Iowa State University
Department of Computer Science
Graduate Programs Handbook

Effective Fall 2023

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Introduction and Welcome

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

If you're new to Iowa State University, 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 60,000 (35,000 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. We have 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 Integrative Animal Genomics www.ciag.iastate.edu, the Department of Energy's Ames Laboratory www.external.ameslab.gov, the Information Systems Security Laboratory 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, and Human Computer Interaction www.hci.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.

The Department of Computer Science offers Master of Science (MS) degrees in the majors (1) Computer Science and (2) Artificial Intelligence and Doctor of Philosophy (PhD) degree in Computer Science. The first MS degree in Computer Science at Iowa State University was awarded in 1959 and the first PhD in 1962. MS students typically complete degree requirements in two years while PhD students can complete their degree in five years. The MS graduates of our program typically pursue employment in industry whereas most of the PhD graduates typically take up faculty positions in academia or opportunities in industrial research laboratories.

Graduate Program Contacts

Graduate Student Services Specialists
Office Location: 123 Atanasoff Hall
First point of contact for all questions related to the graduate program and graduate admissions.

PhD Graduate Student Services Specialist

Nicole Lewis
nlewis1@iastate.edu
515-294-5779
Appointment Scheduler: https://calendly.com/nlewis11

MS Graduate Student Services Specialist

David Sappenfield
dsapp@iastate.edu
515-294-3203
Appointment Scheduler: https://calendly.com/david-sappenfield

Graduate Student Services Specialist

Carol Kersey
ckersey1@iastate.edu
515-294-2168
Appointment Scheduler: https://calendly.com/carol_kersey

Director of Graduate Education (DOGE)
Office Location: 112 Atanasoff Hall
The DOGE oversees all aspects of graduate studies including being chair of the Graduate Committee.

Dr. Pavan Aduri
pavan@iastate.edu
515-294-7902
Email to schedule an appointment.

Department Executive Officer
Office Location: 226 Atanasoff Hall

Dr. Hridesh Rajan
hridesh@iastate.edu
515-294-6168

Graduate College Handbook

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

1. Graduate College requirements and
2. Computer Science departmental requirements

The Graduate College requirements are detailed in the following documents:

- The Graduate College Handbook, www.grad-college.iastate.edu/handbook/
- The Graduate College Thesis Requirements, www.grad-college.iastate.edu/graduation/

Master's Programs

Research Colloquia Attendance Requirement

All M.S. students are required to attend ***at least 3*** departmental seminars (colloquium, distinguished lectures, graduate student seminars) each semester. You can find details at the department's events page: www.cs.iastate.edu/events. Graduate student exams and industry partner nights ***do not count*** towards colloquia attendance.

Satisfactory Academic Progress & Grade Requirements

a. Choice of Creative Component or Thesis track is made by the end of the first semester.
    a. Thesis students must have a major professor by the end of the first semester.
b. A grade of B- or better in each core course.
c. A maximum of 2 C's (C, C+) and no grades below a C on the POS.
d. An average CGPA of 3.0 or above.
e. Program of Study (POS) form approved no later than the semester prior to graduation.
f. Make appropriate progress towards M.S. degree (see timeline).

Final Oral Exam

This oral presentation focuses on the student's thesis or creative component. It is given to the POS(C) during the last semester of study.

M.S. Academic Timeline

Academic Year 1		
Fall	Spring	Summer
• Coursework • Search for Summer Internships • *Thesis Track – Begin Research*	• Coursework • Confirm Summer Internship • *Thesis Track – Form Thesis Committee*	• Internship • *Thesis Track – work on research*

Academic Year 2		
Fall	Spring	Summer
• Coursework • Submit POS(C) • *Thesis Track –Prepare written report*	• Final Coursework • Apply for Graduation • Final Oral Exam • Attend Commencement Ceremony	• Receive Diploma • Begin Career

M.S. Computer Science, Creative Component

By default, all students admitted into the MS program are admitted into the Creative Component track. The Creative Component track is considered terminal, and you will not be allowed to continue into the Ph.D. program in our department at ISU.

Formation of POS(C)

Instructor of COM S 599 will serve as major professor for creative component students. The POS committee consists of one additional member of the graduate faculty.

The POS must include at least 33 credits and meet all the following requirements:

- **Core Courses** (12 credits): COM S 511, COM S 552, COM S 540, and COM S 572
- **Breadth Courses** (12 credits): One course from each of the following areas: *Theory, Systems, Software, and Application*. Refer to the breadth area course list below.
    - **Theory requirement:** Students are required to take COM S 531 ***or*** you can pass a test-out exam for COM S 331 ***and*** then take a theory course other than 531.
    - Courses cannot be double counted in multiple requirement areas.
    - If a COM S course is not listed as part of any of the breadth areas, students must get approval from the DOGE prior to taking the course.
- **Electives** (6 credits): Two courses from COM S 500-level or above on computing related topics. Any courses that is not listed in the COM S catalog, will require approval from major professor prior to taking the course.
- **Advanced topics:** The POS must include at least three credits of a COM S 600-level course (excluding COM S 610 and 699). This course can be used to satisfy a breadth or elective requirement.
- **Creative Component** (3 credits): COM S 599 is offered as a capstone course and students are expected to complete a project assigned by the course instructor. The instructor of COM S 599 will be listed as the student's major professor on the POS(C) form. To pass the course, the students must complete the assigned project, do an oral presentation, and receive a minimum of B- in the course. This is taken in the final semester. COM S 511 is a pre-requisite.

Breadth Areas for M.S. Computer Science, Creative Component

- Theory: COM S 521, 531, 534, 535, 578, 611, 612, 631, 633, 634
- Systems: COM S 527, 554, 559, 561, 581, 586, 587, 652, 661
- Software: COM S 509, 510, 512, 513, 515, 516, 541, 556, 635, 641, 665
- Applications: COM S 514, 518, 525, 526, 533, 535, 544, 549, 550, 551, 555, 557, 558, 567, 570, 573, 574, 575, 576, 577, 579, 583, 626, 657, 672, 673, 681

M.S. Computer Science, Thesis

A student may choose to do the thesis track provided they find a major professor and a thesis topic by the end of their first semester. PhD students who wish to obtain an MS degree along the way must complete a thesis not creative component.

Formation of POS(C)

The POS(C) must include the major professor and two committee members. One of the committee members must be from outside the thesis field of emphasis so as to ensure diversity of perspectives.

The POS must include at least 30 credits and meet all the following requirements:

- **Core Courses** (6 credits): COM S 511, COM S 531
- **Breadth Courses** (9 credits): Three COM S 500-level courses from a minimum of two different breadth areas. Refer to the breadth area course list below.
- **Electives** (9 credits): Three courses from COM S 500-level or above on computing related topics. You cannot use independent study, research, or seminar courses, except up to three credits of COM S 610 can be counted for this requirement. Any courses that is not listed in the COM S catalog, will require approval from major professor prior to taking the course.
- **Advanced topics:** The POS must include at least three credits of a COM S 600-level course (excluding COM S 610 and 699). This course can be used to satisfy a breadth or elective requirement.
- **Research** (6 credits): COM S 699 is taken as independent research culminating in the preparation of a thesis under the supervision of student's major professor. These credits can be taken in any variable (1 – 6).

Breadth Areas for M.S. Computer Science, Thesis

- Artificial Intelligence & Machine Learning: COM S 572, 573, 574, 578, 579, 634, 672, 673
- Computer Architecture & Parallel Computing: COM S 525, 526, 527, 581, 583, 625, 626, 681
- Bioinformatics & Computational Biology: COM S 544, 549, 550, 551, 567, 568, 569, 570, 596
- Database & Information Systems: COM S 561, 562, 661
- Distributed Computing, Networks & Operating Systems: COM S 527, 552, 554, 555, 559, 586, 587, 612, 652, 688
- HCI/Graphics & Robotics: COM S 514, 518, 557, 558, 575, 576, 577, 657
- Software Engineering & Programming Languages: COM S 509, 510, 512, 513, 515, 516, 540, 541, 556, 641, 665
- Theoretical Foundations, Algorithms & Complexity: COM S 518, 533, 534, 535, 578, 611, 612, 631, 633

M.S. Artificial Intelligence, Creative Component

By default, all students admitted into the MS program are admitted into the Creative Component track. The Creative Component track is considered terminal, and you will not be allowed to continue into the Ph.D. program in our department at ISU.

Formation of POS(C)

Instructor of COM S 599 will serve as major professor for creative component students. The POS committee consists of one additional member of the graduate faculty.

The POS must include at least 30 credits and meet all the following requirements:

- **Core Courses** (9 credits): COM S 511, COM S 572, COM S 573
- **Area Proficiency Courses** (9 credits): Choose three courses from COM S 574, 575, 577, 578, or 579
- **Electives** (6 credits): Choose two courses from any COM S course numbered 510 or above. Other options: CE 650, EE 526, CPRE 560, HCI 515, STAT 502, ME 592, MIS 546, ABE 506.
- **Advanced topics** (3 credits)**:** Choose one course from COM S 611,612 , 634, 672, 673
- **Creative Component** (3 credits): COM S 599 is offered as a capstone course and students are expected to complete a project assigned by the course instructor. The instructor of COM S 599 will be listed as the student's major professor on the POS(C) form. To pass the course, the students must complete the assigned project, do an oral presentation, and receive a minimum of B- in the course. This is taken in the final semester. COM S 511 is a pre-requisite.

M.S. Artificial Intelligence, Thesis

A student may choose to do the thesis track provided they find a major professor and a thesis topic by the end of their first semester. PhD students who wish to obtain an MS degree along the way must complete a thesis not creative component.

Formation of POS(C)

The POS(C) must include the major professor and two committee members. One of the committee members must be from outside the thesis field of emphasis so as to ensure diversity of perspectives.

The POS must include at least 30 credits and meet all the following requirements:

- **Core Courses** (9 credits): COM S 511, COM S 572, COM S 573
- **Area Proficiency Courses** (6 credits): Choose two courses from COM S 574, 575, 577, 578, or 579
- **Electives** (6 credits): Choose two courses from any COM S course numbered 510 or above. Other options: CE 650, EE 526, CPRE 560, HCI 515, STAT 502, ME 592, MIS 546, ABE 506.
- **Advanced topics** (3 credits)**:** Choose one course from COM S 611, 612, 634, 672, 673
- **Research** (6 credits): COM S 699 is taken as independent research culminating in the preparation of a thesis under the supervision of student's major professor. These credits can be taken in any variable (1 – 6).

Doctorate Program

Research Colloquia Attendance Requirement

All Ph.D. students are required to attend ***at least 4*** departmental seminars (Colloquium, Distinguished Lecture, Graduate Student Seminars) each semester. You can find details at the department's events page: www.cs.iastate.edu/events. Graduate student exams and industry partner nights ***do not count*** towards colloquia attendance.

Satisfactory Academic Progress & Grade Requirements

a. Choice of Major Professor to be made by the end of the first semester of study in the graduate program.
b. Program of Study (POS) Committee formed and the POS(C) form approved by ***the end of the second semester*** of study in the graduate program.
c. Make appropriate progress toward doctoral degree in a timely fashion (see timeline).
d. Demonstrate research productivity in terms of publications, technical reports, software development, etc.
e. A grade of B- or better in each core course.
f. An average grade point of 3.0 or above in core and breadth area courses.
g. An average grade point of 3.5 or above in area proficiency courses.
h. An average grade point of 3.3 or above in all POS courses

Ph.D. Annual Student Evaluations

The graduate committee evaluates Ph.D. student progress towards graduation once a year, every November. Students and major professors are requested to provide information as required for this purpose. The DOGE communicates any concerns regarding a student's academic progress to the student and his/her major professor(s).

If a student consistently fails to show satisfactory academic progress in two consecutive evaluations will be further discussed with the student's major professor(s). In this case, the student may become eligible for continued financial support from the department and may be come ineligible for further registration as a graduate student in the department. The student can appeal this decision by submitting a written petition, supported by the student's major professor, to the graduate committee.

Temporary Major Professor Policy

All incoming Ph.D. students will be assigned a temporary major professor. A student may suggest up to three graduate faculty as temporary major professor. The DOGE and Ph.D. Graduate Student Services Specialist will assign each student a temporary major professor within their first few months in the program.

Faculty acting as temporary major professor should encourage their advisees to attend their research group meetings, possibly have brief weekly meetings, advise them on course selection for the next semester, and generally be available to give academic advice. However, they are not expected or supposed to give their advisees research assignments (at most, they could give them reading assignments, if appropriate).

During the first year of study, each Ph.D. student will choose a major professor (with his/her consent). Students are at liberty not to choose the temporary major professor as their permanent major professor. Even though the temporary major professor may become the student's major professor, neither the student nor the temporary major professor may assume that this will happen. Both the student and the faculty should understand that this is a temporary assignment.

Selecting a Major Professor

Besides supervising the student's academic program and research, major professors can be of general assistance to the student. Students may consult with their major professor when they have questions, problems, or need help in any matter. Each student should make an appointment with their major professor each semester prior to course registration to go over his/her plan of study and review their academic progress.

Selecting a major professor is perhaps one of the most important steps in making progress towards graduation. 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 after TA eligibility. Very few professors are able to "guarantee" a specific source of graduate assistantship support for several years. It is important, for each student to take an active role in discussing future assistantship funding with their major professor. In some cases, students receive support from other sources, such as scholarships, training grants, or competitive research assistantships.

Program of Study and Committee, POS(C)

The POS(C) is chaired by the student's major professor and formally supervises his/her research; the committee officially approves the student's dissertation. The student's major professor will

help choose the committee members of the POS(C) to best suit the student's research. The POS itself is a plan for what courses the student will take to fulfill the degree requirements.

Research and Dissertation Requirement

The most important component of the Ph.D. program is original research, culminating in the preparation of a PhD 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 also.

Required Examinations

1. **Research Proficiency Exam (Advancement to Research PhD Student):** This exam is a research presentation to the POS committee, who will determine whether the student has *demonstrated* the ability to conduct significant research. This usually involves presenting the student's own research work that is publishable in a refereed computer science conference or journal. Papers that have already been published while the study was part of the master's program in the Department of Computer Science at Iowa State University can be used to satisfy this requirement. The examination may, with the approval of the POS(C), be retaken once. The POS(C) form must be ***approved*** prior to the exam. Exams can be taken at any time during the semester.
2. **Preliminary Oral Exam (Admitted to Candidacy):** This is an oral presentation of the student's proposed PhD research, including a description of relevant existing literature and the student's progress to date. Student must have at least one article that is accepted to a journal or a conference that is a result of the student's PhD research. The examination may, with the approval of the POS(C), be retaken once. All area proficiency coursework must be ***completed*** prior to this exam.
3. **Final Oral Exam:** This examination is a defense of the dissertation and must be taken during the final semester. A minimum of 6 months is required between the preliminary and final oral exams.

Ph.D. Academic Timeline

Year 1	Complete Core & Breadth Course Requirements Decide on Major Professor and Submit POS(C)
Year 2	Complete Area Proficiency Course Requirements Complete Research Proficiency Exam or MS Thesis
Year 3	Finish up Coursework, May Only Take Research Credits (699) Continue Dissertation Research
Year 4	Take Research Credits (699) Complete Preliminary Oral Exam
Year 5	Take Research Credits (699) Complete Final Oral Exam (Dissertation Defense)

Ph.D. Computer Science, Dissertation

The purpose of the Ph.D. program is to train students to conduct original research in Computer Science. **Students are expected to make substantial contributions to their area of research and publish.**

Formation of POS(C)

The POS(C) must include the major professor and four committee members. One of the committee members must be from outside the dissertation field of emphasis so as to ensure diversity of perspectives.

The POS must include at least 72 credits and meet all the following requirements:

- **Core Courses** (7 credits): COM S 511, COM S 531, COM S 592
- **Breadth Courses** (9 credits): Three COM S 500-level courses from a minimum of two different breadth areas. Refer to the breadth area course list below.
- **Area Proficiency** (9 credits): Three courses from COM S 500-level or above on computing related topics. You cannot use independent study, research, or seminar courses, except up to three credits of COM S 610 can be counted for this requirement. Any courses that is not listed in the COM S catalog, will require approval from major professor prior to taking the course.
- **Advanced topics:** The POS must include at least nine credits of a COM S 600-level course (excluding 699 and including, at most, 3 credits of COM S 610). These courses can be used to satisfy breadth or area proficiency requirements.
- **Research** (36 credits): COM S 699 is taken as independent research culminating in the preparation of a dissertation under the supervision of student's major professor. These credits can be taken in any variable. A minimum of 24 credits must be completed under the supervision of the POS committee.

Breadth Areas for Ph.D. Computer Science

- Artificial Intelligence & Machine Learning: COM S 572, 573, 574, 578, 579, 634, 672, 673
- Computer Architecture & Parallel Computing: COM S 525, 526, 527, 581, 583, 625, 626, 681
- Bioinformatics & Computational Biology: COM S 544, 549, 550, 551, 567, 568, 569, 570, 596
- Database & Information Systems: COM S 561, 562, 661
- Distributed Computing, Networks & Operating Systems: COM S 527, 552, 554, 555, 559, 586, 587, 612, 652, 688
- HCI/Graphics & Robotics: COM S 514, 518, 557, 558, 575, 576, 577, 657
- Software Engineering & Programming Languages: COM S 509, 510, 512, 513, 515, 516, 540, 541, 556, 641, 665
- Theoretical Foundations, Algorithms & Complexity: COM S 518, 533, 534, 535, 578, 611, 612, 631, 633

Co-Major at the Ph.D. Level

The purpose of the Ph.D. program is to train students to conduct original research in Computer Science. **Students are expected to make substantial contributions to their area of research and publish.**

More information about the Co-Major at the Ph.D. Level can be found at www.cs.iastate.edu/co-major-computer-science

Formation of POS(C)

The POS(C) must include a co-major professor from each department (2). And a minimum of three committee members. One of the committee members must be from outside the dissertation field of emphasis to ensure diversity of perspectives.

Course, Research, and Credit Requirements

- **Core Courses** (6 credits): COM S 511, 531, both with a grade of "B-" or higher.
- **Elective Courses** (minimum of 21 credits):
    - This must include **four courses (12 credits)** from four of the eight distinct breadth areas listed on Page 13 (previous page).
    - The remaining **three courses (9 credits)** can be any COM S 500-level or 600-level course.
    - Students are required to take at least **6-credits of 600-level coursework** and up to 3-credits can be COM S 610. These credits are included in the required 21 elective credits.

Subject to the Following Restrictions:

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

Grade Requirements

- A grade of B- or better in each core course.
- A CGPA of 3.3 or above in all POS courses.
- No more than two C's (C, C+) and no grade below C on the POS(C).

See Required Examinations on Next Page

Required Examinations

1. **Research Proficiency Exam (Advancement to Research PhD Student):** This exam is a research presentation to the POS committee, who will determine whether the student has *demonstrated* the ability to conduct significant research. This usually involves presenting the student's own research work that is publishable in a refereed computer science conference or journal. Papers that have already been published while the study was part of the master's program in the Department of Computer Science at Iowa State University can be used to satisfy this requirement. The examination may, with the approval of the POS(C), be retaken once. The POS(C) form must be ***approved*** prior to the exam. Exams can be taken at any time during the semester.
2. **Preliminary Oral Exam (Admitted to Candidacy):** This is an oral presentation of the student's proposed PhD research, including a description of relevant existing literature and the student's progress to date. Student must have at least one article that is accepted to a journal or a conference that is a result of the student's PhD research. The examination may, with the approval of the POS(C), be retaken once. All area proficiency coursework must be ***completed*** prior to this exam.
3. **Final Oral Exam:** This examination is a defense of the dissertation and must be taken during the final semester. A minimum of 6 months is required between the preliminary and final oral exams.

Graduate Minor in Computer Science

Minor in Computer Science

Students pursing graduate degrees in disciplines other than COM S, can obtain a graduate minor in COM S. A graduate minor 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:

- At most one of COM S 321, 330, or 362 may be included in the 12-credit minimum.
- At least one course must be chosen from courses at or above the 400-level.
- Excludes COM S 590, 599, 610, 690, and 699.

Minor Outside Computer Science

- Receive permission and meet requirements of the minor department.
- Have a minor representative from the minor department on the POS(C).
- Receive approval from the POS(C).
- Minor must be declared on the POS(C) and listed on all pertinent paperwork.

Policies and Procedures

Petitions and Exceptions

The Graduate Committee may approve exceptions to departmental policies. Requests for exceptions must clearly state the rationale for the exception and what alternate procedure will be completed to satisfy the requirement(s). Requests must be made in writing from the student, approved by the student's POS(C), and submitted to the Graduate Committee representing the departmental graduate faculty.

More information regarding Pursuit of MS and PhD in the same department can be found at www.cs.iastate.edu/pursuit-ms-and-phd-computer-science

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 M.S. 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(C) at M.S. Final Oral Exam.
- Support of their potential major professor to submit request to DOGE.

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

Moving from M.S. to PhD.

Students planning to move from a M.S. program to the Ph.D. program should first discuss the option with their major professor, DOGE, and graduate specialists. They are required to submit their application via email.

Switching from Ph.D. to M.S.

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 the selection of a major professor (before the start of the second year). Students will be financially responsible for their education after the transfer.

M.S. while Completing Ph.D.

Students who are admitted to the Ph.D. program may obtain MS in A I or MS in COM S on the way to Ph.D. Students must discuss this option with their major professor and send approval to the DOGE. Student's must choose MS-Thesis and should satisfy both the MS and PhD course requirements.

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. students who are making satisfactory progress in their degree program.

Typically, graduate assistants are employed for 10-hours or 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.

Academic Year 2023 – 2024 Tuition, Fees, Stipend, and Benefits (Health Insurance). These are the amounts paid by your TA or RA.

	Tuition	Fees	Stipend	Benefits	You Owe
PhD – 20 hrs.	$6,442.00	$77.00	$9,837.00	$1,368.00	$572.00
PhD – 10 hrs.	$3,221.00	$77.00	$4,919.00	$684.00	$3,793.00
MS – 20-hrs.	$3,221.00	$77.00	$9,837.00	$1,368.00	$3,793.00
MS – 10 hrs.	$1,610.50	$77.00	$4,919.00	$684.00	$5,403.50

Fellowships

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

Renewal of Teaching Assistantships

Decisions concerning continuing TAs are made by the DOGE, Department Chair, and Graduate Specialist. Pre-requisites for continuing TAs are:

- **Satisfactory Academic Progress:** Graduate Specialist and/or DOGE will confirm.
- **Satisfactory Performance of Assigned TA Responsibilities:** This is determined based on written evaluations from course supervisors, student evaluations, and/or other appropriate forms of input.
- **English Proficiency:** TAs 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. Exceptions to this rule are allowed only based on departmental needs.
- **Application for (Renewal of) Teaching Assistantship:** Application must be submitted before the departmental deadline for renewal of TAs.

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.

Renewal of Research Assistantships

The research supervisor, subject to availability of funds, typically makes decisions concerning continuing Research Assistantships.

Termination of Assistantship Appointment

One or more of the following may be ground for termination of TA or RA:

- Failure to maintain the stipulated CGPA (3.0) set by the Graduate College. The GA 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.
- Failure to comply with graduate assistantship responsibilities.
- Personal conduct seriously prejudicial to the university, including violation of the Regent's "Uniform Rules of Personal Conduct" and general university regulations.
- Neglect of duty or incompetence.

Code of Computer Ethics

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 Graduate College Student 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.

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.