PhD Goals

- Meaningfully extend the body of knowledge in Computer Science & Engineering via original research
- Become the world’s foremost expert in the narrow topic of your dissertation
- Enter as a student; leave as a colleague
Who to talk to?

1. Academic Advisor
   - Assigned when you arrive
   - Initial point of contact for selecting courses

2. Research Advisor
   - Selected by mutual consent within 1st year
   - Guides directed study, dissertation research

3. Dawn Freysinger
   - Administrative matters; confirming you are following rules

4. Prof. Ben Kuipers (Grad Program Committee Chair)
   - Petitions, concerns, questions about degree program
CSE Grad Program Stages

1. Qualification
   - Coursework & directed study

2. Candidacy
   - Qualifying exam & Cognate

3. Dissertation & Defense
   - Proposal & Defense
PhD Coursework

- Breadth Coursework
  - 3 courses in 3 different areas (HW, SW, Intel Sys, Theory)
  - Some 400-level SW courses count as ½
  - B+ or better
  - Equivalency allowed

- Depth Coursework
  - Any 2 courses on Depth list; at least 1 must be “starred”
  - A- or better
  - No equivalency permitted

- Rackham Cognate (4 grad credits outside CSE)
Early Research Requirements

- Directed Study within first 2 semesters
  - At least 1 credit of 599 or 699
  - Academic/research advisor can waive

- 1st Summer research requirement
  - Summer independent study with research advisor
  - Intent is to prepare for the qualifying exam
  - Must be done in Ann Arbor (can waive via petition)
  - Completing this is a condition of financial aid offer
Qualifying Exam

- Must present original research project to faculty panel
  - 3 faculty selected by grad committee (who are not involved in the research)
  - Directed study report (~typical research paper in your field)
  - ~45 minute presentation
  - ~45 minute Q&A
- Deadline
  - Joined program w/o MS: 4 semesters
  - Already have an MS: 3 semesters
Proposal & Defense

- **Thesis Committee**
  - Selected by you; chaired by your advisor
  - 3 CSE faculty + 1 “Cognate” faculty

- **Proposal**
  - Oral & written presentation to committee
  - Deadline
    - Joined program w/o MS: 7 semesters
    - Already have an MS: 5 semesters

- **Defense**
  - Oral & written presentation to the public
  - Deadline
    - Joined program w/o MS: 12 semesters
    - Already have an MS: 10 semesters
Getting an MS along the way

- Complete PhD coursework & Rackham Cognate
- Achieve a total of 30 credits through a combination of
  - Approved CSE technical courses
  - Up to 6 hours of seminar (598) and directed study (599)
  - Up to 18 hours of PhD-oriented research (699)