

Innovations in Curriculum/Pedagogy Roundtable Discussions

1. Are you already including these innovative strategies at your college/university?
 - Blended learning at multiple institutions
 - Lecture/lab as face-to-face, web-based support materials with simulations
 - Web enhanced courses
 - Design/marketing of products with high school students
 - Design of products for physically handicapped in collaboration with physical therapy students
 - Original research
 - Blended or on-line used at multiple institutions
 - One model utilizes two days of workshop before classes start
 - Office of distance learning
 - Computer laboratories, 24/7 with tutors
 - Simulation & emulation software
 - Electronic workbench
 - Kinematics & Inventor
 - Basic electric certificate to use blended learning, useful for lab aspect
 - Capstone for design and mfg for mfg technology: design, produce part, work as teams, present and justify
 - Currently thinking of using CNC machines and (Wake Tech) plastics center to work with industry
 - Cuyamaca College in San Diego has ~30 courses non-engineering in blended learning
 - Portland State has first year courses on-line, labs are face-to-face
 - What outcome do you want?
 - Use labs to verify the theory. Could use simulation to save set-up time

2. How can the presentations on curriculum/pedagogy impact your college/university?
 - Two or more different departments working together, implement at our schools
 - Design ET students, manufacturing ET students, marketing students
 - Research and references for blended learning is helpful
 - Faculty development opportunities in blended learning
 - Visit www.ncmeresource.org -onsite/online section for more information
 - Saves time and money
 - Bell curve effect – front loaded
 - Find more sources
 - Not every student suited for blended/online learning
 - Understanding of use of the tools – basic navigation of the web
 - Pro-desk top/Pro-engineer
 - Convinced that blended learning is the way to go with the labs. Options: certificates in manufacturing, machining, CIS...

- Online is a tool.

3. What can be easily implemented or adapted?

- Open entry/open exit – tuition is higher for this course, but there is not a defined end point for the course, so it provides flexibility
- Assignments due on a weekly basis keep students from procrastinating and getting behind
- Flexibility – online versus face-to-face content can be different for each course
- Required to read the textbook by developing multiple choice questions on the content of the text. Sharing of these questions with the class
- Blended requires:
 - Faculty training
 - Contracts
 - Blended students become blended faculty
 - More technology savvy
- Collaboration w/design and marketing students
 - No dollars just time
- Oregon State didn't find it difficult to translate courses to blended. Faculty found it fairly easy to do it
- Blended is expensive to put in
 - College gives a stipend to create the course and implement it. The Dean of Distance Learning is responsible for the evaluation of blended courses

4. What differences will this make?

- Free up more parking spaces
- Higher workload
 - 3 hrs. teaching/3 hrs. grading versus 6 hrs. working online
 - Why do we have to individual repeat others on-line work
 - One module that we share
 - Company to store
 - Wikipedia.com, toolingu.com, mit.edu
 - Open source
 - Cannot trust all information
- Adding blended learning would hopefully increase enrollment, but also allow faculty and students to better manage their courses and time
- Need to market outside the existing market area
- Flexibility of schedule, less classroom space necessary
- Personal experience is there was better retention in face-to-face because the instructor could better engage the student
- San Diego has a lot of military. Allowances are made for their absences. How would a professor know students are absent with blended approach?
- Very remote locations – students could receive training through blended. Students could do lab at a local college or business, versus coming to the college

- Blended accommodates students who learn faster/slower than the instructor teaches
5. Do you know of other innovative strategies being implemented at colleges and/or universities?
 - Service learning
 - Co-collaborative – use and improve
 - Formation of cohorts and learning communities
 - Faculty – diverse group
 - Start pod-casting
 - MS Producer for presentations
 - Trying to reach students with the media they use now
 - Business would do this differently. But colleges have many of the same courses
 - Use media as a tool – if you miss face-to-face lecture, watch CD
 - Could record the lectures.
 - Online labs via the internet (Penn State). What is the cost benefit ratio?
 6. What additional resources would you need to implement these strategies?
 - Requires time/effort and an organization that needs help. Need to be able to blend course requirements with the needs of the organization
 - Time
 - Open source database
 - w/instructions
 - model
 - compensate
 - university staff puts things on line
 - People share the WebCT courseware
 7. How can ATE Resource Centers assist you?
 - Faculty professional development
 - Easy way to locate grant opportunities – help weeding through the funding sources to identify which are most feasible
 - Marketing of workshops being offered by NSF grants
 - Posting of the presentations/papers from this conference
 - Repository
 - Develop and store within NJCATE
 - Centers provide training on how-to-do
 - Inform through ETD Listserv
 8. Do you know of additional resources?
 - 147 Activities You Can Do Online – published by Atwood Publishing
 - Study of Online Strategies by Faculty – conducted by University of Massachusetts

- Property of the university
- Web