
Computer Science Graduate Student Orientation

September 21, 2009

Schedule

- 9:00-9:30 Welcome from the Chair and Staff Introductions
 - Amr El Abbadi, Department Chair
- 9:30-11:00 Department Overview and First Year Survival Advice
 - Elizabeth Belding, Department Vice Chair
- 11:00-11:15 Graduate Funding Opportunities
 - Thai Chu, Graduate Division Funding Peer
- 11:15-11:25 Technology Management Program
 - Diane Doyle
- 11:25-11:35 Graduate Student Association
 - Steffen Gauglitz, Ph.D. Student
- 11:30-12:00 Pictures Taken
- 12:00-1:15 Pizza Lunch with Faculty in Trailer 932
- 1:15-4:30 TA Training (*required for all who are TAs or want to be TAs*)

Welcome

- ***Welcome to the Department and
Congratulations on making it this far!***
- It was not easy to get here:
 - 290 PhD applicants, 37 admitted, 21 are here
 - 245 MS applicants, 45 admitted, 17 are here
- You are coming here from all around the world
 - US, Italy, Croatia, India, Korea, Mexico, Turkey, Nepal, China, Iran, Bulgaria, Taiwan, Canada, and Iceland!

How You Got Here

Admissions process:

- Ph.D.
 - Look for the best and the brightest
 - Match research area interests to research advisors need
 - Ensure all students will be able to find advisors
 - Consider funding situations of advisors and the department
- MS
 - Look for the best and the brightest

Department Affairs Staff

- **Shelly Vizzolini: Management Services Officer**
- **Tiffany Sabado: Assistant to the Chair, Academic Personnel Analyst, Colloquia**

Student Affairs Staff

- **Greta Halle: Student Affairs and Administrative Office Manager**
- **Amanda Hoagland: Graduate Program Coordinator**
 - See Amanda with any questions about our program
- **Benji Dunson: Undergraduate Program Coordinator**

Financial Services Staff

- **Jan Holtzclaw: Financial Services Manager**
- **Ned Nash: Contract and Grant Analyst**
- **Jeni Chen: Personnel Administrator**
- **Teresa Salinas: Financial Assistant**

Technical Support Staff

- **Technical Support:**
 - **Richard Kip: Manager of Computer Facilities**
 - **Andreas Boschke: Sr. Systems Administrator**
 - **Don Voita: Systems Administrator**
 - **Mandy Drasco: Systems Administrator**

All tech questions to: support@cs.ucsb.edu

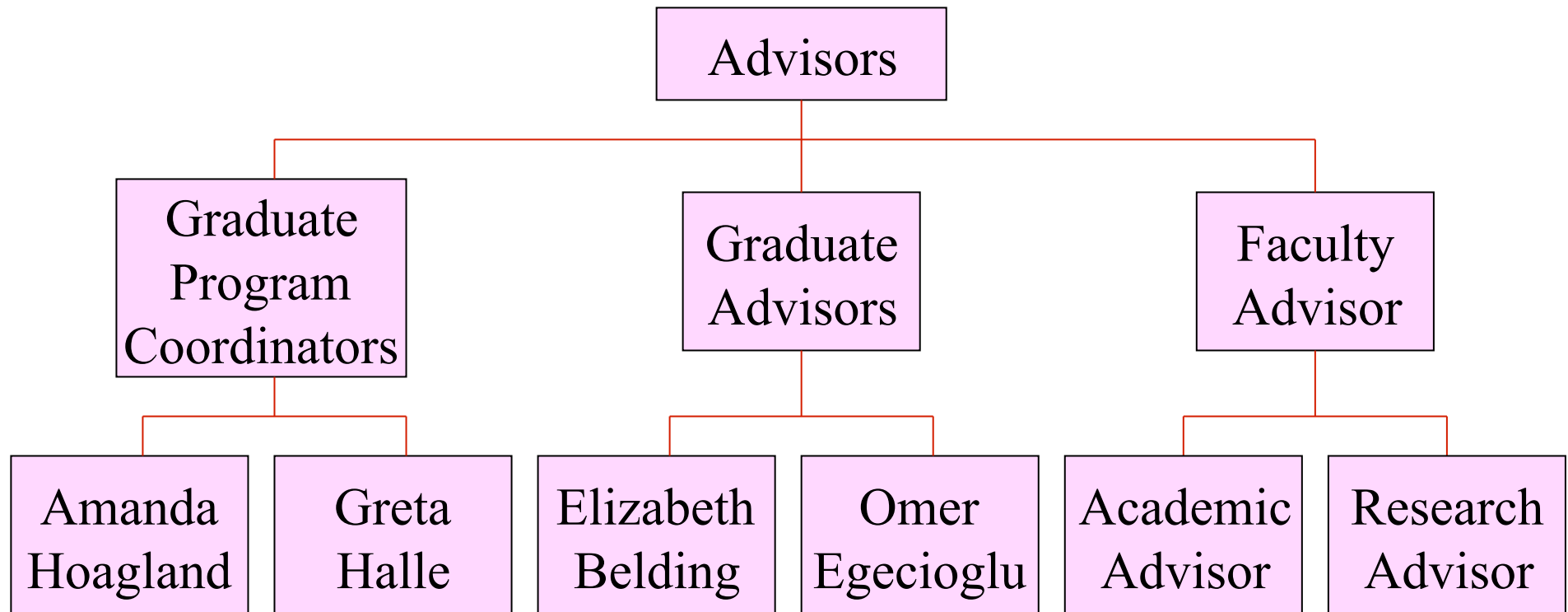
Questions to be Answered

- What am I supposed to do my first quarter?
- How should I plan my first year?
- What are my responsibilities as a grad student?
- Who do I go to when I have more questions?

Topics Covered

- Department Overview
- About Our Courses
- Course Load
- M.S. Program Overview
- Ph.D. Program Overview
- Student Responsibilities
- Some Advice

Sources of Advice/Information



- Faculty
- Other students
- Dept Web pages: <http://www.cs.ucsb.edu/>
- Graduate Student Handbook!

Department Stats

33 Faculty, 2 Lecturers

Students

- Undergraduate CS 369
- Undergraduate CE 160 (joint with ECE Dept.)
- Graduate CS 157 (PhD 108, MS 49)

Rankings

- #16 based on publications (INSPEC)
- #21 based on research expenditures (NSF 2003)
- #23 based on PhD production (2005)
- #37 US News & World Report ranking

Award Winning Department, Faculty and Staff

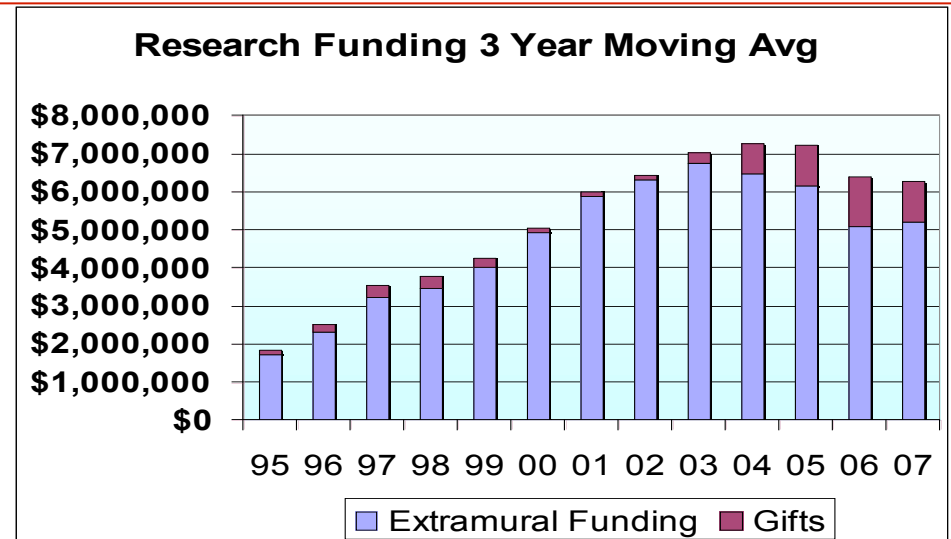
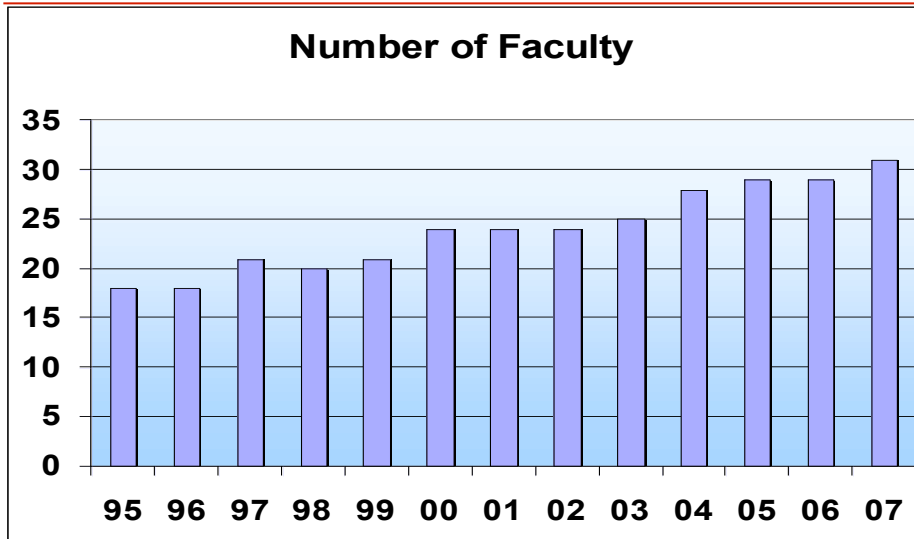
- Computer Science Department received
 - Departmental Graduate Mentorship Award
- Prof. El Abbadi received
 - Outstanding Graduate Mentorship Award
- Prof. Almeroth, Prof. Vigna, Prof. Wolski, Prof. Krintz received:
 - Distinguished Teaching Awards
- Prof. Tim Sherwood
 - UCSB Leadership Award
- Greta Halle, Amanda Hoagland, and Don Voita received:
 - Staff Excellence Awards

Award Winning Faculty

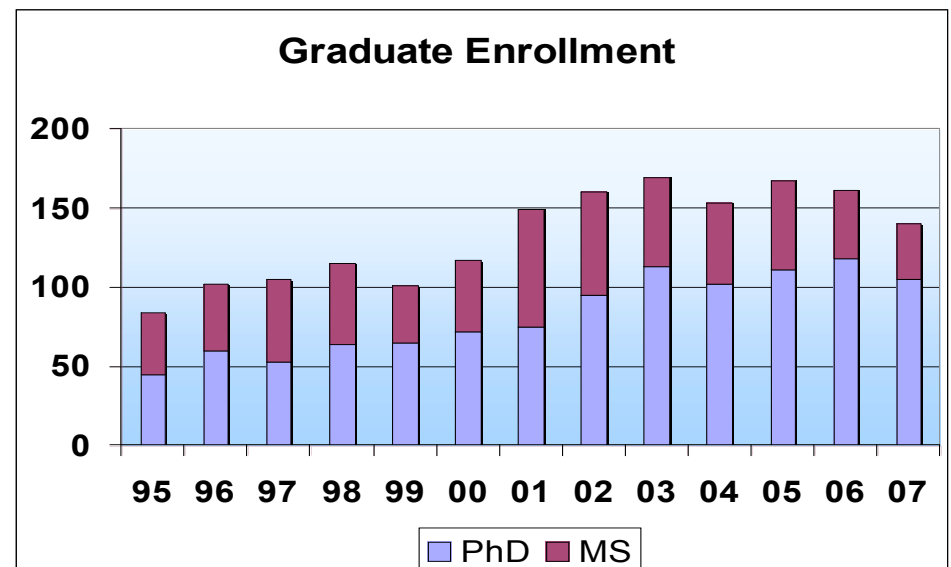
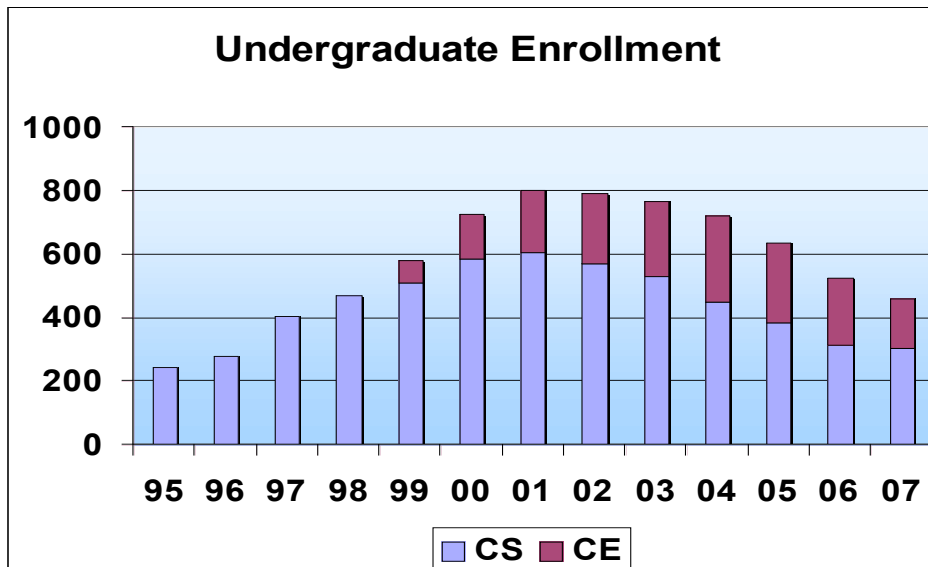
- 11 Career Awards
- 3 MIT Teach Reviews' Top Technology Innovators Under 35
- Computer World Magazine's Top 40 IT Innovator
- CRA-W Borg Early Career Award
- Northrop Grumman Excellence in Teaching Award
- Sloan, Guggenheim, ACM, IEEE, AAAS fellows
- IEEE Harry M. Goode Memorial Award
- 2007 Blaise Pascal Medal in Computer Science
- ...

<http://www.cs.ucsb.edu/info/growth/>

UCSB CS: Ten Years of Growth

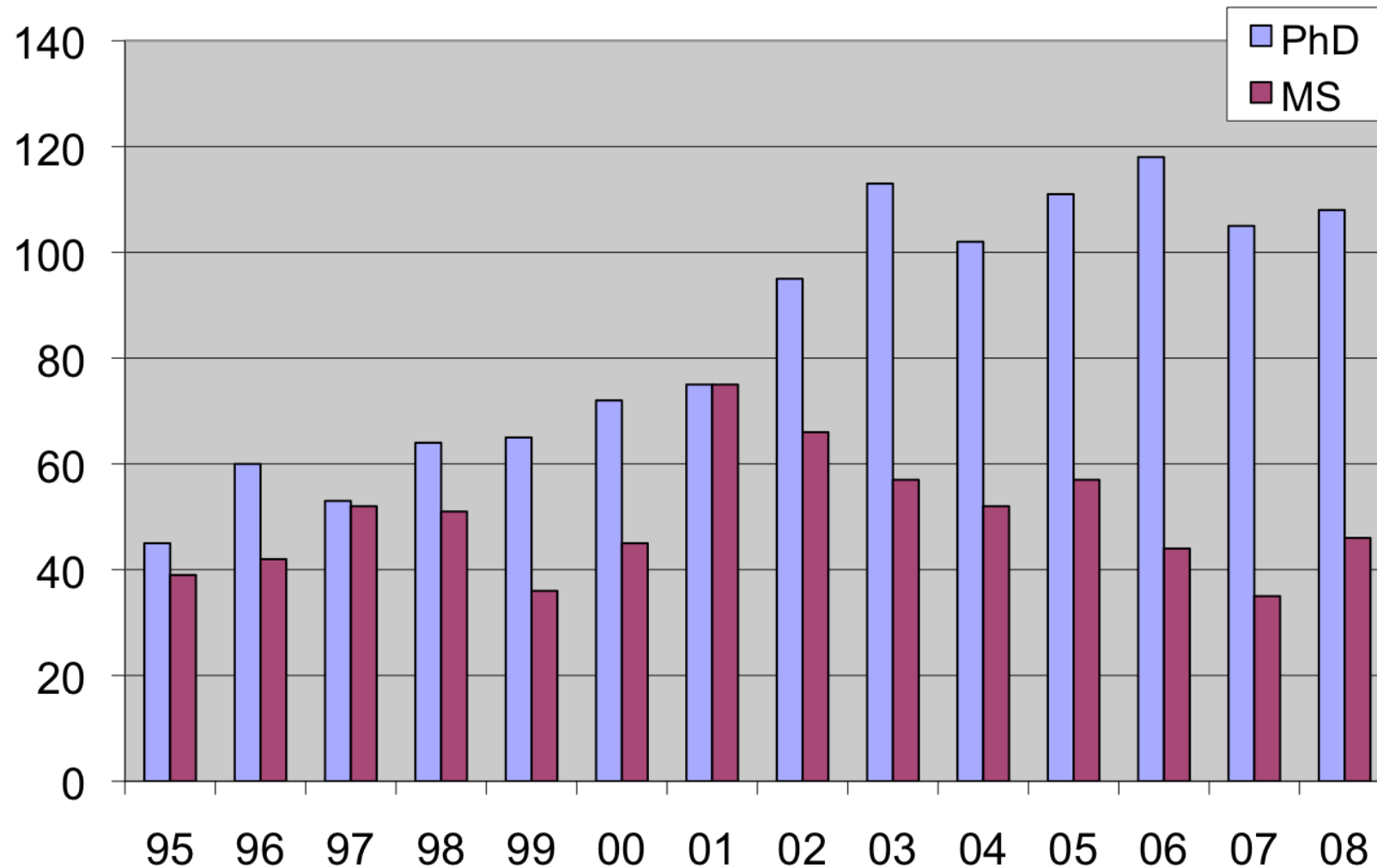


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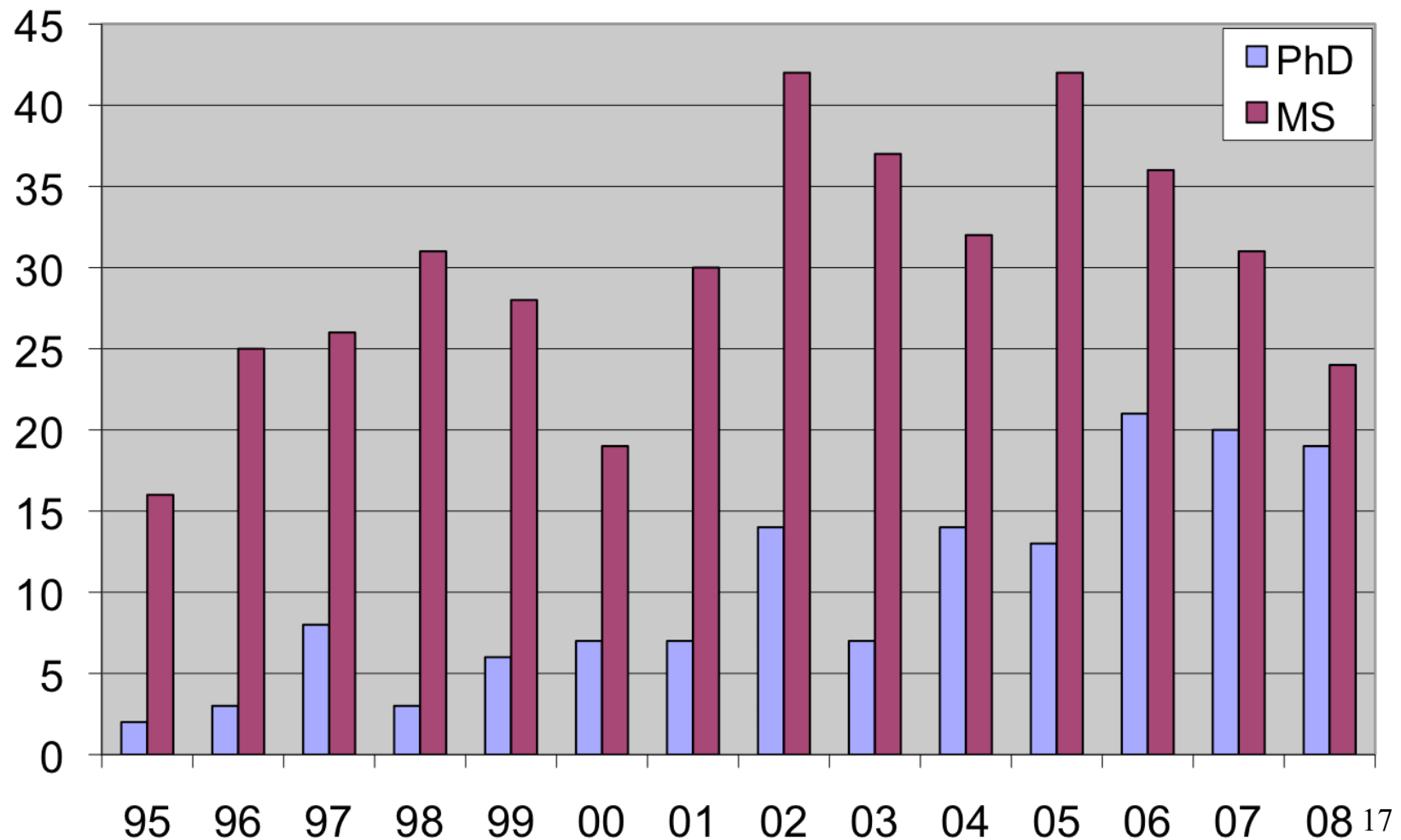
Graduate Program Statistics

Graduate Enrollment



Graduate Program Statistics

Graduate Degrees Awarded



More Info: Department Webpage

- There is a lot of information on the department webpage
 - MS and PhD requirements
 - Course schedule
 - Faculty list
 - Staff list
 - Faculty webpages
 - Research labs
 - ...
- For information go to: <http://www.cs.ucsb.edu/>

Create a CS Account

- A lot of critical information is distributed through the grad student mailing list
- Create a CS account ASAP!
 - <https://accounts.engr.ucsb.edu>
- Email Amanda once you have created your account so she can add you to the grads@cs mailing list

About our Courses

- < 100: Lower division courses
- 100 level: Upper division courses
 - Can only be used by MS students towards degree
 - MS students can only use 1 such course
- 200 level: Graduate courses
 - 290: special topics
- Others
 - 595: Group Studies/Seminar
 - 596: Directed Research
 - 501, 502: TA Training, TA Work

About our Courses

- **Course listings**
 - <http://www.cs.ucsb.edu/courses/descriptions/>
 - <http://www.cs.ucsb.edu/courses/teaching.shtml>
 - One year course plan may be out of date, always check the course list for the quarter
 - <http://www.cs.ucsb.edu/courses/schedules/fall/>
- **Undergraduate course schedule is stable**
 - Lower division courses offered most quarters
 - Upper division courses typically stay the same
- **Grad course schedule may change every year**
 - Core courses are typically offered every year
 - 290 courses change frequently

Course Load

- Critical to maintain at least 12 hours (= units)
 - After choosing courses, augment with 59x hours
 - TAs (or anyone who wants to TA this year) must take 501 in FALL
 - Under Prof. El Abbadi's instructor number
 - TAs can also take 502 (4 units)
 - RAs should take 596
 - **IMPORTANT:** Sign up for 4 593 hours (use either your academic advisor or the grad advisor) in case you need to drop a class
- **However, 12 hours doesn't mean 3 classes!**
 - To do research: limit the number of "real" courses
 - Courses have hard deadlines, research doesn't
 - PhD students should start research as early as possible

M.S. Program Overview

- Course requirements
 - 42 units of:
 - 100 level (excluding 190+)
 - 200 level
 - 595, 596, 598
 - How many of each depends on which plan
 - There is a required fill-in-the-blank study plan
- Develop a plan soon!

M.S. Program: Plans

- **Plan I: Thesis**
 - Research-oriented with a formal thesis
 - Research: Pay attention to advice on getting started
- **Plan II: Comprehensive Examination**
 - Course-Oriented
- **Plan III: Project**
 - Research-oriented without a thesis
 - Compromise of thesis and exam options:
Less research than thesis but more courses

M.S. Program Overview

- Course Areas:
 - Theory/Foundations
 - Systems
 - Applications
- Depth requirement
 - 4 courses in your Major area with a B or better
- Breadth requirement
 - 1 course each in other 2 areas with a B or better

Transitioning/Multiple Degrees

- Good MS students who want to continue with their PhD are highly encouraged
 - Project/Thesis advisor is the key
- PhD students can earn an MS degree along the way:
 - Use project option
 - Complete course requirements
 - PhD Proposal satisfies project requirement

Ph.D. Program Overview

- Course requirement
 - 10 graduate courses with a grade of B or better
 - Minimum of 2 systems and 2 foundations
 - Overall GPA of 3.5
- Yearly evaluation (very important!)
- The 3 PhD Milestones
 1. Major Area Examination
 2. Dissertation Proposal
 3. Dissertation Defense

More About PhD Course Reqs

- **10 2xx courses sometime before you graduate**
 - Minimum of B in each course
 - Still maintain GPA of 3.5
 - 2 Core Courses in “Theory/Foundations”
 - 220, 225, 230, 231, 235, 209
 - 2 Core Courses in “Systems”
 - 254, 263, 270, 271, 276, 279
- **Important: MS systems, theory/foundations, applications courses are different than PhD systems, theory/foundations core courses**

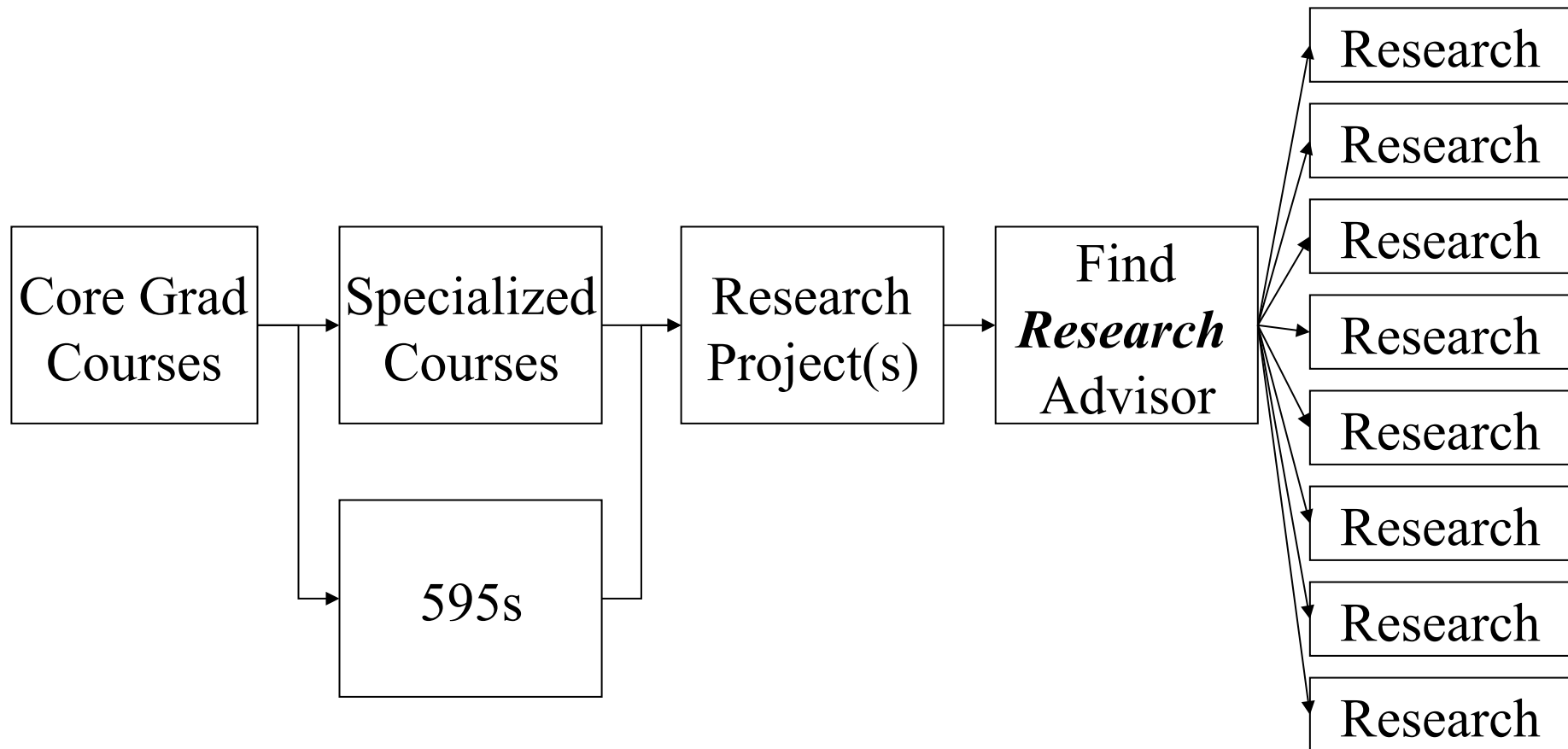
Plagiarism

- You are responsible for understanding what it is, and for not doing it
- It includes (but is not limited to):
 - Copying sentences or sets of words from published papers and putting them into your own papers
 - From ANYWHERE in the paper (intro, conclusions, body, etc.)
 - Copying code that you find on the Internet
 - Copying figures or graphs from the Internet or papers
- If you want to include one of these items, the item must be highlighted, and the appropriate source acknowledged
- Students who plagiarize can face any of the following repercussions:
 - An F on the assignment, an F in the course, expulsion from graduate school
- You must sign the academic code of conduct you've been given saying that you have read and understand it.

Ph.D. Student Evaluation

- All Ph.D. students are evaluated
- First year is critical
 - Make progress towards course requirements
 - Continue project work as independent study or start new research project
 - ***Progress in finding an advisor***
 - Plan for summers
 - TA evaluations
 - Participation in Department activities
- Remaining years are based on research progress

First One-to-Two Year Time Line



Three PhD Milestones

- **Major Area Exam**
 - Tests depth of knowledge and preparation to undertake research program (course requirement is for breadth)
 - Typically taken the 2nd year. Should not be later than the 3rd year!
 - Passing the MAE is key for you and your advisor. Keep good communication with your advisor!
- **Proposal**
 - Evaluates theme of research, progress-to-date, and sufficiency of work yet to be completed
 - Taken 1-2 years before you graduate, typically 3rd or 4th year. Should not be later than the 4th year.
- **Defense**
 - Last step before graduation
 - Evaluates contribution and impact
 - Average time to degree is 5 years. Should not be more than 7 years.

Department Research Areas

- **BioInformatics** Singh, Ibarra
- **Architecture** Chong, Sherwood, Krintz, Van Dam, Zheng
- **Database Systems** Agrawal, El Abbadi, Singh, Su, Yan
- **Foundations & Algorithms** Ibarra, Egecioglu, Suri, Gonzalez, Van Dam
- **Intelligent & Interactive Systems** Turk, Hollerer, Wang, Smith
- **Networking** Almeroth, Belding, Krintz, Suri, Zhao, Zheng
- **Operating Systems & Distributed Systems** Agrawal, El Abadi, Cappello, Krintz, Singh, Wolski, Yang, Zhao
- **Programming Languages & Software Engineering** Krintz, Bultan, Hardekopf, Kemmerer, Sherwood, Su
- **Computational Science and Engineering** Petzold, Gibou, Gilbert, Yang
- **Security** Kemmerer, Vigna, Zhao, Kruegel

Activities for Your Participation

- **Faculty Research Seminar in Winter**
 - All faculty members give 20 minute presentations about their research
 - The best way to find out what areas the faculty are working on
- **“How to Do X” Seminar in Spring**
 - Learn about how to pick a research topic, how to write a paper, how to choose a conference to submit
 - Panels of 3 to 4 Faculty members discuss these topics

Activities for Your Participation

- **Research Groups**
 - 595 seminars (including TA training and introduction to research in Fall and Winter)
- **Department Colloquia**
 - Distinguished Lecturers and other visitors
- **Presentations by Students**
 - MAE, Proposal, Dissertation, Project, Thesis
- **Graduate Student Association**
 - Get involved, serve in the departmental committees
- **Social Events**
 - Attend coffee hours, picnics/cookouts/BBQ, Facebook group, etc.

Graduate Student Research Workshop

- This is a one day event where students from the department present their research
- It is a workshop organized by graduate students
- It is a great way to get an overview of research going on in the department
- ***DO NOT MISS IT! – First year students must attend!***

October 2nd 2009, 8:45AM-3:30PM

Loma Pelona Center (near the lagoon)

<http://gswc.cs.ucsb.edu/>

http://gswc.cs.ucsb.edu/workshop_schedule.html

Must Do Events/Activities Summary

- 1st, 2nd Year Students
 - Graduate Student Orientation
 - TA training seminar
 - Faculty Research Seminar
 - “How to Do X?” Seminar
 - Meetings with Graduate Advisors
 - Writing and Presentation Seminars by Janet Kayfetz
- Annual PhD Review
- Annual Meeting with the Chair
- Towards Graduation
 - Graduate Student Workshop
 - Academia Day / Career Day

Funding

- Initially PhDs are typically funded as TAs
 - Some fellowships, RAs (IGERTs), and misc. others
- For MS students
 - May apply for TAship, but lower priority
 - Likelihood is based on enrollments and availability
- PhD students transition to RA
 - You should plan to transition by the start of 2nd year
 - Absolutely must happen by the end of the second year!!

Fellowships

- You should look for fellowships for which you are eligible
- Prof. Ben Zhao has a list of fellowships available for graduate students:

<http://www.cs.ucsb.edu/~ravenben/ucsb/fellowships.html>

HOMework ASSIGNMENT

- You need to be visible to the Faculty
- Prepare your webpage!
 - List your research interests
 - Your publications
 - Your CV
 - Any interesting projects you worked
 - Your work experience
- I want all of you to have your pages up under <http://www.cs.ucsb.edu/people/graduate/>
BY THE END OF THE FALL QUARTER!

Summary

- The Program
 - Learn the system (classes, infrastructure, etc.)
 - PhDs: Use sources of advice, get into research
 - MS: Develop study plan, decide direction
- Sources of Advice
 - Grad program coordinators, grad advisors, academic advisor, research advisor, other students, etc.
- Life Outside of Classes
 - Participate in Dept activities: faculty research seminar, colloquia, GSA, WWW pages, social events (picnics, happy hours), etc.

How to Contact the Grad Advisors

- Unless it is an EMERGENCY, only stop by during our office hours
 - Do not email us to set up an appointment
- Elizabeth Belding's office hours
 - Tuesdays 10-11am
 - Thursdays 11-12pm
- Omer Egecioglu's office hours
 - Monday, Wednesday, Friday 2-3pm

Questions to be Answered (were they all covered?)

- What am I supposed to take my first quarter?
- How should I plan my first year?
- What are my responsibilities as a grad student?
- Who do I go to when I have more questions?