Computer Science Orientation

Prasad Tadepalli
Computer Science Graduate Advisor
Terminology you should know

• **Academic Advisor**: Advises on your course work

• **Major Professor**: Directs your research project and replaces the academic advisor.

• **Graduate Advisor**: Advises about general requirements and helps mediate.

• **Ph.D. Committee**: Needs 4 professors and a graduate council representative (GCR). 3 from CS.

• **M.S./M.Eng. Committee**: Needs 3 professors. GCR if thesis option.
M.S. Degree Requirements

• Undergraduate core requirement
• 45 hours of graduate level courses, with at most 6 credits of “blanket-numbered” (50X) courses
• A minimum of 2 courses each from 3 of the following areas
  - Theoretical CS, AI, Computer Systems, Programming Languages, Software Engineering, Computer Vision and Graphics, Any other area approved by the student’s committee
• First year attendance in the weekly colloquium
• A coherent set of 3 courses in the research area
• M.S. Thesis: 9 credits. A research contribution and a publishable paper OR
• M.S. Project: 6 credits. A significant piece of software/system design/experimental work/theory/survey paper/... and a project report.
• A final oral exam on research and course work.
M.Eng. Degree Requirements

- Undergraduate core requirement
- 45 hours of graduate level courses, with at most 6 credits of “blanket-numbered” (50X) courses
- A minimum of 2 courses each from 3 of the following areas
  - Theoretical CS, AI, Computer Systems, Programming Languages, Software Engineering, Computer Vision and Graphics, Any other area approved by the student’s committee
- First year attendance in the weekly colloquium
- A coherent set of 3 courses in the research area
- A final oral exam on some course project and course work.
Ph.D Degree Requirements

• Undergraduate core requirement
• 108 hours of graduate level courses with at most 15 hours of blanket numbered courses
• Passing Ph.D. qualifier
• CS515 (Algorithms), CS517 (Theory of Computation)
• A minimum of three courses each from 3 of the following areas
  - Theoretical CS, AI, Computer Systems, Programming Languages, Software Engineering, Computer Vision and Graphics, Any other area approved by the student’s committee
• One year of colloquium attendance
• Successful completion of preliminary examination
• A Ph.D. dissertation for 36 credits (CS 603)
• Passing a final oral defense of the thesis
Ph.D. Degree Timeline

1. Qualifying exam: Written & oral assessment of:
   1. Research potential. Could be based on student’s own research or a literature survey as determined by the student’s program committee.
   2. Course work preparation. Based on written questions or topics given in advance and followed up in the oral exam.
      - When: 3rd-4th quarter of study if you have an M.S. degree
      - [If only a B.S. degree, then given an additional year]

2. Program meeting: Approval of PhD course of study
   - When: 4th quarter of study

3. Preliminary exam: Assessment of written thesis proposal and oral presentation of the proposal
   - When: 3’rd year of study

4. Final defense: Oral presentation and defense of dissertation
   - When: At completion of research and dissertation writing
Undergraduate Core

**Purpose:** To ensure that all students have the core background in Computer Science.

**Areas:**
- Automata and Formal Languages (CS321 or CS516)
- Algorithms and Data Structures (CS325)
- Operating Systems (CS444/544) or Computer Architecture (CS472/572 or ECE472/572)
- Translators (CS480) or Programming Languages (CS381 or CS581)

**Time Limit:** Must complete by the first year.

**Important:** Fill your course equivalency forms and get them approved by your academic advisor this week or the next. Give it to Nicole Thompson.
Submitting MS/MEng or PhD Program

- **A Program of Study**: A “contract” of the courses taken/to be taken with your committee.
- **Must file by the end of 2nd term of study or 18 hrs (MS/MEng) or end of 1 year (PhD).**
- **Consult:**
  - Major professor/Academic advisor
  - M.S./M.Eng./Ph.D. Program Guidelines
    - [http://eecs.oregonstate.edu/graduate/ece/advising.html](http://eecs.oregonstate.edu/graduate/ece/advising.html)
    - On-line Forms
      - [http://oregonstate.edu/dept/grad_school/current/forms.html](http://oregonstate.edu/dept/grad_school/current/forms.html)
  - Graduate Advisor
  - Graduate School
    - [http://oregonstate.edu/dept/grad_school](http://oregonstate.edu/dept/grad_school)
CS Courses Offered in the Fall

- CS515 Algorithms and Data Structures
- CS527 Error Correcting Codes
- CS534 Machine Learning
- CS544 Operating Systems
- CS550 Introduction to Computer Graphics
- CS554 Geometric Modelling in Graphics
- CS561 Software Engineering
- CS572 Computer Architecture
- CS589 Topics in Programming Languages
Special Topics Courses (CS 519)

- Biological Networks
- Digital Image Processing
- Intercon Networks in Supercomputing
- HCI Research Methods
- Advanced network security
- Document Analysis
- Cryptographic Protocols
- Numerical Modeling and Simulation
Other Relevant Courses

- ROB537 Learning-based Control
- ST511 Methods of Data Analysis
- ST531 Sampling Methods
- ST541 Probability, Computing, and Simulation in Statistics
Preparing to be a GRA

• Learn about the research in the department. Talk to the professors and their students. Study their papers.
• Attend reading groups and research project meetings to learn about research. Get professor's permission to attend the project meetings.
• Use 501 and 505 credits to read papers, discuss them with a professor and work on something useful.
• Start thinking about research from day one! Talk to professors about papers to read, possible research topics, and things to do.
Registration

• Registration/term
  - 9 credits - Full time w/no funding
  - 12 credits - Full time w/Scholarship or GTA/GRA
• Students must register every academic term they are students other than the summer
• Need to apply for leave and get approval if they are planning to do an internship etc. during academic year
• Hints
  - Take 2 regular courses, 507x and fill the rest with 501 credits for first term
  - Complete web registration during 1st week
  - Avoid hidden fees: Don’t add/drop after 1st week.
Seminar, Thesis, Blanket Credits

- **CS 507 - Seminar/Colloquium, 1 cr, Section 1**
  - Required for all grads in the first year. Pass/NoPass.
  - Weng-Keen Wong, coordinator, wong@eecs.orst.edu, http://eecs.oregonstate.edu/graduate/colloquium

- **CS 507 - Seminar/Grad Intro, 1 cr, Section 2**
  - Strongly Recommended for new graduate students (Fall term only). Pass/No Pass
  - Topics in Difference, Discrimination, and Power and Responsible Conduct of Research

- **CS 507 - Seminar/GTA Leadership, 1 cr, Section 3**
  - Required for all graduate teaching assistants (Fall term only). Pass/No Pass.

- **CS 503/603 - Thesis, 1-16 credits**
  - Register using the CRN for your major professor
  - Ungraded (R=reserved)

- **CS 501/601, 505/605, 506/606 - Blanket Credits, 1-16 cr**
  - Need Instructor and Departmental Approval to register
    - http://eecs.oregonstate.edu/graduate/forms/
    - Email approval form: blanket.txt
  - 501/601 and 505/605, Pass/No Pass
  - 506/606, graded
Academic Dishonesty

• “Presenting, as your own work, material produced by or in collaboration with others, or permitting or assisting others to present your work as their own without proper acknowledgment”
  http://eecs.oregonstate.edu/graduate/advising/dishonesty.html

• Punishments for dishonesty range from getting an F in the course to getting terminated.

• Don’t even think about it!!
Cultural Associations

- Chinese Students Association
- Indian Students Association
- ENGR mailing lists
- https://secure.engr.oregonstate.edu/mailman/listinfo
- Grad email list (unmoderated): eecs-grad-talk@engr.orst.edu
- CSGSA: Graduate Student Association
- Don’t forget the fall festival this weekend!