

RENAISSANCE COMPUTING @ UNL WORKSHOP

Breakout Session Report

CS1-HUMANITIES



UNIVERSITY OF
Nebraska
Lincoln

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)
 - Tagging
 - Text markup, XML, XSLT, metadata tagging, intellectual patterns (mined)
 - Character encoding
 - UTF-8
 - Programming languages
 - Python
 - Scripts
 - SQL, PHP
 - Want students to know more than just “access” points
 - Also how those information access points work
 - Also the limitation of systems used
 - How the Internet works? How to share data
 - CS can help students know the “space” better



Q2. How would a CS1 course improve your curriculum?

- Enrollment? Retention? Research potential? Etc.
 - Depends on how it's designed.
 - Collaborative projects
 - tangible products on “portfolios”
 - Help with accreditation,
 - Help with outreach to K-12
 - Better prepare students for their career
 - Definitely has research potential



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?

- Perhaps a “digital humanities” minor!
- Joint projects



Q4. What would be your concerns about whether your students could do well in a CS1 course?

- Math background (algebra/trigonometry)?
 - Can be addressed/remedied
- Student motivations? Student mis/perceptions?
 - Course has to be designed well
 - Self-efficacy
 - Rationale
 - Relevance to the world, Avoid getting left out of the decision making process, Exposed to interdisciplinary content
 - Better career possibilities, dual majors, minors
 - Better porfolios



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
 - No particular “boundaries”.
 - CS1 can be taken by most students at all levels
 - Perhaps a placement exam to direct students to most appropriate course



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?
 - Tagging
 - Markup, metadata
 - Data organization
 - Information structure, relational database
 - Copyright issues
 - Data collection, creation, processing algorithms
 - HCI, GIS



Q7. What kind of computing resources do you have at your department?

- Open labs for students to do programming hw? Or lab assignments?
 - Libraries have machines
 - Special language lab has computers
 - Blackboard CMS
 - Testing Centers (Burnett)
- System admin?
 - Not much
- Available for CSE to install program compilers?
 - Yes



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?
 - YES!!!!
 - Andrew Jewell, Brett Barney, Eyde Olson, Dee Ann Allison, Sandy Scoffield, Russ Ganim
 - Also well represented with Stephen Ramsay and Will Thomas



