# University of Colorado Department of Computer Science

# Introduction to the the CS Department Ph.D. Program Fall 2012

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

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Office Hours: set hours tuesdays 1–2:30pm 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 and/or spent a lot of time looking at your smartphone, failed to turn everything in, and generally showed no improvement. B is somewhere in between. F means I never saw you. Occasionally I'll assign an in-between grade if I'm feeling conflicted — e.g., if you spent some time on your smartphone — but that's rare.

# **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

# Important Official University of Colorado Syllabus Material

If you qualify for accommodations because of a disability, please submit a letter from Disability Services to me by the end of the third week of the semester so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at dsinfo@colorado.edu. If you have a temporary medical condition or injury, see "Temporary Medical Conditions: Injuries, Surgeries, and Illnesses" guidelines under Quick Links on the Disability Services website and then email me so we can figure out how to work around the situation.

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. See full details at http://www.colorado.edu/policies/fac\_relig.html. In this class, I will make appropriate accommodations (excusing absences, extending deadlines, etc.) if you give me at least two weeks' notice.

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\_code

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All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode/