Graduate Student Manual
Department of Computer Science
(updated Aug 2018)

1) Mission / Philosophy

The mission of the Computer Science Department at Colorado State University is to provide the best possible undergraduate and graduate education in computer science, to conduct high quality research, and to disseminate knowledge through graduate education and outreach programs. Graduate students play many important roles in this mission. As students, they consume graduate education. As teaching assistants, they instruct and mentor undergraduates. As researchers, they create new knowledge to advance the field.

The purpose of this manual is to assist graduate students in making the transition to the department of computer science at CSU. It covers many aspects of the graduate student process, including degree requirements, funding mechanisms, department expectations, and more. This manual may not answer all your questions; however, it should answer many of them, and provide links to on-line documents that may provide additional answers. For questions not answered by this manual, students should consult with the graduate program director, or their research advisor (if they have one).

2) Application Process

Students applying to a graduate program in the CS department need to be admitted both by the department and by the graduate school of the university. Therefore the admission process has two steps: a departmental review (to be completed first), and a university application (to be completed if and when the department approves). The process is also different for new graduate students (see Section 2.1) than for students who are already in another graduate program at CSU or who are transferring programs within the CS department (see Section 2.2).

2.1) New Students

This section applies to any student who not already enrolled in a graduate program at Colorado State University.

2.1.1) Department Application

Applying to the Computer Science Department graduate program is a two-step, deferred-fee process: applicants are evaluated for admissions using official or unofficial transcripts and test scores, and THEN pay the application fee if the application is approved.

After the application is submitted the Department will evaluate the material and make an admissions decision.   If the decision is favorable, a streamlined process then asks students to complete the application with *official* transcripts and test scores and *payment* of the application fee. Provided the documents provided with the University application are authentic and match the information supplied with the Department Application, the admissions decision made through the Department Application will be honored.

Different degree programs have somewhat different application requirements. Students should thoroughly review the information for prospective students on the CS Department web site before starting an application. Complete details are available at: http://www.cs.colostate.edu/cstop/csprostudents/csgraduates/csgradapply.php.

2.1.3) Deadlines

The deadline for completing the Department Application for Fall admission is February 1st.   The deadline for completion of the Department Application for Spring admission is September 1st.   These are the dates when *all* documents must be received to be considered for admission. This includes receipt of all reference letters. Any applications with missing documents after the deadline dates may be declined and not considered. Admissions decisions will typically be made during the six weeks following these deadlines.

Online MCS students will be excused from these deadlines, as admissions for this program is done on a rolling basis.   In the case of the online MCS, University Deadlines will be in effect (November 1st for Spring admission, May 1st for Fall admission).

2.2) Change of Program

Changing programs after enrollment at CSU is accomplished by completion of the Graduate School form GS-7, which is available on the Graduate School web site. There is a somewhat different departmental process for different program changes.

2.2.1) Between MS and MCS (within CS)

Changing from the MS program to the MCS program is the simplest. Students should complete a GS-7 and have it signed by their MS advisor (assuming the student has filed a Program of Study [see GS-6 below] with the Graduate School), and then bring the completed and signed GS-7 form to the Graduate Director in Computer Science. Students without an MS Program of Study need only the signature of the Graduate Program Director.

2.2.2) From MS or MCS to PhD (within CS)

Students wishing to change from either Masters programs will need to be considered by the Graduate Admission committee. Such students should complete a Department Application through the CS Department web site.   Any Masters student wishing to change to the PhD program should have a faculty member willing to take them on as a PhD advisee.   One of the letters of recommendation must be from the prospective PhD advisor.

2.2.3) From Ph.D. to MS or MCS (within CS)

Ph.D. candidates who wish to change to the MS or MCS program do not need to fill out a department application. They need to fill out a GS7 form, to be signed by (1) their advisor and (2) the graduate program director or department chair. This is most commonly done by Ph.D. candidates who earn an MS or MCS on their way to the Ph.D. In this case, the transfer back to the Ph.D. program after getting the

masters degree may also be done by just the GS7, without a formal department application.

2.2.4) From another department to CS

Students admitted to graduate programs in other departments must complete the Department Application.   They should make clear in their Statement of Purpose that they are applying from another graduate program within the University. As above, applicants to the PhD program should have a faculty member willing to take them on as a PhD advisee, and one of the letters of recommendation must be from the prospective PhD advisor.

3) Program Requirements

3.1) M.C.S.

The Master of Computer Science degree is a non-thesis, non-research, professional masters consisting exclusively of course work. It is offered both on-campus and through courses taken online.

Entrance Requirements: Students applying to the MCS program should have a working knowledge of computer science and mathematics, including, at a minimum:

- Calculus, Statistics, Linear Algebra, and Discrete Mathematics
- Computer Programming in an object-oriented language
- Data Structures and Algorithms
- Computer Organization/Architecture
- Software Engineering Methodology
- Operating System Design Concepts

3.1.1) Coursework

The MCS is a course work only degree. No exams or research projects, beyond those required in courses, are required:

- The Master of Computer Science degree is a professional, Plan C Masters degree (course work only), to be completed with a minimum of 35 hours of graduate course credit. No independent study credit of any kind may count in this degree. Course credits outside of the CS department must be approved in advance by the graduate committee to count toward this requirement.

Note that most computer science courses carry four credit hours each.
The following rules apply:

- 20 regular computer science credits (excluding CS692, CS695, CS699, CS795 and CS799) at the 500 level **taken at CSU**, must be included.

- All regular prerequisite and graduate course work will receive conventional grades (no pass/fail option).
- No course below the 400 level carries graduate credit. CS486, CS495 and CS496 may not be included for graduate credit. No more than three courses (12 credits) at the 400 level are allowed.
- All regular courses must use conventional grading; no pass/fail options allowed. At least 24 credits must be earned at CSU, 21 of which must be earned after admission. 14 Credits may be earned prior to admission and potentially count towards the degree.

Entering graduate students are advised by the graduate program director. By the end of the second term in the program, each student will have planned a program of study approved by the graduate program director.

3.1.2) GS6

As with all graduate students, MCS students must file a Program of Study with the Graduate School. This is accomplished by completing the online GS-6 form on the Graduate School web site, printing and signing the resulting document, and obtaining department signatures (advisor, and CS Dept. Chair).

Transfer credits are approved on the GS-6 form (up to the limit for transfer credits).

The Program of Study must contain all courses the student intends to use in the completion of the degree requirements. Changes in the plan, if any, made during the course of study can be reported on the graduation application (GS-25, see below) submitted at the beginning of the graduation term. MCS students should complete this process by the end of their second semester in the degree program.

3.1.3) Advisor/Committee

The Graduate Director is the advisor for all MCS students. No other committee members are required.

3.2) M.S.

This is a traditional research masters in computer science, which includes course work, research and a thesis. This degree is the preferred preparation for those who intend to go on to earn a Ph.D. Note that some of the requirements for this degree cannot be satisfied through online courses.

Entrance Requirements: Students applying to the Master of Science program should have a four-year bachelor's degree in computer science or closely related field, and be able to demonstrate research potential in an area in which the CS faculty does work.

3.2.1) Coursework

In addition to the University imposed requirements for the Master of Science degree, the Department requires the following:

A minimum of 35 credit hours beyond the B.S. degree, including up to 7 thesis credits. Course credits outside of the CS department must be approved in advance by the graduate committee to count toward this requirement.

Course Requirements:

1. Exactly 2 credit hours of CS692 (BMAC). Satisfactory performance requires at least 70% attendance in all lectures given each semester.
2. 3 credit hours (500 level or higher) outside of the CS department (See restrictions below).
3. 4 credits of CS793 or 4 regular credit hours at the 600 level within the CS department. CS692, CS695, CS696 and CS699 may *not* be used to satisfy this requirement.
4. 4 credit hours at the 500 level in each of the three course groups (12 credit hours total; see course groups and restrictions below).
5. In addition to requirement #1-#4 above, students need a minimum of 14 more credit hours. Up to 7 of these may be thesis credits. The remaining credits must be regular credit hours at the 400-level or above within the CS department, or 500-level or in another department. (See restrictions below). 500-level independent study projects are acceptable, if approved in advance by the graduate committee. No more than three courses (12 credits) at the 400 level are allowed.

Additional Requirements:

- An M.S. thesis and defense.

Additional Restrictions:

- All out of department courses applied toward requirement #2 or requirement #5 must be approved in advance by the Graduate Committee.
- All regular courses must use conventional grading; no pass/fail options allowed.

Course groups

To encourage breadth, courses are grouped into three groups as follows:

Group I (AI & Theory):

- CS510 (Image Computation)
- CS520 (Analysis of Algorithms)
- CS540 (Artificial Intelligence)
- CS545 (Machine Learning)
- CS548 (Bioinformatics Algorithms)
- CS5xx (Cyber-Physical Systems)

Group II (Systems):

- CS530 (Fault Tolerant Computing)
- CS535 (Big Data)
- CS553 (Algorithmic Language Compilers)
- CS555 (Distributed Systems)
- CS557 (Advanced Networking)
- CS560 (Foundations of Fine-Grain Parallelism)
- CS575 (Parallel Processing)

Group III (Software Engineering & Information Assurance):

- CS514 (Software Product and Process Evaluation)
- CS517 (Software Specification and Design)
- CS518 (Distributed Software System Development)
- CS533 (Database Management Systems)
- CS556 (Computer Security)
- CS5xx (Software Maintenance and Evolution)

3.2.2) GS6

A GS-6 Program of Study form must be submitted by the end of the third semester in the program. This is an official list of all courses required for the degree and identification of the student's advisory committee. The courses listed must conform to the University and Department degree requirements, and are selected by the student in close consultation with the student's prospective advisor. The GS-6 form is started on the Graduate School web site after course selection consultations with a student's prospective advisor.

3.2.3) Committee

MS students are required, as per the rules of the graduate school, to have an advisor whose main academic appointment is in the Computer Science Department, one other faculty member within the department, and a member from a department other than computer science. These individuals are identified on the GS-6 Program of Study.

3.2.4) Thesis

In consultation with the student's advisor and advisory committee, the student must write and orally defend a master's thesis.

3.3) Ph.D.

This is a traditional research doctorate involving course work, original research and a dissertation. Students seeking the Ph.D. should be ready to do Ph.D.-level research in computer science upon entrance to the program.

Entrance Requirements: Students applying to the PhD program should have demonstrated research potential in a research area of one or more members of the CSU computer science faculty. Ways to demonstrate research ability include: undergraduate research projects, published or posted writings, volunteer positions

especially related to STEM, leadership positions at school or work, published extensions of class projects, etc.

Ph.D. admission is highly competitive; only the most highly qualified applicants are admitted to the program. We do not admit PhD students conditionally.

3.3.1) Coursework

For the Ph.D. program, the following regulations apply:

- Course work must include a minimum of 72 credit hours beyond the Bachelor of Science degree (includes thesis credits).
- A minimum of 32 credit hours must be earned at Colorado State University (includes thesis credits) after formal admission. 62 must be earned at CSU for students entering without a masters degree.
- A Master of Science degree from an accredited college or University may be accepted for up to 30 credit hours.

Course Requirements:

1. Exactly 2 credit hours of CS692 (Department Seminar).

2. 3 credit hours (500 level or higher) outside of the CS department (see restrictions below).

3. At least 8 credits of CS793 or 8 regular credit hours at the 600 level within the CS department (see restrictions below).

4. At least 4 regular credit hours at the 500 level in *each* of the three course groups (12 credit hours total; see course groups and restrictions below).

5. A minimum of 37 credits numbered 500 or above are required for the Ph.D. degree.

6. Teaching requirement: 1 course. (Note: The graduate committee may waive requirement based on a student's previous experience or current teaching opportunities.)

7. Research exam: Each Ph.D. student is required to take the written and oral Research Examination. This examination tests the student on critical thinking skills, background knowledge, and research synthesis (see Sec 3.3.4).

8. Thesis proposal defense (preliminary exam): Each Ph.D. student is required to take the oral Preliminary Examination (see below). This exam centers on, but is not limited to, the student's proposal for dissertation research. Passing this examination admits the student to Ph.D. candidacy.

9. Thesis defense: The final examination (see below) of a Ph.D. candidate is the defense of the dissertation and related subject areas. Regulations concerning the format and conduct of the final examination are contained in the Colorado State University Bulletin.

Course Restrictions:

Course groups:

To encourage breadth, courses are grouped into three groups as follows:

Group I (AI & Theory):

- CS510 (Image Computation)
- CS520 (Analysis of Algorithms)
- CS540 (Artificial Intelligence)
- CS545 (Machine Learning)
- CS548 (Bioinformatics Algorithms)
- CS5xx (Cyber-Physical Systems)

Group II (Systems):

- CS530 (Fault Tolerant Computing)
- CS535 (Big Data)
- CS553 (Algorithmic Language Compilers)
- CS555 (Distributed Systems)
- CS557 (Advanced Networking)
- CS560 (Foundations of Fine-Grain Parallelism)
- CS575 (Parallel Processing)

Group III (Software Engineering & Information Assurance):

- CS514 (Software Product and Process Evaluation)
- CS517 (Software Specification and Design)
- CS518 (Distributed Software System Development)
- CS533 (Database Management Systems)
- CS556 (Computer Security)
- CS5xx (Software Maintenance and Evolution)

Other Restrictions:

- CS692 and CS699, CS799 and CS695 may not be used to satisfy requirement #3 above.
- Courses that are cross-listed in the CS department cannot be counted toward requirement #2 (outside course).

- All out of department courses applied toward requirement #1, #2, #4, or #5 must be approved by the graduate committee. Students must petition for such waivers in writing.
- Grades of 'B' or better can be used to satisfy Ph.D. requirements. Grades of B- or worse cannot be used to satisfy any of the requirements above.
- All regular courses must use conventional grading; no pass/fail options allowed. .
- Up to 10 credit hours earned after completion of a Master of Science degree may be accepted for transfer if approved by the Department Graduate Committee.
- Work done more than 10 years before the completion of the Ph.D. program cannot be used to satisfy any degree requirement.
- Students should obtain and review the University requirements for the Doctor of Philosophy program upon entering graduate study. Each Ph.D. candidate is responsible for adherence to all Colorado State University regulations for graduate study.
- Entering graduate students are assigned a temporary advisor. After two semesters of study or 12 credit hours earned, a graduate student must have selected an advisory committee (an advisor, two additional Computer Science faculty members, and one faculty member from another department) and will have planned a program of study approved by the advisory committee.

3.3.2) GS6

A GS-6 Program of Study form must be submitted by the end of the third semester in the program. This is an official list of all courses required for the degree and identification of the student's advisory committee. The courses listed must conform to the University and Department degree requirements, and are selected by the student in close consultation with the student's prospective advisor.   The GS-6 form is started on the Graduate School web site after course selection consultations with a student's prospective advisor.

3.3.3) Committee

PhD students are required to have an advisor whose main academic appointment is in the Computer Science Department, two other faculty members, and a member from a department other than computer science, who does not hold a joint appointment with the computer science department.   These individuals are identified on the GS-6 Program of Study.

A student's PhD advisor is responsible for helping students select problems for research, and guide their research in their chosen area.

3.3.4) Research Exam

The Research Examination is intended to be a strong predictor of success in Ph.D. research. The student will meet with his/her advisor to develop a topic and prepare an initial bibliography for the exam. The student will prepare a written report on the selected topic, including a critical review of related literature. The student will also have an oral exam, based on the written report.

A detailed description of the PhD Research Examination can be found by clicking on the CS Department web site (under degrees). Students prepared to take the Research Examination can find an MS Word version of the exam request form on the CS Dept. web site. This form should be completed and returned to the department secretary. The form used by faculty to evaluate Research Exam performance is available is also available on the CS Dept. web site.

A student who fails the research exam may take it a second time. The second try should come in the next semester (not including summer). A student who fails the research exam for the second time is dismissed from the department.

3.3.5) Preliminary Exam
Following successful completion of the Research Examination, each student will prepare a dissertation proposal and take the Preliminary Examination. Passing this examination admits the student to Ph.D. candidacy. The dissertation proposal should be prepared in close consultation with the student's advisor, and should be available to all committee members at least one week prior to the examination. It should reflect an extensive critical literature survey, and contain an accurate assessment of the state-of-the-art in the area of research, a precise statement of the problem to be solved, motivation for pursuing the research, and evidence to the effect that there is a good likelihood the problem is solvable with reasonable effort.

It is expected that a student will take the Preliminary Examination within 2½ years of passing the Research Examination. To extend beyond 2½ years, the student must request a waiver from the Graduate Program Committee.

Successful completion of the Preliminary Examination results in agreement between the student and the committee as to what will constitute successful completion of the dissertation research. The committee may choose to reconvene the examination to allow the student to further research the problem, complete additional course work, or revise the dissertation proposal document.

Graduate School regulations govern the Preliminary Examination. The GS Form 16 is used to report the examination results to the Graduate School. Failure to successfully complete the examination on the second trial mandates dismissal from the program.

3.3.6) Thesis

The Defense of Dissertation must be held in accordance with the Graduate School deadlines. At least one month before the final examination, the advisor will inform the student and the committee members of the nature and scope of the examination. The student must notify the Department at least two weeks prior to the Defense to ensure that

the Defense is publicly announced so that all interested faculty and graduate students may attend.

The Defense of Dissertation, which primarily concerns the results described in the dissertation, is conducted by the student's Graduate Advisory Committee with the advisor as chair. It is open to the public, and typically follows the format of a seminar presentation, followed by questions and answers. A part of the exam and the deliberations of the committee may then be conducted in private.

Candidates who fail their Defense of Dissertation may present themselves, with permission of the committee, for one additional reexamination not earlier than two months, nor later than twelve months, after the date of the failure.

3.4) Special Courses

3.4.1) CS793

CS793 is a research seminar in which graduate students attend research group meetings for specific research areas within the Department of Computer Science, and work one-on-one with faculty members to conduct research in specific areas of computer science. Students will conduct independent research on a topic chosen in consultation with the instructing faculty member, learning research methods and producing a peer-reviewed paper and research poster to be presented at a symposium at the end of the semester. Papers will be reviewed before presentation by at least two other individuals chosen in consultation with the student's instructor, and a panel of faculty will provide input on the research presented at the research symposium.

In each semester, the research groups participating in CS 793 will be listed as on this website along with the faculty responsible in each case. Students enrolled in CS 793 must take responsibility for contacting one of these groups and then following the specific instructions offered. All MS and PhD students must take CS692 as part of their degree program (see Sections 3.2.1 and 3.3.1).

3.4.2) CS692 (BMAC)

The Department of Computer Science of Colorado State University, in cooperation with ISTeC (Information Science and Technology Center), offers the CS Colloquium series as a service to all who are interested in computer science. The colloquium series is also offered as a 1 credit class, cs692 (sometimes called BMAC, for historical reasons). All MS and PhD students must take CS692 as part of their degree program (see Sections 3.2.1 and 3.3.1).

Students registered for CS692 will be graded by their attendance. A passing grade requires attendance of at least 70% of the seminars in one semester. Students attending the seminars that are scheduled outside the scheduled time slot will receive extra credits. These extra credits will be used to substitute when students

have missed the regular seminars. For semester specific information, students should go the CS692 web site (www.cs.colostate.edu/BMAC/).

3.4.3) CS787 (Internship)

CS787 is a one-credit course commonly used in conjunction with international students seeking work experience in the US off-campus, under the Curricular Practical Training (CPT) Program. The conditions for obtaining CPT permission are strict (see https://isss.colostate.edu/). The most common way to fulfill CPT conditions is to enroll in a credit bearing course. The CPT process is initiated by the student who makes arrangements with an employer to obtain a written offer of employment (describing the work that will be done). The student gets a CPT form from the International Student Scholar Services office (Laurel Hall), and has the form completed by her/his advisor.   The Computer Science Department requires a form outlining the educational goals of the work experience. This can be obtained from the Key Advisor or the Graduate Program Director. Once completed, a student is given permission to add CS787.

CS787 may, under appropriate circumstances, be used by domestic students.

CS787 is not allowed to be included in the Program of Study (see GS-6 under section 3.1.2) for the Master of Computer Science degree.

3.4.4) Continuous Registration

Continuous Registration is a special status for which graduate students may register in place of credit-bearing courses any semester they are attending Colorado State University, in order to remain admitted to and affiliated with the University. Continuous Registration gives the students access to the library, laboratory, campus computer services, etc. Continuous Registration does not bear credits. For more information, contact the Graduate School at gschool@colostate.edu or see http://www.graduateschool.colostate.edu/current-students/student-resources/continuous-registration-policy.aspx.

3.5) Petitions to Waive Requirements

Students may petition to have any of the requirements in Section 3 waived for cause. They should be aware that some degree requirements are university requirements, for example the total number of credits and minimum GPA. Other requirements are department requirements, for example the course distribution requirements and the research exam. Students should check with their advisor and/or the graduate program director about any requirement they wish to waive, in order to learn the source of the requirement and how to petition to have it waived.

Petitions to waive university requirements must be made by the department (on behalf of the student) to the graduate school. The department reserves the right to refuse to file a petition on a student's behalf. In fact, it will only file a petition if it

thinks the petition is both just and likely to be accepted. This determination is made by the graduate program director.

Petitions to waive department requirements should be made by a student to the graduate program director. The petition should specify how the student has fulfilled the requirement through other channels. Usually there is a specific form to fill out, depending on which requirement is being petitioned. Contact the graduate program director to get the appropriate form (if any) for the requirement being waived.

4) Academic Progress

4.1) Graduate School Requirements
The graduate school requires that degree seeking graduate students be continuously enrolled. This requirement may be met through continuous registration, see Section 3.4.3 above. In addition, the graduate school requires the following:

4.1.1) Maintaining good academic Standing
Graduate students must maintain a minimum GPA of 3.0 to remain in good standing. GPA calculations are made in three different ways, and all three must be at least 3.0 in order for a student to maintain good standing.   The three GPA calculations are: 1) Overall graduate level GPA; 2) GPA of all courses taken after formal admission to the graduate program; 3) GPA of all courses listed on the Program of Study.   Students must also be making normal progress in their degree programs to maintain good standing.

4.1.2) Academic Probation
If any graduate GPA (overall, after admission, and Program of Study) drops below a 3.0, a student is placed on academic probation.   Students on academic probation have one semester (not counting summers) to raise the effected GPA to 3.0. If this does not happen, the student is dismissed from the Graduate Program.

4.1.3) Appeals Procedure
In certain circumstances, a student dismissed from the Graduate Program can be provided with one additional semester of probation if a petition is filed with the Graduate School by the Department of Computer Science. Students seeking such an appeal should discuss it with the Graduate Program Director.

4.2) Department Expectations

Evaluation and feedback on a student's progress are important to both the student and the department. Every fall semester, the entire faculty meets to evaluate the progress of each M.S. and Ph.D. student. Prior to this meeting each student should meet with his/her advisor to prepare a report describing the student's progress, including course work, research, teaching, and thesis.

A cumulative GPA that falls below 3.0 will place a student on probation. The cumulative GPA must be raised above a 3.0 by the end of the following semester to avoid dismissal from the University.

4.2.1) Expected Progress (Ph.D.)

A Ph.D. student is expected to be on the "standard track," defined as satisfying the expectations described here. They include performing supervised research under the tutelage of a faculty advisor and "making good progress" towards the degree. For a student to be recognized as making good progress towards a degree, the student's advisor must certify every year that the student is indeed doing so. The advisor does this by completing a student progress report form in consultation with the student. In order to help the advisor complete this form, the student is strongly encouraged to document her/his progress during the past year with examples such as, submissions/publications of research work in the past year, helping advisor with peer-review, timely completion of course work and meeting other degree requirements. The department expects a Ph.D. student entering with a Master's degree directly relevant to his/her area of research within Computer Science, to complete the Ph.D. in 4 years. Otherwise the expectation is to finish the degree in 5 years, as described below (deadlines for each of the milestones are given later).

1. The student submits a signed GS6 form to the graduate school before the end of their 2nd semester to officially declare an advisor and a plan of study. Note that this is one semester earlier than the graduate school requirement.
2. The student is actively working with her/his advisor and is continuing to make good progress as certified by the advisor.
3. The student completes all course work required for the Ph.D. in a timely manner.
4. The student passes the Research Examination in a timely manner.
5. The student passes the Preliminary Examination in a timely manner.
6. If a student is being supported as a GTA or a GSA, the student performs the duties of that position with due diligence and satisfactorily. Performance of the student on this count will be determined by a departmental committee and will be based on student and/or supervisor evaluation as well as other material(s) as might be identified by the committee from time to time.
7. The student meets all graduate school requirements for the Ph.D. program, and is not on probation, academic or otherwise.

The interpretation of "timely manner" used above depends on the student's status when entering the program.

For students entering with a relevant master's degree:
1. Coursework (except for 4 credits of CS 793): 2 years
2. Research Exam: 2 years
3. Preliminary Exam: 3 years

For students entering without a relevant master's degree:

1. Coursework (except for 4 credits of CS 793): 2 years
2. Research Exam: 3 years
3. Preliminary Exam: 4 years

4.2.2) Expected Progress (M.S.)

An M.S. student is expected to perform supervised research under the tutelage of a faculty advisor and make good progress towards the degree. The expected duration of the M.S. program is 2 years.

- The student must find an advisor as early in the program as possible but no later than the 2nd semester. In consultation with the advisor, the student must choose a thesis topic by the end of the 2nd semester and submit a signed GS6 form to the graduate school. Note that this is one semester earlier than the graduate school deadline.
- The student continues to work actively on the research topic in their 3rd and 4th semesters, and is on track to complete the M.S. in 2 years including completing all required course work.
- The student meets all graduate school requirements for the M.S. program, and is not on probation, academic or otherwise.
- If the student has an assistantship, s/he performs the duties of the assistantship in a satisfactory manner.

4.2.3) Expected Progress (M.C.S.)

An M.C.S. student is expected to make good progress towards the degree by taking appropriate courses. The expected duration of the M.C.S. program is 2 years.

- The student is encouraged to discuss their plan of study with the Graduate Director before they complete the GS6 form.
- The student meets all graduate school requirements for the M.C.S. program and is not on probation, academic or otherwise.
- If the student has an assistantship s/he performs the duties of the assistantship in a satisfactory manner. Note however, that such funding is rare.

4.2.4) Expected Progress (Part-time)

A Part-time student (M.C.S. / M.S. / Ph.D.) student is expected to make good progress towards their degree.

- The student must find an advisor (for M.S. and Ph.D. students) as early in the program as possible. The student must prepare a plan of study in consultation with the advisor and submit a signed GS6 form to the graduate school by the deadline imposed by the graduate school for their program of study. For M.C.S. students, the GS6 form must be prepared in consultation with the Graduate Director.
- The student must discuss her/his progress annually with her/his advisor. The advisor will prepare a student progress report for the Graduate Programs Committee based on this discussion with the student.

- Although part-time students may take longer than standard track students, they must complete their degree within 10 years from the start of their program. This is a graduate school requirement.
- The student meets all graduate school requirements for their program and is not on probation, academic or otherwise.
- If the student has an assistantship, s/he performs the duties of the assistantship in a satisfactory manner. Note that assistantships for part-time students are rare.

4.3) Other Requirements (State Department, Student Loans, Etc.)

The department does not require a minimum number of credits per semester, so long as a student meets the expectations of progress described in Section 4.2, and meets the graduate school criteria described in Section 4.1. However, graduate students should be aware that other entities may impose additional requirements. In particular, international students should be aware that their visas may require them to take a minimum number of credits per semester. Students with questions about visas should talk directly to International Student and Scholar Services (ISSS) in the Office of International Programs. Similarly, students may be required to take a minimum number of credits in order to defer outstanding student loans. In this case, students should talk directly to the loan holder. Finally, students with external sources of funding should consult with their funding sources.

4.4) Finding or Changing advisors

Students seeking an MS or PhD advisor should be aware that the advisor-advisee relationship is bi-directional. Students and advisors agree to work with each other by mutual consent. No faculty member is compelled to advise any student, and neither is a student compelled to work with a faculty member. The department is under no obligation to find a research advisor for a student.

The student-advisor relationship becomes official when the student's GS6 form is approved by the graduate school. Students wishing to change advisors must fill out a new GS6 and have it signed by their new advisor.

Students with assistantships should be aware that changing advisors may impact their funding. In particular, if a student is being funded as a GRA by their advisor, then switching advisors may end the assistantship. The new advisor might or might not hire the student as a GRA. The tie between funding and advisors is less strict for GTAs, but still exists. The department desires to support students who are making progress toward a research degree. Changing advisors may or may not cause the department to reconsider hiring the student as a GTA in the next semester. Students who are considering changing advisors should consider the financial implications.

5) Departmental Evaluations and Their Implications

This section describes how graduate students are evaluated by the department and the potential repercussions of unsatisfactory evaluations.

5.1) Assistantships: Quality of Work
If a student is funded on a research assistantship, the advisor and/or PI of the grant funding them determines if the work is satisfactory.

If a student is funded as a GTA, they are evaluated based on feedback from the instructor of the course and course evaluations from students. Other forms of signed student or faculty feedback may also be used. The graduate program director evaluates GTA performance with feedback from the undergraduate program director and the graduate program committee.

If a student is funded as a GSA, the department's head systems administrator evaluates his/her performance as a GSA.

Assistantships are awarded to students on a semester-by-semester basis. In extreme cases, a student who does not fulfill their duties may have their contract terminated mid-semester, under the procedures outlined in the graduate bulletin. In less extreme cases, students who perform poorly may not be given new assistantships in following semesters. Satisfactory progress, including conformance to the department's and university's conduct, academic integrity and non-discrimination policies, will also be taken into account.

5.2) Annual Evaluations
The department faculty reviews the progress of all M.S. and Ph.D. graduate students. Students that are not making satisfactory progress are discussed.   If the faculty believe a student to be deficient, they may ask the student's committee to consider certifying that the student is not making adequate progress. For a student who does not have an advisor, the graduate program director serves as the advisor. For students without a committee, the graduate program committee serves as their committee.

5.3) Dismissal Procedures
It is a role of a student's advisor and committee to certify that they are making adequate progress. If the committee is satisfied with a student's progress, no action is called for. If a committee is concerned that a student is not making progress, or if the faculty as a whole believe a student is deficient, then the student's committee will meet with the student, either in person or virtually, to discuss the student's progress. They may ask the student to describe their progress and planned progress in writing.

If, after meeting with the student, the committee still believes a student is not making adequate progress, they will notify the student in writing that they are not making adequate progress and what steps the student needs to take in order to demonstrate adequate progress. They will also ask the graduate school to put the student on probation. The student then has the remainder of that semester and one more semester (not including summer) to meet the written requirements of the committee. Students who fail to do so will be dismissed from the program.

5.4) Ethical and Professional Conduct

In addition to responsibilities enumerated here, students are expected to follow the Department's Academic Integrity Policy (http://www.cs.colostate.edu/cstop/csacademics/student_info.php#integ) and Colorado State University's Academic Integrity Policy (http://www.conflictresolution.colostate.edu/academic-integrity) and Student Conduct Code (http://www.conflictresolution.colostate.edu/conduct-code). The department further advocates rights and responsibilities of conduct for all its members: faculty, staff and students, in accordance with the intent of the Code of Ethics of the Association of Computing Machinery (http://www.acm.org/about/code-of-ethics). Please see details off the department web page at http://www.cs.colostate.edu/cstop/csdepartment/CodeOfConduct.php

5.5) Discrimination Statement

Colorado State University is committed to providing an environment that is free from discrimination and harassment based on race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity or expression, or pregnancy. Colorado State University is an equal opportunity/equal access/affirmative action employer fully committed to achieving a diverse workforce and complies with all Federal and Colorado State laws, regulations, and executive orders regarding non-discrimination and affirmative action.

5.6) Grievance Policies

Should a student's advisor and committee decide to recommend dismissal from the Ph.D., M.S. or M.C.S. program, the student will be notified in writing. The student will then have the opportunity to appeal this decision with their SAC and the Provost/Academic Vice President (see CRS 24-19-104) before a final decision is made and implemented. The student will be notified in writing of this final decision.

6) Assistantships

6.1) GTA

Graduate Teaching Assistants (GTAs) support the teaching mission of the department by helping with a class. Expectations of GTAs include being on campus, prepared to work the week before courses start and attending the CS department GTA orientation where other expectations will be discussed. GTAs are also expected to work on average 20 hours a week and do tasks assigned by the instructor for which they are a teaching assistant. Typical tasks include preparing and grading assignments, attending lectures, preparing and giving recitations, and creating answer keys. Grading programming assignments will require the ability to do some scripting, which is a skill we expect graduate students will be able to learn quickly if they don't already know it.

6.2) GRA

A Graduate Research Assistantship is when you are being paid to contribute to the proposed research and deliverables for a Principle Investigator's grant. The PI is

almost always your advisor, and since research is one of the primary expectations for graduate school, the expectations for a GRA are >20 hours per week being spent on research. PIs decide who they fund as GRAs and put forth their own expectations. Please see http://www.cs.colostate.edu/cstop/csresearch/csfunding.php *(NOTE: link now broken or lost to me, have email to Lisa and Diana asking why).*

6.3) GSA
The head of the system administration group, currently Wayne Tryzna, hires graduate system administrators. If you have system administration experience and are interested in such a position then you should let Wayne know.

6.4) External Funding
If you have your own external funding, then your admissions letter will reference that funding. If this external funding is in the form of a fellowship like the NSF graduate fellowship or DOE graduate fellowship, then your advisor will most likely augment your monthly stipend with grant money so that it is on par with other students in the department. If for any reason you lose your external funding while you are a graduate student, you can ask your advisor for GRA funding or ask to be placed in the GTA pool.

6.5) Residency

The rules for residency are determined by the registrar's office. Student's should check with the registrar's office for updated rules. At the time of writing of this document, the following regulations applied.

"Domicile" is used to describe the place where an individual has demonstrated intent to make a permanent home and legal residence. Both physical presence (see #1 below) and evidence of intent (see #2 below) must be in place to begin the domicile year. A "qualified individual" must reside in Colorado with the intent to make Colorado their permanent home and legal residence.

Colorado residency requires a domicile in Colorado for 12 continuous months on or prior to the first day of classes of each semester.

Since domicile is defined as a permanent home and legal residence, being in Colorado solely for school purposes and/or temporarily for other purposes does not qualify as domicile for Colorado residency.

1. Physical presence is your actual permanent home and legal residence. Proof of physical presence may include all of the following:

   - Lease agreements
   - Rent receipts
   - Home ownership
   - Notarized statement from a landlord

2. Evidence of intent to make Colorado your permanent home and legal residence is demonstrated by giving up all your legal ties with your prior state and establishing them with Colorado for 12 continuous months. Proof that demonstrates evidence of intent, as specified by the residency statute, may include all the following:

   o Colorado driver's license or valid Colorado ID
   o Colorado motor vehicle registration
   o Permanent, full-time, off-campus employment
   o Colorado voter registration
   o Change in permanent address on all pertinent records
   o Payment of Colorado state income taxes as a Colorado resident
   o Withholding of Colorado state taxes from wages
   o Ownership of residential property in Colorado

You are expected to take appropriate action on all factors relevant in your circumstances.

Evidence of legal ties outside of Colorado during the domicile year that demonstrate residency in another state may include the following:

- Failure to file a Colorado state income tax return
- Failure to have Colorado state income taxes withheld from your wages
- Filing a Colorado state income tax return as a non-resident
- Failure to obtain a Colorado driver's license or Colorado ID
- Maintenance of a home in another state
- Prolonged absence from Colorado
- Vehicle you operate is registered in another state
- Residing in another state between academic terms or when not enrolled as a student
- Any other factor unique to the individual which tends to imply your permanent home and legal residence is in another state

The fact that an individual does not qualify for residency in any other state does not guarantee Colorado residency.

7) Logistics

7.1) Registering for Classes

On campus students register for courses through the web-based campus registration system, RamWeb (ramweb.colostate.edu). Students must first have an Electronic Identity (EID) in order to use this system (eid.colostate.edu). Ramweb allows students to add, drop, and withdraw from classes before and during the semester (subject to published deadlines). Full time enrollment for graduate students is 9 semester hours minimum. Students should sign up for specific classes only after consultation with their advisors (either temporary or permanent).

Online students register for online classes through OnlinePlus (www.online.colostate.edu). This is a web-based system similar to purchasing items on the Internet.

Graduate students are responsible for knowing the add and drop deadlines for their courses. In general, a student may add a 16 week class through the first week of classes and drop a class through the Wednesday of the third week (with no evidence of having enrolled in it left on the student's transcript).   The withdrawal period (the period during which a student may withdraw from a class leaving evidence of withdrawal on the student's transcript) extends from the middle of the third week of classes until the 8th week of classes.

7.2) Student representation and governance
Student representation and governance is meant to give graduate students a collective voice in how the department and more broadly the university are run.

7.2.1) Department committees
As specified in the department code, the CS department has both standing and ad-hoc committees. Many contain graduate student representatives. These representatives serve one-year appointments. When the students are organized into an active Graduate Student Association (GSA), the GSA will elect the student representatives. Otherwise, committees shall seek nominations from the graduate student body (usually by email) and select a representative from among the nominated students.

The standing committees that include a graduate student representative are the graduate program committee and the graduate recruiting committee. Note that the graduate representative on the graduate recruiting committee must be dismissed when specific applications are discussed, to maintain the privacy of applicants.

7.2.3) GSA
At the university level, the Graduate Student Council (GSC) advocates for CSU graduate and professional students within departments, the university, the state, and nationally. The GSC hosts social, networking and development programs at CSU to maintain a personal community for graduate and professional students during their tenure. For more information, see the graduate school organizations web page.

For students of color, the graduate school also offers the Comprehensive Academic-Related Program (CAP) for Graduate Students of Color. The goal is to implement a comprehensive academic framework providing professional development and additional opportunities for graduate students of color to address systematic issues that may impede their progress in their graduate programs. See the graduate school organizations web page for more information.