



COMPUTER SCIENCE GRADUATE STUDENT HANDBOOK



Department of Computer Science
School of Engineering and Applied Science
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University of Virginia
Charlottesville, VA 22904

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1. Introduction

Welcome to the Computer Science Graduate Program at the University of Virginia. This handbook has been designed to help students (and faculty) navigate the policies, procedures and requirements for Master's and PhD degree programs in Computer Science. It contains information about degree programs, financial support, academic regulations and procedures, and information for international students. It is intended to *supplement* (not replace) the *School of Engineering and Applied Science (SEAS) Graduate Degree Requirements* and *UVA Graduate Record*.

General information about the Computer Science Graduate Program can be found on the Department's web site. The Computer Science Graduate Student Group (CSGSG) is another source of information. Refer to Appendix A to find URLs for all information resources and forms mentioned herein. Appendix B is our current policy on absences for Graduate Teaching Assistants (GTAs) and Graduate Research Assistants (GRAs). Appendix C describes the process we use in the rare instance that a GRA's performance is unsatisfactory.

On rare occasions and with good reasons, a policy or requirement can be waived by the Master's Graduate Program Director (MGPD) or the PhD Graduate Program Director (PGPD). When the text below mentions the Graduate Program Director (GPD), then it refers to either the MGPD or the PGPD.

The Department of Computer Science offers three graduate degrees in the School of Engineering and Applied Science (SEAS).

- *Doctor of Philosophy (PhD)*. The PhD program is designed for students who are interested in academic positions in colleges/universities and/or research positions in industrial or commercial labs.
- *Master of Science (MS)*. The MS degree introduces students to research at the graduate level with a focus on proposing, executing, and then documenting a research experience with a formal, written thesis and oral presentation.
- *Master of Computer Science (MCS)*. The MCS degree is a graduate professional degree with an emphasis on coursework. It enhances the knowledge obtained in an undergraduate program by providing students with broader knowledge and a deeper technical understanding of Computer Science concepts.

For reference:

- Master's Graduate Program Director (MGPD): Prof. Alf Weaver, weaver@virginia.edu, Rice 506
- PhD Graduate Program Director (PGPD): Prof. Alf Weaver, weaver@virginia.edu, Rice 506
- Graduate coordinator: Mr. Tyler Miller, tmm9r@virginia.edu, Rice 530
- CS Department Chair: Prof. Kevin Skadron, skadron@virginia.edu, Rice 521
- CS Graduate Student Ombudsman: (temporarily vacant)

- CS Assistant Manager for Finance and Outreach: Ms. Debbie Rose, dcr4g@virginia.edu, Rice 526
- Chair of Graduate Admissions Committee: Prof. Matt Dwyer, md3cn@virginia.edu, Rice 424
- SEAS Director of Graduate Programs: Dr. Amy Clobes, aclobes@virginia.edu, Thornton A109

2. Master's Degrees

Master of Science (MS) degree: a student completes coursework and conducts independent research overseen by a professor which requires a written thesis and oral defense; the level of research effort is commensurate with **two** typical academic courses.

Master of Computer Science (MCS) degree, which either focuses on *all coursework* (the student performs no independent research), or involves a *project* (student conducts independent research overseen by a professor where the level of research effort is commensurate with **one** typical academic course).

Note: A Master's Degree student is assigned an academic adviser upon entering the program. If the student selects either an MS or MCS (project) degree, their research adviser then becomes the academic advisor.

2.1 Master's Degree Requirements

All Master's degrees require a minimum of 31 graded, graduate-level credits (a graduate-level class is any class numbered 5000 or above). A *graded credit* means that the course resulted in a letter grade (A, B, C...) as opposed to an *audited* course (AU) or a *pass/fail* or *credit/no credit* course (CR/NC).

No grade lower than a "B" will be accepted towards satisfying the master's degree requirements. The average of all grades in courses used to satisfy CS graduate degree requirements must have at least a B average (i.e., a minimum cumulative GPA of 3.0). While a course with a passing grade lower than B will count in the GPA, it will not count toward degree requirements.

A UVA BS/BA student who has completed acceptable CS graduate courses that were *not* used to satisfy the BS/BA requirement can request to use UVA CS graduate courses to fulfill the requirements of our master's curriculum.

A non-UVA BS/BA student who has completed acceptable CS graduate courses that were *not* used to satisfy the non-UVA BS/BA requirement can request a transfer of a maximum of 6 graduate credits.

Whether any individual transfer course counts toward our master's degree requirements is determined by the MGPD.

All Master's degrees require:

- 1 credit of CS 6190 (Computer Science Perspectives).
- 12 credits of graded, graduate-level CS breadth electives, comprised of a minimum of 3 credits in any four of the six focal areas (tracks) listed at <https://docs.google.com/document/d/1FNuz86MYke3RhjsAFe0CMQTKd3BytAbsPEZpFclHeBU/edit?usp=sharing>
- The breadth requirement is the same for all three master's degrees and for the PhD.

- 18 credits of graded, graduate-level CS electives (or other graduate courses approved by the advisor and the Master's Graduate Program Director) are required for each Master's degree.
- No 5000-level CS courses are acceptable.
- At most 3 credits of CS 6993/7993 (Independent Study) may count toward the degree.
- CS 8897/9897 (Graduate Teaching Instruction) can be used to satisfy the full-time requirement.

MS degree. For the MS, exactly 6 credits (3 credits in each of two semesters) of CS 8999 (Thesis) must be taken with the research advisor. These 6 credits reflect the execution, writing, and presentation of the Master's thesis, and they replace 6 of the 18 hours of CS electives. CS 7995 (Supervised Project Research) *cannot* be used.

The research activity requires a written thesis and oral presentation. While the exact content of the thesis is under the control of the advisor, a CS MS thesis typically includes an identification of a problem, commentary on why the problem is of importance, a review of the state of the art, a hypothesis regarding the expected outcome of the research, how the research was accomplished, what research results were obtained, an explanation of whether the original hypothesis was or was not verified, summary/conclusions, and topics for future research.

The assessment of the student's MS degree is based upon a written thesis and an oral defense. File the form *Appointment of Final Examination Committee* in advance of the oral defense. The *Engineering Thesis and Dissertation Assessment* form and the *Report on Dissertation or Thesis Final Examination* form must be submitted. These two forms are completed by the final examination committee at the conclusion of the thesis defense. See Appendix A for a list of forms and URLs.

MCS degree (project). For the MCS (project), exactly 3 credits of CS 7995 (Supervised Project Research) must be taken with the research advisor. These 3 credits reflect the execution, summary report, and presentation of the MCS project. These 3 credits replace 3 of the 18 credits of CS electives. CS 8999 (Thesis) *cannot* be used.

The assessment for the MCS (project) requires a written project description, an oral presentation before a minimum of two CS faculty, and the following forms: *Engineering Design Assessment*, *Engineering Analysis Assessment*, and *Engineering Oral Communication Assessment*. It is the responsibility of the student to get these forms completed by the research advisor or committee chair. See Appendix A for a list of forms.

MCS degree (coursework). For the MCS (coursework), no credits of CS 7995 (Supervised Project Research) or CS 8999 (Thesis) are allowed.

The assessment for the MCS (coursework) degree requires the following forms: *Engineering Graduate Plan of Study Assessment*, *Engineering Design Assessment*, and *Engineering Analysis Assessment*. The student's academic advisor or the MGPD normally completes the *Graduate Plan of Study Assessment*, and any faculty member(s) (typically a course instructor) can

complete the other two forms. It is the responsibility of the student to get these forms completed and delivered to the Graduate Student Coordinator. See Appendix A for a list of forms.

2.2 Master Teaching Assistant Positions (MTA)

Depending upon demand, Master's students (typically those in their second year) may have the opportunity to apply for a limited number of *Master Teaching Assistant (MTA)* positions. An MTA is an excellent way to gain teaching experience and supplement income. MTA positions pay an hourly wage with no other benefits.

MTAs typically help a professor by grading assignments and exams, holding office hours, etc. It is UVA policy that all MTAs/GTAs whose first language is other than English must first take the SPEAK test to assess their fluency with oral English and to determine the types of actions which the MTA/GTA may perform. See section 4.2.

2.3 PhD Student Who Wants to Obtain a Master's Degree

A current PhD student can obtain a CS Master's degree along the way to the PhD degree by completing all the requirements for the Master's degree and applying for graduation with a Master's degree while still a PhD student. A PhD student terminating the PhD program before graduation can also obtain a Master's degree if he or she has completed all requirements for the degree. In either case, confer with the MGPD and the Graduate Student Coordinator.

2.4 Typical Timeline

Most students finish within three or four semesters. However, the official deadline to complete a degree is 5 years for a MS student and 7 years for an MCS student. In response to the COVID-19 pandemic, students registered in the MS program in Spring 2020 have a deadline of 6 (rather than 5) years; the deadline for MCS students is unchanged.

New Master's students arrive in August for a New Student Orientation, in which students are paired with an academic advisor to plan classes for the Fall Term. New students whose first language is other than English must take the UVELPE (see section 4.2). UVA policy is that all students who wish to serve as an MTA or a GTA must take the SPEAK test upon arrival. CS policy is that all students whose first language is other than English must take the SPEAK test.

First semester (Fall): All first-semester Master's students typically take CS 6190 (Computer Science Perspectives) for 1 credit and 4 graded, 3-credit graduate courses (total 13 credits). A reduction to 3 graded courses (that is, less than a full-time load) is possible, particularly for international students (see section 4) who take English language improvement (ESL) courses. Consult the MGPD for details. MS and MCS (project) students should use this semester and CS 6190 to learn about the active research projects in the department, discuss potential MS/MCS research ideas with prospective faculty research advisors, and finalize a plan and research advisor for the MS or MCS (project) degree.

Second semester (Spring): MCS students typically take 4 graded courses (12 credits). MS students typically take 3 graded classes and 3 credits of CS 8999 (Thesis) with their thesis advisor.

Summer: Students typically are away on internships, potentially facilitated through the SEAS *Center for Engineering Career Development*. International students use the Curricular Practical Training program (CPT) organized through the UVA *International Studies Office* (ISO) and the *International Students and Scholars Program* (ISSP).

Third semester: Master's students typically take the remaining courses necessary to fulfill their academic requirements. An MS student typically takes 3 credits of CS 8999 (Thesis) with the research advisor in this semester (in addition to the 3 credits of CS 8999 taken in the previous Spring semester). An MCS (project) student typically takes CS 7995 (Supervised Project Research) with the research advisor in this semester.

Students must use SIS to apply for graduation with a Master's degree at the start of the semester during which they expect to graduate – usually no later than 1 October (Fall), 1 February (Spring), or 1 June (Summer). Students should check their completion of the requirements using the Academic Requirements tool within the *Student Information System* (SIS). Two special situations may also occur toward the end of Master's studies:

1. If a Master's candidate changes their mind and wishes to defer graduation for another semester, the student should consult with the MGPD for advice and assistance.
2. If a Master's student wishes to pursue a PhD in UVA CS, it is necessary for the student to identify and confirm with a CS professor that he or she is willing to fund and advise the student's academic career. The Master's student should then consult with the Chair of the CS Graduate Admissions Committee to determine the necessary forms and procedures used to apply to our PhD program. Once these application forms have been filed, the CS Graduate Admissions Committee will determine whether to offer admission to the PhD program.

3. PhD Degree

There are a number of steps that are required for a PhD degree, including coursework (section 3.1), possibly transferring courses from another University (section 3.2), finding an advisor via the first-year rotation program (section 3.3), the PhD qualifying exam (section 3.4), forming a PhD Committee (section 3.5), writing and presenting a PhD proposal (section 3.6), writing a PhD dissertation (section 3.7), presenting a public defense of the dissertation (section 3.8), and completing four semesters of half-time work (or equivalent) as a GTA (sections 3.9 and 3.10). A typical PhD timeline is described in section 3.9 and financial support options are discussed in section 3.10.

Assessment. Each semester the Department conducts a review of each PhD student's progress along these steps. Faculty are asked to evaluate each student's performance and deadlines for each step and to provide documentation substantiating the evaluation. The PhD Graduate Program Director normally consults with those students who receive a rating of fair or poor to determine what can be done to improve performance. If marginal performance continues, the student may be asked to leave the PhD program.

Terminology. A person who has an undergraduate degree and who wishes to pursue a PhD is known as a *PhD student* or a *doctoral student*. That person advances to the status of *PhD candidate* or *doctoral candidate* after completing all coursework and passing the PhD Qualifying Examination.

3.1 PhD Coursework

The entering PhD student takes 3 credits of CS 6190 Perspectives (required) in the first semester. This course is coordinated with, and the course grade is in part conditioned upon, performance in the First-Year Rotations described in section 3.3.

The PhD degree requires 72 graduate-level credits, including:

- At least 24 credits of *graded*, graduate-level coursework, consisting of
 - A *graded credit* means that the course resulted in a letter grade (A, B, C,...).
 - No grade lower than a “B” will be accepted towards satisfying the PhD degree requirements. The average of all grades in courses used to satisfy CS graduate degree requirements must have at least a B average (i.e., a minimum cumulative GPA of 3.0). While a course with a passing grade lower than B will count in the GPA, it will not count toward degree requirements.
 - No 5000-level CS courses are acceptable.
 - At most 3 credits of CS 6993/7993 (Independent Study) may count toward the degree.

- *None* of CS 6190 (Computer Science Perspectives), CS 8897/9897 (Graduate Teaching Instruction), CS 8999 (Thesis), CS 9999 (Dissertation) or any English as a Second Language (ESL) course can be used to satisfy this 24-credit coursework requirement.
- If a student transfers a Master’s degree and receives 24 “bulk transfer” credits, then 6 additional credits of CS coursework taken at UVA are required. These credits *cannot* be transferred.
- Coursework should be chosen from among our CS graduate courses. Non-CS courses may be approved on a case-by-case basis by the student’s academic advisor and the PGPD.
- 48 graduate-level research and teaching credits must be taken at UVA, including 12 credits of CS 8897/9897 (Graduate Teaching Instruction) which correspond to the four semesters of half-time (10 hours per week) of GTA work required (or equivalent), and 36 credits of CS 8999 (Thesis) and CS 9999 (Dissertation) research. The research credits cannot be transferred.

3.2 *PhD Transfer Credit*

If a graduate student enters the CS PhD program *with a Master’s degree in a computing field*, then

- 24 credits can be transferred.
- At least 6 additional credits of graded, graduate-level CS coursework must be taken at UVA (i.e., they cannot be transferred). A minimum grade of “B” is required.
- 48 graduate-level research and teaching credits must be taken at UVA, including 12 credits of CS 8897/9897 (Graduate Teaching Instruction) which correspond to the four semesters of half-time (10 hours per week) of GTA work required (or equivalent), and 36 credits of CS 8999 (Thesis) and CS 9999 (Dissertation) research. The research credits cannot be transferred.

If entering *without a Master’s degree*, then a maximum of 6 credits of graded, graduate-level CS coursework may be transferred. Transferred credits must not have been used to fulfill the requirements of any other degree.

Whether any individual transfer course counts toward our PhD degree breadth requirements is determined by the PGPD. Students are encouraged to take additional courses beyond those required for graduation. Please refer to the *UVA Graduate Record* for more information.

3.3 *First-Year PhD Rotation Program*

Entering PhD students (but not including students who transfer into CS from another department) are usually supported with a First-Year Fellowship during their first academic year

to enable students to investigate multiple potential research advisors and take CS graduate classes. There are no other duties assigned to these fellowship students.

New students begin their first year in a *rotation program*, consisting of up to three ten-week sessions during the first two semesters. For the first rotation, the department considers the research interests of the students and faculty and then makes an initial match of a student with a first rotation advisor (also based in part upon faculty availability). In each rotation, the student conducts a short research project with that professor, attends the professor's group meetings, etc. The goal of a rotation is to help the student and professor determine if there is a good match for the purpose of the professor directing the student's PhD research. There are 3 possible rotations with professors in the first two semesters, with a duration of 10 weeks each.

The first rotation runs from the first day of the Fall semester through early November; the second rotation from early November through mid-February; the third rotation from mid-February through the end of the Spring term.

The typical schedule for a 10-week rotation is as follows:

- Early in a rotation (no later than week 4), through discussions with the rotation advisor, the student is required to write a 2-page proposal to the rotation advisor that contains: what they are doing for their project; why it is important; novelty over prior work by others aimed toward solving the problem being addressed by the project; and how it will be evaluated.
- The middle weeks of a rotation are spent performing the activities described in the proposal. The student should meet with the rotation advisor and/or members of the rotation advisor's research group for design meetings, contingency planning, etc.
- Toward the end of the rotation (no later than week 9), the student should prepare a 4-5-page final report in a workshop or conference submission style. In combination with this report, the student must make a short oral presentation to the rotation advisor and/or members of the rotation advisor's research group.
- Before the end of the rotation, if the student is interested in continuing with the same rotation advisor in the next rotation, the student should prepare a new 2-page proposal for the advisor that may – but is not required to – leverage the experience and results of the current rotation for the next rotation.

Assignment to the first rotation is based upon the student's interests and the availability of individual faculty to advise students in the identified interest area. First rotation assignments are made by early August. The advisor of the first rotation is the student's academic advisor until the student matches with a permanent research advisor. Note that the first rotation advisor evaluates the quality of the research and research plan, and that evaluation is used as input for the student's grade in CS 6190 Computer Science Perspectives (a required course).

Upon the completion of a rotation, there are three possibilities:

1. The student and professor agree to continue a permanent basis, thus taking the student out of the rotation process. At this point the research advisor (i.e., the rotation advisor) also becomes the student's academic advisor.
2. The student and professor have not agreed to a permanent match, so the student remains in the rotation program. The student provides a prioritized list of potential advisors with whom they have discussed research opportunities. Similar prioritized lists of students are provided by faculty, and these preferences are used to match each student with a research advisor for the next 10-week rotation. Note that even if the student and the rotation advisor wish to continue for the next rotation, it is not guaranteed that this will happen depending in part on the overall availability of rotation advisors.
3. If, at the end of the third rotation, a student has not made a successful match, then the PGPD and Department Chair will confer with the student regarding what steps should be taken.

For purposes of defining a first-year PhD student's academic advisor, the first rotation supervisor is the Fall semester academic advisor and the second rotation supervisor is the Spring semester academic advisor.

3.4 PhD Qualifying Examination

The *qualifying examination (quals)* is designed to evaluate a student's ability to pursue and successfully complete graduate-level research. After forming the qualifying examination (quals) committee (section 3.4.1), the qualifying examination consists of two parts: breadth (section 3.4.2) and depth (section 3.4.3). The *breadth* portion of the exam helps students obtain broad, graduate-level knowledge in several of the major areas of CS. The *depth* portion of the exam focuses on the student's ability to pursue high-quality independent research and their ability to effectively communicate about research, and requires the student to write a proposal, present it to their quals committee, and then complete a nominally one-semester independent research project guided by the student's research advisor.

Students who have already passed their qualifying examinations in Computer Science at a previous institution may petition the Graduate Program Committee for an exemption from the UVA CS qualifying exam upon presentation of acceptable evidence (typically a letter from the previous department).

3.4.1 Qualifying Examination Committee

The student must form a *qualifying examination committee* prior to scheduling the qualifying exam. Committee formation typically occurs at the beginning of the semester (or end of previous semester) in which the qualifying exam is to occur. The committee's objective is to gauge the student's research ability and likelihood of succeeding in the PhD program.

The *Appointment of Final Examination Committee* form should be filed after a student has formed a qualifying exam committee, selecting “Master of Science Final Exam” even for students not electing to earn a Master’s degree. Each committee must have an explicit *chair*, who directs meetings procedurally. Any member of the committee, except the adviser, may serve as the chair for the qualifying exam committee. The committee must consist of at least 3 UVA CS faculty members in addition to the advisor or co-advisors.

For a student entering with a master’s degree, the committee should be formed as soon as the student and advisor agree regarding the research work to be accomplished.

The committee evaluates the student’s research proposal, including the reading list selection. It is our expectation that examinations are conducted with the student and advisor and all committee members physically present. Exceptions to this rule can be made in exceptional circumstances.

While the completion of qualifying exam has no hard deadline, our expectation is that **by the end of the student’s third semester** the qualifying examination committee should be formed and approved by the PGPD and the form filled with the Graduate Student Coordinator. **By the end of the student’s fourth semester**, the breadth and depth portions of the qualifying examination should be completed.

3.4.2 Qualifying Examination Breadth Requirement

To satisfy the breadth requirement, a minimum of one course in any four of six topical areas must be taken. The list of courses that are allowed in each of the six areas is revised as needed to accommodate new material and is recorded at this URL:

<https://docs.google.com/document/d/1FNuz86MYke3RhjsAFe0CMQTKd3BytAbsPEZpFclHeBU/edit?usp=sharing>

A minimum grade of B must be earned in each course that counts toward the degree.

3.4.3 Qualifying Examination Depth Requirement

The depth component of the qualifying examination proceeds in three phases. In phase one, students hold a meeting with their committee members to gather advice concerning the proposed topic, work, reading list and timeline. No written documentation of this meeting is required.

Phase two is the formal review of the proposal (written and oral) and reading list; however, this proposal defense is not open to the public. The meeting begins with a ~20-minute presentation about the proposed work, followed by questions from the committee members about the proposed work and the reading list. The proposal process is intended to assist the student in the formalization of the research project and to ensure that the student is not undertaking too much or too little work, and that prior work has been properly examined and understood. The committee may request amendments or changes and set appropriate due dates or indicate weaknesses in the proposal that must be addressed in the final report and presentation. The committee will also indicate deadlines for any required revisions.

Writing a qualifying examination depth proposal is an important step in the student's academic development. To that end, the proposal must *not* be a previously submitted or published paper, or an existing paper that has been simply reformatted with minor edits (e.g., to recast work already completed as if it were work to be performed in the future). The proposal *can* be based upon individual or group research already accomplished if the proposal is for meaningful extensions of that work to be performed solely by the student.

The quals depth proposal must have only one author (the student, not the advisor). While the advisor may help with revisions, the proposal must ultimately represent the student's own efforts.

Phase three (the qualifying examination final report and presentation) is discussed in sections 3.4.5-3.4.7.

3.4.4 Qualifying Examination Proposal Document

The student's proposal document should be sufficient for the committee to evaluate the research quality of the proposed project. As such, it should contain the following elements:

Abstract. An executive summary, no more than one-half page.

Motivation. What is the problem and why is it important?

Hypothesis. What is the hypothesis of the proposed research?

Contributions. What are the main ideas and why do they matter? In what way are these ideas novel?

Related work. What is the relevant prior work and state-of-the-art in this area?

Detailed research plan. What specific goals or milestones will be completed during the research project and how will they be implemented, designed, and evaluated? For projects with a significant implementation component, give enough details of the features to be implemented and the experimental setup involved for the committee to judge the feasibility of the proposed work. For projects with a significant formal component, give enough details of the formalisms used (e.g., proposed theorems, proof schemas, and logical frameworks) for the committee to judge the feasibility of the proposed work. Note that the research plan must explain how the research is to be evaluated (i.e., what are the metrics of success?).

Summary and Future Work. A short summary of the above, and identification of potential future work.

The ordering of the sections above may vary depending on the committee's preferences. Many proposals also include a section devoted to the work completed by the student prior to the proposal.

If as part executing the proposed project results in significant deviations from the proposal, such changes need to be discussed with the committee.

These committee meetings are informal and are intended to be helpful.

Qualifying Examination Reading List. The qualifying exam proposal should include a reading list that the oral examination may cover. The student and research advisor prepare an initial reading list, which should be included as an appendix in the proposal document. During the initial meeting, the committee may make changes or additions to the reading list.

The reading list should include:

Focus papers. A small number of papers (typically two or three) representing the state of the art in the area. The student will be expected to know these papers in detail.

Background readings. Typically, a textbook and/or one or two book chapters or survey papers. The student will be expected to have a firm command of the material covered in these readings, as shown through general understanding and an ability to place the work in context.

Related works. The proposal (and later project report) bibliography comprises the rest of the reading list. The student should understand the main idea of each such paper, why that paper is cited, and its relevance to the proposed research.

3.4.5 Qualifying Examination Report and Presentation

The qualifying exam, conducted by the approved qualifying examination committee, consists of (1) verification of the coursework that fulfills the *breadth* requirement, (2) review of the project's report written by the student, and (3) a final public oral presentation of the research.

3.4.6 Qualifying Examination Presentation

The student's qualification exam presentation to the committee is open to the public and must be publicly announced at least one week in advance. The student should work with committee members to find a time when all members can attend. The student must also arrange for the Graduate Student Coordinator to publicize the time, date, place, committee members, and abstract to the CS Department. The student must also bring the relevant forms to the presentation meeting for the committee to sign. Those forms include the *Computer Science Qualifying Exam Assessment*.

Two hours should be allocated for the presentation. The presentation begins with the student's ~30-minute overview of the project, followed by questions from the committee and general audience. Questions about the material on the reading list will also be asked. The committee then deliberates and decides whether the student passes or not. Upon completion, the committee completes the *Computer Science Qualifying Exam Assessment* which is then filed with the Graduate Student Coordinator.

To prepare for the presentation, a student should be ready to answer questions about their depth area in general and their research project particularly. The student should be

- able to explain the main idea, conclusions, and relevance of any paper in their report's bibliography. The student is not expected to be completely familiar with every detail of every paper in the bibliography.
- familiar with the papers from their reading lists. These papers represent the state-of-the-art in the area, and the student will be held to a higher standard for these papers. Deep questioning regarding them should be expected.

Students are required to present their written report to all committee members (email is sufficient) at least 7 days in advance of the qualifying exam. Presentation materials should be distributed in electronic form a few days in advance of the presentation or printed out and distributed at the oral examination itself. Providing numbered slides is a courtesy that helps the committee follow the presentation and keep track of their comments.

3.4.7 Qualifying Examination Outcomes

Based upon the student's final project report and oral presentation, the examination committee determines if the student passed the depth portion of the qualifying exam. If the student's performance is not acceptable, the committee may permit a second attempt, in which case the exam *must be re-taken within 60 days* (excluding holidays or days when the University is not in session). A total of at most two attempts is allowed.

Based upon the student's performance on both the breadth and depth components of the qualifying exam, the quals committee decides if the student has passed the overall (breadth and depth) qualifying examination.

3.5 PhD Committee

A PhD student's PhD Committee evaluates the student's PhD dissertation and oral defense and must consist of a minimum of five faculty members constituted according to the following rules. Membership must include at least three Computer Science faculty members, at least one UVA faculty member from outside the Computer Science department, and at least one other member with expertise in the research area. The Department recommends that one of the committee members be an expert from outside the University (who should submit a 2-page biography in advance to permit prior approval by SEAS). Faculty with a greater than zero percent time appointment in CS may be dissertation advisors; faculty with courtesy appointments may advise if there is a CS co-advisor who has a $\geq 75\%$ time appointment in CS.

The PhD student's advisor must have read and approved the dissertation proposal document and the proposed presentation before the Oral Examination is scheduled.

There is no specific form to indicate the PhD Proposal Committee in advance of the proposal defense. Instead, the committee membership is indicated on forms used the day of the PhD Proposal Oral Examination (see section 3.6). Students must obtain verbal confirmation from their

committee members that they agree to be on the Committee before scheduling the PhD proposal. Students are encouraged to meet with each potential committee member before scheduling the proposal to discuss the scope of their proposal.

3.6 PhD Proposal

A PhD student must develop a written dissertation proposal, created under the guidance of the student's advisor(s). This proposal should be presented to the student's PhD Committee prior to performing extensive research, to receive early faculty approval of the suitability of the proposed research. It is recommended that the proposal be completed by the end of the student's third year.

3.6.1 PhD Proposal Document

The student's PhD proposal document *should have the same structure as the PhD Qualifying Examination Proposal Document* (section 3.4.4) and should clearly and unambiguously convey the scope of the work and the criteria for success. Proposals can also include a section devoted to the work completed by the student thus far although this section is not formally required.

Proposal documents should not exceed 15 single-spaced pages (or 30 double-spaced pages). The bibliography and any appendices (appendices are not required to be read by the student's committee) are not included in this page limit. Significant departures from these guidelines must be approved in advance by the student's proposal committee. The written proposal document must be submitted to the committee at least two weeks in advance of the proposal presentation. Students are encouraged to follow National Science Foundation (NSF) grant proposal formatting guidelines.

3.6.2 PhD Proposal Presentation

The PhD Proposal Oral Presentation must be publicly announced at least *two weeks* in advance via the Graduate Student Coordinator.

The PhD proposal meeting should be scheduled for 2 hours. The proposal presentation should be about 30-45 minutes, as the committee members are assumed to have read the proposal. After the presentation, the committee members discuss the proposed work, ask questions, and offer suggestions or identify required changes. The student must bring forms *Dissertation Proposal and Admission to Candidacy* and *Engineering Dissertation Proposal Assessment* to the PhD proposal presentation to be filled out by the committee and filed immediately afterwards with the Graduate Student Coordinator.

Students are encouraged to provide the committee members with copies of the slides used in the proposal presentation. Slides can be distributed in electronic form a few days in advance of the presentation or printed out and distributed at the presentation itself. Providing *numbered* slides is a courtesy that helps the committee follow the presentation and keep track of their comments.

3.6.3 PhD Proposal Outcomes

After the proposal meeting, there are several possible outcomes:

- The proposal is accepted without changes.
- The proposal is not accepted until amendments to the written document are made and approved by all committee members.
- The proposal is not accepted and the student will need to write another proposal or modify the work proposed.
- The proposal is not accepted, and the committee indicates that the student does not have sufficient research potential to complete a dissertation in a timely fashion; in this case, the student is subject to dismissal from the program.

Once accepted, the proposal is a binding document on the committee. If the student competently carries out the work described therein, the committee will not reject the student's PhD dissertation on the grounds that too little has been done. It is not binding on the student, who is free to adjust the research plan. However, there is no guarantee that research other than that outlined in the proposal adjusted will be of sufficient depth and quantity to satisfy the PhD requirements: students adjusting research plans should thus confer with their committees. Significant departures from the proposed work *must* be approved in advance by the committee.

3.7 PhD Dissertation

The dissertation should convey the research hypothesis, research paradigm, and research results and then defend the proposition that the results are valid and correct. The exact form of the dissertation can vary across topics, but in general a dissertation will include the following elements:

- Presentation of the motivation, hypothesis, and contributions of the research.
- Placement of the work in the context of prior art.
- An explanation of how the proposed work was carried out.
- Where applicable, the experimental design of any experiments should be provided which provides enough information for the reader to replicate the results.
- Conclusions drawn from the work and a discussion of future research directions suggested by the project.

A dissertation should be a self-contained document. In particular, it should not assume that the reader has read the corresponding proposal, so it should provide enough context that a reader who has read the proposal can readily understand how the performed work fulfills the promises in the proposal. Parts of the proposal can be included in the dissertation.

The written dissertation document must be submitted to the committee at least two weeks in advance of the oral defense.

3.8 PhD Defense

The dissertation defense, which must be announced publicly two weeks in advance via the Graduate Student Coordinator, is an oral defense before the student's PhD dissertation committee as well as other faculty, students, and visitors. Generally, presentations should not exceed 45 minutes (exclusive of questions) and should be scheduled for at least two hours to allow for audience questions and a post-presentation discussion by the committee.

The student should bring forms *Report on Dissertation or Thesis Final Examination* and *Engineering PhD Dissertation Assessment* to the defense so they may be filled out by the committee and submitted immediately afterwards to the Graduate Student Coordinator. The student must also complete the *Survey of Earned Doctorates* and must submit the dissertation electronically to LIBRA at the UVA Library.

Students are encouraged to provide the committee members with copies of the presentation materials used in the oral defense. These materials can be distributed in electronic form a few days in advance of the presentation or printed out and distributed at the defense itself. Providing *numbered* slides is a courtesy that helps the committee follow the presentation and keep track of their comments.

3.8.1 PhD Defense Outcomes

Based upon the student's dissertation document and oral exam, the dissertation committee will either:

- approve the dissertation, indicating the student has passed the dissertation defense component of the PhD degree, and fill out the forms indicating approval, or
- require amendments to the written dissertation and hold the evaluation forms until the changes are made satisfactorily, or
- specify significant amendments to the dissertation to be followed by a new defense, or
- declare the work unsatisfactory and dismiss the student from the program.

Students should double-check their completion of their requirements using the Academic Report option offered by the Student Information System (SIS) website.

To receive a PhD degree, students must apply for graduation using SIS at the start of the semester during which they expect to graduate (i.e., no later than 1 October (Fall), 1 February (Spring), or 1 June (Summer), respectively).

3.9 Typical Timeline

The UVA Computer Science Department believes that University-provided ESL (English as a Second Language) courses are provided solely for the benefit of the student (about both academics and future employment). If, as a result of the UVELPE or SPEAK tests, CAELC recommends that you take one or more ESL courses (ESL 801-916), then the CS Department requires that you take *at most* one ESL course per semester unless all sections of the

recommended ESL course conflict with a CS course for which you are recommended. In other words, CS requires you to pursue ESL courses at a maximum rate of one per semester.

If entering without a Master's degree:

- First semester: Take academic courses and CS 6190. Complete rotation one and first portion of rotation two. If required by CAELC, take one ESL course (0 credits).
- Second semester: Take academic courses). Finish rotation two and all of rotation three. If required by CAELC, take one ESL course (0 credits). Match with a research advisor.
- Third semester: Take academic coursework. Form a qualifying examination committee and submit form. Work with your research advisor. Work as half-time TA and take CS 8897 (Graduate Teaching Instruction).
- If more credits are required for full-time status, consult your advisor or PGPD; one option is to take CS 8999.
- Fourth semester: Work as half-time TA and take CS 8897 (Graduate Teaching Instruction). Continue working with research advisor and take CS 8999 (Dissertation). Take Qualifying Examination to fulfill depth requirement and certify completion of the breadth requirement. Submit assessment forms when satisfactorily completed.
- Fifth and sixth semesters: If the Qualifying Examination has been successfully completed, then take CS 9897/9999; otherwise take CS 8897/8999. Prepare and defend the Dissertation Proposal. File assessment paperwork when satisfactorily completed.
- After passing the qualifying examination, take CS 9999 while working with dissertation advisor. Execute the work proposed for the dissertation. Finally, write the dissertation and pass an oral defense.
- Submit dissertation electronically to LIBRA and submit the survey of earned doctorates.

If entering with a Master's degree:

- Present appropriate documentation (e.g., transcript) for your Master's degree in a computing field. SEAS will make a "bulk transfer" of 24 credits (regardless of the actual number of credits taken for the Master's degree). Before choosing your two additional CS courses required to be taken at UVA, verify that the graduate courses taken for your Master's degree also fulfill our Qualifying Examination breadth requirement (consult the PhD Graduate Program Director). If the breadth requirement is not completely satisfied by the graduate courses taken elsewhere and used to generate the 24-credit "bulk transfer," then choose courses as necessary to fulfill the breadth requirement. You must complete a minimum of 6 credits taken at UVA.
- If you passed a PhD Qualifying Examination *in Computer Science* at a previous institution, you may petition the Graduate Study Committee to waive the depth portion (but not the breadth portion) of the CS quals and present appropriate documentation (e.g., a letter from the previous institution).
- If you took an equivalent course to our CS 6190 (Perspectives), submit appropriate documentation (e.g., transcript) and you will be exempted from our requirement of CS 6190 (3 credits).

- If you are entering as a third-year (or later) PhD student, you can request an exemption from CS 6190 from the PhD Graduate Program Director.
- As soon as practical, form your PhD Dissertation Advisory Committee and file the appropriate form.
- Prepare and defend your PhD Dissertation Proposal. File assessment paperwork when satisfactorily completed.
- Complete the work defined in your proposal and then write and defend your written dissertation in an oral presentation. File assessment form when satisfactorily completed.
- Submit dissertation electronically to LIBRA and take the survey of earned doctorates.

3.10 First-Year Fellowship, GRAs and GTAs

A PhD student is usually employed by the department, either as a *Graduate Teaching Assistant (GTA)*, a *Graduate Research Assistant (GRA)*, or via a *First-Year Fellowship*. The First-Year Fellowship provides student support for required duties such as classwork, research, and rotations; as such it represents taxable income (unlike other Fellowships which impose no duties). As per SEAS policy, a funded student is not allowed to have outside employment without permission from the Computer Science Chair and the SEAS Director of Graduate Programs. Full-time graduate students must not unilaterally accept internships without prior approval from their advisor.

With some exceptions, all full-time graduate students with departmental funding must sign up for at least 12 credit hours for both Fall and Spring semesters. English as a Second Language (ESL) courses, CS 6190, CS 6993, CS 7993, CS 7995, CS 8987, CS 8999, CS 9897, and CS 9999 all count toward the full-time requirement.

Stipends increase after successful completion of the PhD qualifying examination, and again after successful completion of the PhD proposal presentation.

3.10.1 First-Year Fellowship

Entering PhD students (excluding transfers into CS from another department) are typically funded in their first year (fall, spring, summer) by a First-Year Fellowship. During this time, students are expected to attend classes, complete any English as a Second Language (ESL) course requirements, conduct research with the rotation advisor(s), and eventually match with a research advisor (see rotation discussion in section 3.3). Starting in the summer after the first two semesters, PhD students are expected to be supported and funded by a research advisor or by an internship; in the rare instance when the student does not match by the end of the second semester, the department will provide support for the summer semester while the student continues his/her search for a research advisor.

3.10.2 Graduate Teaching Assistant (GTA) Responsibilities

Graduate Teaching Assistants (GTAs) are important members of the department's professional teaching staff. GTA responsibilities for each course are assigned by the instructor. Duties typically include grading, proctoring laboratory sections, holding office hours and help sessions, attending class, reading instructional materials, completing assignments, answering email or forum questions, and tutoring students in need of additional help. GTAs may also contribute study questions or examination questions at the discretion of the instructor. GTA assignments are made by the Graduate Student Coordinator early in the semester (and may change early in the semester) and are accompanied by an expected number of hours the GTA should devote to each course. GTAs without a firm grasp of course concepts should obtain guidance from the instructor or request a change in course assignments from the CS staff when given the course assignment. Students concerned that specific duties of the GTA are inappropriate/off-topic or require more effort than allocated may seek resolution through the course instructor, their advisor, or the Graduate Student Ombudsman.

PhD students are *required* to serve as GTAs as a component of their degree. A GTA must sign up for 3 credit hours of CS 8897/9897 (Graduate Teaching Instruction), using the specific section assigned to the instructor, for each 10 hour/week segment. PhD candidates (those who have already successfully completed the Qualifying Examination should enroll in CS 9897; otherwise use CS 8897. GTAs assigned to multiple courses should split the amounts among those courses at their discretion, noting that it is not possible to sign up for fractional credit hours. Completion of the GTA portion of the PhD requirement is signified by having accumulated 12 credit hours of CS 8897/9897, typically over Year 2 and Year 3 of PhD studies.

GTAs are representatives of the Department and the University. As such, they are expected to behave with professional courtesy and politeness in all their official communications and activities, including handling student questions in a polite, constructive, inclusive, and accurate manner. GTA conduct is governed by the general conflict of interest policies of UVA.

The period of GTA engagement begins at the start of each semester and lasts until course final grades are submitted to the registrar. GTAs should be reliable in all their duties. Non-emergency absences from scheduled duties within that time must be approved by the course instructor and PGPD. As an example, GTAs may not depart before final exams are graded and course grades are submitted without the advance approval of their instructor and the PGPD.

3.10.3 Graduate Research Assistant (GRA) Responsibilities

PhD students receiving research funding through one or more professors are called Graduate Research Assistants (GRAs). Much of a typical PhD student's academic tenure is spent as a GRA. GRAs and advisors are colleagues in research and the employer-employee relationship is rarely visible as they work together to engage in a research project. While a GRA is often officially a 20 hour/week position with respect to funding, success in graduate school requires substantially more effort. For instance, a student is expected to devote at least 3 hours/week outside the classroom for each academic credit. In general, a GRA is expected to work as directed by his or her research advisor. However, a student who is concerned that specific duties are inappropriate or off-topic may seek resolution with their research advisor or the PhD Graduate Program Director or the Graduate Student Ombudsman. GRAs are expected to be

physically present from the first day of classes until the last day of exams. All absences must be approved by the research advisor and must conform to the separate departmental policy regarding graduate student leave.

3.10.4 Summer Support

If, at the end of the third rotation the student has matched with a research advisor, then the advisor may provide funding for the first summer. Alternatively, students may wish to gain direct experience with government or industrial research through summer internships (during any summer). A student interested in an internship should get approval of his/her advisor. Graduate-level summer internships often lead to a publication, provide external committee members and help in the student's evaluation of possible careers. Research advisors, the SEAS Center for Engineering Career Development, and the UVA Career Center can help find suitable summer employment. PhD students who do not pursue internships are typically supported over the summer as GRAs (funded by their advisors) and must register as full-time students (6 credits in Summer). Students who have passed the PhD Qualifying Exam take CS 9999; otherwise take CS 8999.

4. International Students

In this handbook, an international student is defined as a student who is not a citizen or permanent resident (green card holder) of the United States and is in the US on a visa. Additional helpful information regarding the international student experience is available from the Computer Science Graduate Student Group (CSGSG) members and its website and from the International Studies Office (ISO).

4.1 Full-Time Status

Students on F-1 visas are required to take a *minimum* of 12 credit hours per semester to qualify as full-time students and satisfy visa requirements.

Students normally take academic courses to fulfill the full-time requirement (12 credits). The full-time status requirement can also be met using undergraduate courses, independent study, CS 6190 Perspectives, ESL courses, and seminars. But note that only graduate, graded courses can qualify for graduate credit.

The receipt of financial support (e.g., fellowship, GTA, GRA) is conditioned upon the student being a full-time student.

There are some exceptions to the full-time status requirement:

1. In the student's final semester, full-time status is not required. If the student is on a visa, then the student must go to the International Studies Office (ISO), bearing an email or letter from the department or advisor that certifies that the student does not need a full-time course load to graduate; the ISO will then make a new I-20 form with a reduced course load authorization (during one final semester only). The Graduate Student Coordinator can inspect the student's SIS academic requirements report and provide such written documentation.
2. Master's students' part-time request requirements: Master's students may request a change to part time studies if they are not funded by the department and do not have visa restrictions that mandate full time student enrollment. To request part time status, complete the appropriate form and have it signed by your advisor and the Graduate Student Coordinator. After all approvals are received, the graduate registrar will code the students as such in SIS, and the students may enroll as a part-time student.
3. In the case of illness or medical issues, with formal approval through ISO, the Dean's Office, and a doctor's note, full-time status is not required.
4. In the case of certain academic issues, such as improper placement in a course of study, and with formal approval through ISO, full-time status is not required. This is very rare, since part of the application for the visa was an indication that one would not have academic issues. Students should not count on this exception at all.

5. In special cases, a first-semester student who is struggling with a new country, a new language, a new school, a new academic program, and/or a new social culture may be approved for part-time status during the first semester. For more information, talk to the MGPD or PGPD.
6. A student who is a US permanent resident can enroll part-time without going through the International Studies Office for verification or visa alteration.

4.2 English Language Proficiency Assessments (Written and Oral)

The Center for American English Language and Culture (CAELC) administers the University of Virginia English Language Proficiency Exam (UVELPE) at the beginning of each semester. The UVELPE is required of all entering graduate students whose first language is other than English. The exam consists of three components: grammar and vocabulary, essay, and interview. As a result of the UVELPE, CAELC may assign certain English as a Second Language (ESL) courses to strengthen the student's proficiency with written English. ESL 901 (academic writing) and ESL 902 (advanced academic writing) are two such courses.

CAELC also administers the SPEAK test each August, December, and May. UVA policy is that all incoming (new) graduate students whose first language is other than English must take the SPEAK test. Current CS policy is that ALL incoming graduate students whose first language is other than English must take the SPEAK test (regardless of whether you ultimately serve as a GTA or MTA).

No student may serve as a GTA or MTA until he or she has taken the SPEAK test. The test results (i.e., the degree of English oral proficiency) determines which roles the student may fulfill (e.g., leading a lab section, holding office hours, meeting with students one-on-one, preparing and administering and grading homework and exams). A SPEAK score of 55 or higher is required for unrestricted TA duties. Scores below 55 result in recommendations for ESL 905-912 courses (pronunciation, oral communication, classroom communication).

Results and recommendations are made available after the SPEAK and/or UVELPE tests have been completed. Official recommendations often include specific ESL classes based on individual assessments. *As per CS department policy, students must comply with the ESL recommendations.* If CAELC recommends more than one ESL course, the department will defer (but not waive) courses such that no more than one ESL course is required per semester. For more information regarding UVELPE and SPEAK, refer to <https://caelc.virginia.edu/assessment>.

Note that the UVELPE and SPEAK tests are University requirements and cannot be waived by the CS Department. Both tests are one-time diagnostics and are not retaken.

4.3 Curricular Practical Training (CPT)

International students should contact the International Studies Office (ISO) when considering a summer internship. For example, students on an F-1 visa complete the *Curricular Practical Training (CPT)* form online through the International Students and Scholars Program (ISSP).

The procedure for UVA CS Master's and PhD students pursuing CPT is that in the Fall semester *after* the summer internship, the student must register for one credit hour of CS 6890 (Industrial Applications) with their academic or research advisor.

The general requirement of the CS 6890 course is to report on (1) when, where, and with whom the internship was served, (2) what was learned and what new insights were gained, and (3) how the internship experience is expected to assist future academic or employment pursuits. The details and specific requirements of the course are under the control of the advisor. CS 6890 is evaluated as Satisfactory or Unsatisfactory (S/U) and does not count for any of the graduate degree requirements.

In the rare event that a student completes a CPT internship in the Fall or Spring, the student may take CS 6890 that same semester *or* the subsequent semester.

4.4 Optional Practical Training (OPT)

Optional Practical Training (OPT) is available after graduation for students on an F-1 visa. An initial period of 12 months may be awarded by US Citizen and Immigration Services (USCIS) after completion of a degree (e.g., Master's degree). You may be eligible for a new period of OPT only if you move subsequently to a higher degree (e.g., PhD). OPT can be used during breaks in study or after completion of your final degree requirement. OPT requires that you pursue employment in your area of study but does not require a specific employer at the time of filing. Contact the International Studies Office (ISO) for more details.

5. APPENDIX A - Useful Forms and Resources

Form or Resource Name	URL
Appointment of Final Examination Committee	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/form_final_examination_committee.pdf
Center for American English Language and Culture (CAELC)	https://caelc.virginia.edu/
Center for Engineering Career Development	https://engineering.virginia.edu/about/offices/center-engineering-career-development/career-development-meet-us
Computer Science Department Website	https://engineering.virginia.edu/departments/computer-science/
Computer Science Graduate Student Group (CSGSG)	https://csgsg.org
Computer Science Qualifying Exam Assessment	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/qualifying_exam_forms/CSqualexamassessment.pdf
Curricular Practical Training (CPT)	https://issp.virginia.edu/f-1-curricular-practical-training-cpt
Dissertation Proposal and Admission to Candidacy	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/form_dissertation_proposal.pdf
Engineering Analysis Assessment	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/engineering_analysis_assessment.pdf
Engineering Design Assessment	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/Engineering_Design_Assessment%281%29.pdf
Engineering Dissertation Proposal Assessment	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/Engineering_dissertation_proposal_Assessment%281%29.pdf
Engineering Graduate Plan of Study Assessment	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/engineering_plan_of_study_assessment.pdf
Engineering Oral Communication Assessment	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/engineering_oral_communication_assessment.pdf
Engineering Thesis and Dissertation Assessment	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/engineering_thesis_%26_dissertation_assessment.pdf
International Students and Scholars Program	https://issp.virginia.edu
International Studies Office	https://iso.virginia.edu/
Lou's List	https://louslist.org/
NSF Proposal Formatting Guidelines	https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf18001
Optional Practical Training (OPT)	https://issp.virginia.edu/f-1-optional-practical-training-opt

Report on Dissertation or Thesis Final Examination	https://engineering.virginia.edu/sites/default/files/common/offices/graduate-programs-office/Files/form_report_on_final_examination.pdf
SEAS Graduate Degree Requirements	https://engineering.virginia.edu/online/requirements
SPEAK test	https://caelc.virginia.edu/speak
Student Information System (SIS)	https://sisuva.admin.virginia.edu/psc/ihprd/UVSS/SA/s/WEBLIB_HCX_GN.H_SPRINGBOARD.FieldFormula.IScript_Main
Survey of Earned Doctorates	https://sedsurvey.org/
University of Virginia	http://www.virginia.edu
UVA Computer Science	http://www.cs.virginia.edu
UVA Graduate Record	http://records.ureg.virginia.edu/index.php (select graduate record within drop-down menu at top right)
UVELPE test	https://caelc.virginia.edu/uvelpe

6. APPENDIX B – CS Policy on Graduate Student Leave

6.1. Motivation

This policy is directed to the work expectations for graduate students who serve as a Graduate Teaching Assistant (GTA) or Master Teaching Assistant (MTA) or Graduate Research Assistant (GRA).

GTAs, MTAs and GRAs do not accrue vacation time or sick leave. Nevertheless, it is reasonable and expected that graduate students will have time away from work to devote to their own interests, personal development, health, and/or families, including a reasonable amount of vacation, subject to advisor approval. This policy is intended to address cases of reasonable absence.

1. We strive to create a friendly, cooperative, and professional relationship among graduate student assistants and faculty mentors regarding both education and research.
2. It is expected that GTAs will be available during the entire semester, from the inception of class planning until grades are submitted. This is encumbered by the many changes in GTA assignments that occur at the beginning of each term. Nevertheless, as soon as a GTA is assigned to a course, the GTA should contact the instructor to determine his or her duties, clarify whether class attendance is required, and learn the instructor's plans and timing for final exam grading and final grade submission. Absences other than acute illness should be approved in advance by the instructor. Consistent with UVA policy, the instructor will determine whether the GTA's activities are to be performed in person or via telepresence.
3. GRAs work directly with their dissertation supervisor. GRAs should be in frequent contact with their supervisor to determine research assignments, publication deadlines, and expectations for on-grounds vs. electronic participation. Absences other than acute illness should be approved in advance by the supervisor. Consistent with UVA policy, the supervisor will determine whether the GRA's activities are to be performed in person or via telepresence.
4. GTAs and GRAs can reasonably expect to be absent on University-honored holidays. However, exceptions may occur in the case of urgent teaching or research duties or deadlines.
5. Students should not plan extensive travel until the dates of their duties have been determined.
6. Faculty have the right to stop stipend payments if absences are not approved or if absences are longer than is reasonable, subject to departmental approval.

6.2. Student Leaves

1. Short-term, acute illness should be reported via email to the course instructor or the research advisor.

2. In the case of lingering illness, the student must notify the research advisor and a Graduate Program Director. In the event of chronic illness, a student may wish to (a) try working remotely, (b) consider withdrawal, (c) consider taking a medical leave of absence (which is *not* paid leave), or (d) seek temporary financial support from another source.
3. If a student is unable to return to the US because of visa issues, the student must advise the research advisor and a Graduate Program Director. Payments may be reduced depending upon the circumstances involved. Whenever visa issues arise, the student should consult with the UVA International Studies Office (ISO).

6.3. Significant Life Events

1. GTAs, MTAs and GRAs who experience a significant life event (e.g., birth, death, or trauma of a family member) should seek the advice of a Graduate Program Director. These special cases will be resolved individually in accordance with the Provost's Policy on Significant Life Events (PROV-027). See <https://uvapolicy.virginia.edu/policy/PROV-027>.
2. GTAs and GRAs who anticipate the birth of a child should seek the advice of a Graduate Program Director and may be able to take advantage of the Provost's Parental Accommodation for Graduate Students on Assistantship (PROV-028). See <https://uvapolicy.virginia.edu/policy/PROV-028>.

7. APPENDIX C – CS Policy on Defunding a GA

Once a PhD student has matched with a faculty advisor, that event establishes a two-way obligation such that (1) the student agrees to make continuous and satisfactory progress toward his or her degree, and (2) the faculty member agrees to provide mentoring and GRA support throughout the student's tenure, as long as the student is making satisfactory progress. A student's performance may be deemed unsatisfactory for reasons such as:

- an individual graduate course has a grade below C
- graduate GPA is lower than the required B average
- as determined by the research advisor or Graduate Program Director:
 - student is substantially late finishing required coursework
 - student is not making progress on program milestones such as the qualifying exam, PhD proposal, or dissertation
 - student is not making adequate progress on research, is not producing papers of apparent publishable quality, or repeatedly fails to meet reasonable milestones set out by the advisor
 - student has significant difficulty working within a research group (i.e., working collegially with peers)
- student has significant difficulty with oral and/or written communications not remedied by ESL courses
- violation of the policy on GTA/GRA leave
- violation of the policies on acceptable use of CS and/or UVA computing equipment
- other specific criteria as predefined by the advisor and approved by the Graduate Program Director.

Special situations such as long-term illness or parental leave are covered by other departmental and/or Provost policies.

If a student fails to maintain continuous and satisfactory progress, and if as a result the faculty research advisor wishes to discontinue GRA funding for the student, then, in accordance with the Provost's policy on Graduate Assistantships PROV-001 (available at <https://uvapolicy.virginia.edu/policy/PROV-001>) and SEAS funding rules, the following procedures must be followed.

1. The PhD advisor must meet with the student to (a) identify what aspects of the student's performance are unsatisfactory, and (2) explain in writing what changes must occur and on what timeline (minimum of two months) for the student's performance to be once again considered satisfactory. If the student wishes to continue working with this PhD advisor, they must be given adequate time to improve their performance and meet the advisor's set of milestones.
2. The faculty member is obligated to report any such ongoing situation to the PhD Graduate Program Director (PGPD) each time the department conducts its graduate student review

(“Bright Monday”). The faculty member may report their concerns to the PGPD separately from Bright Monday.

3. The faculty member is obligated to signal unsatisfactory performance by submitting a grade of “U” (unsatisfactory) for one or more current-semester research courses (e.g., CS 9999). If a student’s performance has been borderline and an advisor needs more time to determine whether a U is warranted, an incomplete (IN) may be assigned temporarily to give the student time to improve their performance. This may be done in conjunction with step 1 above.

4. If mentoring attempts by the PhD advisor (and optionally the PhD Graduate Program Director or others) as described in step 1 are not successful, then the following procedures are invoked:

- The PhD advisor notifies the student and the PhD Graduate Program Director of the advisor’s intent to defund a GRA and the advisor’s proposed date of defunding.
- The advisor provides the student with a written explanation of why GRA support is proposed to be withdrawn. This is a separate notification (and later by at least two months) from the first notification described in #1 above.
- If desired by the student, a meeting is arranged with the advisor and PGPD (and optionally others who might be helpful) to discuss the issue.
- If, after discussion, the decision is to proceed with defunding, then the student may (a) exit the program immediately (mid-semester, and funding will be withdrawn immediately), or (b) finish the current semester (e.g., to complete courses or complete a master’s degree, or (c) search for a new PhD advisor.
- In cases (b) and (c) above, funding from the current research advisor continues for the *longer* of (1) two months or (2) the remainder of the current term (Fall, Spring, Summer).

It should also be noted that defunding a GRA can have serious consequences, especially for those on a F-1/J-1 visa. For more details, consult the International Studies Office (ISO).

Deviations from this policy due to exceptional circumstances will be handled on a case-by-case basis.