

**Software and Societal Systems Department /School of
Computer Science**

Graduate Student Handbook

Academic Year 2023-2024

Societal Computing Ph.D.

Last revision date: April 4th, 2024

The information contained in this graduate handbook template focuses on the resources and locations available at the Carnegie Mellon Pittsburgh Campus.

Table of Contents

1 Vision, Mission & Philosophy.....	1
2 Degrees Offered.....	3
2.1 Degree offered: Doctor of Societal Computing.....	3
2.2 Dual Degree with Portugal.....	3
2.3 Dual Degree Requirements for Portugal.....	3
3 The Carnegie Mellon Code.....	4
4 University Policies & Expectations.....	5
5 Academic Calendar.....	5
6 Faculty and Student Ombudspersons.....	5
7 Doctoral Degree Completion and Certification.....	6
7.1 Standard Degree Requirements & Degree Certification.....	6
8 Additional Guidance for Students.....	6
8.1 Program of Study.....	6
8.2 International Students.....	6
8.3 Statute of Limitations.....	7
9 Leave of Absence.....	7
10 Residency Requirements and Expected Timeline.....	7
11 Registration Process/Procedures.....	8
12 Doctoral Degree Requirements and Related Policies/Protocols.....	8
13 Societal Computing Practicum 17-994.....	8
13.1 Practicum Syllabus:.....	8
14 Star Courses: Four Areas.....	9
15 Approved Star Courses.....	10
16 Electives- 36 Units Required.....	11
16.1 Exception Procedure to Count Courses under XX-700 number.....	11
17 Societal Computing Pre-Thesis 17-802 (6 units).....	11
18 Computational Thinking/Programming.....	12
19 Writing.....	12
21 Speaking Proficiency.....	12
22 Teaching Requirement.....	13
23 Teaching.....	13
24 Petition Procedures for Requesting New Star Course/ or Exception.....	13
25 Department Policy/Process for Withdrawing from a course.....	15
26 Drop/Add/Withdraw Procedures.....	15
27 Course Waiver Policy for Prior Course Work.....	15
28 Transfer Courses and Pittsburgh Council on Higher Education (PCHE).....	16
29 Protocol for evaluation of transfer credit.....	16
30 Advisors/Advising.....	16
31 Independent Study.....	17

32 Research Requirements/Directed Research.....	17
32.1 Resources and Regulations Governing Research at Carnegie Mellon.....	17
33 Research funding options.....	17
34 Summer Internship Opportunities.....	18
34.1 International Students/Summer Internship.....	18
35 PhD Criteria for Advancement to Candidacy.....	19
36 PhD Dissertation.....	19
36.1 Thesis Committee.....	20
37 Thesis Proposal.....	20
37.1 Thesis Proposal Directions.....	21
38 Thesis Defense.....	22
38.1 Thesis Defense Scheduling.....	23
38.2 Preparing your Final Thesis Document:.....	24
39 Process for Completing a Master's degree in route to a Ph.D.....	24
40 Certification of Degree.....	24
41 Leave of Absence.....	24
42 Summary of Graduate Student Appeal and Grievance Procedures.....	25
43 Grading and Evaluation.....	25
43.1 Dept./College Grading Scale/System.....	25
44 University Policy on Grades.....	25
45 Process for Appealing Final Grades.....	25
46 Policy on Grades for Transfer Courses.....	26
47 Doctoral Student Review (DSR).....	26
47.1 Components and Indicators.....	26
47.2 Outcomes and Recommendations.....	27
48 Academic Integrity.....	27
49 Safeguarding Educational Equity.....	27
49.1 Assistance for Individuals with Disabilities.....	27
49.2 Sexual Misconduct Policy.....	28
50 Gestational and Parental Accommodations.....	28
51 Consensual Intimate Relationship Policy Regarding Undergraduate Students.....	30
52 Additional department and university policies/protocols.....	30
52.1 Verification of Enrollment.....	30
52.2 Change of Address.....	30
52.3 Time Away from Academic Responsibilities.....	30
53 Employment Eligibility Verification.....	31
54 Financial Support.....	31
55 Academic Year Support.....	31
56 Student (SHIP) Health Insurance Coverage.....	31
57 Awarding and Continuation of Funding.....	32
58 Conference Funding.....	32
59 Research Funding.....	32

60 Outside Funding, Fellowship and Scholarship Opportunities.....	32
61 Department Policy on Outside Employment.....	32
62 Lost Funding.....	33
63 Office of the Dean of Students Emergency Support Funding.....	33
Appendix A: Time Estimates.....	34
Appendix B: 2023-2024 Highlighted University Resources for Graduate Students.....	36
Appendix C: THE WORD.....	37
64 Key Resources for Graduate Student Support.....	37
64.1 Office of Graduate and Postdoctoral Affairs.....	37
64.2 Office of the Dean of Students.....	37
64.3 The Division of Student Affairs.....	38
64.4 Center for Student Diversity & Inclusion.....	38
64.5 Assistance for Individuals with Disabilities.....	39
64.6 Eberly Center for Teaching Excellence & Educational Innovation.....	39
64.7 Graduate Student Assembly.....	40
64.8 Office of International Education (OIE).....	41
64.9 Veterans and Military Community.....	41
64.10 Carnegie Mellon Ethics Hotline.....	41
64.11 Policy Against Retaliation.....	42
65 Key Offices for Academic & Research Support.....	42
65.1 Computing and Information Resources.....	42
65.2 Student Academic Success Center.....	42
65.3 University Libraries.....	42
65.4 Research at CMU.....	43
65.5 Office of Research Integrity & Compliance.....	43
66 Key Offices for Health, Wellness & Safety.....	44
66.1 Counseling & Psychological Services.....	44
66.2 Health Services.....	44
66.3 Campus Wellness.....	45
66.4 Religious and Spiritual Life Initiatives (RSLI).....	45
66.5 University Police.....	45
66.6 Shuttle and Escort Services.....	46

Welcome to the Societal Computing Ph.D. Program

Societal Computing is the branch of computer science concerned both with designing computational technology to shape tomorrow's digital world and using computational methods to understand the societal challenges a digital world poses.

Our program stems from the recognition that there is an intimate and deep relationship between the design, deployment, and configuration of computing technologies on the one hand and societal dynamics, goals, policies, and outcomes on the other. As more and more of our daily experiences are lived in and through computers and networks, computing technology shapes the landscape in which people socialize, conduct commerce, play, work, and communicate. It also gives rise to new risks and shapes the tools available to avoid or manage them.

The design choices for these digitized environments have profound consequences – they create behavioral possibilities for acting, knowing, and controlling our social and physical environment. They provide opportunities and de-facto policies, regulations, and norms that shape societies. They create data for understanding the digital world, but at a scale and speed not analyzable by today's methodologies.

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

1 Vision, Mission & Philosophy

Vision

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

Mission

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

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

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

Philosophy

The Societal Computing program is Carnegie Mellon University's response to this challenge.

We bring to bear a wide variety of tools and disciplines to discover the scientific principles and laws governing the relationship between the design of computing technology and the nature of digital society.

Traditional computer science is fundamental to this enterprise, but the multidimensional nature of the questions we address requires cross-disciplinary solutions. In our research and our educational programs, a common foundation is laid not only in current computer science methodologies but also in ideas drawn from sociology, psychology, economics, public policy, cultural studies, machine learning, sustainability, applied statistics, and ethics.

We are shaping an integrated, innovative discipline of Societal Computing that provides the tools, techniques, theories, and research methods to address societal issues and continue to make scientific progress in understanding the deep relationship between computing technologies and the society inhabiting the digital landscape they comprise.

Ph.D. Community

We are committed to a strong sense of community within S3D as well as the School of Computer Science as a whole. Our community is one of the reasons many students choose to come here. We foster community spirit through close working relationships between students and advisors, among faculty, and among students. Many working relationships turn into friendships for life.

In practice, our students, faculty, and staff volunteer their time, energy, intellect, talent, and other skills to do many of the things that keep our environment running smoothly. These efforts include organizing seminars, serving on departmental committees, grading for graduate courses, planning, and running social activities, giving tours, and hosting visitors. Our Societal Computing Ph.D. students have an impressive record of volunteer leadership not just within the program, but also at SCS and university levels.

Mutual Respect

An essential aspect of our culture is mutual respect among students, faculty, and staff that are highly diverse, not only in terms of professional and research interests, but also in terms of gender, national origin, religion, sexual orientation, and other demographic characteristics. Words or actions that express discrimination, disrespect, intimidation, or harassment based on race, color, national origin, birth sex, gender identity, handicap or disability, age, sexual orientation, religion, creed, ancestry, belief, veteran status, or genetic information are not acceptable within our community. Any violations of these standards should be brought to the Ph.D. program director, Nicolas Christin, nicolasc@andrew.cmu.edu, Ph.D. Coordinator, Connie Herold, cherold@andrew.cmu.edu the ombudsperson for the program or the Office of Student Affairs.

Students and advisors enjoy a close working relationship in our program. If students have problems, whether related to their research or not, they should feel free to speak to their advisors. If doing so is awkward or if the students simply want a second opinion, they should feel free to discuss their problems with either the SC Ph.D. Program Director, Nicolas Christin, or SC Program Administrator Connie Herold.

Incidents of Discrimination or Harassment

Our community places great value on mutual respect. However, if you witness an incident of discrimination based on gender, race, religion, or similar characteristics; it is important to know what to do about it.

If you feel comfortable and safe responding to the discriminatory behavior in the moment, we encourage you to do that; such responses, especially from bystanders, reinforce our community standards and can start an educational dialog that leads to reconciliation and prevent similar incidents from occurring in the future.

We encourage you to talk with the Ph.D. program director, any faculty member, the student ombudsperson(s), the Ph.D. program coordinator, or someone in the Office of Student Affairs about any incidents you witness or hear about secondhand. Faculty members, student ombudspersons, and the Ph.D. program coordinator are responsible for forwarding such incidents to the Ph.D. program director (or, when the director has a conflict, to the faculty ombudsperson) for follow-up.

There are a wide range of behaviors that may be concerning; we can help you talk through them and then investigate to come to an understanding of whether there is a violation of community standards. If there is a violation, we will take it seriously and will act according to the severity of the incident.

One-time incidents that are not very severe may be handled by a conversation with the individual engaged in the problematic behavior. Here, the primary goal is education about our community expectations, a discussion of how to ameliorate the damage caused by the discriminatory incident, and an understanding of the consequences if violations of community standards were to continue.

Individual or repeated incidents that are severe enough to have a significant negative impact on an individual or on our community will be reported to the Office of Student Affairs or the Office of Title IX Initiatives, which have a processor dealing with them. These more serious incidents, when perpetrated by a student, will also be discussed at Doctoral Student Review meeting (DSR), where consequences may be imposed such as required amelioration actions, an N-1 letter, i.e., a letter giving one semester to remedy problems or face dismissal or termination from the program.

2 Degrees Offered

2.1 Degree offered: Doctor of Societal Computing

2.2 Dual Degree with Portugal

The Software and Societal System Department (S3D) offers a dual degree Ph.D.in Societal Computing in cooperation with several Portuguese universities. The regulations are essentially the same as given in this document, except that some requirements can be fulfilled in an affiliated program in Portugal.

The Dual Degree Program is based on a matching of requirements of both the Carnegie Mellon and the partner institutions PhD Programs. Each student will be co-advised by a S3D-SC/Carnegie Mellon faculty member and a faculty member of the Portuguese Institution.

The student is expected to spend a period of two years at S3D/Carnegie Mellon. In this time, the student shall take star courses (as specified by Carnegie Mellon/S3D SC regulations) and start working on research.

The second period, whose duration is to be determined by the co-advisors but is expected to last typically three years, will be hosted by the partner institution in Portugal where the student is expected to continue with the research work. The research work will take place in the context of collaborative research activities between the partner institution in Portugal and Carnegie Mellon.

The remaining time until completion of the thesis shall be divided between research stays at SC-S3D/Carnegie Mellon and the Portuguese Institution. The schedule should be flexible to fit the needs of the doctoral research project.

By the end of the third or the fourth year the student must present the thesis proposal formally at S3D SC/Carnegie Mellon or at the partner institution. The Portuguese co-advisor should attend the oral presentation and discussion of the Thesis Proposal at S3D SC/Carnegie Mellon or via videoconference.

The public oral thesis defense will take place either at Carnegie Mellon or at Portuguese Institution according to the rules of the SC PhD program. The thesis evaluation committee must include both the Carnegie Mellon and the Portuguese co-advisors, members of the advisory committee, and external reviewers.

2.3 Dual Degree Requirements for Portugal

- All 36 units of electives can be satisfied with courses taken in Portugal as long as they generally satisfy our requirements (graduate/PhD level). This will be checked and approved by the program director and using input from at least one other faculty in the relevant subject matter,
- The teaching requirement is brought down to ONE class owing to the fact that students are only here for four semesters (excluding summers).
- 18 units of seminar must be taken in person, in Pittsburgh
- This leaves 48 units of STAR courses spread over four semesters which seems eminently doable while doing research in Pittsburgh so we argue those should be taken in Pittsburgh

- COMPUTATIONAL, SPEAKING, and WRITING are maintained but can be fulfilled without being in residence
- Proposal, thesis and defense can be done remotely from Portugal or from Pittsburgh; the choice is the student's and their advisors'.

Carnegie Mellon University Statement of Assurance

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

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

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

Information regarding the applicable grievance procedures for alleged violations of the Statement of Assurance is available at <https://www.cmu.edu/policies/forms-and-documents/soa-violations.pdf>.

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

3 The Carnegie Mellon Code

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

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

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

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

these principles will be observed, an academic community cannot exist.

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

The Carnegie Mellon Code can also be found on-line at:
<https://www.cmu.edu/student-affairs/theword/>

4 University Policies & Expectations

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

The Word/Student Handbook:
<https://www.cmu.edu/student-affairs/theword//index.html>

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

University Policies Website:
<https://www.cmu.edu/policies/>

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

Additional Policy Resources (e.g., college/department specific policies)
Due to the changing nature of conditions and expectations surrounding public health and safety requirements please visit:

<https://www.cmu.edu/coronavirus/>
for the most up to date information.

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

5 Academic Calendar

The Academic Calendar can be found at:

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

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

6 Faculty and Student Ombudspersons

If a student feels that none of the above avenues are appropriate for addressing his or her problem, the student can turn to the Ph.D. program's student or faculty ombudspersons.

Currently, the faculty ombudsperson is **Jonathan Aldrich**, jonathan.aldrich@cs.cmu.edu The faculty ombudsperson's roles and responsibilities are:

- To meet with students and listen to their problems
- To give advice, perhaps suggesting someone else to talk to or suggesting the next step to take
- To act on any issues where the program director may be conflicted
- To keep conversations confidential

The office of the University ombudsperson may be contacted as follows:
412-268-1018 or email: ombudsperson@andrew.cmu.edu

7 Doctoral Degree Completion and Certification

7.1 *Standard Degree Requirements & Degree Certification*

Graduate Students

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 the relevant Graduate Student Handbook. Standard program lengths for graduate students vary significantly – ranging from two semesters for some full-time master's programs to several or more years for doctoral programs. Upon completion of the graduate program degree requirements, the degree will be certified by the student's academic program in the semester in which the student completes the requirements.

Early Completion

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

Extended or Longer-than-Standard Completion:

Longer-than-standard degree completion may occur due to academic interruptions in making progress toward the degree 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" section.

8 Additional Guidance for Students

8.1 *Program of Study*

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

8.2 *International Students*

Immigration status for students in F-1 and J-1 non-immigrant status is tied to making normal progress toward completing degree requirements. Therefore, F-1 and J-1 students who are considering completing

their degree requirements early, anticipating longer-than-standard completion, or moving from an undergraduate to a graduate student classification (integrated undergraduate-graduate study) should consult with their designated advisor in the Office of International Education (OIE) to ensure compliance with immigration regulations.

8.3 *Statute of Limitations*

As outlined in the Doctoral Student Status Policy:

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

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

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

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.

9 **Leave of Absence**

The University process for taking & returning from a Leave of Absence (LOA) may be found here: <https://www.cmu.edu/hub/registrar/leaves-and-withdrawals/>

Students who wish to leave the program temporarily may request a Leave of Absence by submitting a request to the SC PhD Program Director, with a cc to the Graduate Program Administrator. Leaves are initially granted for a period of no more than one year. An extension of up to one additional year may be granted under exceptional circumstances.

When an extension is granted, the conditions for return must be negotiated with the advisor and the SC PhD Program Director prior to returning to the program. Students on a leave of absence should contact the SC PhD Program Administrator two months prior to the end of the leave to indicate their plans. While a leave can in principle start at any time, University regulations allow students to return only at the beginning of a semester (usually late August or January).

10 **Residency Requirements and Expected Timeline**

Ph.D. students must register as a full-time student for a minimum of 2 academic years in total. Full-time students must be resident in Pittsburgh, or with the approval of their advisor and the program head, at a collaborative site.

11 Registration Process/Procedures

All students are fully responsible to register for their courses in the Fall and Spring. Students are expected to carry 48 units. Students can adjust their Reading and Research units (Course 17-993 to achieve the 48 units).

Summer registration will be done by the program coordinator and will be based on the student's response to the Summer Plans form that will be sent in early spring. The deadline for summer plans is May 1st.

12 Doctoral Degree Requirements and Related Policies/Protocols

In the PhD program in Societal Computing (SC), each student must complete 108 University units of graduate courses and receive at least a B- in each course in order to earn a PhD in Societal Computing.

Course requirements are intended to ensure that all program graduates have sufficient breadth in SC fundamentals as well as depth in one or more relevant areas of their choice.

Students must demonstrate breadth in SC fundamentals by completing (48 units) in 4 area star requirements plus a minimum of (18 units) of the SC Practicum. Depth is provided through the remaining (36 units) of elective coursework, which can be fulfilled from a broad selection of relevant electives – as well as research and project work.

Finishing out the 108 units is the Societal Computing Pre-Thesis course (6 Units). The Societal Computing Pre-Thesis course 17-802 is provided by each Societal Computing adviser to coach the student in preparing, presenting, and passing a thesis proposal.

In addition to course requirements, students must pass the following: Writing, Speaking, Computation and Teaching requirements. Details regarding all student requirements are below.

13 Societal Computing Practicum 17-994

The Societal Computing Practicum course. Students must take this course in their first year as students both in the Fall (9) units, and the Spring (9) units for a total of 18 Units.

13.1 Practicum Syllabus:

Societal Computing Topics

- Literature review. Write a literature review, working with an advisor to pick a topic and identify research questions. Writing includes critiquing papers being synthesized in the review. This is intended to be a “short form” literature review of approximately 2-4 pages of the sort that typically introduces a conference paper.
- What makes good interdisciplinary research? While each research group focuses continuously on this topic, the practicum will provide a broader view, e.g., by inviting a senior researcher from S3D or SCS to share reflections on their own research strategies, key choices they made in their careers, and advice they can offer budding researchers.
- What is SC about? Hear from and interact with SC faculty members to see the

breadth of research topics, methods, and policy concerns within SC.

Skills

- Presentation skills. This includes presenting a literature review, an elevator speech, and talking to a general audience. Senior students should be involved in critiquing & helping younger students.
- Giving feedback and critiquing. Not only is speaking important, but active listening, and skill and constructive critiquing are important skills that the practicum should develop.
- Writing and presentation software. Learning “power user” skills for writing and presentation software used by most academics, such as Latex, Word, PowerPoint.
- Human subjects. Students should go through the process of preparing an IRB application. Senior students can share their experiences with IRB and human subjects in general.
- Time management. There are several possible approaches to this topic including bringing in an outside expert or facilitating a roundtable discussion with senior students.
- Ethics. Students should learn about CMU’s policy on plagiarism, as well as ethical considerations for authorship and author order, and more generally the ethics of their profession.
- Teaming. Students should learn group skills, conflict resolution, and negotiation skills, possibly via an outside expert or discussion by faculty and senior students.

14 Star Courses: Four Areas

The four-star courses (48 units) provide students with a basic grounding in core skills needed for research. Each student must pass one-star course from each of the areas.

1. Societal Computing,
2. Computational Thinking
3. Statistics
4. Management/Policy

Students are to take a minimum of one 12-unit course (or two 6-unit courses) from each of the required areas. No course may satisfy more than one requirement in its entirety. In rare cases, the units of a course may be split between two categories such as 6 units in one area and 6 in another.

Students should discuss exactly what courses are to be taken with their advisor. Please note the below list is illustrative, not comprehensive. At CMU new courses are added most years. If there is a course that you feel is appropriate, simply send an email petition (petition instructions are listed below) to the Director of the SC PhD program, Nicolas Christin, and Connie Herold, Academic Program Manager asking to count it.

Only letter grades will be accepted for all Star Courses.

A Pass/Fail grade will **NOT** count towards your Star Areas.

15 Approved Star Courses

Societal Computing: (12 Units)

A 17- PhD level (or masters with permission of instructor) course taught by Core SC faculty

- 10-713 Machine Learning, Ethics, and Society
- 17-703 Cryptocurrencies, Blockchains, and Applications
- 17-722 Building User-Focused Sensing Systems
- 17-733 Privacy, Policy, Law, and Technology
- 17-734 Usable Privacy and Security
- 17-735 Engineering Privacy in Software
- 17-737 Artificial Intelligence Methods for Social Good
- 17-759 Advanced Topics in Machine Learning & Game Theory
- 17-781 Mobile & Pervasive Computing Services
- 17-801 Dynamic Network Analysis
- 17-803 Empirical Methods
- 17-821 Computational Modeling of Complex Socio-Technical Systems
- 17-840 Green Computing

Computational Thinking Skills: (12 Units)

Computational Thinking skills courses address issues of how to reason computationally. These courses involve the design and development of core algorithms and not just the application of canned programs.

- 10-601/10-701/15-781 Machine Learning
- 10-715 Advanced Introduction to Machine Learning
- 11-711 Algorithms for NLP
- 11-785 Introduction to Deep Learning
- 14-741/18-631 Introduction to Information Security
- 15-750 Algorithms
- 15-780 Advanced AI Concepts
- 15-830 Computational Methods in Sustainable Energy
- 15-853 Algorithms in the Real World
- 15-892 Foundations of Electronic Marketplaces
- 17-731/18-734 (Previously 08-604) Foundations of Privacy
- 17-737 (Previously 08-737) Artificial Intelligence Methods for Social Good
- 17-759 Advanced Topics in Machine Learning and Game Theory
- 17-821 (Previous 08-810) Computer Simulation of Complex Socio-Technical Systems
- 17-880 Algorithms for Private Data Analysis
- 18-730 Introduction to Computer Security

Policy and Management (12 Units)

These courses address issues of management and policy. Methods courses are not allowed in this area.

- 17-762 (Previously 08-732) Law of Computer Technology
- 17-733 (Previously 08-733) Privacy Policy, Law, and Technology
- 19-701 Theory and Practice of Policy Analysis
- 19-702 Quantitative Methods for Policy Analysis

- 19-705 Workshop on Applied Policy Analysis (6 units)
- 19-712/18-842 Telecommunications Technology, Policy and Management
- 19-713 Policies of Wireless Systems
- 19-718 Public Policy and Regulations
- 47-890 Seminar in Organizational Behavior
- 47-891 Seminar in Organizational Theory (6 units)
- 90-840 Legislative Policy Making

Statistics (12 Units)

These courses address issues of statistical data analysis, and provide methodological skill in statistics.

- 10-708 Probabilistic Graphical Models
- 10-716 Advanced Machine Learning: Theory and Methods
- 19-703 Applied Data Analysis I (6 Units)
- 19-704 Applied Data Analysis II (6 Units)
- 36-700 Probability and Mathematical Statistics
- 36-705 Intermediate Statistics
- 36-707 Regression Analysis
- 36-749 Experimental Design for Behavioral & Social Sciences
- 90-906 Intro Econometric Theory
- 94-834 Applied Econometrics I
- 94-835 Applied Econometrics II

16 Electives- 36 Units Required

All students are required to take a minimum of 36 units of PhD-level electives. These electives provide depth in an area of relevance to the student. This requirement can be filled by a combination of mini courses (6 units) and full courses (12 units). Please note that courses must be at the level of XX-700 or higher to count as an SC elective, unless the exception procedure below is followed. These electives may be drawn from a variety of sources:

- A specialized independent study on a topic for which there is not a regularly offered course. At most 12 units of independent study may count toward the SC elective requirement.
- Additional courses in SC
- Additional courses in SCS
- Additional PhD level courses at CMU or the University of Pittsburgh. At most one course may be a course at the University of Pittsburgh through PCHE

16.1 Exception Procedure to Count Courses under XX-700 number

Students must receive approval from their advisor and Program Director, Nicolas Christin. Please follow the same directions under “Petition Procedures for Requesting New Star Course”. A request for an exception must be made at the start of the semester.

17 Societal Computing Pre-Thesis 17-802 (6 units)

The Societal Computing Pre-Thesis course (17-802) is provided by each Societal Computing advisor to coach the students in preparing, presenting, and passing a thesis proposal. The proposal will generally occur in the semester where this course is taken. If not, an incomplete may be awarded pending the proposal at the advisor’s discretion. In that case, in accordance with university policy, the course must

be completed (and the thesis passed) no later than the last day of the following semester, or the default grade will be awarded.

18 Computational Thinking/Programming

To fulfill the computational thinking and programming requirements for the Ph.D. degree the student must:

- a. Achieve a high level of competency in designing, implementing, and testing algorithms
- b. Develop a substantial body of code in association with a research project
- c. Work collaboratively on a computational thinking project

Typically, this is achieved through research and development by the student as part of a research team under their PhD advisor. Key requirements include computational thinking, acceptable code development, code development as part of a team, and good documentation practices.

Approval is typically determined during the Doctoral Student Semi-Annual Review. It up to the advisor to determine if the student has the necessary skills.

19 Writing

The ability to communicate technical ideas clearly in writing.

To fulfill the Writing requirement for the Ph.D. the student must:

- Demonstrate a high level of competency in an organization, clarity of writing in English, cohesive argument, and accurate utilization of references by writing a paper that is accepted for publication by a high-quality peer-reviewed conference, journal (or equivalent, as approved by the SC faculty), or acceptable Thesis Proposal.

Approval is typically determined during the Doctoral Student semi-annual Review

21 Speaking Proficiency

The ability to communicate technical ideas in oral presentation.

To fulfill the speaking requirement for the PhD, the student must:

- Attend and present in the SC PhD Practicum.
- Present at, at least once, at a national or international conference (in a paper, not a poster session or round table).
- Achieve a high level of competency in talk organization, slide development presentation style, eye contact, and question answering skills.

Approval is typically determined during the Doctoral Student semi-annual review

22 Teaching Requirement

The ability to teach is an important skill for all scientists, not only for those who plan to teach after completing their degrees. Teaching skills include the ability to communicate technical material ranging from elementary to advanced, and to communicate technical material to audiences ranging from general to specialized. Thus, we expect students to develop and exercise teaching skills as part of their graduate education.

To fulfill the teaching requirement for the PhD degree the student must do one of the following:

- Serve as a full TA for two full-length SC Courses (9 or 12 units)
- Serve as a full TA for one full-length SC Course and one full-length SCS course (9 or 12 units) with the permission of the student's advisor
- Serve as a full TA for one full-length SC Course and teach the equivalent amount in the CASOS or IDEAS summer institute (requires substantial teaching over multiple years)

Approval is typically determined during the Doctoral Student semi-annual review

23 Teaching

Graduate students are required to have a certain level of fluency in English before they can instruct in Pennsylvania, as required by the English Fluency in Higher Education Act of 1990. Through this Act, all institutions of higher education in the state are required to evaluate and certify the English fluency of all instructional personnel, including teaching assistants and interns.

The full university policy can be reviewed at:

<https://www.cmu.edu/policies/faculty/evaluation-certification-english-fluency-instructors.html>

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.

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.

Visit the Student Academic Success Center website for additional information:

<https://www.cmu.edu/student-success/>

24 Petition Procedures for Requesting New Star Course/ or Exception

The faculty have selected an initial set of approved courses in each category. These are subject to review

from time to time to ensure that, if the course content changes, it remains consistent with the purpose of that star.

SC Ph.D. students may request that the faculty approve an additional course in one of the star categories. In general, if the request is approved, the course will be added to the list for other students to take for star credit. When a request is student-initiated, it is the student's responsibility to make a case supporting STAR status. Students should submit a request to the SC Ph.D. Program Director and the SC Ph.D. Program Administrator using the following template:

- A. Your name
- B. Name and number of the course
- C. Course description or URL to course description
- D. Which star requirement you want this course to satisfy
- E. An indication of approval by your advisor.
- F. Evidence, including quotes from the course description and syllabus with supporting links, to demonstrate that the course:
- G. Matches the topic and fulfills the particular requirements of the star course category you have requested. Star courses should have some degree of breadth but are not expected to provide comprehensive coverage of a star category.
- H. Assumes an undergraduate background in the relevant area—no more and no less
- I. Uses multiple forms of evaluation (e.g., assignments, exams, projects, papers, ...)
- J. Is appropriate for Ph.D. studies in terms of depth and engagement with research. For example, if a course is primarily designed for master's students, a justification should be given that the course is also an appropriate preparation for Ph.D. studies. Sometimes a course that is missing engagement with research may be adapted for Ph.D. students through additional or replacement assignments that lead PhD students deeper into relevant research topics

Given sufficient information, requests received by the faculty should generally receive a response within 2 weeks if the request is made during a regular academic semester. Star credit should generally be requested at least **2 weeks before the end of the semester before taking** a course, and preferably 2 weeks before the beginning of the registration period. This ensures students can register for a course before it fills up and avoid spending time on a course that is not in the end approved.

Courses will not, in general, be approved in two categories, but instead will be approved in the category that best fits the primary emphasis of the course (if any). If any exception to this principle is made, the student must choose which category to apply the course to and find a different course with which to fulfill the other requirement.

There is a precedent for approving an independent study for star credit, in the rare case where an appropriate independent study suits the student's needs better than any available course. The approval process is the same in this case, but the proposal submitted by the student should identify who would advise the independent study, what the output of the study will be and how it should be evaluated, the match to the appropriate star category, appropriateness of the course for Ph.D. study in terms of depth and engagement with research and should indicate advisor approval.

Course curricula may evolve over time, due to the advancing state of knowledge, the changing background and needs of students, or the strengths that a new instructor brings to bear on a course. Therefore, the faculty may re-examine star courses from time to time to verify the course continues to fulfill the requirements for a star. If it does not, star status may be withdrawn for future offerings of the course.

25 Department Policy/Process for Withdrawing from a course

Students must follow the University deadline for withdrawing from a course.

<https://www.cmu.edu/hub/registrar/course-changes/index.html>

26 Drop/Add/Withdraw Procedures

Students taking undergraduate and master's level courses must follow the procedures and deadlines for adding, dropping, or withdrawing from courses as identified on the academic calendar. Information can be found at

<https://www.cmu.edu/hub/registrar/course-changes/index.html>

There is a separate calendar for doctoral level courses.

27 Course Waiver Policy for Prior Course Work

This program does not accept transfer credit of courses taken outside of CMU.

Students may request to waive up to two course requirements based on equivalent graduate level courses they have already taken. No more than 12 units of star courses can be waived.

Students who have also taken PhD level courses at Carnegie Mellon prior to entering the Societal Computing PhD program may request credit for up to two courses, as long as the course taken would satisfy one of the Star course or elective program requirements.

All grades for course waivers will be recorded as part of the internal Student Record as with CMU courses taken while enrolled in the PhD program. Any course waiver will **not** show up in the students official student transcript.

To apply for a waiver, a student must submit a petition to the Ph.D. Program Coordinator within their first year in the program. A separate petition must be submitted for each course to be waived.

**** Please note that a course waiver will **not** be granted for equivalent "Professional Experience". We suggest the student to take a different course to enrich their technical background.**

The petitioner must make a case for how prior courses are equivalent in substance, submitting a self-contained justification, a syllabus, and a transcript (translated if necessary). As needed, the petitioner can provide additional support for the case by providing slide excerpts, reading lists, homework assignments, work products, or other supporting artifacts. For star courses, the justification must argue why the course(s) match the intent and expectations of the appropriate star requirement, similar to requests for approval for a new star course (described above). To waive a course based on comparable experience, the student should document how the experience demonstrates their systematic knowledge of the relevant material.

Typically, courses may be waived based on rigorous graduate courses taken as part of a master's degree.

These petitions will be considered by the faculty, typically delegated to a faculty member with expertise in the corresponding star area. The outcome of the petition process will be decided based on provided information on the prior course and the petitioner's performance in it. The faculty may ask appropriate instructors for assistance in this decision or reject the petition with a request for resubmission if insufficient information is provided. If appropriate, the faculty may stipulate conditions on the waiver, such as preparing a supplementary project that exposes the student to Societal Computing research in the area of the course, and is roughly equivalent in scope to a final project in a typical *PhD. -level course*.

28 Transfer Courses and Pittsburgh Council on Higher Education (PCHE)

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

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

29 Protocol for evaluation of transfer credit

The Societal Computing program does not accept transfer credit.

30 Advisors/Advising

Each student has a faculty advisor charged with guiding the education and monitoring the progress of the student through the program. This personal student-advisor relationship ensures that every student receives the necessary faculty mentoring. Throughout the program, the advisor is responsible for guiding the student's research and education. Early in the program, the advisor guides the student along with research initiatives and helps with strategic planning for courses and other educational activities. Later, the advisor helps to focus the student's research interests towards a thesis topic. Toward the end of the program, the advisor chairs the student's thesis committee and helps to select the other members of the committee. The advisor also provides the student with career advice.

How are advisors initially chosen? The SC PhD Program Director matches each student with a faculty member, taking into consideration their preferences, interests, and background as revealed in their application materials, as well as interest and funding availability among the potential advisors.

There is flexibility in the kind of relationship a student has with their advisor. While the advisor is a student's primary source of guidance, many students interact closely with faculty other than their formal advisor, for example as part of research collaboration. A few students have two co-advisors. Occasionally evolving research interests and other factors motivate changes in advising relationships. It is OK for students to request a change in advisors. Such changes are approved by the SC PhD Program Director with agreement from the new advisor and a consensus about how to gracefully tie up any loose ends in the previous research project. Any non-courtesy Tenure Track or Research Track faculty member in SCS may

serve as a sole advisor or co-advisor. In addition, faculty in other tracks, or in other schools, can serve as advisors with permission of the SC PhD Program Director.

31 Independent Study

An Independent Study course is appropriate for a learning activity that is neither covered by existing courses nor is in independent research. At the Ph.D. level, students tend to focus on formal coursework and independent research, so the independent study course is rarely taken.

32 Research Requirements/Directed Research

During a student's first two years, they should be doing directed research at least half time; once all coursework is completed and before doing thesis research, full time (except when teaching).

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

During any semester, students studying via an internship experience may substitute up to 36 units of Practicum Internship for these research units with permission of the advisor or Program Director. Note that students typically substitute practicum units for research no more than 4 times during their PhD degree program.

At each semi-annual graduate student review meeting, the faculty assess the student's previous semester's research progress and the student's next semester's research plans to ensure that the student is making satisfactory progress. The evaluation of a student's progress in directed research often depends on the student having produced some tangible results. Advisors are individually responsible for adequately supervising this portion.

Students will receive a Pass/Fail grade in Reading and Research 17-993.

32.1 *Resources and Regulations Governing Research at Carnegie Mellon*

- [Office of Sponsored Programs](https://www.cmu.edu/osp/)
<https://www.cmu.edu/osp/>
- [Office of Research Integrity & Compliance](https://www.cmu.edu/research-compliance/index.html)
<https://www.cmu.edu/research-compliance/index.html>
- [Intellectual Property Policy](https://www.cmu.edu/policies/administrative-and-governance/intellectual-property.html)
<https://www.cmu.edu/policies/administrative-and-governance/intellectual-property.html>
- [Policy on Restricted Research](https://www.cmu.edu/policies/research/restricted-research.html)
<https://www.cmu.edu/policies/research/restricted-research.html>
- [Human Subjects in Research Policy](https://www.cmu.edu/policies/research/human-subjects-in-research.html)
<https://www.cmu.edu/policies/research/human-subjects-in-research.html>

33 Research funding options

GuSH Research Funding is a source of small research grant funds provided by the Graduate Student

Assembly (GSA) and the Provost's Office and managed by the Office of Graduate and Postdoctoral Affairs. Students can find more information about the application process and deadlines at:

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

Resources and Regulations Governing Research at Carnegie Mellon

Use this subsection to discuss research resources, as applicable:

Office of Sponsored Programs

<https://www.cmu.edu/osp/>

Office of Research Integrity & Compliance

<https://www.cmu.edu/research-compliance/index.html>

Intellectual Property Policy

<https://www.cmu.edu/policies/administrative-and-governance/intellectual-property.html>

Policy on Restricted Research:

<https://www.cmu.edu/policies/research/restricted-research.html>

Human Subjects in Research Policy

<https://www.cmu.edu/policies/research/human-subjects-in-research.html>

34 Summer Internship Opportunities

Practice-oriented summer internships are particularly important for students who have had little or no prior full-time experience. Faculty can provide help in finding suitable summer in employment.

Different advisors may have different default assumptions about internships and summer support. Students should talk to their advisors about usual expectations and specific summer plans well in advance.

Students who participate in relevant Societal Computing internships may remain an active student by taking the 17-995 Section I, Practicum Internship course.

34.1 International Students/Summer Internship

Ph.D. students are eligible for CPT based internship course if the following conditions are met:

1. You have completed two consecutive semesters in the U.S. maintaining F-1 Status
2. You will enroll in 17-995 - SC Internship Course (Section I). This will count towards your research units that will fulfill your degree requirements
3. **You have not yet completed your coursework requirements (there are different eligibility criteria if you have completed your coursework requirements)
4. You have not yet reached the maximum number of off campus employment semester experiences. (Max of four) (*an extension into the next semester with the same company will not count as one of your experiences) during their career here at Carnegie Mellon.

Ph.D. students are eligible for CPT if they have completed their coursework requirements and:

1. The internship is essential for your dissertation research/data collection
2. The research needed is proprietary and only accessible if you are an employee of a specific employer.
3. The employer provides an email or letter explaining they are aware your employment is for your dissertation, and your employment is necessary to access the research/data needed. They also must provide a brief summary of how your employment is integral for your dissertation
4. Your academic advisor affirms on the OIE CPT advisor form that this internship is needed for research/data collection for our dissertation.
5. You have not yet reached the maximum number of off campus employment semester experiences allowed of 4.

35 PhD Criteria for Advancement to Candidacy

After the acceptance of a student's thesis proposal by the thesis committee, and after the student has satisfied all other requirements except for the dissertation and its oral defense, the student is regarded as having "all but dissertation" (ABD) status.

An ABD candidate may choose to continue as a regular student In Residence, or, if the residency requirement above is fulfilled; they may choose to be In Absentia (ABS).

ABS - Off Campus: Students who leave CMU but plan to continue working on the thesis will be classified as ABS. These students should not require substantial use of university resources, but are permitted use of the libraries and consultation with faculty or students as necessary. While a candidate is ABS, they are required to pay the university technology fee each semester. No formal enrollment or payment of tuition is required, with the exception of the academic semester in which the degree requirements are completed. A candidate who is ABS is required to enroll for a minimum of five units during the academic semester in which the degree requirements are completed. For students defending remotely without returning to campus a *Dissertation Completion Fee is charged*. Charges for these units are the responsibility of the candidate.

Since an ABS candidate will not be certified by the University as a "student" for immigration purposes, students who are in the United States on a student visa and who become ABD should not choose to become ABS.

ABD - On Campus: Students who are self-supporting and are in ABD status may remain on campus to complete the thesis. They must register and pay for a minimum of five units each semester. However, students who receive a stipend based on their status as a graduate student and paid by or administered by the university will be required to register for a minimum of 36 research units. Nearly every ABD student in S3D falls into this latter category.

The ABD Status Agreement Form can be found at:

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

Students are advised to read CMU's Doctoral Student Status Policy (<https://www.cmu.edu/policies/student-and-student-life/doctoral-student-status.html>) and talk to the program administrator to fully understand the financial implications of deciding to switch to In Absentia status, before making any decisions.

36 PhD Dissertation

The thesis must describe a significant piece of original research work and must describe it well. It is on

this basis that the Software and Societal Systems department certifies the qualifications of the new Ph.D.

Furthermore, it is the most important basis on which the scientific community judges the initial achievement and potential of that individual.

36.1 Thesis Committee

The student's advisor chairs the thesis committee. All other committee members, including the external member, should be agreed upon before the thesis proposal presentation. Members of the student's committee must accept the responsibility of meeting with the student regularly to ensure that the research is progressing in the right direction. The Thesis Committee must consist of at least one faculty member from Societal Computing, two members of SCS and/or other approved faculty, and one External Committee member. All thesis committees are subject to departmental approval.

****Approved faculty** are faculty that are affiliated with the Societal Computing program. These faculty are currently collaborating with Societal Computing faculty members.

Please remember that at least three thesis committee members (including the Chair) must be physically present for the thesis proposal and defense.

Any changes to your Thesis Committee after your proposal must be approved by the Committee Chair and the Program Director. A Written request as to why and what circumstances this request is being made is required.

37 Thesis Proposal

The student submits a written proposal to the faculty. The student also orally presents the thesis proposal to interested faculty and students in a public colloquium. The Thesis Proposal must describe a significant piece of original research. It is evidence of proficiency, high attainment, and ability to do research in software engineering

Guidelines;

- Explain the basic idea of the thesis topic (e.g., the problem to be solved and the approach to solving it)
- Argue why that topic is interesting (e.g., what contributions to the field would be made in carrying out the proposed work)
- State what kind of results are expected
- Argue that these results are obtainable within a reasonable amount of time
- Demonstrate that the student is qualified to perform the proposed work, including an understanding of the area and its literature

The main purpose of the thesis proposal is to convince the faculty that the chosen thesis topic is significant, and that the student's approach has a reasonable chance of success. A thesis proposal gives the faculty the opportunity to pass such judgment at the start of the work and not at the end. We want to minimize the chance that a thesis will be turned down when almost completed. We expect students to present their thesis proposals as early as possible, not halfway through writing the thesis. A thesis proposal should be short, about 15–20 pages, and the oral presentation should take about 40 minutes, not including questions.

Thesis proposals must be given during the academic calendar year.

A thesis proposal should **not** be:

- A dry run for the thesis
- A summary or abstract of the thesis
- The first chapter or part of the thesis
- A technical report
- A survey of the field
- An annotated bibliography

Any included list of references or bibliography should serve the purpose of supporting the assessment of the state of the art and the student's personal qualifications.

To provide ample notice to the public, at least **two weeks** in advance of the oral presentation, students should provide the SC Ph.D. Program Administrator with an electronic copy or link to the thesis proposal, an electronic copy of the proposal's abstract, and a list of the thesis committee members, including the external member. The committee should also be consulted about the readiness of the proposal before announcing the oral presentation. The SC Ph.D. Program Administrator posts the public announcement of the thesis proposal presentation.

Please remember that at least **three** thesis committee members (including the Chair) must be physically present for the thesis proposal, and the thesis proposal must be held at Carnegie Mellon. The only exception is for students in Ph.D. programs offered jointly with other universities, in which case the thesis proposal may be held remotely, with one Carnegie Mellon member physically present, and the proposal session broadcast to a Carnegie Mellon room open to the public.

After the presentation and approval of the proposal, the Committee Chair will send the Program Administrator a "Pass form".

When the student has completed all of the program requirements and passes their Proposal, they will complete the Doctoral Candidate Contractual Agreement form provided by the graduate program's administrator.

37.1 Thesis Proposal Directions

Thesis Proposals should be scheduled only during academic periods – not during holidays, weekends, etc. and should be scheduled in normal business hours. The department head must approve exceptions. Please schedule for 2 hours.

Student should coordinate a date with their committee members and finalize the date as early as possible to allow time for travel arrangements, final review, and comments by committee prior to proposal date.

Student needs to coordinate with their advisor's assistant to secure a room for their proposal. The room scheduled must be available to the public and must accommodate a reasonably large number of people (25-30).

Once you schedule your defense, please reach out to our IT team (Tom Pope, or Cole Jester to let them know the date and if you will need any help in setting up for zoom, etc. Please note they will not automatically be there to set up unless you request help.

If Proposal has a remote component such as (Zoom), student is responsible for setting up the zoom link, and completing the "Consent to Publicly Livestream a Presentation".

Thesis Proposal will be announced to the public

Please send the following information to Alisha Roudebush aroudebu@andrew.cmu.edu no less than **ten business days** prior to your proposal date:

1. Your name as it should appear on your diploma
2. Thesis Title
3. Date/Time/Location of proposal presentation
4. Thesis Committee Members, names, titles, affiliations, and email addresses
5. Thesis Abstract – Less than 350 words describing the thesis
6. Pointer to Thesis for any outside faculty who wish to review (Website address, etc.)
7. Print and post 10 Posters to the SCS Community (TCS/Wean/ Gates)
8. Send Connie a PDF of Poster
9. Zoom link if applicable

38 Thesis Defense

The student's thesis committee decides whether to accept the thesis based on its content and the outcome of the thesis defense, which is a public presentation describing the contributions of the thesis.

At least two weeks in advance of the oral presentation, students must provide the Ph.D. Program Administrator with an electronic copy of the abstract and a list of all thesis committee members. The Ph.D. Program Administrator posts the public announcement of the thesis defense.

Thesis Defenses must be given during the academic year.

Before the thesis defense, the entire thesis committee is expected to have read the entire thesis, to have given comments to the candidate, and to have given approval for scheduling the public defense. This means that a copy of the complete thesis document should be provided to the whole thesis committee a minimum six weeks in advance of any proposed date for the defense.

Significant deviations from this rule must be approved by the SC Ph.D. Program Director. Committee members should meet briefly before the thesis presentation to discuss any issues.

The presentation by the candidate is normally about 45 minutes, followed by a question-and-answer period which may be as long as needed. Plan to schedule your defense for 3 hours.

As with the thesis proposal, at least three thesis committee members (including the Chair) must be physically present for the thesis defense, with the exceptions described above for Ph.D. programs joint with another university.

The thesis committee chair (advisor) determines who may ask questions and in what order and brings the discussion to a close at the appropriate time. The question-and-answer period is followed by a closed-door session attended by only the members of the thesis committee and any interested faculty members. The options of the committee are:

- To approve without corrections
- To approve subject to minor changes, to be approved later by the thesis chair only
- To require a resubmission after major changes and reapproval of the entire committee
- Not to approve the thesis

All members of the committee are required to sign a Final Oral Examination card, indicating that the student has passed the thesis oral examination. In addition, the thesis committee chair, the Department Head, and the Dean sign a final certification sheet when the student submits the final version of the thesis.

The SC Ph.D. Program Administrator maintains a checklist of procedures for scheduling the thesis oral presentation and completing the other requirements for graduation. The SC Ph.D. Program Administrator certifies fulfillment of requirements for graduation only when the final version of the thesis has been approved by the thesis committee, the Institute Head, and the Dean. Students are not allowed to participate in commencement exercises unless final certification has been made, so the Ph.D. defense should be scheduled a few weeks in advance of graduation to allow time for possible revisions and certification.

If the final copy of the thesis is not submitted within one year of the thesis defense, the faculty may require a second defense before making a final certification.

Your degree title will appear on your diploma as: **Ph.D. in Societal Computing.**

38.1 Thesis Defense Scheduling

Thesis Defense should be scheduled only during academic periods – not during holidays, weekends, etc. and should be scheduled in normal business hours. The department head must approve exceptions. Please schedule for 3 hours.

Once you schedule your defense, please reach out to our IT team (Tom Pope, or Cole Jester to let them know the date and if you will need any help in setting up for zoom, etc. Please note they will not automatically be there to set up unless you request help.

Student should coordinate a date with their committee members and finalize the date as early as possible to allow time for travel arrangements, final review, and comments by committee prior to defense date.

Student needs to coordinate with their advisor's assistant to secure a room for their defense if on campus. The room scheduled must be available to the public and must accommodate a reasonably large number of people (25-30).

If you are a full-time student currently registered for 48 units, there are no other financial responsibilities for you.

If you are **not** a full time on campus student, the following will apply:

If your Defense is remote only (via Zoom), the student is responsible for setting up the zoom link, and completing the ["Consent to Publicly Livestream a Presentation"](#).

While an All but Dissertation student is In Absentia, no tuition will be assessed. The student will, however, [be responsible for all applicable fees.](#)

If your dissertation is on campus, you must register and pay for [5 units of tuition](#). Please talk with your advisor to see if they will cover either the remote cost or the on-campus cost. You can find the Tuition and Fee Effects under the "In Absentia Student Status Including the Final Semester Fees" at the link below:

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

38.2 *Preparing your Final Thesis Document:*

Please contact Catherine Copetas (copetas@cs.cmu.edu) for the following information:

1. Latex Template (See below for example of title page)
2. Request a TR number (Department is S3D)
3. Check for proper title page format (verify with Catherine prior to final submission)

Thesis Defense will be announced to the public by the Program Administrator.

Please send the following information to Alisha Roudebush aroudebu@andrew.cmu.edu no less than **10 business days** prior to your defense date:

1. Your name as it should appear on your diploma
2. Thesis Title
3. Date/Time/Location of defense presentation
4. Thesis Committee Members, names, titles, affiliations, and email addresses
5. Thesis Abstract – Less than 350 words describing the thesis
6. Pointer to Thesis for any outside faculty who wish to review (Website address, etc.)
7. Print and post 10 Posters to the SCS Community (TCS/Gates)
8. Send Connie a PDF of Poster

39 **Process for Completing a Master's degree in route to a Ph.D.**

We will grant a current Societal Computing student a master's degree on their way to a PhD.

Students must request the degree and have completed the following:

Star courses (48 Units)

Elective Courses (36 Units)

Practicum (18 Units) and

Any (1) skill requirement of Speaking, Writing or Computational.

Your master's degree title will read *"Masters of Science in Societal Computing"*.

Students must request the degree prior to the semi-annual Student Doctoral Review on their student submission form.

40 **Certification of Degree**

After final approval from the Thesis Committee, and all final paperwork has been submitted by the student that is required, the degree will be officially certified by the Program Manager.

41 **Leave of Absence**

Students who wish to leave the program temporarily may request a leave of absence by submitting a request to the SC Ph.D. Program Director, with a cc to the Program Administrator. Leaves are initially granted for a period of no more than one year, but an extension of up to one additional year may be granted under exceptional circumstances. When an extension is granted, the conditions for return must be negotiated with the advisor and the SC Ph.D. Program Director prior to returning to the program.

Students must be in good standing to be granted a leave of absence.

Students on a leave of absence should contact the SC Ph.D. Program Administrator two months prior to the end of the leave to indicate their plans. While a leave can in principle start at any time, university regulations allow students to return only at the beginning of a semester (usually late August or January). Reference University process for leave of absence:

<https://www.cmu.edu/hub/registrar/leaves-and-withdrawals/>

42 Summary of Graduate Student Appeal and Grievance Procedures

Graduate students will find the Summary of Graduate Student Appeal and Grievance Procedures on the Graduate Education Resource webpage. This document summarizes processes available to graduate students who seek review of academic and non-academic issues.

Generally, graduate students are expected to seek informal resolution of all concerns within the applicable department, unit, or program before invoking formal processes. When an informal resolution cannot be reached, however, a graduate student who seeks further review of the matter is to follow the formal procedures outlined here.

These appeal and grievance procedures shall apply to students in all graduate programs of the University. Students should refer to the department specific information in this handbook for department and college information about the administration and academic policies of the program.

<https://www.cmu.edu/graduate/policies/appeal-grievance-procedures.html>

43 Grading and Evaluation

43.1 Dept./College Grading Scale/System

A student's progress in the Ph.D. program is measured along multiple dimensions. One of these dimensions is a student's performance in courses, and our expectation is that Ph.D. students earn a B- or better. Grades of C+ or below do not count towards program requirements.

44 University Policy on Grades

University policy on grades:

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

45 Process for Appealing Final Grades

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

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

the grade did so in violation of a university policy.

46 Policy on Grades for Transfer Courses

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

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

Societal Computing only accepts transfer grades PCHE

47 Doctoral Student Review (DSR)

Evaluation and feedback on a student's progress are important both to the student and to the faculty. Students need information on their overall progress to make long-range plans. The faculty need to make evaluations to advise students, to make support decisions, and to write recommendations to potential employers.

The faculty meet at the end of each semester to make a formal evaluation of each student in the Ph.D. program. This meeting is called the "Doctoral Student Review" meeting. The purpose of having all the faculty meet together to discuss all the students is to ensure uniformity and consistency in evaluation across all the different areas, by all the different advisors, throughout the years of the SC Ph.D. program as it inevitably changes.

The faculty measure each student's progress against the goal of completing the Ph.D. program in a reasonable period of time. The evaluation considers all components of the program using indicators and information sources described below. Requirements need not be fulfilled in any particular order, but each student must show reasonable progress each semester toward satisfying the full set of requirements. Because the critical path to completing the Ph.D. is research, making early and regular research progress is the most important consideration. Through a Doctoral include specific recommendations for future work or requirements that must be met for continued participation in the program.

47.1 Components and Indicators

In their evaluation, the faculty consider the following components, though naturally only some of these components will be applicable in any given semester; they are not equally important at every stage of a student's career, and each student will progress through the requirements as suits his or her individual needs:

Directed research: Evaluated by research supervisor and other collaborating faculty.

Courses taken: Evaluated by the course instructor—brief prose evaluation/summary grade.

Teaching: Evaluated by the current advisor

Skills: Writing, speaking, and computational by current advisor

Thesis: Status summarized by the thesis advisor and comment by members of the thesis committee.

Other: Lectures given, papers written, etc. evaluated by cognizant faculty.

The faculty's primary sources of information about the student are the student's advisor and the student's statement. The advisor is responsible for assembling the above information and presenting it at the faculty meeting. The student should make sure the advisor is informed about participation in activities and research progress made during the semester. Each student is asked to submit a summary of this information to the advisor at the end of each semester—the Student Statement for Doctoral Review at <https://gsaudit.cs.cmu.edu>.

This statement is used as student input to the evaluation process and as factual information on activities and becomes part of the internal student record. It is strongly recommended that the student and advisor meet prior to the faculty meeting to review the information provided in this statement.

47.2 Outcomes and Recommendations

Based on the above information, the faculty decide whether a student is making satisfactory progress in the Ph.D. program. If so, the faculty usually suggest goals for the student to achieve over the next semester. If not, the faculty make more rigid demands of the student; these may be long-term (e.g., finish your thesis within 1-1/2 years) or short-term (e.g., select, and complete one or more specific courses next semester; prepare a thesis proposal by next Doctoral Review meeting).

Ultimately, permission to continue in the Ph.D. program is contingent on whether or not the student continues to make satisfactory progress toward the degree. If a student is not making satisfactory progress, the faculty may choose to drop the student from the program.

The faculty also decide whether financial support (including tuition and stipend) should be continued for each student. Termination of support does not always mean termination from the program

48 Academic Integrity

<https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html>

The policy includes the University expectations around academic integrity and provides definitions of cheating, plagiarism, and unauthorized assistance.

A review of the University's Academic Disciplinary Actions procedures is also recommended. These procedures outline the process for investigating, reporting, and adjudicating violations of the University Policy on Academic Integrity. The procedures also outline the appeal process.

49 Safeguarding Educational Equity

49.1 Assistance for Individuals with Disabilities

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

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

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

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

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

49.2 Sexual Misconduct Policy

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

The University's Sexual Misconduct Policy is available at:

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

The University's Policy Against Retaliation is available at:

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

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

Office for Institutional Equity and Title IX

<http://www.cmu.edu/title-ix/>

412-268-7125

institutionalequity@cmu.edu

University Police

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

412-268-2323

Additional resources and information can be found at:

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

50 Gestational and Parental Accommodations

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

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

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

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

should also consult with their academic advisors either before or in conjunction with registering with the Office of the Dean of Students.

Accommodations for Gestational Parents

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

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

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

Parental Accommodation for Doctoral Students

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

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

Financial Assistance for Student Parents

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

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

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

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

51 Consensual Intimate Relationship Policy Regarding Undergraduate Students

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

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

52 Additional department and university policies/protocols

52.1 Verification of Enrollment

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

Enrollment verification can be requested online through The HUB at:

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

52.2 Change of Address

Students are to login to SIO to keep your current local address up to date. This supports a university initiative to have accurate living information for students for official program/department/college/university notices, the ability to facilitate wellness checks, ensure international students are in compliance with visa requirements, etc.

52.3 Time Away from Academic Responsibilities

Students with graduate assistantships are expected to continue with their research during academic breaks (including summer months) with the exception of official University holidays*.

Paid time off for personal business or vacations generally is not included as part of a graduate's financial support. A supported graduate student who wants to take a short break (up to ten days) must get approval for that break from his/her advisor and, if required by the terms of the student's support package, must make up the work. Supported graduate students wishing to take longer periods of personal time off must do so without financial support and must receive approval from their advisor at least five weeks prior to the requested time off. The advisor will notify the Department's Business Office of any such arrangements so that an appropriate adjustment in the student's support package can be processed.

Please note University Holidays are student holidays as well and students need to consult with their advisor about coverage during University Holidays if they have challenges with taking time off during that time, i.e., if experiments are running that need to be monitored continuously. Arrangements can be made for students to take an equal number of days off at another time.

University Holidays:

- New Year's Day
- Martin Luther King Jr. Day
- Memorial Day
- Juneteenth
- Independence Day
- Labor Day
- Thanksgiving Day
- Day After Thanksgiving
- Day Before Christmas
- Christmas Day
- Day Before New Year's Day

53 Employment Eligibility Verification

To ensure compliance with federal law, Carnegie Mellon University maintains the Employment Eligibility Verification (I-9) Policy [pdf] covering the university's I-9 and E-Verify requirements.

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

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

For more information, please see CMU's Guidance for Completing the Form I-9 and E-Verify. Students who fail to complete the Form I-9 in a timely manner may have stipend payments suspended. If employed by the university, an individual who fails to timely complete the Form I-9 may be subject to disciplinary action up to and including termination of employment.

54 Financial Support

Financial support and permission to continue in the Ph.D. program depend on making satisfactory progress each semester. Please review section (DSR Review)

55 Academic Year Support

The Institute aims to allow students as much freedom as is possible in choosing research directions, subject to the interests and expertise of the faculty who are available to oversee the work. The Ph.D. program thus places the responsibility on the advisor to secure funding to support their students. The Department commits to providing full financial support (covering tuition, fees, and a stipend) **as long as a student remains in good academic** standing and continues to make suitable progress toward their degree, at an acceptable pace, as determined by the program's faculty. This commitment means that if, for example, an advisor temporarily fails to secure sufficient funding to support a student's work, the department will ensure that student continues to be paid. However, we note the responsibility of students to work closely with their advisors to ensure a good ongoing match between student interest and advisor expertise, resources, and sponsor interest.

56 Student (SHIP) Health Insurance Coverage

If you elect to enroll in Carnegie Mellon University's Student Health Insurance Plan (SHIP), the University will cover 100% percent of the premium cost for your individual coverage under SHIP. While you will have the opportunity to purchase partner, spouse or dependent coverage

under the SHIP plan, the University's support will be 100% percent of the individual coverage amount. Please note that if you wish to elect the required health insurance coverage under an alternate plan, you will not be eligible for the University support referenced here.

<https://www.cmu.edu/health-services/student-insurance/plans.html>

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

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

57 Awarding and Continuation of Funding

Students must be in Satisfactory Academic standing to continue to receive department funding.

58 Conference Funding

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

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

59 Research Funding

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

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

60 Outside Funding, Fellowship and Scholarship Opportunities

We encourage students to seek their own external funding since often the award is prestigious (e.g., NSF or Hertz) or the source provides an opportunity to make professional connections (e.g., an industrial fellowship).

If a student receives an external fellowship/scholarship, they must notify the SE Ph.D. Program Administrator. The Institute supplements the stipends of students with an outside fellowship to meet the stipends of students with internal funding, plus a bonus: in a year when a student brings in a fellowship worth \$X, that student gets 1% of X added to their stipend each month, for a total of 12% of X if the student *takes a stipend all 12 months*.

The department also pays a dependency allowance that is 10% of the S3D monthly base stipend per eligible dependent provided that your spouse or qualifying domestic partner earns less than 15% of the stipend amount.

61 Department Policy on Outside Employment

International students must contact the Office of International Education regarding their ability to hold employment.

Working (i.e., doing anything for pay) either within or externally to the university, beyond your responsibilities as a teaching assistant or research assistant, is a privilege, not a right.

Work is permitted under exceptional circumstances, and with the written approval of the student's advisor (or with the written approval of all advisors, in case of multiple advisors) and of the Societal Computing program director, the following is permissible:

- Outside consulting will be limited in time, and should consist of no more than **8 (eight) Hours of consulting per week.**

- The purpose of the consulting must be closely related to the research area of the student and be clearly aligned with the student's thesis goals.

- The consulting project must be self-contained. In particular, it cannot use any Carnegie Mellon University intellectual property.

- Likewise, the project cannot make any use of university facilities (e.g., buildings), or equipment (e.g., laptops, or computing resources, including networking and email).

- Approval from the advisor(s) and the program director must be renewed every semester.

Students are responsible for understanding the tax implications and are encouraged to consult with a tax advisor if needed. International students should consult with OIE, as outside employment is usually forbidden.

Students who are not on a leave of absence must abide by all Carnegie Mellon rules and policies while performing these activities, including, but not limited to, rules governing potential conflicts of interest and ownership of intellectual property.

We require that students limit employment to follow university and government rules, but the more important principle is maintaining adequate focus and creative energy for the research that is at the core of the Ph.D. degree.

62 Lost Funding

International Students must notify the Office of International Education (OIE) if they lose their funding. Discuss Department Emergency Student Loan made available through the department (if applicable). Reference the Office of the Dean of Students Emergency Student Loan Program:

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

<https://www.cmu.edu/student-affairs/index.html>
...to inquire about an Emergency Student Loan

63 Office of the Dean of Students Emergency Support Funding

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

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

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

Appendix A: Time Estimates

The SC curriculum ensures all students have a solid foundation in Societal Computing, Computational Thinking, Statistics, and Management/Policy. At the same time, it retains enough flexibility to enable students to further specialize in areas that are more closely relevant to their research interest. The following is an illustration of the courses three different sets of students could take:

Students are expected to be working on research every semester with intensity at least 1/2 time throughout their time at CMU. In addition, it is expected that students volunteer within the department and school throughout their time at CMU.

Sample Schedule 1

Fall 1	Spring 1
SC Practicum 17-994	SC Practicum 17-994
Star Course (any category)	Star Course (any category)
SC Reading & Research	SC Reading & Research
Fall 2	Spring 2
Star Course (any category)	SC Practicum 17-994
Elective Course	Elective Course
SC Reading & Research	TA-ship
	SC Reading & Research
Fall 3	Spring 3
Star Course (any category)	Elective Course
TA-ing	
SC Reading & Research	

Sample Schedule 2

Fall 1	Spring 1
SC Practicum 17-994	SC Practicum 17-994
Star Course (any category)	TA-ship

Elective Course	SC Reading & Research
SC Reading & Research	
Fall 2	Spring 2
Star Course (any category)	SC Reading & Research
Elective Course	TA-ship
SC Reading & Research	
Fall 3	Spring 3
Star Course (any category)	SC Reading & Research
Elective Course	TA-ship
SC Reading & Research	

Appendix B: 2023-2024 Highlighted University Resources for Graduate Students

Table of Contents

Key Resources for Graduate Student Support 43

Office of Graduate and Postdoctoral Affairs	43
Office of the Dean of Students	43
The Division of Student Affairs	44
Center for Student Diversity & Inclusion	44
Assistance for Individuals with Disabilities	45
Eberly Center for Teaching Excellence & Educational Innovation	45
Graduate Student Assembly	46
Office of International Education (OIE)	47
Veterans and Military Community	47
Carnegie Mellon Ethics Hotline	47
Policy Against Retaliation	48

Key Offices for Academic & Research Support 48

Computing and Information Resources	48
Student Academic Success Center	48
University Libraries	49
Research at CMU	49
Office of Research Integrity & Compliance	49

Key Offices for Health, Wellness & Safety 50

Counseling & Psychological Services	50
Health Services	50
Campus Wellness	51
Religious and Spiritual Life Initiatives (RSLI)	51
University Police	51
Shuttle and Escort Services	52

Appendix C: THE WORD

64 Key Resources for Graduate Student Support

64.1 Office of Graduate and Postdoctoral Affairs

<https://www.cmu.edu/graduate>

graded@cmu.edu

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

- Website with university resources, contact information for CMU programs and services, possible financial assistance and potential funding opportunities, and various procedural and policy information
- Newsletter to all graduate students with information on activities, resources, and opportunities
- Professional development seminars and workshops, and various programming and events for the graduate student community

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

64.2 Office of the Dean of Students

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

The Office of the Dean of Students provides central leadership of the metacurricular experience at Carnegie Mellon including the coordination of student support. Graduate students will find the enrollment information for Domestic Partner Registration and Parental Accommodations in the Office of the Dean of Students or on their website. This Office also manages the Student Emergency Support Funding process. There are currently three forms of support funding for enrolled students: emergency student loans, student parental loans,

and the Tartan Emergency Support Fund. Inquiring students will be provided with additional information about the various types of funding during a consultation meeting with a member of the Dean of Students team. Tuition costs are not eligible for Student Emergency Support funding.

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

64.3 The Division of Student Affairs

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

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

64.4 Center for Student Diversity & Inclusion

<https://www.cmu.edu/student-diversity/>

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

The Center offers resources to enhance an inclusive and transformative student experience in dimensions such as access, success, campus climate and intergroup dialogue. Additionally, the Center supports and connects historically underrepresented students and those who are first in their family to attend college in a setting where students' differences and talents are appreciated and reinforced, both at the graduate and undergraduate level. Initiatives coordinated by the Center include, but are not limited to:

- First generation/first in family to attend college programs
- LGBTQ+ Initiatives
- Race and ethnically focused programs, including Inter-University Graduate Students of Color Series (SOC) and PhD SOC Network
- Women's empowerment programs, including Graduate Women's Gatherings (GWGs)

64.5 Assistance for Individuals with Disabilities

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

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

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

64.6 Eberly Center for Teaching Excellence & Educational Innovation

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

The Eberly Center offers a wide variety of confidential, consultation services and professional development programs to support graduate students as teaching assistants or instructors of record during their time at Carnegie Mellon

University and as future faculty members at other institutions. Regardless of one's current or future teaching context and duties, Eberly's goal is to disseminate evidence-based teaching strategies in ways that are accessible and actionable. Programs and services include campus-wide Graduate Student Instructor Orientation events and our Future Faculty Program, both of which are designed to help participants be effective and efficient in their teaching roles. The Eberly Center also assists departments in creating and conducting customized programs to meet the specific needs of their graduate student instructors. Specific information about Eberly Center support for graduate students is found at:

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

64.7 Graduate Student Assembly

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

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

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

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

64.8 Office of International Education (OIE)

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

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

64.9 Veterans and Military Community

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

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

64.10 Carnegie Mellon Ethics Hotline

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

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

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

64.11 Policy Against Retaliation

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

Additional details regarding the Policy Against Retaliation are available at:

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

65 Key Offices for Academic & Research Support

65.1 Computing and Information Resources

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

Computing Services maintains and supports computing resources for the campus community, including the campus wired and wireless networks, printing, computer labs, file storage, email and software catalog. As members of this community, we are all responsible for the security of these shared resources. Be sure to review the Safe Computing

(<https://www.cmu.edu/computing/safe/>) section and the University Computing Policy

(<https://www.cmu.edu/policies/information-technology/computing.html>)

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

65.2 Student Academic Success Center

<https://www.cmu.edu/student-success/>

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

65.3 University Libraries

<https://www.library.cmu.edu/>

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

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

Sign up for workshops and hands-on topic-specific sessions such as data visualization with Tableau, cleaning data with OpenRefine, and getting started with Zotero. Weekly drop-in hours for Digital Humanities and for Research Data Research Management are scheduled during the academic year. Start at the library home page to find the books, journals, and databases you need; to identify and reach out to the library liaison in your field; to sign up for scheduled workshops; and to connect with consultants in scholarly publishing, research data management, and digital humanities.

65.4 Research at CMU

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

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

65.5 Office of Research Integrity & Compliance

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

The Office of Research Integrity & Compliance (ORIC) is designed to support research at Carnegie Mellon University. The staff work with researchers to ensure research is conducted with integrity and in accordance with federal and Pennsylvania regulation. ORIC assists researchers with human subject research, conflicts of interest, responsible conduct of research, export controls, and

institutional animal care & use. ORIC also provides consultation, advice, and review of allegations of research misconduct.

66 Key Offices for Health, Wellness & Safety

66.1 Counseling & Psychological Services

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

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

65.2 Health Services

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

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

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

66.3 Campus Wellness

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

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

66.4 Religious and Spiritual Life Initiatives (RSLI)

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

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

66.5 University Police

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

x2323

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

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

66.6 Shuttle and Escort Services

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

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