



Doctoral Student Handbook

Academic Year 2026 – 2027

School of Computer Science
Language Technologies Institute

Doctoral Student Handbook

Degree Programs Covered by This Handbook:

Ph.D. in Language and Information Technologies

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SECTION 1: Welcome & Introduction

Welcome to the Language Technologies Institute, a graduate department in the School of Computer Science at Carnegie Mellon University. You have joined a Ph.D. program that focuses on excellence, creativity, and training the next generation of research leaders. While the next few years will be a time of hard work and intense concentration, we hope that your time at the LTI will also be rewarding professionally and personally.

Obtaining a Ph.D. is a long and often intense journey. A healthy work-life balance helps to keep it in perspective. Carnegie Mellon is in Pittsburgh, a city with a rich industrial and labor heritage. In the past, it was the heart of the U.S. steel industry, an innovator in quality packaged foods, an important financial hub, and an early pioneer in railroads, radio, and nuclear power. This is a city where people worked hard and made things that changed the world. Today, Pittsburgh has reinvented itself as a leader in computer science and medicine, but it is still a place where people work hard and make things that change the world. It is also an informal city, where people don't take themselves too seriously and remember to have fun. It is home to excellent museums, competitive professional sports teams, inexpensive magic shows, and free music during the summer, with skiing, hiking, and magnificent state parks nearby. Your stay here will be more rewarding if you make time for exploring the many activities that Pittsburgh and Southwest Pennsylvania have to offer.

There are significant differences between CMU's various departments and degree programs in philosophical approaches, procedures, policies, and regulations. Each department issues a handbook that informs graduate students of their program requirements and procedures, and ensures that students have written access to standard information. This handbook describes the policies, procedures, and requirements for the Ph.D. in Language and Information Technologies. All policies not explicitly described in this document conform to School of Computer Science (SCS) policies and university policies.

While this handbook is specific to your academic experience in the Language Technologies Institute, it is just one element of the Graduate Student Handbook Suite. There are several other resources within the suite that you should consult when needed:

- University-Wide Graduate Student Handbook (Office of Graduate & Postdoctoral Affairs)
- The Carnegie Mellon Student Handbook

Welcome! We hope that your time here is a life-changing experience.

SECTION 2: Degrees Offered

The Language Technologies Institute offers one Ph.D. program and five Masters' degree programs.

- Ph.D. in Language and Information Technologies (LTI Ph.D.)
- Masters in Language Technologies (MLT)
- Master of Science in Intelligent Information Systems (MIIS)
- Master of Computational Data Science (MCDS)
- Master of Science in Artificial Intelligence and Innovation (MSAI)
- Master of Science in Language Technologies – Integrated Study (5th Year Masters)

This handbook applies to the LTI Ph.D.

The Ph.D. in Language and Information Technologies (LTI Ph.D.) is focused on understanding and extending the state of the art in computational linguistics, natural language processing, dialogue systems, information retrieval, machine translation, speech processing, video understanding, multimodal systems, automated reasoning, and other topics related to analysis and understanding of unstructured information (e.g., machine learning and software engineering of intelligent systems).

Note: Immigration changes may impact an F-1 or J-1 student's ability to change their academic program, even if allowed to by the program. Students on F-1 or J-1 documents should proactively consult with OIE when considering a program change.

SECTION 3: Departmental Personnel

The people responsible for administering the LTI Ph.D. are:

Jamie Callan
Ph.D. Program Director
Professor
GHC 5503
callan@cs.cmu.edu
412-268-4525

Mona Diab
LTI Director
Professor
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The LTI Academic Program Team
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Julie Nys
Employment Processes Manager
GHC 6716
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412-268-3515

Joan Axelson
Office Manager
GHC 6716
jaxelson@andrew.cmu.edu
412-268-7517

SECTION 4: Departmental Resources

4.1: Pittsburgh Campus Location

The Language Technologies Institute is located primarily on the 5th and 6th floors of the Gates Hillman Complex (GHC) on Carnegie Mellon's Pittsburgh campus. The address and contact information of the LTI are shown below.

Language Technologies Institute
Carnegie Mellon University
5000 Forbes Avenue

Gates Hillman Complex
Pittsburgh, PA 15241-3891
412-268-6298 (fax)
<http://www.lti.cs.cmu.edu/>

Office locations for faculty, staff, and Ph.D. students can be found on the LTI website.

4.2: Office Space

Most Ph.D. students in residence on the Pittsburgh campus are given an office in which to study and do research. Typically, offices are shared with other Ph.D. students, but they may also be shared with staff, visitors, or other members of the LTI.

Offices are assigned by the LTI's Office Manager (see Section 3, Department Personnel, for contact information).

4.3: Mailboxes and Office Supplies

Mailboxes and office supplies are in GHC 5404.

4.4: Photocopies and Printers

Printers and photocopies are available to LTI students. The use of a photocopier or printer requires you to log in with your CMU ID card. LTI students may use printers/photocopiers scattered throughout the School of Computer Science buildings, but the machines in GHC 5404 and GHC 6604 are the most convenient. [SCS Computing Facilities](https://computing.cs.cmu.edu/desktop/printer-list) publishes a list of printers at <https://computing.cs.cmu.edu/desktop/printer-list>.

4.5: Computers for LTI Ph.D. Students

Ph.D. students are responsible for having their own laptop computers to support their education and research. Students are free to choose their own operating system (e.g., Linux, MacOS, Windows).

Many Ph.D. advisors also provide access to computer clusters, cloud computing, or other resources to support computationally-intense research.

Ph.D. students are given access to the LTI's computer cluster on an as-needed basis, to be used for course assignments, directed study projects, and/or capstone projects. The LTI cluster provides storage and computation for projects involving large datasets and/or lengthy computation.

Ph.D. students receive two types of user IDs: An Andrew ID and a CS ID. All CMU students have an Andrew ID. Computer Science students also have a CS ID that provides access to SCS-specific resources (e.g., computer clusters). CS IDs are being phased out very slowly, so it is likely that you will need both types of user ID.

The School of Computer Science has a Help Center in GHC 4201. It can be contacted at help@cs.cmu.edu, extension 8-4231 from a campus phone, or 412-268-4231 from an outside line (M-F, 9am-5pm).

4.6: Ph.D. Program Intranet

The LTI maintains a Ph.D. Program intranet at <https://lti.cmu.edu/intranet/phd/>. The Ph.D. Program intranet contains summaries of academic requirements, lists of courses that satisfy Breadth and Application Engineering requirements, checklists for important milestones, important forms, links to important policies, and links to important university resources.

SECTION 5: Advising

5.1: Role of an Advisor and Advisor Assignments

Each student has a faculty advisor charged with guiding the education and monitoring the progress of the student through the program. The advisor also supervises the student's directed research projects. This personal student-advisor relationship ensures that every student receives the necessary faculty mentoring. The advisor also provides the student with career advice.

The Matching Process: Advisors are selected during the first month of the program. Students are expected to attend the LTI's Orientation lectures and to be proactive about meeting individually with potential advisors. After meeting with several potential advisors, each student will be asked to indicate a first, second and third choice for advisor. Meanwhile, the potential advisors determine how many new students they can take and indicate their preferences. Finally, the entire LTI faculty meets as a "Matching Committee" to determine the best set of matches.

Until a student finds a specific advisor, the Ph.D. Program Director serves as the advisor.

5.2: Advisor/Advisee Collaboration

Typically, a student's Ph.D. advisor is their closest collaborator and the person who has the deepest and most detailed understanding of the student's research. Your Ph.D. advisor may also be an important mentor, a source of research ideas, an advocate, or a source of career advice, but that is not guaranteed. Your relationship with your Ph.D. advisor is one of the biggest factors in determining what your Ph.D. experience will be like. Every advisor/advisee relationship is different.

When selecting an advisor, there are at least two dimensions to the decision. Research fit is important, of course. You should *also* consider whether you will be comfortable working closely with that person for five or six years. A Ph.D. is a long journey. Along the way, there may be difficulties in your personal or professional life. Your journey will be easier if you are able to discuss them openly with your Ph.D. advisor.

You must also recognize that you have equal responsibility for nurturing a good relationship with your Ph.D. advisor. Try to "manage up".

How to Change Advisors: The initial advisor selection should be made carefully. However, it is possible to change advisors. To do so, the student should find another faculty member willing to serve as an advisor, and then make a request to the Ph.D. Program Director to switch advisors. The LTI follows the long-standing SCS policy that both the new and old advisors need to agree to the change; typically, this is not a problem (assuming the new advisor has agreed in advance, as described here). It is to the student's advantage to avoid switching advisors, especially late in their graduate studies, because forging a strong student-advisor relationship takes time.

Individual Development Plan (IDP): Individual Development Plans (IDPs) are meant to promote

professional and personal growth by formally documenting goals and facilitating dialogue, collaboration, and accountability between advisors and advisees. Carnegie Mellon has developed a set of templates that can be used by doctoral students and their advisors to create an Individual Development Plan. You can find the templates here:

<https://www.cmu.edu/graduate/resources/index.html>

SECTION 6: Doctoral Degree Requirements

6.1: Residency Requirements

The university requires Ph.Ds. to spend at least one year of residency at Carnegie Mellon.

The SCS requires that all Ph.D. students must take at Carnegie Mellon a minimum of 48 units of the total coursework required by their respective programs.

U.S. government regulations require F-1 and J-1 international students to be enrolled in an in-person degree program, with in-person expectation coursework. Even though this immigration requirement is specifically for international students, residency requirements in a degree program must be consistent for both international and domestic students.

6.2: Transferring Into the Ph.D. Program

The LTI does not allow direct transfers from its master's programs into its Ph.D. program. The student must apply for the Ph.D. at the usual time. However, students that are already enrolled in an LTI degree program are not required to retake GRE and TOEFL exams or to produce new transcripts from other universities.

6.3: Transferring Out of the Ph.D. Program

The Ph.D. program does not prevent students from transferring to another degree program. A student who is interested in transferring out of the Ph.D. degree program should consult the handbook and Program Director of the desired degree program to learn whether transfers are permitted, and if so, how, and when to request such a transfer.

6.4: Expected Timeline

The target duration of the LTI Ph.D. is five years, although six years is also common.

Carnegie Mellon graduate students are expected to complete their degree requirements within the standard length of time for their program of study as outlined in this Graduate Student Handbook. 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.

Expected Timeline and Unsatisfactory Progress

By the end of the Spring semester of Year 3 in the Ph.D. program, a student must complete the following degree requirements.

- All course requirements;
- The Writing proficiency;
- The Presentation qualifier;
- The Programming proficiency; and
- One TA requirement.

By the end of the Spring semester of Year 4 in the Ph.D. program, a student must complete the following degree requirements.

- The second TA requirement.

Typically, a student that has not met these requirements is considered to be making *unsatisfactory progress* until the requirements are met. The faculty may consider mitigating circumstances such as major life events. Research success and exceptional service will generally not be considered good reasons for failing to meet other degree requirements in a timely manner.

When a student makes unsatisfactory progress, their semi-annual review (GSR) letter must state this clearly, identify the problem(s), and provide instructions for returning to satisfactory status.

The Ph.D. proposal

Ph.D. students are expected to complete their Ph.D. proposal by the end of the Summer semester of Year 4 in the Ph.D. program. Students that do not complete the Ph.D. proposal by the end of the fourth year are not automatically considered to be making unsatisfactory progress, but the semi-annual review (GSR) will question why the student has not met this milestone.

Early Completion

The Ph.D. is granted when all degree requirements are satisfied. Some students complete the program in fewer than five years.

Extended or Longer-than-Standard Competition

Longer-than-standard degree completion may occur due to academic interruptions in making progress toward the degree as defined by the academic program, 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.”

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 or who are anticipating longer-than-standard completion should consult with their designated advisor in the Office of International Education (OIE) to ensure compliance with immigration regulations.

Statute of Limitations: Time to Degree

As outlined in the [Doctoral Student Status 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.

6.5: Leave of Absence

The LTI discourages Leaves of Absence (LOA), because students usually do not return, despite good intentions. However, a student in good standing may be granted a LOA of at most 1 year, upon written request to the Ph.D. Program Director and with consent of the student's advisor. It is the responsibility of the student on LOA to contact the LTI to initiate a return to the program.

Students taking or returning from a leave of absence must follow the university's [leave of absence process](#).

6.6: Doctoral Student Status

Carnegie Mellon's [Policy for Doctoral Student Status](#) covers time limits on doctoral degree student status, a definition of All But Dissertation status, a definition of In Residence (ABD) and In Absentia (ABS) status for doctoral students and the tuition and fees charged for students In Residence and students In Absentia.

ABD versus ABD In Absentia (ABS)

An LTI Ph.D. student is considered "All-But-Dissertation" (ABD) when they have completed all requirements for the LTI's Ph.D. degree except for the thesis defense (in particular, the student has had a thesis proposal accepted).

Note that ABD status is different from ABD in absentia (ABS) status. A student in ABS status cannot receive any support from the university (including any research projects within the university), cannot use most university facilities, and does not pay any tuition until they are ready to defend their thesis. ABS students must register for five (5) units of dissertation research in the semester they defend. The student can (and should) register for these five units only after they defend, just in case the defense date slips to the next semester.

Students entering ABD or ABS status must complete the [All But Dissertation Status Agreement](#).

6.7: Registration Process

Ph.D. students are permitted to register for a maximum of 54 units of coursework per semester.

6.8: Required Units for Degree Attainment

To complete the Ph.D. in Language and Information Technologies degree, the student must satisfy the following requirements:

- Pass at least 96 units of graduate-level courses, with additional requirements detailed below;
- Satisfy proficiencies/qualifiers in Writing, Presentation, Programming, and Teaching; and
- Propose, write, and defend a Ph.D. dissertation (thesis); and
- Attend the LTI Colloquium (11-700) or an approved alternative course every semester.

Note: The LTI Colloquium requirement is suspended for the Fall 2026 semester. It may be resumed, suspended, or dropped in future semesters.

6.9: Course Requirements

To complete the course requirements for the Ph.D. in Language and Information Technologies degree, the student must pass 96 or more course units of graduate courses, and meet the following criteria:

- At least 72 units of “LTI courses” and 24 units of “SCS Courses,”
- At least one class from three out of four LTI Breadth Categories, and
- At least one class that satisfies the Application Engineering requirement.

Unless approved by the Program Director in advance, the course requirements must be satisfied by classroom courses, not credit given for research, independent study, or other activities. For example, 11-700, LTI Colloquium, and 11-932, Teaching Experience do not count toward the 96 units of course work required for degree attainment, although they do satisfy other requirements.

An “**LTI course**” is any 12-unit course with a number of 11-XXX; a 6-unit course with 11-XXX counts as one-half of an LTI course. Unless otherwise specified, “course” means an actual classroom course, not credit given for research or independent study. Note that the LTI allows any one MLD (10-XXX) graduate course to count as an “LTI course”.

An “**SCS course**” is any 12-unit course with a course number indicating a unit of the School of Computer Science (including LTI); a 6-unit course with such a number counts as one-half of an SCS course. Unless otherwise specified, “course” means an actual classroom course, not credit given for research or independent study.

A small number of courses offered by departments outside of SCS are also counted as SCS courses; for example, 18-691, Digital Signal Processing, in ECE. The LTI’s Ph.D. and MLT Course Categories webpage contains a list of these courses.

There are four **breadth** categories:

- Human Language and Communication,
- Natural Language Processing,
- Multimodal and Multimedia, and
- Machine Learning Fundamentals.

A student must take at least one course in **three** breadth categories. The LTI website has a PhD and MLT Course Categories page that identifies courses in each category. If a student believes a new course should be added to a breadth category, they should make a request to the Ph.D.

Program Director. The Ph.D. Program Director will decide, with advice from faculty, whether it should be in the breadth category. If approved, it will be added to the Ph.D. and MLT Course Categories webpage.

Applications Engineering courses provide experience using core language technologies to build software systems that tackle real-world applications. This requirement can be satisfied by a course that *also* satisfies a breadth requirement, so many students will satisfy it without taking an additional course. The LTI website has a PhD and MLT Course Categories page that identifies courses that satisfy the Applications Engineering requirement. If a student believes a new course should be added to the Applications Engineering category, they should make a request to the Ph.D. Program Director. The Ph.D. Program Director will decide, with advice from the faculty, whether it should be in the Applications Engineering category. If approved, it will be added to the Ph.D. and MLT Course Categories webpage.

6.10: Proficiency / Qualifier Requirements

An LTI Ph.D. student is required to demonstrate proficiency in the following four areas:

- **Writing.** The Writing proficiency is satisfied by writing a peer-reviewed conference paper, or the equivalent (e.g., a written report that at least two SCS faculty certify as being of conference paper quality).
- **Presentation.** The Presentation qualifier is satisfied by giving a public talk in a forum organized by the LTI beginning at the start of the fifth semester in the Ph.D. program. The talk must demonstrate the ability to present clearly and convey technical depth and logical thinking. A committee of 3-4 faculty provides a written review to the student and a pass/fail recommendation to the Ph.D. Program Director. If a student fails, they have another opportunity one year later with a new committee. There is no limit on the number of times a student may try to pass the Presentation qualifier. If a student has not passed by the time of their Ph.D. proposal, the Ph.D. proposal satisfies the Presentation qualifier.
- **Programming.** The Programming proficiency is satisfied by demonstrating competence in computer programming of language technologies; this is normally satisfied as part of the student's research and/or project work.
- **Teaching.** The Teaching qualifier is satisfied by successfully completing two (2) semesters of 11-932, Teaching Experience. The primary activity in 11-932 is serving as a Teaching Assistant for an LTI course. See Teaching Requirements/Opportunities (Section 6.11) for more information.

6.11: Teaching Requirements/Opportunities

As described above (Section 6.10), Ph.D. students must complete two semesters of 11-932, Teaching Experience, which involves serving as a Teaching Assistant (TA) for an SCS course. The TA's duties are at the discretion of the course instructor(s), but typically involve office hours, grading, homework preparation, and/or exam preparation. Senior TAs may assist in preparing or delivering lectures.

Ph.D. students are permitted to be TAs for more than two semesters. Occasionally, Ph.D. students are permitted to be co-instructors of a course. These additional teaching experiences may help students that intend to pursue a faculty career.

TAs receive grades based on the quality and timeliness of their work.

See the [Ph.D. Program Intranet](#) for teaching and TA resources.

English Language Skills of Teaching Assistants

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 [here](#).

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.

6.12: Alternatives to the LTI Colloquium

First and second year Ph.D. students are permitted to take 11-705, Introduction to Research in Language Technologies as an alternative to 11-700, LTI Colloquium.

6.13: Department Policy on Double Counting Courses

An LTI Ph.D. student who uses courses taken as a Master's degree student (at Carnegie Mellon or elsewhere) toward their program requirements cannot use those same courses toward any other Master's degree offered by the school. The LTI (like other SCS units) allows its Ph.D. students who have passed the requirements for an LTI Master's degree to receive the master's degree without any additional work. Any other sharing of coursework by an LTI student between more than one CMU degree (e.g., receiving an MLD Master's degree that includes courses taken as an LTI Ph.D. student) must be explicitly approved by the LTI, on a case-by-case basis, in advance.

6.14: Department Policy for Courses Outside the Department/College

Students may take elective courses outside the SCS, at Carnegie Mellon or cross-registered at the University of Pittsburgh, as long as the student fulfills the requirements of their program as described above. The student should discuss any such electives in advance with their advisor.

Typical choices might include ECE courses for Speech students, Pitt Linguistics courses, or Statistics courses.

Students interested in taking recommended electives outside the SCS should pay particular attention to the following issues:

- Know which recommended electives outside of the SCS count towards the "SCS course" requirement. Please see the Program Director for approval of new electives that can count as an "SCS course."
- Students need advance approval for any courses not covered by their normal tuition (e.g., summer courses).
- The grading of outside courses is the responsibility of the department offering the course; however, the LTI's Minimum Course Grade Policy described in Section 9.2 still applies ("B" is the minimum for Ph.D.).

6.15: Course Exemptions

Definition of Transfer Credit vs. Course Exemption

The LTI may grant transfer credit or issue an exemption for equivalent graduate courses previously completed at another institution. This decision rests with the director of the particular program.

If a student is **exempt** from a required course due to prior courses or experience, the student can replace that course with an elective. The student does not receive credit for the external course but can take any course that could normally count toward the degree in its place.

If a student receives **transfer credit** for prior coursework completed at CMU or elsewhere, the student receives that many units of credit, and the total amount of required coursework is reduced by that amount.

6.16: Protocol for Evaluation of Transfer Credit

One or two equivalent graduate courses previously completed at another institution may be permitted to satisfy a Ph.D. course requirement. The decision about whether a course may be transferred is made by the Ph.D. Program Director.

Typically, the student will provide the Program Director with a publicly available syllabus for the external course(s) and information about homework assignments or projects completed. The Program Director uses that information and the student's transcript to make the decision. (See Section 6.14 for the difference between course *exemptions* and course *transfers*.)

External courses that would substitute for an LTI Course (Section 6.9) must cover at least 75% of the material in the equivalent CMU course. LTI courses form the core of an LTI education, so the correspondence must be high.

External courses that would substitute for an SCS Course (Section 6.9) must be equal in rigor and general subject matter to the equivalent CMU course. SCS courses supplement an LTI education, which allows the correspondence to be a little more flexible.

A student may not receive transfer credit for more than four courses.

6.17: Research Requirements/Opportunities

Ph.D. students divide their time between courses and research. Typically, the time spent on courses and research together is equivalent to a fulltime job.

Most students choose to complete their courses during the two years of the program, although that is not required. Students that have substantial research experience and/or a Master's degree prior to beginning the Ph.D. sometimes choose to spread their courses over three or more years to enable them to get a faster start on their research. This decision should be made in consultation with the Ph.D. advisor.

Grading System for Research

Students receive a grade for their research each semester. First semester students receive a grade of "Satisfactory" or "Unsatisfactory". In subsequent semesters, students usually receive a letter grade that reflects their progress toward the Ph.D. degree. Occasionally, a student may receive a grade of "Satisfactory" after their first semester, which is understood to be a warning from

the advisor that the progress toward the degree was unimpressive but not (yet) a problem.

Resources and Regulations Governing Research at Carnegie Mellon

Carnegie Mellon has the following research-related resources and policies that every Ph.D. student should be aware of.

- [Office of Sponsored Programs](#)
- [Office of Research Integrity & Compliance](#)
- [Intellectual Property Policy](#)
- [Policy on Restricted Research](#)
- [Human Subjects in Research Policy](#)

6.18: Internships/Co-op Requirements and Opportunities

The LTI provides summer support for its Ph.D. students, so Ph.D. students are expected to do research at Carnegie Mellon during the summer. However, outside experience can be a valuable educational experience. Ph.D. students *in good standing* are permitted to do an external internship. Some students may benefit from more than one internship, especially if they require access to proprietary data for their work, thus, *with the approval of the student's advisor*, a student can intern up to four (4) times during their Ph.D. degree. Interning more than four (4) times requires approval from the Ph.D. Program Director.

Any internship must be planned in consultation with the student's advisor and the LTI Ph.D. Coordinator. If an internship is part of a fully-funded external fellowship (e.g., Microsoft Research Fellowship), the student does not need prior LTI approval, but should still coordinate with their advisor. International students must consult with Office of International Education (OIE) for eligibility before seeking an internship or signing an offer contract.

Internships are typically scheduled during the summer. In certain cases, it is possible to schedule an internship during the fall or spring semester; the details are complex, especially for international students due to visa restrictions, so the student should discuss this as early as possible with the Ph.D. Program Director.

Note that self-funded Ph.D. students (e.g., those registered for five units while on semester internship) are not permitted to receive a partial stipend for the semester of their internship, while full-time LTI-sponsored students are eligible for a partial stipend.

All students are cautioned to be aware of potential intellectual property (IP) problems with internships, and to review any IP agreements with their advisors before signing them. It is possible to lose ownership of your ideas.

If the student is to receive academic credit for the internship, it must have deliverables from the student commensurate with the number of course units being taken. This can be in the form of interim and final reports on the experience, presentations in the following semester regarding the experience, assessments of their experience as it relates to their course of study, etc.

International students are required to consult with the Office of International Education for eligibility for work authorization before starting or seeking an internship/co-op or consulting opportunity. International students will benefit from proactively reviewing OIE guidance regarding off-campus work authorization. Off-campus work authorization processing times can take several weeks or months, and international students will benefit from starting the off-campus work authorization process as early as possible. More information can be found at the [OIE website](#).

Resources to Explore Potential Internships

Finding a suitable internship is the student's responsibility. Carnegie Mellon offers two resources that may help.

- College Career Services
- [Career and Professional Development Center](#)

However, for most Ph.D. students, the Ph.D. advisor and the student's professional network developed from attending and talking to people at conferences may lead to better opportunities.

SECTION 7: Dissertation Preparation & Requirements

7.1: PhD Qualifying Exam Requirement

The LTI does not have a PhD Qualifying Exam Requirement. It does have qualifiers requirements as discussed in Section 6.10, Proficiency / Qualifier Requirements.

7.2: Checklists

The [Ph.D. Program Intranet](#) has checklists to help guide students through the Ph.D. proposal and Ph.D. defense.

7.3: Ph.D. Dissertation

The Ph.D. dissertation is the defining feature of a Ph.D. degree. The process of completing a Ph.D. dissertation has three important milestones.

- **Thesis Topic:** During the Ph.D. student's third year, the student should be working hard to find a thesis topic. The thesis topic typically develops from the directed research that the student has been carrying out with the student's advisor. The topic is a well-defined research problem that is interesting and unsolved, and for which the student has a believable proposed solution. When the dissertation is finished, there will be a "thesis statement" that describes the claimed solution to the research problem that is the thesis topic.
- **Thesis Proposal:** Near the end of the student's third year or beginning of the fourth year, the student will compose a dissertation proposal. In this document, the student will specify the problem the research addresses (the thesis topic); the significance of the problem and expected scientific contributions; other relevant research, including competing approaches; some preliminary results; the work that still must be completed; evaluation metrics for that work; and a projected timeline for completion. Before presenting the proposal, the student will also secure approval for a dissertation committee, which consists of the student's advisor, at least two other SCS faculty members working in language technologies, and at least one external member.

University rules require that the time and place of the proposal presentation be publicly announced at least one week before the presentation. The student should coordinate this with the Ph.D. Program Coordinator. The public thesis proposal protects the student by guaranteeing that the

proposed research is interesting to the larger scientific community and demonstrating that the student is likely to finish the program if the work is completed as outlined.

- **Thesis Defense:** The dissertation document itself, normally expected at the end of the fifth year, will include a detailed description of all the work done, including a clear evaluation and a discussion of its scientific contributions. There are no fixed style or document length guidelines or requirements; the only format requirement is that the title page should be suitable to be issued as an LTI Technical Report. The dissertation defense is a public presentation and defense of the dissertation results.

All committee members must attend the thesis proposal and defense. The candidate and at least three committee members are expected to be present in person. Exceptions must be approved in advance by the Ph.D. Program Director.

Note: University rules require that the time and place of the dissertation defense be publicly announced by the department at least one week prior to the defense. LTI students are required to notify the Ph.D. Program Coordinator at least ten (10) days in advance to allow sufficient time for the department to make this announcement.

Note: At the time of the public announcement, a draft of the thesis document must be made available online.

A final copy of your thesis dissertation must be submitted to the Hunt Library. For more information contact the Ph.D. Academic Program Manager.

7.4: Minimum Timespan Between Proposal and Defense

The purpose of the Ph.D. proposal is to give a student feedback about the direction and scope of their research at a midpoint in their dissertation research. The *recommended* timespan between Ph.D. proposal and Ph.D. defense is 18-24 months, which gives students ample time to respond to meaningful feedback from the committee. The *minimum* timespan between Ph.D. proposal and Ph.D. defense is 12 months. The PhD Program Director may waive this requirement in exceptional circumstances.

SECTION 8: Department Policies and Protocols

8.1: Department Policy for Withdrawing from a Course

Add, drop, withdrawals, and pass/no pass election procedures and deadlines are described on a [Hub web page](#). Note that the deadlines for doctoral courses may differ slightly; see the deadlines for doctoral course sections in the [Academic Calendar](#).

Doctoral students, visiting/non-degree students, and certificate students do not receive vouchers and do not participate in the voucher process.

8.2: Process for Completing a Masters' Degree en route to the Ph.D.

Courses that satisfy LTI Ph.D. degree requirements may also be used to satisfy requirements for

one M.S. degree. The most common choice is the LTI's Master of Language Technologies (MLT) degree because its requirements are similar (but not identical) to the Ph.D. requirements. Other M.S. degrees within the LTI and outside of the LTI are also possible.

Students interested in an M.S. degree other than the MLT degree should discuss their plans with their Ph.D. advisor due to the additional courses and project work that may be involved.

Note: Immigration regulations may change what may be possible with respect to completing a Master's degree en route, or stopping with a Master's degree. International students considering these options should proactively consult the Office of International Education.

8.3: New Policies/ "Grandfather" Policy

A student can graduate under the policies in effect at the time that the student entered the program; or, at the student's choice, the student can graduate under policies that are adopted after the student entered the program. If it is not realistic to follow a particular policy exactly, the department may approximate the policy as closely as possible; this situation is rare and typically arises only when a student is enrolled in the program for an extended period of time.

8.4: Time Away from Academic Responsibilities

Ph.D. students that are supported by sponsored research, fellowships, or scholarships are expected to remain on campus and work full time on their education and research throughout the year, regardless of whether classes are in session or not. 40 hours per week is a common level of effort.

Ordinarily, students are not expected to work during official university holidays; however, students may need to consult their advisor about expectations and alternate arrangements if there are challenges with taking time off during a university holiday, for example, if an experiment requires continuous monitoring. In such situations, the student and their advisor may agree for the student to take an equal number of days off at another time.

Students with full time financial support are entitled to four weeks per year of paid vacation, which must be scheduled in consultation with their advisor.

See also the University expectation on time away: <https://www.cmu.edu/leadership/the-provost/campus-comms/2022/2022-03-16.html>

SECTION 9: Grading and Evaluation

9.1: Grading Scale/System

Ph.D. students receive grades for courses, research, and TA service.

Grades are awarded on a +/- basis (i.e., A+, A, A-, B+, ..., C-, D+, D). A grade of 'P' is given for passing a Pass/Fail course. There are two types of failing grades: 'R' (Failure) and 'N' (Not Pass), depending on whether the course is taken Pass/Fail. Grades of 'S' (Satisfactory) and 'O' (Auditing a course) may also be awarded.

9.2: Grade Requirements

Students must demonstrate their mastery of material taught in courses and their success in applying their skills in directed study by satisfying the following grade requirements.

Minimum grade: Only courses with a grade of B (3.0) or higher are counted as satisfying a degree requirement.

9.3: Department Policy on Pass/Fail, Satisfactory/Unsatisfactory

Pass/fail grades are not permitted for courses and projects used to satisfy a degree requirement.

Graduate students who are required to take additional undergraduate courses to build up the core foundations of computer science may not elect the pass/fail option for these courses.

9.4: Department Policy for Incompletes

Course instructors have the option of awarding a grade of Incomplete if there are extenuating circumstances and it is likely that the student can complete all remaining work soon after the course concludes. The LTI does not prevent Ph.D. students from receiving grades of Incomplete.

9.5: Independent Study/Directed Research

A Ph.D. student is permitted to do an Independent Study, but as described in Section 6.9, Independent Study courses usually do not count toward satisfying Ph.D. requirements.

A student that wants to do an Independent Study course must do the following *prior to the start of the semester*.

- Locate an SCS faculty member willing to supervise the work and provide a grade.
- Write a brief document that describes the topic, the work to be done, and monthly milestones.
- Agree with the independent study advisor on a written rubric for the final grade.
- Obtain approval from the Ph.D. Program Director.

Independent studies can be done at any point in a Ph.D. student's academic career. Often they are done in Years 3-5 to broaden a student's experience at a time that the majority of their work is focused on a thesis topic. Often, the goal is to do research that will produce a conference paper or broaden the student's professional network.

9.6: Satisfactory Academic Standing

If a student does not make satisfactory progress each semester toward completing the degree, the LTI may remove them from the program. See Section 9.7, Regular Reviews and Evaluations by the Department.

Students may appeal any/all of these decisions; see the [Summary of Graduate Student Appeal and Grievance Procedures](#) for more information.

9.7: Regular Reviews and Evaluations by the Department

The LTI reviews each Ph.D. student at the end of the Fall and Spring semesters. A student may

also be reviewed at the end of the Summer semester if they appear to be struggling.

Near the end of the semester, the student must prepare a statement that describes his or her achievements in the current semester and plans for the next semester. At the end of the semester, the faculty evaluates each student's academic progress. The student's advisor serves as the student's advocate in this process. The result of the evaluation is a letter from the faculty to the student that indicates whether the student is making satisfactory progress towards completing the degree.

A good letter typically indicates that the student is making satisfactory progress. If the student is doing exceptionally good work, a stronger adjective such as “excellent” might be used, but this is unusual.

If a student seems to be having trouble, the faculty determines whether it believes the student can finish the degree, and if so, what needs to be accomplished to get back on track. This type of letter should be considered a serious warning. It is not a permanent “black mark” on the student's record; if the student begins making satisfactory progress again, there is no official record of the letter in the student's transcript.

In the most serious cases, the faculty gives the student an “N-1” letter that specifies a list of conditions that the student must satisfy by specific deadlines. Failure to meet all the specified conditions may result in the student's termination from the program.

9.8: Review/Redress of Academic Conflicts

Final grades are changed only in exceptional circumstances and only with the approval of the instructor and the department, unit, or program.

Grading is a matter of the 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.

See the university's [Summary of Graduate Student Appeal and Grievance Procedures](#) web page for more information.

SECTION 10: Funding and Financial Support

10.1: Graduate Student Funding

For all LTI Ph.D. students, full funding (tuition plus stipend) is guaranteed for the first year. This support is normally continued for at least 5 years, with the possibility of further continuance, subject to continuing satisfactory progress and availability of funding. The fellowship includes full tuition and fees, and a monthly Ph.D. stipend that is fixed across SCS. In addition, the LTI pays a dependency allowance of 10% of the student's monthly stipend to any student with a child, unless they have a spouse who earns more than \$200 per month.

If a Ph.D. student receives a graduate fellowship or scholarship from another source (e.g., NSF, Fulbright, Apple), the student is expected to accept it in place of the LTI's graduate fellowship. The

LTI will supplement the award so that the student receives full tuition and a combined stipend 10 percent higher than that of the standard LTI graduate fellowship.

Students are required to inform the LTI about any external funding that they receive.

10.2: Health Insurance Requirement

Carnegie Mellon has a Student Health Insurance policy requiring full-time, degree seeking students to carry adequate medical insurance. Students must either purchase the plan offered by the University or an application for a waiver can be made if the student is “enrolled as the dependent, partner/spouse or principal in an employer or government-sponsored insurance plan.” (See the [Carnegie Mellon University Student Health Insurance Policy](#) (SHIP)).

It is the responsibility of each student to make arrangements with Student Health Services to either pay for their insurance at the beginning of the semester or elect a payment plan over the course of the academic year. More information is available at the [Student Health Services Web site](#).

10.3: Travel/Conference and Research Funding

Students funded by research projects receive travel funding according to policies set by the individual projects. Students that have no travel support may request partial travel support from the department once a year. Carnegie Mellon’s Graduate Student Association also provides limited support for travel to conferences. *All forms of travel support must be requested in advance.*

See also the Office of Graduate & Postdoctoral Affairs [website](#) for related opportunities (Scholarly Project, Conference, and Professional Engagement funding).

10.4: Funding Payment Schedule

Graduate Student Assistants receive their stipends on a bi-monthly payroll schedule. You can find the payroll calendar at <https://www.cmu.edu/hr/service-center/payroll/payroll-calendars.html> or contact the LTI Employment Processes Manager (see Section 3).

10.5: Department Policy on Outside Employment

Students funded by LTI research projects are expected to work primarily for those projects. Since consulting provides useful experience, students are generally permitted to consult at most one day per seven-day week, with the advisor’s consent. International students must also have approval in advance from the Office of International Education (OIE); otherwise, they may be in violation of their visa status. See also External Internships.

10.6: Procedure for Written Notification of Change in Financial Support

The LTI does not have a formal procedure for written notification of change in financial support. Instead, it has a set of common practices that are applied and adapted as necessary to fit each individual situation.

Generally, the LTI provides stable financial support through sponsored research funding to Ph.D. students that are making good academic progress. The semi-annual student evaluation (Section 9.6) provides written feedback to students about their academic progress to help students correct problems. If there is uncertainty or risk related to a student’s funding, these written reviews usually

discuss it clearly. Common practice is to give the student a semester of warning if there is substantial risk of a significant change in financial support.

If a research sponsor terminates research funding suddenly, the department usually helps the student find new funding and/or provides brief interim funding until a new funding source is in place.

If a student does not meet obligations to a sponsored research project, the sponsored research funding may be withdrawn. Usually, the student receives substantial prior written warning, for example, through semi-annual student evaluations (Section 9.7). If the student is in good standing, the department usually instructs the student to find a new source of funding, for example, from a sponsored research project more compatible with the student's interests and skills. The department may also provide brief interim funding until a new funding source is in place.

If a student loses funding, Carnegie Mellon's Office of Graduate and Postdoctoral Affairs provides information about student emergency support funding, national and international fellowships and scholarships, and other information about alternate funding sources (<https://www.cmu.edu/graduate/funding/>). Students also may want to see the Lost Funding section in the University-Wide Graduate Student Handbook for more information (<https://www.cmu.edu/graduate/resources/>).

SECTION 11: Additional Departmental Information

11.1: LTI Orientation

At the beginning of each Fall semester, the LTI provides several days of talks and panels to help students learn about the department and meet people. The LTI also requires students to complete a set of Canvas courses that introduce students to administrative procedures, department policies, and conducting research responsibly. Students are expected to attend orientation events and treat them as seriously as a standard course, because they help people come up to speed quickly. Students do not register for the LTI Orientation, nor do they receive a grade; however, the department is serious about its expectation that new students attend these talks. Students are expected to complete the Canvas courses by the end of the second week of classes.