

WORKSHOP

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?

- Enrollment? Retention? Research potential? Etc.
- 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



