Computer Science Graduate Student Orientation

January 23, 2015
Assembly Hall (2nd floor in the Campus Center above Student Accounts)

Greetings from the CS Department:

• Chair & Graduate Director Neil Murray
• CSI Staff Patricia Seguin
• Systems Administrator William Augustine
• Administrative Manager Kristine Moore

Special Guests:

• Nancy Lauricella Executive Director Community Standards
• PhD students Kim Gero & Peter Hibbs

Practical issues (i.e., full time load, VISA, taxes, etc.)
An excellent source of information on all kinds of questions is the International Student & Scholar Services Office (ISSS). This goes for all graduate students, not just international students, even though their focus is on issues that arise especially for international students. Their website is http://www.albany.edu/isss/

Academic Calendars: Please be aware of deadlines published in the academic calendar for registration activities (including course adds and drops):
www.albany.edu/registrar/academic_calendar.php Please additionally note that deadlines for registration activities differ from the schedules for financial liabilities and refunds:
http://www.albany.edu/studentaccounts/liability.php

The Graduate Bulletin:
The Graduate Bulletin provides information about degree requirements, academic regulations and policies that apply to all graduate students, and the program curriculum to which you have been admitted. The Bulletin also provides course descriptions for your program. The official bulletin is published online and is updated on a regular basis. It can be found at: http://www.albany.edu/graduatebulletin/

The Graduate Bulletin is meant to be a reference during your study to answer questions that may arise. Please consult it regularly. Also, as a graduate student you are bound by the graduate studies policies listed in the Graduate Bulletin. Please read over these policies early to avoid making a serious mistake.

• University at Albany Information
• Listing and description of graduate information in the College of Computing & Information by department (includes program requirements and course descriptions)
• Graduate Studies information including research compliance
• Graduate Policies
• Financial Aid and Expenses
**Academic Integrity:** University policies on academic integrity are described in detail in the Graduate Bulletin. A violation of academic integrity will result in the student(s) involved being considered by the Graduate Committee for recommendation of dismissal from their program. Violations in the past have resulted in such recommendations and in dismissal.

**Program Overview**

**Conditions mentioned in the admission letter:** If your admission letter mentions any undergraduate deficiencies or other conditions, move as quickly as you can to address them. This includes talking to your adviser about having any removed that you think are unnecessary.

**Core Requirements:** Every graduate MS student must complete four core courses totaling 13 or more credits, plus an additional 3 credits in either a project (CSI 680-684), an internship (CSI 698), or a thesis CSI 699).

The core courses and culminating requirements are:

- CSI 503 (3 credits) - Algorithms and Data Structures
  - plus
  - CSI 518 (4 credits) - Software Engineering
  - plus
  - Two of: CSI 500 (4 credits) - Operating Systems
  - or
  - CSI 508 (3 credits) - Database Systems I
  - or
  - CSI 509 (3 credits) - Theory of Computation
  - or
  - CSI 519 (3 credits) - Programming Language Design
  - plus
  - One of: CSI 680-684 (3 credits) - Project (S/U graded)
    - or
    - CSI 698 (3 credits) - Internship (S/U graded)
    - or
    - CSI 699 (3 credits) - Thesis (S/U graded)

A “B” average in these courses is a requirement for graduation. If a student fails to achieve a B average due to the unequal amounts of credit for the courses, an appeal may be made to the department chair or the graduate program chair. Note that satisfaction of the discrete mathematics requirement is a prerequisite for CSI 503. In particular, CSI 503 can be taken in the first semester of graduate study only if a pass has been obtained on the Discrete Mathematics Examination.

**The Project, Internship, or Thesis Requirement**

Masters programs have a “Culminating Requirement”. For computer science, this is a thesis, project, or internship. The thesis option is rarely taken (see handbook).

The project and internship are essentially identical except that the internship must be completed in conjunction with employment in the private or public sector. Each student is responsible for choosing a topic or obtaining employment, around which a significant project can be designed. It is the student’s responsibility to prepare a description of the project and obtain a faculty mentor for it who will issue a permission number for CSI 68x or 698, as appropriate. For details, see the Graduate Handbook.
M.S. and Ph.D. candidates who have chosen a project or thesis topic should meet regularly with their research advisor to discuss progress and goals for remaining work. Students are encouraged to get involved with a research project as quickly as is appropriate. Students are encouraged to submit intermediate or final results to appropriate research journals.

**Specialization Requirements:** See the Graduate Handbook for details.

**Electives and Total Credits**
The master’s degree requires ten CSI courses; currently, this results in at least thirty-one credits of course work. Courses offered by other programs do not count towards the MS degree in Computer Science (unless they are cross-listed with CSI). Exceptions can be made for courses recommended by the student's advisor and approved by the Graduate Committee. This usually occurs only when a non-CSI course is especially relevant to a Masters Project or internship.

**PSM Certificate**
The core course requirements for PSM eligibility are the same as those for the Masters degree, except that the internship option (CSI 698) must be chosen; the project or thesis options cannot be used. In addition, all required credits beyond the internship must be from courses at the 500-level.

Students who complete the computer science requirements for the PSM may obtain the Professional Science Management Certificate by taking an additional nine hours of credit from the approved “plus” courses for the PSM. For details, see the Graduate Handbook.

**Ph.D. Program:** The requirements for continuing on to the Ph.D. are summarized below:

- CSI 500 (4 credits) - Operating Systems
- CSI 503 (3 credits) - Algorithms and Data Structures
- CSI 509 (3 credits) - Theory of Computation
- CSI 518 (4 credits) - Software Engineering
- Plus: CSI 680 or CSI 699 - Project or Masters Thesis (S/U graded)

**The Analytic Examination:** Students must pass three of these area examinations, including one area in group A and two areas in group B. The logic exam can serve as one exam coming from either group.

**Group A:**

- Algorithms: CSI 503, CSI 604
- Theory: CSI 503, CSI 509
Group B:

Artificial Intelligence: CSI 535, CSI 635
Programming Languages: CSI 517, CSI 519
Op. Sys. and Distributed Computing: CSI 500, CSI 600
Scientific Computing: CSI 501, CSI 540
Data and Information: CSI 550, CSI 508

Group A/B:

Logic: CSI 530, CSI 630

Students can get a waiver for the Group A exam if they take all three relevant courses (503, 509, 604), get at least B+ in all of them, and have an average grade of A- or better.

Research Tool Requirement

Doctoral students must demonstrate proficiency in an approved research skill, appropriate to the student’s field of research. Examples of approved research skills include: a foreign language, mathematical logic, queuing models, statistics, and electronics.

Additional requirements are outlined in the Graduate Handbook.

CCI Day: NTCS & NTCIR

Spring 2015 the annual “New Trends” research conference(s) will be held on April 29, 2015, highlighting research topics being investigated by Ph.D. students in both Informatics and Computer Science. These conferences began as New Trends in Information Research (NTIR) within the Informatics Department. Four years later the Computer Science Department began a symposium called New Trends in Computer Science (NTCS), patterned loosely after NTIR. In 2012, the two meetings were co-located and called New Trends in Computing and Informatics Research (NTCIR). In other years, the events were managed separately. For 2015, plans are as yet incomplete.

Colloquia: All graduate students are encouraged to attend departmental colloquia. Colloquium speakers include campus and outside visitors, regular faculty, and doctoral candidates. Students are encouraged to become student members of one or both of the Association for Computing Machinery or the IEEE Computer Society.
Assistantships

9 credit hours required for full-time status
3 year limit for students entering with the MS
4 year limit for students entering without advanced standing
A one-year extension may be granted when an assistant has achieved candidacy (subject to approval by the Graduate Dean’s Office).

Assistantship support may not be renewed in the event that the assistant:

• has a semester GPA below 3.0,
• does not make satisfactory progress towards candidacy (see the Graduate Handbook),
• engages in academic misconduct,
• or otherwise fails to meet the obligations of his/her assignment.

Note that TAs handling labs/discussions must have both midterm reviews and SIRF ratings done on their performance.

TAs must keep office hours and cover their scheduled classes, discussions, or labs during active periods of the academic calendar.

Resources for Teaching Assistants http://www.itlal.org/