Breakout Session Report

CS1-Science
Q1. What computing-related topics or skills are essential for your students to be competitive in their field?

– Programming skills (which language(s))? Computational concepts? (See Survey)
– Biology: Perl, R, C, Linux
– CASNR: C = Scary! Instead, maybe a scripting language or VB
– Excel+Word in lab(s)
– GUI Development
– NO OBJECT ORIENTED PROGRAMMING!!!
Q2. How would a CS1 course improve your curriculum?


– Data analysis (some students don’t know how to do effective data entry)

– Retention depends on content (too CS technical=>higher attrition) and instructor (not GTA)

– Need to promote heavily to convince students how much it can help
Q3. If a CS1 course is properly designed to meet your needs, do you see the course becoming a required course in your department? If yes, when?

CASNR: some depts will require it, some won’t; either way will get good enrollment

Biosci: may not require (too many hurdles?), but could encourage students to take

Ed. & Outreach: good course for being required
Q4. What would be your concerns about whether your students could do well in a CS1 course?

- Math background (algebra/trigonometry)?
  - As simple as possible (algebra)

- Student motivations? Student mis/perceptions?
  - “why should I learn to program when I can simply use the existing tool?”

- What about a CS0 course (see Survey)
  - CS0 modified for CASNR would be interest (may be better fit than CS1), so long as it’s not at high school level
    - Maybe let students choose CS1 or 0, depending on interests
Q5. What are the math requirements for your students? When do they usually complete those requirements?

– This is to help us determine the depth and breadth of the CS topics to be taught in CS1

• CASNR: basic university requirement

• Biosci: statistics optional, calc I required
Q6. What are the discipline-specific topics that you would like to see included in CS1?

– As lab assignments, as lectures, as homework assignments?

– Database, Matlab, Internet programming, software tools?
  • Descriptive statistics, linear regression
  • Databases, web site development, internet security
  • Food Sciences: literacy, basics of networking, use of tablet PCs/mobile devices
  • HANDS ON WORK!
Q7. What kind of computing resources do you have at your department?

– Open labs for students to do programming hw? Or lab assignments?
– System admin?
– Available for CSE to install program compilers?
  • Have computers, but depends on what licenses are needed (widespread used licenses should come from Central’s budget)
  • Little sys admin support
  • OK for CSE admins to run
Q8. Are you interested in participating in the TI grant later? If yes, role?

– As Co-PIs/Senior Personnel
– Help write the proposal? Help with course development? Co-teaching? Help promote the project? Recruitment of students?
  • Everybody
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