

University of Colorado
Department of Computer Science
Introduction to the the CS Department Ph.D. Program
Fall 2011

Catalog Number: CSCI 6000

Time/Place: wednesdays from 3-3:50pm in ECCR 108

Web Page: www.cs.colorado.edu/~lizb/phd.html

Texts: *Elements of Style*, Strunk & White, Longman, 2000.
The Lives of a Cell, Thomas, Penguin, 1974.
A Ph.D. Is Not Enough, Feibelman, Basic Books, 1993.

Instructor: Liz Bradley ECOT 747
lizb@cs.colorado.edu 303-492-5355

Office Hours: set hours TBD and at other times by appointment;
please check my web page for updates/travel/etc.

Description:

This course is a one-semester introduction to research in computer science at the University of Colorado. It is designed to help you navigate the beginning of your career as a computer science researcher. Roughly half of our time will be spent on the mechanics of the process: giving you a roadmap and some landmarks (e.g., what journals and grant proposals are and why you should care), learning how to understand and produce lectures, papers, colloquia, etc. We will also spend some time talking about some of the subtle, difficult stuff that gets lost in the flurry of normal coursework: what research really is, how to pick good problems, how to hook up with an advisor, etc. I will also be arranging field trips and visits from other faculty in order to give you a brief overview of what's going on in the department and at the other research entities around Boulder (e.g., NCAR, NREL, etc.).

Assignments:

This course will not have a heavy workload, nor a traditional one. You will be expected to prepare for and attend all of the departmental colloquia, as well as postprocess them with the CSCI 6000 group. You will be expected to give at least one short presentation to the group. We will work on paper-writing, but the paper involved can be for another course (or an old one you want to revise). You will be expected to *read* a few journal papers—from the literature and perhaps (anonymously; don't worry) from your classmates—and produce reviews and abstracts of them. Lastly, you will be expected to participate in class discussions, group work sessions, etc.

More about all of this later.

Grades:

Grade granularity is very coarse in this course: A, B, C, or F. A means you participated, tried, contributed, and improved. C means you sat there like a lump, failed to turn stuff in, and showed no improvement. B is somewhere in between. F means I never saw you.

Topics

- Mechanics [50%]
 - the CU CS Ph.D. process
 - understanding talks, papers, and abstracts
 - producing talks, papers, and abstracts
 - forums: journals, conferences, etc.
 - funding
 - teaching
 - service (e.g., reviewing papers and grant proposals)
- Philosophy [20%]
 - what research is
 - becoming a member of a research community
 - how to pick a research problem
 - how to pick an advisor
 - how to pick a thesis committee
 - academia vs. industry vs. government lab
 - research vs. development
- Instances [30%]
 - colloquium preps & discussions
 - lab tours
 - area introductions