skills and might suggest further courses to solidify the student's background.

8). The student will be responsible for sending all committee members the following forms (provided by ML Academic Advisor after the pdf of the thesis is received) immediately after the presentation:

1). A link to a brief online "Proposal Exam Report" survey

2). Grad Education form "Request for Admission to PhD Candidacy" via DocuSign. In the form, the Grad Coordinator should be the name and email of the ML Academic Advisor, while students should list the School Chair or Graduate Coordinator of their home school and all committee members. Note under "School," please list as "Machine Learning - ECE, Machine Learning- IC, etc" so both major and home school are recorded.

Once all paperwork has been approved, the student is officially admitted as a PhD candidate into the ML program.

VIII. PhD Dissertation and Final Defense

The primary requirement of the PhD student is to create original and substantial research. This research is reported for review in the PhD dissertation and presented at the final defense.

As a reminder, the proposal must be at least six months before the PhD defense.

The following steps are taken to fulfill the PhD thesis requirement:

1. Students should contact the ML Academic Advisor at least one month prior to express the intent of submitting their dissertation and preparing their final defense, review committee requirements, and clarify all details of the process.

2. The student writes a complete draft of their thesis. It is expected that the thesis advisor will read and provide feedback during the process. Institute guidelines and requirements for the formatting the document can be found in the *Georgia Institute of Technology Graduate Education Thesis and Dissertation Manual.*

3. The student forms their PhD thesis committee. The PhD thesis committee consists of five faculty members:

    i. Three ML PhD Program Faculty who served on the student's thesis proposal committee, including the student's advisor. These faculty are the reading committee.

    ii. One faculty member external to the ML PhD Program and who is not in the student's home school. This faculty member may be from the ML@GT faculty list or from another university. External non-academic faculty who are active in research may also serve as the external members; in this case, a CV must be provided for approval by the ML FAC.

    iii. One additional Georgia Tech faculty member. This additional member can come from inside or outside the ML PhD Program.

4. The student submits the thesis to the reading committee, giving them a review period of at least 14 days.

5. After the review period, the reading committee can either recommend the thesis for defense or send it back to the student for revisions. To recommend for defense, the reading committee signs the Reading Committee Report along with the thesis advisor.

6. The student, in conjunction with the thesis committee, schedules a time and location for the oral defense. The event should be scheduled for two hours, and the oral presentation should be 50-60 minutes. This is communicated officially through the Final Defense Memo. The thesis advisor submits the Reading Committee Report and the Final Defense Memo to the ML Academic Advisor, which will be shared with the ML FAC and student's home unit.

7. The Reading Committee Report and the Final Defense Memo must be signed and submitted to ML Academic Advisor at least 14 days in advance of the defense. The aforementioned forms can be found [here.](#) Once received, the ML Academic Advisor will provide the final steps for the defense, including the announcement template. Note forms should be sent via [docusign](#) as an envelope for official signatures.

8. The student is responsible for sending their announcement, which must be made publicly at least 10 working days prior to the defense presentation, per Institute requirements. *Do not send without permission from the ML Academic Advisor.* For the defense announcement, please send to:
    1 - announcements@grad.gatech.edu (required for Institute announcement)
    2 - phd-ml-official@cc.gatech.edu
    3 - ml-fac@cc.gatech.edu
    4 - "cc" defense committee
    5 - (optional) home unit listserv - contact them if unsure of what to use

9. The student defends their dissertation at the oral defense. The defense is open to the public and consists of four segments: a presentation by the student, questions from the audience at large, questions from the thesis committee, and a private deliberation and discussion period by the committee. After a successful defense, each committee member fills out a Dissertation Evaluation Form and signs the Institute Certificate of Thesis Approval.

10. The student will be responsible for sending all committee members immediately after the presentation:

    a). A link to a brief online "Final Dissertation Evaluation Form" survey (provided by ML Academic Advisor)

    b). Grad Studies form "Certificate of Thesis Approval" via [DocuSign](#). In the form, the Grad Coordinator should be the name and email of the ML Academic Advisor, while students should list the School Chair of their home school and all committee members. Note under "School," please list as "Machine Learning-ECE, Machine Learning-IC, etc." so both major and home school are recorded.

11. The student submits their thesis electronically to the Georgia Tech Graduate Education - VPR office. Information can be found in the *[Georgia Institute of Technology Graduate Education Thesis and Dissertation Manual.](#)*

12. The student completes a short online ML PhD Graduate Student Exit Survey: https://gatech.co1.qualtrics.com/jfe/form/SV_2sfKQH90eSeZ7Om

Online Application for Graduation (OAG)

Students should refer to the Registrar's [Online Application for Graduation (OAG)](#) and submit a petition to graduate the semester before they plan to graduate. (e.g. if planning to graduate in Spring 2024, then the OAG is due in Fall 2023). This allows time to correct any unfulfilled requirements identified by the Office of Graduate Education. See the GT academic calendar for OAG deadlines: [https://registrar.gatech.edu/calendar.](https://registrar.gatech.edu/calendar) If a student has previously applied but did not graduate, they must repeat the same process to graduate.

To view graduation status, login to [DegreeWorks](#). Near the top of the audit, under a section titled *Student View*, there will be a field for *Graduation Information*. The text that appears in that field is the current graduation application status. To review missing requirements, see the section *Degree Requirements*.

NOTE: The status "lacks thesis" may appear on OSCAR for several weeks after the thesis or dissertation has been accepted by the Graduate Thesis Office as both the Graduate Thesis Office and the Registrar must do some processing of records. Acceptance by the Graduate Thesis Office, documented either by an approval e-mail for the ETD or a copy of the signed Certificate of Thesis Approval, is assurance that everything is all right.

The Office of Graduate Education has a self-guided Canvas site for graduate students to support them through the graduation process called "Pathways to Graduation," students may self-enroll at: https://gatech.instructure.com/enroll/AB7NRN.

Last semester Registration Options

Students who are completing their PhD may find that the timing of their defense, graduation, and start of their subsequent employment leads to uncertainty in how to register for their final semester at Georgia Tech. There are three options (see the above Thesis Manual for more details and rules).

1).   Register as full-time as in a typical semester (i.e., xx9000 doctoral thesis hours). This works best if the final version of the thesis is submitted in time for graduation in the last semester (see the [deadlines](#)), and there are no funding limitations.

2). 1-credit hour option. Students in their graduating semester may register for only 1 hour of doctoral thesis hours. Such students are not full-time and will therefore not receive a tuition waiver or be paid as a GTA or GRA. These students must pay the 1-hr of tuition and fees (~$950/in-state and ~$1600/out-of-state). Students may be hired as a Graduate Assistant (GA) by their advisor and paid hourly, pending advisors and their department's approval.

Note: Students who are US citizens are ineligible for student health insurance if they are registered for less than 4 credit hours. Such students should contact STAMPS Health Services and consider their options before registering for 1 credit hour. Students can use the 1-credit hour option only once while at Georgia Tech.

3). Enrollment Waiver. This is for students who missed the final submission deadline for their target graduating semester, but have successfully defended, submitted their thesis, and are ready to start their job. They must stay 'on the books' at Georgia Tech in order to graduate the following semester, even though they may not be on campus during the semester. The Enrollment Waiver allows a student to stay 'on the books' and not register for any hours or pay any fees. To use the Enrollment Waiver, complete the form via Grad Studies [DocuSign](). Note that all thesis-related forms must be completed and submitted for the Enrollment Waiver to be approved. Students can use the enrollment waiver only once while at Georgia Tech.

Note: International students should contact [OIE]() via istart if registering for less than full-time to request an academic reduced course load.

If none of these seem to fit, students should discuss their case with the Registrar's Office.

Degree completion and verification letters: https://registrar.gatech.edu/info/forms-list-certifications-and-verifications
The GT Registrar has various forms to request letters, depending on a student's current status and needs, such as: Degree Completion Verification • Enrollment Certification • Letters of Completion • Verification of a Pending Degree
Please contact the Registrar with any questions: comments@registrar.gatech.edu

Graduation and Commencement Information

For all things related to graduation and commencement, including dates, RSVP, regalia purchase info, and day of event info: https://commencement.gatech.edu/
Questions: events@comm.gatech.edu

IX. Administration and Governance

Program Director

The Director oversees the overall administration and policy directions for the program. They also chair the Faculty Advisory Committee, and approve transfers into the ML PhD program from students enrolled in other PhD programs at Georgia Tech.

Faculty Advisory Committee

The FAC consists of one faculty member from each school involved with the program and is chaired by the Program Director. Duties of the FAC include:

- Admissions. Each FAC member will coordinate with their school on admissions offers into the ML PhD program. The FAC member coordinates the review of applications within the school with the relevant faculty and corresponding associate chair within the school, then supplies a list of candidates for the FAC to approve.
- Committee approval. The FAC will have ultimate approval over ML PhD student thesis proposal and thesis defense committees.
- Course waivers. The FAC will have ultimate approval over course waivers from other universities. (The process is coordinated by the ML Academic Advisor, as detailed above).
- Curriculum revisions. The FAC will periodically review the curriculum. Revisions to the requirements will be submitted to the Director of Graduate Program Services, who will shepherd them through approval by the Institute Graduate Curriculum Committee.

ML PhD Program Faculty

Faculty members of the ML PhD Program may serve as the thesis advisor for any student in the program, no matter their academic unit. ML Faculty must have an appointment in one of the participating home schools at Georgia Tech.

ML PhD Program Faculty members are also expected to serve on ML PhD qualifying exam, proposal, and PhD defense committees.

To become a faculty member of the ML PhD program, email the Program Director. Members will be approved by the FAC.

The current list of ML PhD Program Faculty can be found at:
http://ml.gatech.edu/people/faculty/phdprogramfaculty

X. Current Personnel

Director

Dr. Justin Romberg, jrom@ece.gatech.edu

ML PhD Academic Advisor (Graduate Coordinator)

Stephanie Niebuhr, Academic Program Manager II: stephanie.niebuhr@cc.gatech.edu

Faculty Advisory Committee (AY 22-23) subject to change

Each school affiliated with the ML PhD program has a member on the FAC.

Aerospace Engineering (AE): Evangelos Theodorou, evangelos.theodorou@gatech.edu

Biomedical Engineering (BME): May Wang, maywang@gatech.edu

Chemical and Biomolecular Engineering (ChBE): Martha Grover,
mailto:martha.grover@chbe.gatech.edu

Computational Science and Engineering (CSE): Polo Chau, polo@gatech.edu

Computer Science (CS): Jacob Abernethy, prof@gatech.edu

Electrical and Computer Engineering (ECE): David Anderson, dva@ece.gatech.edu

Industrial Systems Engineering (ISyE): Yao Xie, yao.xie@isye.gatech.edu

Interactive Computing (IC): Zsolt Kira, zkira@gatech.edu

Mathematics (MATH): Vladimir Koltchinskii, vlad@math.gatech.edu

Chair (Program Director): Justin Romberg, jrom@ece.gatech.edu

Administrative Matters

Student Forms

During a student's time as a PhD student, there will be a significant amount of paperwork required as students' progress through the program and meet milestones such as for the qualifying exam, thesis proposal, and defense.

Forms required for PhD milestones can be found at: https://ml.gatech.edu/content/student-resources. All of these forms are highly recommended to be used through the GT Docusign service for safety and convenience of all parties sending and signing documents.

Coursework and minor forms are also located on the above website, which are useful for course

planning. While these forms are formally due at the time of the admission to candidacy and the thesis proposal, requests may be sent to the ML Academic Advisor to review a coursework plan at any time *outside of Phase II registration, including reviews for minors.*

Financial Support

All issues of financial support are a matter between the home school, hiring unit (if position is outside of home school), faculty advisor, and the student. The home school is also responsible for the administration of tuition waivers.

Please follow Home School's policies regarding forms and deadlines to avoid any discontinuation of support. This is especially important if the Home School is not that of faculty advisor.

Two main types of financial aid are available to qualified graduate students:

1.GRA/GTAs (Graduate Research Assistantships/Graduate Teaching Assistantships). These are awarded on the basis of academic potential and performance and not on the basis of need. They are awarded either at the time of the offer of admission or by a faculty member wishing to support a student in their laboratory as a GRA. Please note: Please note: If a student is admitted without financial support, it is a student's responsibility to secure any funding. The last day a student can be placed on a GRA for the semester is the last day of the first week of classes. After this date, even if a professor wishes to financially support a student, the student cannot be supported as a GRA until the following semester.

2. External Fellowships. Students are highly encouraged to apply for external fellowships. Most are only available to US citizens and permanent residents. For more information, see https://grad.gatech.edu/paying-for-grad-school.

Note both of these types of financial support require students to be enrolled for full-time.

GT Graduate Student Enrollment and Employment:
https://policylibrary.gatech.edu/academic-affairs/graduate-student-enrollment-and-employment

For **current GT tuition and fees**, please see the Bursar's Office at:
https://bursar.gatech.edu/Tuition-Fees

Registration

All previously enrolled graduate students are required to register for Georgia Tech coursework during Phase I registration for the following semester. Phase I registration occurs midway through the current semester.

New graduate students will register during Phase II for their first semester. After the first semester, new graduate students will be able to register during Phase I.

Information regarding registration dates can be found online at
https://registrar.gatech.edu/calendar/

The ML Academic Advisor will send registration reminders and information prior to the start of phase I and II registration periods. Please be sure to read these emails and save them for reference.

Registration is structured so that students can only register for the classes taught at the specific campus to which they were admitted. **All students in ML programs are on the "Atlanta Campus."** Students who attempt to register for classes in a program and/or campus other than the one in which they are enrolled will receive a "CAMPUS or PROGRAM RESTRICTION" error message. A student cannot take classes on different programs/campuses at the same time. Courses beginning with "O" indicate it is an online campus program only. *Limit your search in Oscar to "Atlanta campus" so you only see courses eligible to take. Note this is a system rule and cannot be overridden.*

Students must register for a minimum of 12 hours (9 hours must be letter grade or pass/fail and only 3 hours may be audit hours) to be full-time in fall and spring semesters, which is an Institute requirement for international students and students with a GRA/GTA or fellowship. Some home schools may have additional requirements for registering for research hours; for example, most home school in Engineering (e.g., AE, ECE, etc.) require students to be registered for 21 hours in the fall and spring semesters and 16 hours in the summer semester.
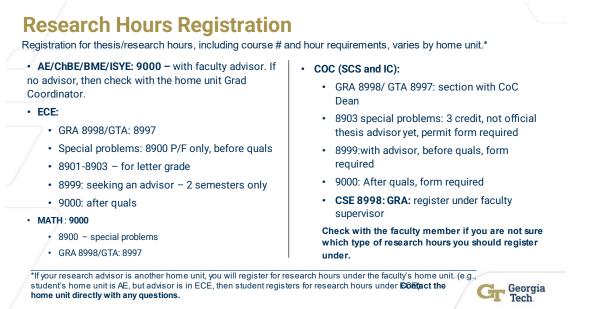
Course load Requirements

- **Institute requirements** – https://policylibrary.gatech.edu/employment/hour_-loads-graduate-students
- **All CoE home units require students doing research to be registered for 21 hours per semester.**

- Registration loads each semester should be comprised of various hours from the areas listed below:
  - Regular courses: letter -grade
  - 8999/9000 courses for thesis students;
  - Special problem or research project courses;
  - Specific courses for teaching or research education;
  - GTA/GRA courses 8997/8998 if available in the student's major school and the student has an assistantship.

- First, register for 2 -3 regular courses, GTA/GRA hours (if applicable), then fill remaining hours with research hours (thesis/special problems). Check with your faculty advisor for details on expectations and recommendations for how many hours to register for.

Georgia Tech

After registering for coursework, remaining hours should be registered for thesis/research hours under the same unit as the student's faculty research advisor, even if it is not the same as the student's home unit. For example, if a student is in AE, but their advisor is in

ECE, then they will register for thesis hours in ECE. Some schools may have other required hours to register for GRA/GTA (e.g., 8998 and 8997), so be sure to check with that unit for details.

Research Hours Registration

Registration for thesis/research hours, including course # and hour requirements, varies by home unit.*

- **AE/ChBE/BME/ISYE: 9000 –** with faculty advisor. If no advisor, then check with the home unit Grad Coordinator.
- **ECE:**
  - GRA 8998/GTA: 8997
  - Special problems: 8900 P/F only, before quals
  - 8901-8903 – for letter grade
  - 8999: seeking an advisor – 2 semesters only
  - 9000: after quals
- **MATH : 9000**
  - 8900 – special problems
  - GRA 8998/GTA: 8997

- **COC (SCS and IC):**
  - GRA 8998/ GTA 8997: section with CoC Dean
  - 8903 special problems: 3 credit, not official thesis advisor yet, permit form required
  - 8999: with advisor, before quals, form required
  - 9000: After quals, form required
  - **CSE 8998: GRA:** register under faculty supervisor

  Check with the faculty member if you are not sure which type of research hours you should register under.

*If your research advisor is another home unit, you will register for research hours under the faculty's home unit. (e.g., student's home unit is AE, but advisor is in ECE, then student registers for research hours under ECE. **Contact the home unit directly with any questions.**

GT Georgia Tech.

In rare cases, a student may be enrolled part-time; however, do not enroll part-time unless the student has consulted with the program, home school, and faculty research advisor. It could jeopardize a student's funding and/or cause the student to pay additional tuition and fees out of their own pocket.

Please be aware of registration deadlines for the upcoming semester, especially when students are only doing research and still must register for research hours. Registration dates are available online at http://www.registrar.gatech.edu/.

There is no reprieve for forgetting to register –students will not be eligible to be paid as a GRA and will be responsible for paying all tuition and fees for the following semester. The GT Registrar and Bursar's Office are strict with respect to fee payment and registration deadlines, so make sure to register on time!

Registration policies and procedures vary by home unit. Note permits can only be issued by the home unit offering the course. ML staff can not issue permits for courses.

Contact the unit offering the course for any questions about how to register for courses. https://registrar.gatech.edu/registration/permits-and-overloads

How to Register and all things registration related, including error messages, holds, how to videos, permit info: https://registrar.gatech.edu/registration

It is a student's responsibility to ensure degree requirements and full-time status Institute and home unit requirements are met.

Pre-Requites
For most graduate level classes such as CS courses are informational only and will not prevent registration. Check with the academic department offering the course if a student get a pre-req registration error or contact the course instructor with any questions.

Course Transfer Credit/Course Waivers

There is no formal transfer of credit for the PhD degree where classes taken at another institute would appear on the Georgia Tech transcript. However, if graduate coursework completed at other accredited schools is deemed equivalent after a review by GT faculty, then the course may be waived, and the previous coursework used to satisfy the ML PhD coursework requirement.

Students may request the class evaluation after they have matriculated into the program and after the second week of classes. Course waiver requests will not be accepted during phase II registration of any semester.

The classes must be at the graduate level and no classes that were used to satisfy an undergraduate degree can be used toward the ML PhD degree. Up to 18 hours of credits earned toward a graduate degree with a grade of B and above at a different institution can be used towards the PhD degree. The approved classes will count toward the PhD degree course requirements but will not be shown as transferred on the Georgia Tech transcript or appear in Degreeworks.

The course waiver process is coordinated by the ML Academic Advisor. The student should submit a short letter of petition describing which courses they believe they should receive credit for along with justification. Please include the name of the course(s) from the other school and which course at GT it is most equivalent to (for instance, "I believe CICS 5746 is equivalent to CS 7630") and if it is a core or elective requirement. Along with this information, an unofficial transcript from the institute where the classes were taken and syllabi for each of the courses in question must be included. The ML Academic Advisor will work with faculty in the home units to determine waivers, which may take several weeks or months, depending on faculty responses times. The FAC will have final approval on course waiver requests.

Students with previous GT graduate level coursework
The GT classes must be at the graduate level (6000+) and no classes that were used to satisfy an undergraduate degree can be used toward the ML PhD degree. If taken during a bachelors, degree at GT, only fall through courses (did not satisfy any BS degree requirements) that are 6000 level and above with a grade of B or better will be accepted. 4000 level courses with graduate equivalents are NOT accepted. Students should be aware of any course equivalencies in which they may not receive credit for a 6000-level graduate course if they took the 4000-level course at any time at GT. For CS, please see: https://www.cc.gatech.edu/equivalent-courses For other units, please refer to the GT Catalog or contact the academic unit offering the course(s).

There is no limit on how many graduate level courses, which are 6000 and above (including online graduate courses) may be double counted with a master's degree from Georgia Tech (either prior to pursuing a PhD degree, or as a MS "on the way"), however, they must have a grade of B or better.

Note the rules for two GT master's degrees differ and students with two GT master's should consult the GT Catalog and contact their MS degree advisors for further details.

MS Degree "on the way"

PhD students may obtain an MS degree "on the way." Generally, the MS degree is completed through a student's home unit, so please check with the home unit for specific requirements.

For info on how to add the MSCS, please contact the ML Academic Advisor for details on the process. Note inquiries regarding the MSCS program and requirements should be sent directly to the MSCS advisor (not the ML advisor). If a student is from outside of the CoC, a minimum of 3 CS courses with letter grades must be completed before consideration and will need to be reviewed by CoC upper administration for approval.

For other master's degrees (MSECE, etc.), please contact the academic department for further details on their options and application process.

Note requests to add a master's degree are **not** accepted during Phase II registration periods of any semester.

Graduate Internship Program

The Graduate Internship program through the Georgia Tech Career Center provides graduate students with the opportunity to work with industry and government leaders in their respective areas of study. Eligibility for the program is based on academic achievement at Georgia Tech. Research for master's and doctoral theses may be related to the work assignments and is jointly supervised by Georgia Tech faculty and company staff. There is no tuition associated with the Graduate Internship Program, nor are there any required fees. Students are provided full-time enrollment status through registration in an audit credit Graduate Internship course. This permits students to retain all privileges of full-time enrolled students while on work assignments. https://career.gatech.edu/graduate-internship-program-information

Program requirements, deadlines, and application info: https://career.gatech.edu/graduate-student/application-process.

Note the advisor approval form must be signed by the faculty (thesis) advisor as well as the ML Academic Advisor.

To avoid delays, please send the following info in a separate email to the ML advisor *before* submitting the Career Center docusign request: 1). Please confirm if the student will have a GTA or GRA for the same semester? 2). Please confirm the expected graduation date (semester and year).

Note if a student has a concurrent part time internship and GRA, there are additional requirements and paperwork required. Any questions should be directed to the Career Center: grad-internship@gatech.edu

For domestic students with an external internship, it is recommended, but not required to participate in the Graduate Internship program.

International students with external internships *are required* to participate in the Graduate Internship Program and use the CPT work authorization. Students must be in F-1 status for at least two semesters before they are eligible to work off-campus. For more info on CPT, please see OIE's info at: https://isss.oie.gatech.edu/content/curricular-practical-training-cpt-georgia-tech

Appendix A: Core Courses

Machine Learning PhD students are required to complete courses in four different areas: Mathematical Foundations, Probabilistic and Statistical Methods in Machine Learning, Machine Learning Theory and Methods, and Optimization. With the exception of the Foundations course, each of these area requirements can be satisfied using existing courses from the College of Computing or Schools of ECE, ISyE, and Mathematics.

Mathematical Foundations of Machine Learning. This required course is the gateway into the program and will cover the key subjects from applied mathematics needed for a rigorous graduate program in ML. Particular emphasis will be put on advanced concepts in linear algebra and probabilistic modeling.

ECE/ISYE/CS/BMED 7750, Mathematical Foundations of Machine Learning

Probabilistic and Statistical Methods in Machine Learning.

ISYE 6412, Theoretical Statistics

ECE 7751/ISYE 7751/CS 7751/CSE 7751 Probabilistic Graphical Models

MATH 7251, High Dimension Probability

MATH 7252, High Dimension Statistics

Machine Learning: Theory and Methods. This course serves as an introduction to the foundational problems, algorithms, and modeling techniques in machine learning. Each of the courses listed below treats roughly the same material using a mix of applied mathematics and computer science, and each has a different balance between the two.

CS 7545, Machine Learning Theory and Methods

CS 7616, Pattern Recognition – *note this class has not been offered for several years; please consider another option.*

CSE/ISYE 6740, Computational Data Analysis

ECE 6254, Statistical Machine Learning

ECE 6273, Methods of Pattern Recognition with Applications to Voice

Optimization. Optimization plays a crucial role in both developing new machine learning algorithms and analyzing their performance. The three courses below all provide a rigorous introduction to this topic; each emphasizes different material and provides a unique balance of mathematics and algorithms.

ECE 6270, Convex Optimization: Theory, Algorithms, and Applications

ISYE 6661, Linear Optimization

ISYE 6663, Nonlinear Optimization

ISYE 7683, Advanced Nonlinear Programming

Appendix B: Elective Courses

In addition to meeting the four core area requirements, students are required to complete five elective courses. These courses are required for getting a complete breadth in ML. These courses must be chosen from at least two of the five subject areas listed below.

Up to two elective courses can be Special Problems courses (e.g., XX8903) as described in the Coursework Requirements section III above.

After core requirements are satisfied, all courses listed in the core not already taken can be used as (appropriately classified) electives.

If a Special Topics course (e.g XX 88X3) is taught by [ML PhD Program Faculty](), then it may be used towards elective credit. Please contact the ML Academic Advisor for approval or with any questions.

Statistics and Applied Probability:
To build breadth and depth in the areas of statistics and probability as applied to ML.
AE 6505, Kalman Filtering

AE 8803, Gaussian Processes

BMED 6700, Biostatistics

ECE 6558, Stochastic Systems

ECE 6601, Random Processes

 ECE 6605, Information Theory

ISYE 6402, Time Series Analysis

 ISYE 6404, Nonparametric Data Analysis

 ISYE 6413, Design and Analysis of Experiments

 ISYE 6414, Regression Analysis

 ISYE 6416, Computational Statistics

 ISYE 6420, Bayesian Statistics

 ISYE 6761, Stochastic Processes I

 ISYE 6762, Stochastic Processes II

 ISYE 7400, Adv Design Experiments

 ISYE 7401, Adv Statistical Modeling

 ISYE 7405, Multivariate Data Analysis

ISYE 8803, Statistical and Probabilistic Methods for Data Science

ISYE 8813, Special Topics in Data Science

MATH 6221, Probability Theory for Scientists and Engineers

MATH 6266, Statistical Linear Modeling

MATH 6267, Multivariate Statistical Analysis

MATH 7244, Stochastic Processes and Stochastic Calculus I

 MATH 7245, Stochastic Processes and Stochastic Calculus II

Advanced Theory:

To build a deeper understanding of ML foundations

AE 8803: Optimal Transport Theory and Applications

CS 7280, Network Science

CS 7510, Graph Algorithms

CS 7520, Approximation Algorithms

CS 7530, Randomized Algorithms

CS 7535, Markov Chain Monte Carlo Algorithms

 CS 7540, Spectral Algorithms

CS 8803 CA, Continuous Algorithms

ECE 6283, Harmonic Analysis and Signal Processing

ECE 6555, Optimal Estimation

ISYE 7682, Convexity

MATH 6112, Advanced Linear Algebra

MATH 6262, Advanced Statistical Inference

MATH 6241, Probability

MATH 6263, Testing Statistical Hypotheses

MATH 6580, Introduction to Hilbert Space

MATH 7338, Functional Analysis

MATH 7586, Tensor Analysis

Applications:

To develop a breadth and depth in variety of applications domains impacted by/with ML.

AE 6373, Advanced Design Methods

AE 8803, Machine Learning for Control Systems

AE 8803, Nonlinear Stochastic Optimal Control

BMED 6780, Medical Image Processing

BMED/ECE 6790, Information Processing Models in Neural Systems

BMED 7610, Quantitative Neuroscience

BMED 8813BHI, Biomedical and Health Informatics

BMED 8813MHI, mHealth Informatics

BMED 8813MLB, Machine Learning in Biomedicine

BMED 8823ALG, OMICS Data and Bioinformatics Algorithm

CHBE 6745, Data Analytics for Chemical Engineers

CHBE 6746, Data-Driven Process Engineering

CS 6440, Introduction to Health Informatics

CS 6465, Computational Journalism

CS 6471, Computational Social Science

CS 6474, Social Computing

CS 6475, Computational Photography

CS 6476, Computer Vision

CS 6601, Artificial Intelligence

CS 7450, Information Visualization

CS 7476, Advanced Computer Vision

CS 7630, Autonomous Robots

CS 7632, Game AI

CS 7636, Computational Perception

CS 7643, Deep Learning

CS 7646, Machine Learning for Trading

CS 7647, Machine Learning with Limited Supervision

CS 7650, Natural Language Processing

CSE 6141, Massive Graph Analysis

CSE 6240, Web Search and Text Mining

CSE 6242, Data and Visual Analytics

CSE 6301, Algorithms in Bioinformatics and Computational Biology

ECE 4580, Computational Computer Vision

ECE 6255, Digital Processing of Speech Signals

ECE 6258, Digital Image Processing

ECE 6260, Data Compression and Modeling

ECE 6550, Linear Systems and Controls

ECE 8813, Network Security

ISYE 6421, Biostatistics

ISYE 6810, Systems Monitoring and Prognosis

ISYE 7201, Production Systems

ISYE 7204 Info Prod Ser Sys

ISYE 7203, Logistics Systems

ISYE 8813, Supply Chain Inventory Theory

HS 6000, Healthcare Delivery

MATH 6759, Stochastic Processes in Finance

MATH 6783, Financial Data Analysis

Computing and Optimization:
To provide more breadth and foundation in areas of math, optimization and computation for ML.

AE 6513, Mathematical Planning and Decision-Making for Autonomy

AE 8803, Optimization-Based Learning Control and Games

CS 6515 Introduction to Graduate Algorithms

CS 6550, Design and Analysis of Algorithms

CSE 6140, Computational Science and Engineering Algorithms

CSE 6643, Numerical Linear Algebra

CSE 6644, Iterative Methods for Systems of Equations

CSE 6710, Numerical Methods I

CSE 6711, Numerical Methods II

ECE 6553, Optimal Control and Optimization

ISYE 6644, Simulation

ISYE 6645, Monte Carlo Methods

ISYE 6662, Discrete Optimization

ISYE 6664, Stochastic Optimization

ISYE 6679, Computational methods for optimization

ISYE 7686, Advanced Combinatorial Optimization

ISYE 7687, Advanced Integer Programming

Platforms:
To provide breadth and depth in computing platforms that support ML and Computation.

CS 6421, Temporal, Spatial, and Active Databases

CS 6430, Parallel and Distributed Databases

CS 6290, High-Performance Computer Architecture

CSE 6220, High Performance Computing

CSE 6230, High Performance Parallel Computing

Appendix C: Doctoral minor, 2 courses, 6 hours

Per the Institute's requirements, in addition to an adequate knowledge of the major field of intended research, all PhD students must demonstrate mastery of another smaller body of knowledge—the minor field *outside of the area of machine learning*. The purpose of the minor is to encourage a wider interest on the part of the student and to provide a broader basis for the evaluation of the student's capabilities.

The minor will consist of at least six semester hours of work in related courses, selected by the student in consultation with their thesis advisor. These courses should be at the 6000 level or above. The student must receive a letter grade within the minor comprising an overall GPA of a 3.0 (B) or higher. (Courses that are taken as pass/fail are not eligible to count toward the doctoral minor). Graduate level courses taken at other accredited institutions or universities may be included in the minor and do not need to be transferred into Georgia Tech.

The minor courses must form a cohesive course of study and must come from outside the major area of machine learning; no ML courses (core or elective) can be used to fulfill this requirement. Examples of minor field of study are Math, Psychology, Business Analytics, Cognitive Science, Control Theory, or Fluid Mechanics.

The minor course of study is approved first by the student's thesis advisor and ML Academic Advisor with two separate required forms:

1). The internal "Machine Learning PhD: Request for Approval for Doctoral Minor," which is available here.

2). The Office of Grad Studies "Doctoral Minor Form" available via Docusign is signed by both the thesis advisor and the ML Academic Advisor. Students should plan to officially declare their minor to the Institute when submitting their ML Coursework Completion Form due at the time of the thesis proposal.

The minor coursework and the associated forms must be completed at time of the thesis proposal, but students may submit it after their quals have been passed and they have formulated their minor with their thesis advisor.

Health and Wellness Resources

STAMPS health services offer a wide range of programs and services that can help students who may need assistance. The Wellness Empowerment Center site includes information on many stress-management services available on campus (e.g., yoga, mindfulness), as well as diet and lifestyle resources.

Questions about Student Health Insurance should be directed to Jennifer White at STAMPS at: jennifer.white@health.gatech.edu.

If a student just needs to talk to another graduate student who knows what they are going through, the Peer Coaching Program provides students with another way to receive support with their academic, social, and other concerns. Students are matched with a fellow Tech student who has been extensively trained to navigate mental health conversations and who is knowledgeable about campus resources.

Additional resources on campus that are there to assist graduate students include the Women's Resource Center, the LGBTQIA Resource Center and the Veteran's Resource Center.

During graduate school some students may experience health problems (sickness, injury, mental health, etc.), legal problems, or upsetting major life events, such as the death of a family member. In addition, some students find that they are unable to cope effectively with the stresses they encounter while in graduate school. Students in these situations are encouraged to take advantage of on- or off-campus resources for managing either general stress or specific problems. The following is a list of some available resources for graduate students:

Counseling Center www.counseling.gatech.edu

Professional counselors are available to consult confidentially with students about any issue, whether personal or school-related.

Dean of Students www.deanofstudents.gatech.edu

The Dean of Students office advocates for students in handling missed classes and making up work due to sickness, injury, and other adversities. If you experience a problem that interferes with classes for more than a few days, you should contact the Dean of Students office for advice and assistance.

National Graduate Crisis Line
1.877.GRAD.HLP (1.877.472.3457)https://gradresources.org/crisis/

An off-campus, non-profit center for graduate students in crisis that is available 24/7.

In a small number of cases a health problem or life event may be so significant that it prevents a student from making progress in classes or research. In these extreme cases it may make sense to consider a leave of absence, and students should discuss the situation candidly with their advisor, Associate Chair for Graduate Studies in their home unit, ML Advisor, and/or the Dean of Students office.

Put the Georgia Tech Police number in your phone (404-894-2500) to call for any safety concerns. Call 911 for emergencies.

The bottom line: if you need help with anything, please ask! There are many resources available to ensure your graduate school experience is all you want it to be.

Additional Resources and Links
Machine Learning Center: ml.gatech.edu

Machine Learning PhD program: https://ml.gatech.edu/phd

ML Student resources and forms: https://ml.gatech.edu/content/student-resources

ML Blog: https://mlatgt.blog/

ML Slack channel: Join at: https://mlatgt.slack.com/signup#/domain-signup

General Catalog: http://www.catalog.gatech.edu/rules/

Catalog Information for Grad Students: http://www.catalog.gatech.edu/academics/graduate/

Graduate Institute Policies:https://catalog.gatech.edu/academics/graduate/doctoral-degree-info/#header

https://catalog.gatech.edu/academics/graduate/work-loads/

https://policylibrary.gatech.edu/academic-affairs/graduate-student-policies

GT Policy Library: https://policylibrary.gatech.edu/

Registrar's Office: http://www.registrar.gatech.edu • Registration, Graduation, Commencement, Degree Completion Verification • Enrollment Certification • Letters of Completion • Institute Academic Policy

Office of International Education: www.oie.gatech.edu • Visa and Immigration Matters • Optional Practical and/or Curricular Practical Training Matters

Bursar's Office: http://www.bursar.gatech.edu • Student financial accounts, Fee Payments • Refunds

Career Center: career.gatech.edu• Internship Opportunities • Graduate Internship Program

GT Graduate Education Office: http://www.grad.gatech.edu • Thesis Deadlines, Thesis Submission Procedures and Forms

Student Financial Assistance: http://www.finaid.gatech.edu • Loans • Tuition Waivers • Fellowships

Home unit general contact email addresses:

Aerospace Engineering (College of Engineering): ae-graduate-info@aerospace.gatech.edu

Biomedical Engineering (College of Engineering): GradAO@bme.gatech.edu

Chemical and Biomolecular Engineering (Engineering): grad.info@chbe.gatech.edu

Electrical and Computer Engineering (College of Engineering): grad-help@ece.gatech.edu

Interactive Computing (College of Computing): ic-academics@cc.gatech.edu

CSE (College of Computing): cse-advisor@cc.gatech.edu

SCS(College of Computing): graduate@cc.gatech.edu

MATH (College of Sciences): dgs@math.gatech.edu

ISYE (College of Engineering): graduate.studies@isye.gatech.edu