The Graduate Program in
Computer Science

Effective Fall 2013

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A. INTRODUCTION AND WELCOME

This document is for graduate students enrolled in Computer Science. It specifies the department’s academic requirements. It also covers policies and procedures relevant to graduate student life, and provides other contact information. While this information may be of interest to students applying for admission, this document does not cover the admission process. See the department’s web site (http://www.cs.iastate.edu) for information about admissions.

If you are new to Iowa State, welcome! As you will discover, Iowa State University is a major land grant university located in Ames, Iowa. Ames is a pleasant, small, yet cosmopolitan, city with a population of 50,000 (25,000 students). Ames has a vibrant cultural scene, and a secondary school system that ranks one of the best in the United States.

In the department of Computer Science, it is our goal to help you achieve excellence in research and scholarship. The Department of Computer Science has strong, world-renowned research programs with a faculty rich in diversity, breadth and depth of research opportunities. We stress both theoretical and experimental methods for solving fundamental as well as practical problems.

In addition to our department’s own laboratories, students can take part in many other research opportunities. These include the Laurence H. Baker Center for Bioinformatics and Computational Biology (BCB), (www.bioinformatics.iastate.edu), the Center for Computational Intelligence, Learning, and Discovery (www.cild.iastate.edu), the Center for Integrative Animal Genomics (www.ciag.iastate.edu), the Department of Energy’s Ames Laboratory (www.external.ameslab.gov), the Information Systems Security Laboratory, (http://www.iac.iastate.edu/IAC/), and the Virtual Reality Applications Center (www.vrac.iastate.edu). The department also participates in interdisciplinary graduate programs in: Bioinformatics and Computational Biology (www.bcb.iastate.edu), Information Assurance (www.iac.iastate.edu/EDU/masters.html), Human Computer Interaction (www.hci.iastate.edu), and Neuroscience (www.neuroscience.iastate.edu). All of these provide a stimulating academic environment that nurtures leading-edge research and innovative education in Computer Science. Students interested in pursuing these opportunities should apply for admission to the respective interdepartmental program as well.

The Department of Computer Science offers a Master of Science (MS) and Doctor of Philosophy (Ph.D.) degree. The first MS degree in Computer Science at Iowa State University was awarded in 1959 and the first Ph.D. in 1962. MS students typically complete degree requirements in 2 years. Ph.D. students can complete their degree in 4 years. The MS graduates of our program typically pursue employment in industry whereas most of the Ph.D. graduates typically take up faculty positions in academia or opportunities in industrial research laboratories.
B. Graduate Student Contacts

Program Coordinator for the CS Department:
Karen Doty, 226 Atanasoff Hall, karensch@iastate.edu, 515-294-4377
First point of contact for all questions related to the graduate program and graduate admissions.

B.1.1. Director of Graduate Education (DOGE)

Dr. Samik Basu, 211 Atanasoff Hall, sbasu@cs.iastate.edu, 515-294-6045

All aspects of graduate studies are overseen by the DOGE. The DOGE approves various forms for the department. The department’s Graduate Committee, comprised of faculty members and a graduate student representative, is chaired by the DOGE and is responsible for the department’s academic policies.

B.1.2. Department Executive Officers

Dr. Gianfranco Ciardo, Chair, 226 Atanasoff Hall, ciardo@cs.iastate.edu, 515-294-4377
Dr. Shashi Gadia, Associate Chair, 203 Atanasoff Hall, gadia@cs.iastate.edu, 515-294-2253
Dr. Wallapak Tavanapong, Associate Chair, 232 Atanasoff Hall, tavanapo@cs.iastate.edu, 515-294-2987

B.1.3. Graduate Advisory Committee (GAC)

The GAC is a volunteer group run by graduate students in the department. These experienced graduate students can help and give advice on all topics. Current members are Sheetal Kaul, Brian Nakayama, Hoda Gholami and Xiang Huang.
C. GRADUATE PROGRAM OVERVIEW

Graduate degrees obtainable through the Computer Science Department are the M.S. degree (with thesis) and the Ph.D.

C.1. DEGREE REQUIREMENTS

To obtain a degree, students must satisfy two sets of requirements:

(a) Graduate College requirements and
(b) Computer Science departmental requirements.

The Graduate College requirements are detailed in the following documents.

- The Graduate College Handbook
  http://www.grad-college.iastate.edu/publications/gchandbook/homepage.html
- The Graduate College Thesis Requirements
  http://www.grad-college.iastate.edu/graduation/

The Computer Science department’s requirements are summarized below, in section D.

C.2. GRADUATE ADVISOR

Upon admission, all students will work with the faculty members of the Graduate Committee, who will assist with academic matters.

During the first year of study, you will choose a faculty member (with his or her consent), to be your major professor. The major professor will serve as your primary academic advisor and the chair of your program of study (POS) committee (see below). Besides supervising your academic program and research, your advisor can be of general assistance to you. Please consult with your advisor when you have questions, problems, or need help in any matter. You should make an appointment with your advisor each semester prior to course registration, to go over your plan of study and review your academic progress.

Selecting a major professor is perhaps one of the most important steps in making progress towards your degree. Students should not feel pressured to make a final decision about their future major professor until they have had an opportunity to interact with, and explore research opportunities in several laboratories or research groups. Many faculty members like to know a student reasonably well before they agree to accept the student into their research group. Participation in research seminars, research projects, or courses offered by professors can help both the student and the professor assess compatibility of their research interests, work habits, etc. that are essential for the success of a student-mentor relationship.

When a Computer Science faculty member agrees to serve as a student’s major professor, the faculty member is expected to arrange assistantship support for the remainder of the student’s degree program, as long as the student remains in good standing and is making good progress towards the degree. Very few professors are able to "guarantee" a specific source of graduate assistantship support for several years. It is important, therefore, for each student to take an active role in

1 If appropriate, you may have two co-advisors.
discussing future assistantship funding with the major professor. Most students receive support as either a Research Assistant (RA) or a Teaching Assistant (TA), with funding supplied by the major professor and/or the department. In some cases, students receive support from other sources, such as scholarships, training grants, or competitive research assistantships.

C.3. PROGRAM OF STUDY (POS) COMMITTEE

The Program of Study (POS) committee is chaired by your advisor, and formally supervises your research; it officially approves your thesis or dissertation. Details on the composition of this committee vary with the degree, and are described below. Your advisor will help you choose the members of your committee to best suit your research. The committee is made official by filing a POS committee form.

The POS itself is a plan for what courses you will take to fulfill the degree requirements. It is agreed to by your POS committee and made official by filing a POS course form. Both forms should be filed by the end of your second semester of graduate study.

D. SATISFACTORY ACADEMIC PROGRESS

The graduate committee evaluates student progress towards graduation every semester. Students and faculty advisor(s) are requested to provide information as required for this purpose. Any concerns regarding a student’s academic progress are communicated to the student and his/her faculty advisor(s) by the DOGE. Cases where a student consistently fails to show satisfactory academic progress in two consecutive semesters will be further discussed with the student’s faculty advisor(s). In this case, the student may become ineligible for continued financial support from the department and may become ineligible for further registration as a graduate student in Computer Science. The student can appeal this decision by submitting a written petition, supported by the student’s faculty advisor(s), to the graduate committee.

D.1.1. Satisfactory Academic Progress Towards a M.S.

- Choice of Major Professor to be made by February 1 (or September 1 if admitted in spring) during the first academic year study in the graduate program.
- Program of Study (POS) Committee to be formed, and the POS form (listing the courses to be taken) by the end of the second semester of study in the graduate program.
- Demonstrate research productivity in terms of publications, technical reports, software development, etc.
- Minimum GPA of 3.2 during the first year and cumulative GPA of 3.3 or above in courses that appear on the Program of Study.

D.1.2. Satisfactory Academic Progress Towards a Ph.D.

- Choice of Major Professor to be made by May 1 (or December 1 if admitted in spring) during the first academic year of study in the graduate program.
• Program of Study (POS) Committee to be formed, and the POS form (listing the courses to be taken) by the end of the third semester of study in the graduate program.
• Demonstrate research productivity in terms of publications, technical reports, software development, etc.
• Satisfy all grade requirements (see Section E.2.4)

E. GRADUATE DEGREE REQUIREMENTS

E.1. REQUIREMENTS FOR THE MS DEGREE

E.1.1. Admission Status: Full admission
Students entering with provisional or restricted admission will be upgraded to full admission once all requirements for full admission have been met.

E.1.2. Formation of POS Committee

It is the responsibility of each MS student to find members (especially the chair or co-chairs) for the POS committee and to complete the POS paperwork as soon as possible, but in no case later than the end of the second semester of graduate study. The master’s POS committee consists of at least three (3) members of the graduate faculty. It must include two (2) members, including the major professor, from the major or program. The committee must include member(s) from different fields of emphasis so as to ensure diversity of perspectives. A term member of the graduate faculty may participate in the direction of a student’s master’s research as a co-major professor if a member of the graduate faculty serves as a co-major professor and jointly accepts responsibility for the direction of a program of study.

E.1.3. Course, Research and Credit Requirements
Each student's POS must include at least 31 credits—but no more than 36 credits—including the following:

a. Core Courses: 511, 531 (6 credits)$^2$

b. Breadth Requirement: At least three (3) Computer Science graduate courses from at least two (2) distinct breadth areas (9 credits) listed in the Ph.D. breadth requirements.

c. Thesis or Creative Component: One of the following options.

i. Thesis Option: Six (6) credits of research identified as Com S 699 culminating in the preparation of a thesis.

$^2$ INFAS students are only required to take 511 or 531 (but not both)
ii. **Creative Component Option:** Three (3) credits identified as Com S 599 culminating in a formal paper. The paper will be filed with the department as a technical report. (Note that this option is not available if you are admitted as a Ph.D. student or have Ph.D. student status in the department.)

Regardless of the option, a final oral examination is required. This examination focuses on the thesis or creative component.

d. **Electives:** Courses (9 credits) in Computer Science or other relevant discipline(s). Courses in Computer Science or Computer Engineering must be 500-level or above. Courses in other fields must be (a) available for non-major graduate credit, and (b) 400-level or above (or have POS committee approval). These courses must not include independent study, research, or seminar courses, except that up to three (3) credits of Com S 610 can be counted for this requirement.

e. **Research Colloquia.** (1 Credit). Attend Computer Science Research Colloquia. Write summary reports for at least six colloquium presentations. This course is offered on a satisfactory-failed basis and is intended for first-year graduate students in Computer Science to familiarize themselves with research in Computer Science and computing by attending colloquium series and thesis presentations offered by the department.

**Subject to the following restrictions:**

The POS must include at least three (3) credits in Computer Science at the 600-level (excluding 610 and 699).

**E.1.4. Grade Requirements**

a. A grade of B- or better in each course in E.1.3.a.
b. An average grade point of 3.0 or above over all the courses in E.1.3.a and E.1.3.b.
c. A maximum of 2 C's (C, C+) and no grade below a C on the POS.

**E.1.5. Research Requirements and Guidelines**

**Thesis:**

a. Effort involved should be approximately six (6) credit hours (Com S 699).

b. A research topic should be chosen in consultation with the Major Professor. The result of the research must be an original contribution to the field of Computer Science and must include a thorough literature review.

c. A thesis must be written in the form prescribed by the Graduate College (See:
Creative Component Paper:

a. Creative effort is reflected in three (3) credits of Com S 599.

b. The topic should be chosen in consultation with the Major Professor. It should be developed in terms of the current literature and written to exhibit the student’s understanding of the issues.

c. Final papers for creative components should be in a form suitable for publication. Emphasis is placed on clear writing, logical development, and significance of understanding.

d. A copy of the paper should be given to each member of the POS committee two (2) weeks prior to the final oral examination. The abstract of the paper must be submitted to the department at least one (1) week prior to the final oral examination. A completed copy of the paper must be filed with the department.

E.2. REQUIREMENTS FOR THE PH.D. DEGREE

The purpose of the Ph.D. program is to train students to conduct original research in Computer Science. Each student is required to attain knowledge and proficiency commensurate with a leadership role in Computer Science. The specific degree requirements are as follows:

E.2.1. Admission Status

Full admission to the Ph.D. program, is a prerequisite for pursuing a Ph.D. degree. Students entering with provisional or restricted admission need to have their status upgraded to full admission upon satisfying all requirements for full admission.

E.2.2. Formation of POS Committee

It is the responsibility of each Ph.D. student to find members (especially the chair or co-chairs) for the POS committee and to complete the POS paperwork as soon as possible, but in no case later than the end of the third semester of graduate study.

The POS committee for a doctoral program consists of at least five (5) members of the graduate faculty. It must include at least three (3) members, including the major professor, from within the student’s major or program. The committee must include member(s) from different fields of emphasis so as to ensure diversity of perspectives. A term member of the graduate faculty may participate in the direction of a student’s dissertation research as a co-major professor if a
member of the graduate faculty serves as a co-major professor and jointly accepts responsibility for direction of the dissertation.

E.2.3. Course, Research, and Credit Requirements

Each POS must include at least 72 credits in the program-related portion. Up to 36 credits from a student’s master’s degree can be applied to the POS. Requirements including the following:

a. **Core Courses**: 511, 531 (6 credits)

b. **Breadth Requirement**: At least four (4) Computer Science graduate courses from at least two (2) distinct breadth areas (12 credits) that are different from the student’s area of research. If a student takes a course that is listed in multiple breadth areas then the student may count that course to cover only one breadth area.

**Breadth Areas**

1. Artificial Intelligence and Machine Learning – Com S 572, 573, 574, 634, 672, 673.
6. HCI/Graphics and Robotics – Com S 518, 557, 558, 575, 577, 657
7. Software Engineering and Programming Languages – Com S 509, 512, 515, 540, 541, 556, 641.

c. **Research**: Minimum of 36 total research credits of which 24 must be completed under the supervision of the POS committee.

d. **Electives**: Courses in Computer Science or other relevant discipline(s). Courses in Computer Science or Computer Engineering must be 500-level or above. Courses in other fields must be (a) available for non-major graduate credit, and (b) 400-level or above (or have POS committee approval). These courses must not include independent study, research, or seminar courses. A maximum of 17 credit hours of non-Computer Science courses can appear on the POS.

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3Master’s students should avoid putting more than the required number of credits on their POS to avoid problems with this rule.
g. **Research Colloquia.** (1 Credit). Attend Computer Science Research Colloquia. Write summary reports for at least six colloquium presentations. This course is offered on a satisfactory-failed basis and is intended for first-year graduate students in Computer Science to familiarize themselves with research in Computer Science and computing by attending colloquium series and thesis presentations offered by the department.

**Subject to the following restrictions:**

- The POS must include at least 6 credits of Com S 600-level courses (excluding Com S 699 and including, at most, 3 credits of Com S 610).
- A maximum of 6 credits of Com S 590, 610 and 690 can appear on the POS.
- PH.D. students are required to take Statistics 430 unless their POS committee waives this requirement.

**E.2.4. Grade Requirement**

a. A grade of B- or better in each course in E.2.3.a.
b. An average grade point of 3.0 or above over all the courses in E.2.3.a and E.2.3.b.
c. A minimum overall GPA of 3.5 for all courses in POS
d. A minimum GPA of 3.5 in three courses in student’s research area (see E.2.5 for details).

**E.2.5. Area Proficiency**

Demonstrate a high level of proficiency in the chosen area of research. This can be accomplished by attaining a 3.5 GPA in three courses in the student’s area, all of which are completed at ISU. The POS committee is responsible for selecting the courses in the student’s area that can be used for this requirement. (The “student’s area” does not have to correspond exactly to one of the areas defined for the breadth requirement.)

**E.2.6. Research Skills Requirement**

Demonstrated proficiency in reading, writing, and speaking skills through *one* of the following:

**a. Foreign Language.** Demonstrated proficiency in foreign language by either earning a score equal to or better than the 50th percentile level score on the GSFLT foreign language examination or by one academic year of formal study in a foreign language at a grade of B or better. The student and his/her POS Committee should deem the choice of language relevant to the student’s area of research. English may be considered as a foreign language only for those students whose native tongue (other than English) is deemed an acceptable language for research.
b. English. Demonstrated proficiency in communication skills with a grade of B or better by taking a two semester sequence. The sequence will consist of English 314 and a 500-level course in either English or Journalism carrying graduate minor credit. These credits must be taken in addition to the 72 credit total.

c. Publication. Demonstrate proficiency in communication skills by publishing a paper in English, as the sole or major author, in a reputable computer journal or conference proceedings, with written reports from the referees. The student is encouraged to present a colloquium on this material to the Computer Science faculty and graduate students.

On the basis of the publication, the student's POS committee will decide if the research communication skills of the candidate are adequate or if the candidate would be well served by further development of these skills. In the former case, the manner in which the research communication skills have been satisfied are to be documented by the POS committee in the form of copies of:

1. the article, and
2. the referee reviews and letter of acceptance. This document is to be placed in the student's file.

E.2.7. Required Examinations

a. Preliminary Examination: The purpose of the Preliminary Examination is to ensure that the graduate student is prepared to pursue a significant, enduring program of original research. The area proficiency requirements must be completed prior to completing the preliminary exam.

Phase 1 of the preliminary examination is written. This portion of the examination contains the following components: an original research paper that is publishable in a refereed computer science journal. The student must be a sole or major author of any paper used. Papers that have already been published or that have been used to satisfy other requirements (e.g., M.S. research) are permissible, provided that they meet the stated criteria; OR, a comprehensive written examination on areas of Computer Science pertinent to the student's primary area of research and administered and judged by the POS committee.

Phase 2 is an oral presentation of the student's proposed Ph.D. research, including a description of relevant existing literature and the student's progress to date. This phase may also, at the discretion of the POS committee, include oral examination of Phase 1 material. Prior to scheduling the Preliminary Examination, each Ph.D. student must satisfy the Area Proficiency Requirement, form a POS Committee, and satisfy the Research Skills Requirement. Either phase of the preliminary examination may, with the approval of the POS committee, be retaken once.
b. **Final Oral Examination.** This examination is a defense of the dissertation.

**E.2.8. Research and Dissertation Requirement**

The most important component of the Ph.D. program is original research, culminating in the preparation of a Ph.D. dissertation. It is expected that each Ph.D. student's research will also lead to publications in refereed Computer Science conferences, journals, or as a book. The dissertation must satisfy the graduate college’s requirements, see the graduate college’s thesis requirements: [http://www.grad-college.iastate.edu/thesis/homepage.html](http://www.grad-college.iastate.edu/thesis/homepage.html).

**E.3. REQUIREMENTS FOR A CO-MAJOR AT THE PH.D. LEVEL**

**E.3.1. Course, Research, and Credit Requirements**

a. Core courses (6 credits): 511, 531; both with a grade of “B” or higher.

b. Elective courses – Minimum of 21 credits. This must include one (1) Computer Science graduate course from each of four (4) distinct areas listed in the Ph.D. breadth requirements.

c. At least three (3) credits of Com S 610.

Subject to the following restrictions:

- At least 36 credits, including dissertation research credits, must be earned under the supervision of the POS committee.
- The course credits (excluding Com S 590, 610, 690, 699) must add up to at least 36 credits.
- The POS must include at least 6 credits of COM S 600-level courses (excluding 699 and including, at most, three (3) credits of 610)
- A maximum of 6 credits of Com S 590, 610 and 690 can appear on the POS.

**E.3.2. Grade requirements for the Ph.D.**

No more than two C's (C, C+) and no grade below a C on the POS.
E.3.3. Required Examinations

a. Preliminary Examination: The purpose of the Preliminary Examination is to ensure that the graduate student is prepared to pursue a significant, enduring program of original research. The area proficiency requirements must be completed prior to completing the preliminary exam.

Phase 1 of the preliminary examination is written. This portion of the examination contains the following components: an original research paper that is publishable in a refereed computer science journal. The student must be a sole or major author of any paper used. Papers that have already been published or that have been used to satisfy other requirements (e.g., M.S. research) are permissible, provided that they meet the stated criteria; OR, a comprehensive written examination on areas of Computer Science pertinent to the student's primary area of research and administered and judged by the POS committee.

Phase 2 is an oral presentation of the student's proposed Ph.D. research, including a description of relevant existing literature and the student's progress to date. This phase may also, at the discretion of the POS committee, include oral examination of Phase 1 material.

Prior to scheduling the Preliminary Examination, each Ph.D. student must satisfy the Area Proficiency Requirement, form a POS Committee, and satisfy the Research Skills Requirement. Either phase of the preliminary examination may, with the approval of the POS committee, be retaken once.

b. Final Oral Examination. This examination is a defense of the dissertation.

E.3.4. Selection of Major Professor and POS

The graduate student will normally select a Major Professor and Co-major Professor graduate faculty member from each department. The POS Committee will consist of at least two members from each department and one member outside of both departments.

E.3.5. Research and Dissertation Requirement

The most important component of the Ph.D. program is original research, culminating in the preparation of a Ph.D. dissertation. It is expected that each Ph.D. student's research will also lead to publications in refereed journals. See the graduate college’s thesis requirements for further details: [http://www.grad-college.iastate.edu/thesis/homepage.html](http://www.grad-college.iastate.edu/thesis/homepage.html).
E.4. Graduate Minor Requirements

E.4.1. Minor Outside Computer Science

Computer Science graduate students may request a minor in another graduate program provided they:

- Receive permission and meet requirements of the minor department.
- Have a minor representative from the minor department on the POS committee
- Receive approval from the POS committee

Minor must be declared on the POS and listed on all pertinent paperwork.

E.4.2. Minor in Computer Science

Students pursuing graduate degrees in other disciplines can obtain a graduate minor in Computer Science. A graduate minor in Computer Science consists of at least 12 credits chosen from Com S 309, 311, 321, 330, 331, 342, 352, 362, 363, 401, 425, 430, 454, 455, 461, 472, 474, and Com S courses numbered 511 or above. The course selection must also satisfy the following conditions.

1. At most one of Com S 321, 330, 362 may be included in the 12-credit minimum.
2. At least 3 credits must be chosen from courses at or above the 400 level.

Any exceptions must be petitioned by the student's POS Committee and approved by the Graduate Committee. When a graduate student chooses a minor in Computer Science, one member of their Program of Study committee must be a faculty member from Computer Science.

F. Course Descriptions

Please use the ISU course catalog available at
http://catalog.iastate.edu/collegeofliberalartsandsciences/computerscience/

G. Policies and Procedures

G.1. Petitions and Exceptions

Exceptions to policies regulations may be approved by the graduate committee. Requests for exceptions must clearly state the rationale for the exception and what alternate procedure will be completed to satisfy the requirements. This must be in writing from the student, approved by the
student's POS committee, and submitted to the Graduate Committee representing the departmental graduate faculty.

**RETURNING FOR A PH.D.**

Students aspiring to return to graduate study for a Ph.D. after having left the graduate program upon receiving their MS degree must satisfy the following criteria:

- GPA over 3.5 during their previous graduate study in Computer Science at ISU.
- Recommended to continue for Ph.D. by POS Committee at M.S. Final Defense
- Support of their potential major professor who submitted request to the DOGE.

Assistantship support for students returning for a Ph.D. is not guaranteed.

**G.2. SWITCHING FROM PH.D. TO MS**

Students who are admitted to the Ph.D. program and who later wish to transfer to the M.S. program must make the transfer concomitant with selection of a major professor (before the start of the second year). Students will be financially responsible for their education after the transfer. Transfers after the first year require approval of the CS Graduate Committee.

**G.3. MS ON PHD TRACK**

Students in the MS program who decide to continue their research into the PhD program may apply with the appropriate form. With approval from the major professor and DOGE, a student may either opt to do both degree programs or they may bypass the MS program and proceed directly with the PhD.

**G.4. FUNDING**

**G.4.1. Overview of Funding**

The department of Computer Science will make its best effort to provide support through a combination of fellowships, teaching assistantships (TA) and research assistantships (RA) to all Ph.D. and M.S. students who are making satisfactory progress in the degree program into which they were admitted. (The department makes no commitments regarding continued support of students originally admitted into the Ph.D. program if they change their degree objective from Ph.D. to M.S).

Graduate assistants are employed for ¼-time (10 hours per week), 1/3 time (15 hours per week) or ½-time (20 hours per week). These assistantships are limited and awarded on a competitive basis. Reappointment eligibility is based on academic progress, performance evaluation, and availability of funds.
International students should contact the International Student and Scholar’s Office (ISSO) for specifics regarding employment related to their visa.

The maximum number of departmental support given is:

- Four (4) semesters of support prior to completing the M.S. requirements
- Seven (7) semesters before the Ph.D. Preliminary Examination is passed
- Ten (10) semesters before the Ph.D. is granted
- To be eligible for financial support beyond the M.S. degree, the following criteria must be satisfied:
  1. cumulative GPA of at least 3.5 in Computer Science graduate courses,
  2. recommendation by POS committee for continuation toward the Ph.D.,
  3. recommendation for continuation by a Computer Science professor directing the student's Ph.D. research.

The Graduate Committee requires a memo from student and major professor requesting special permission for continued funding if time limits are exceeded. This memo should include: estimated time to completion of degree, why extra time is required, and research plan. Not all requests are granted.

G.4.2. Fellowships

G.4.3.
Qualified US citizens and permanent residents may be nominated for fellowships and traineeships offered by NSF and NIH funded training programs at ISU (e.g., the Integrative Graduate Education and Research Training (IGERT) program in Bioinformatics (www.igert.iastate.edu)).

Highly-qualified graduate students may be nominated for fellowships offered by various organizations (e.g., IBM, Pioneer Hi-Bred, NSF, NIH, DOE, NASA).

The stipend and other benefits associated with such fellowships are typically determined by the funding source.

G.4.4. Stipends (TA or RA)

- Pre-M.S. -- $1,500/month
- Post-M.S. -- $1,600/month

There are two ways for a student to qualify for Post M.S. stipends in Computer Science.
1. The successful completion of the M.S. oral defense and submission of a thesis.

2. The successful completion of the M.S. degree requirements (minimum of 24 course credits, 6 hours of research), and a completed original research paper that is either published, or in the judgment of the POS committee, publishable, in a refereed Computer Science venue. The major professor will notify the graduate student office via email of satisfactory completion and stipend change.

- Post-PH.D. Preliminary Exam -- $1,800/month.

  Students qualify for the post Ph.D. preliminary stipend by successfully completing the Ph.D. Preliminary Examination.

**G.5. TERMINATION OF APPOINTMENT**

One or more of the following may be grounds for termination of appointment:

A. Failure to maintain the stipulated cumulative grade point average (3.0) set by the Graduate College for appointment. The assistant will be dismissed at the end of the semester in which notice of academic probation is received, but the grace period may be extended for a specified period of time by an agreement between the DOGE and the Graduate Dean.

B. Failure to comply with graduate student responsibilities.

C. Personal conduct seriously prejudicial to the university, including violation of the Regents' "Uniform Rules of Personal Conduct" and general university regulations.

D. Neglect of duty or incompetence.

**G.6. CRITERIA FOR RENEWAL OF ASSISTANTSHIPS (TA, RA)**

**G.6.1. Criteria for Renewal of TA Appointments**

Decisions concerning continuing TA appointments are made by the Department Chair, in consultation with the DOGE and with input from faculty. Prerequisites for continuing TA appointment are:

(a) **Satisfactory Academic Progress** – It is certified by the DOGE / Graduate Committee.

(b) **Satisfactory performance of assigned TA responsibilities** – It is determined by the Chair based on written evaluations from TA supervisors, student evaluation, and other appropriate form of input. Graduate students must submit complete GTA applications before the deadline in order to be considered.
(c) **English proficiency** – Applicants must achieve Level 1 SPEAK-TEACH test rating for students who have been in the program for at least 2 years, and level 2 for all others.

(d) **Timely progress towards degree** - It is expected that Ph.D. students will successfully defend their dissertations by the 10th semester of study in the graduate program and M.S. students will defend their thesis by the end of the 4th semester of study in the graduate program.

(e) **Application for renewal of TA appointment** – Application must be completed before the departmental deadline for applications for renewal of TA appointments.

In rare cases, students who fail to meet some of the above criteria may be offered renewal of TA appointment, subject to availability of funds, at the discretion of the department chair, in consultation with the DOGE, provided one or more of the following criteria are met:

(a) **Exceptional research productivity** (as evident from publication of research papers in refereed conferences and journals) or **research potential** (in the case of students who have been in the program for less than 2 years)

(b) **Endorsement from Major Professor**

(c) **Ability to assist in a broad range of courses taught in the department**

(d) **Match with specific teaching needs of the department**

(e) **Exceptionally good TA evaluations**

(f) **Specific Request from Instructor for a specific course**

(g) **Extenuating circumstances**

### G.6.2. Criteria for Renewal of RA Appointments

Decisions concerning continuing RA appointments are typically made by the research supervisor, **subject to availability of funds**. Prerequisites for renewal of RA appointment are:

(a) **Satisfactory Academic Progress** (as certified by the DOGE / Graduate Committee).

(b) **Satisfactory performance of assigned RA responsibilities** - determined by the research supervisor

(c) **Timely progress towards degree** - It is expected that Ph.D. students will successfully defend their dissertations by the 10th semester of study in the graduate program and M.S. students will defend their thesis by the end of the 4th semester of study in the graduate program.

In rare cases, students who fail to meet some of the above criteria may be offered renewal of RA appointment at the discretion of the research supervisor provided one or more of the following criteria are met:
(d) **Exceptional research productivity** (as evident from publication of research papers in refereed conferences and journals)

(e) **Endorsement of the POS committee**

(f) **Extenuating circumstances**

**REGISTRATION, FEE ASSESSMENT, AND WITHDRAWAL PROCEDURES**

**G.6.3. Registration**

All students who attend classes at ISU must register and pay assessed tuition and fees. The ISU [Schedule of Classes](#) is the official source of information about registration and fee payment for all students at ISU and may be found:

- on the ISU Office of Registrar’s [World Wide Web site](#) and,
- in department and college offices.

Specific dates for registration are listed:

- on the Registrar's [web page](#),
- on the University Calendar,
- in the ISU [Schedule of Classes](#),
- in the Iowa State Daily, and
- on many department bulletin boards.

Registration for summer session should be completed during the spring, at the same time as registration for fall semester. All students are encouraged to register for courses on the web through AccessPlus. Detailed instructions are provided in the ISU [Schedule of Classes](#) and on the ISU Office of Registrar’s [website](#).

**G.6.4. Audit Registration**

Audit registration means taking courses without receiving formal credit. The audit policy provisions are as follows:

- Instructors must approve **ALL** audits.
- Students must register for audits by day 10 of the semester.
- Changes to or from an audit must be made in the first 10 days of the semester.
- Students are assessed tuition and fees as though they were taking the course for credit.
- The course **DOES NOT** count in determining full-time student status.

Audited courses do not appear on the student’s permanent record unless the "[Request for Audit(s) to Appear on Transcript](#)" form is completed and signed by the student, course instructor, and major professor. Copies of this form, which are available from the Graduate College, must be filed with the Graduate College, Pearson Hall. (For a list of other Graduate College forms, see [Appendix B](#) or check the Graduate College's [web site](#).) After the fifth class day, if a student
changes a regular course to an audit, that course will appear on his/her permanent record as a drop. Audits are not acceptable as registration for loan deferments.

G.7. TUITION AND FEES

G.7.1. Graduate Students on Assistantship

Fee Assessment. Graduate assistants must register and pay tuition and fees for each term in which they hold an appointment for more than five class days. (See Credit Load Limitations)

State of Iowa students with graduate assistantships:

- 1/4 time or more for three months (six weeks in the summer) or more are assessed Iowa resident tuition and may earn a Graduate College tuition scholarship.
- 1/4 time or more for more than five class days but less than three months (six weeks in the summer) are assessed tuition by the credit hour and are not eligible for a Graduate College tuition scholarship.

Nonresident students (non-Iowa students and nonresident aliens) with graduate assistantships:

- 1/4 time or more for three months (six weeks in the summer) or more
  - retain their non-residency classification,
  - are assessed resident tuition as long as the graduate assistantship is continued, and
  - may earn a Graduate College tuition scholarship.
- 1/4 time or more for more than five class days but less than three months (six weeks in the summer)
  - retain their non-residency classification,
  - are assessed tuition by the credit hour, and
  - are not eligible for a Graduate College tuition scholarship.

Students on restricted admission status or probation may be appointed to an assistantship on a term basis but are not eligible for a Graduate College tuition scholarship.

G.7.2. Graduate Students on Fellowship

Graduate students receiving fellowships that provide for payment of tuition and/or fees are assessed the full-time rate in accordance with their residency status. Assistantship support provided to such students is considered to be supplemental income, so fee reduction and the Graduate College tuition scholarship normally associated with assistantship support do not apply.

G.7.3. Graduate Students on Other Appointments

Graduate students appointed as instructors, research associates, postdoctoral research associates, or assistant professors are approved by the Office of the Registrar for state of Iowa residency and
pay resident tuition according to the number of credit hours taken. Spouses of students holding any of these appointments are also approved for state of Iowa residency and pay the same resident tuition. Nonresident students (non-Iowa and nonresident aliens) with the above appointments and their spouses have the nonresident portion of their tuition waived only while the appointment is in effect. State of Iowa residency is not granted as a result of the graduate appointment.

**G.7.4. Minimum Fee**

The Iowa State Board of Regents has set the minimum fee for graduate registration at the rate for two credit hours. In circumstances where students must be registered for minimum credit hours (e.g., term of preliminary or final oral examinations), they will be charged tuition and fees for no less than the equivalent of two credits.

**G.8. Withdrawal from the University**

Withdrawal is not permanent for graduate students; it always applies to a specific term. Reentry is activated when registration for a future term occurs. To withdraw for a specific term, a student must:

- complete a "Request for Withdrawal" form,
- have the form signed by the academic adviser or major professor, and
- submit the signed form to the classification officer in the Graduate College (Pearson Hall).

The effective date of the withdrawal is the date the form is signed by the classification officer in the Graduate College. The withdrawal slip is forwarded to the Office of the Registrar where it is recorded.

If the student completes the withdrawal procedure, no indication of the courses for which the student registered is placed on the permanent record. A notation of withdrawal and the withdrawal date are placed on a student’s permanent record. Students who withdraw are not eligible for incompletes (I marks) during that term. Students who withdraw after completing first half-semester courses receive grades for those courses.

If these procedures for withdrawing from the university are not followed, the instructors of the courses involved will assign whatever grades or marks they consider appropriate. Since these grades may be Fs, the student who fails to follow the prescribed withdrawal procedures may adversely affect their ability to reenter later or transfer to another institution.

Students who withdraw before the first day of classes avoid tuition and fee assessment. Fee adjustments for those withdrawing after classes start will vary according to the detailed instructions found in the fees and payment section in the ISU Schedule of Classes and Tuition and Fees website. The ISU Continuing and Distance Education Office (102 Scheman, 515-294-6222) has a separate policy for off-campus courses.
G.9. **Code of Computer Ethics**

http://www.cs.iastate.edu/documents/cs-ethics.html

You, as a user of computer science computing facilities, are responsible for adhering to accepted standards of ethical behavior. Any unethical use of resources (information, software, hardware), either local to the department or externally accessible via computer networks, will be treated like any other ethical violation as outlined in the Student Information Handbook and in applicable faculty and staff handbooks.

Computer information (stored or in transit) should be treated with the same respect, integrity, and confidentiality as the written or spoken word. Viewing and using information (programs, files or other data) without authorized permission is an invasion of privacy. Such behavior, if used for academic gain, is considered plagiarism. Modifying information and preventing or delaying access to resources are considered acts of destruction. Ethical standards apply even when information is left unprotected. The following statements are general guidelines for ethical use of the computing resources.

All users of departmental computers must have an authorized account. Faculty, staff and computer science majors are provided with continuing accounts. Each non-major is provided with an account for the duration of the enrollment in specific computer science classes. Other accounts must be requested by an individual or sponsoring professor and must be authorized by a designated department administrator. Unless otherwise specified, each account becomes the sole responsibility of its owner and is to be used solely for authorized purposes. For example, student accounts are intended to be used for class assignments and other departmental-oriented activities that are consistent with obtaining an education in computer science. Use of an account by individuals other than the owner or use of an account on the behalf of other individuals is prohibited.

Users are expected to take reasonable precautions to guard against unauthorized use of their accounts or access to confidential information through careful selection of passwords and protection of files. (See *Guidelines to Password Selection and Maintenance* for guidelines on password selection and maintenance.)

Users must not browse, access, copy or change private or public files for which they clearly have no authorization. Also disallowed is the modification of the computer system, damage or alteration of software, and the copying of software specifically licensed for use by the department or university.

Because computing resources are limited, they should be used efficiently in order to minimize any adverse impact on others, e.g. game playing should not be excessive and must be avoided entirely whenever it negatively impacts the accessibility of the computing resources. Compute-intensive processes that are expected to execute for an extended period should be run at low
priority. The use of invasive software, such as “worms” and “viruses” destructive to computer systems is illegal. Misuse, waste and/or the disruption of the intended use of resources is prohibited (e.g., the flooding of other users with excessive and/or unwanted information).

The installation and use of any program on departmental computers that provides a service to others on the network, or prolonged connections to (or extensive use of) external network services (e.g., http daemons, connection-maintaining daemons, IRC bots or those that appear to act in this manner) via departmental computers must be pre-authorized by the department.

Sending rude, obscene or harassing materials via any electronic means (e.g., electronic mail, bulletin boards, news groups) is forbidden. Also disallowed are random mailings, chain letters and general mailing of messages of commercial, religious, or political nature. Messages of philanthropic content are allowed only if sanctioned by the university.

Displaying material of a sexually explicit or suggestive nature can be considered intimidating, demeaning, hostile or offensive to others and is in violation of the Iowa State University Sexual Harassment Policy.

Hardware, software, manuals, supplies, etc. must not be removed from computing sites.

Abuse or misuse of resources will be regarded as illegal and/or unethical behavior. Any observed or suspected violations are to be reported to the instructor or appropriate department administrator.

Computer Science Department facilities are the property of Iowa State University and the State of Iowa and as such, their use is governed by departmental and university regulations and by state laws. Violators may be billed for illegal use and may be prosecuted under Chapter 716A, Computer Crime of the Iowa Code.

Adapted from the Iowa State University Computer Code of Ethics, the NSF Code of Ethics, the Internet Code of Ethics, September, 1995.