

2009 STUDENT FACULTY CONFERENCE COMPUTER SCIENCE

April 6th, 2009

Primary Concerns

- Course Offerings
- Introductory Courses
- Teaching Quality
- Industry Focus
- Research Focus

Course Offerings: Today

- In 2007-2008, CS136, CS141, CS145, CS17x were offered.
- In 2008-2009, only CS17x and CS145abc were offered for project sequences
 - ▣ Largest concern in survey responses
 - ▣ Concerns about undergraduates in CS145

Course Offerings: Recommendations

- Expand available electives
- Web-based lectures with problem-solving recitations and office hours
 - ▣ Allows classes to be offered more frequently
 - ▣ Being prototyped with CS141a this term

Course Offerings: Projects

- CS134abc to split to CS134 (Systems) and CS135 (Compilers)
 - ▣ CS134a is being offered this term
 - ▣ CS135 is still missing in action for next year
- CS145abc to be restructured and renumbered
- New AI/Learning Systems Project Sequence

Upcoming Catalog Changes

- Cross-listing EE127 (Error Correcting Codes)
- New Courses for 2009-2010
 - ▣ Networking Electives
 - ▣ Current Topics in Theory
 - ▣ Parts of new AI/Learning Systems sequence
- New Courses for 2010-2011
 - ▣ Complete AI/Learning Systems sequence

CS1, 2, and 11: Today

- Compromise between audiences:
 - ▣ CS majors and non-majors
 - ▣ Experienced and inexperienced
- Depending on prior experience, CS11 can be severely underunited

CS1 and CS2: Recommendations

- Modify CS track
 - ▣ CS1 – 9 units – Introductory programming class, required for CS2, 4, and 11.
 - ▣ CS4 – 9 units – Intended for CS majors or experienced programmers, required for CS option
- Modify CS2 curriculum
- Reconsider CS1 and CS2 placement exams

CS11: Recommendations

- Expect background on par with revamped CS1
- Allow self-placement into course as always

Teaching Quality

- SFC survey brought up concerns which faculty had not been aware of
- Software engineering development is lacking
 - ▣ Documentation
 - ▣ Version Control
 - ▣ Build Tools

Teaching Quality: Recommendations

- Include basic software engineering techniques with project sequences
- Form a BUSAC-like committee of CS students and faculty to provide feedback during term

Industry Focus

- Survey showed significant concern for industry
- Courses should be relevant
 - Systems
 - Compilers
 - Languages
- Courses should teach needed skills
 - Software engineering

Research in CS

- Thesis option is underutilized
- SURFs for freshmen and sophomores are hard to find in CS itself

Research in CS: Recommendations

- Create research survey course for CS
 - ▣ Faculty members discuss their areas
 - ▣ Provide information about the thesis option

Discussion

- Course Offerings
- Introductory Programming Courses
- Teaching Quality
- Industry Focus
- Research Focus

Members

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- Chris Umans
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