THE ROLE OF E-PORTFOLIOS AND CONCEPT MAPS IN OUTCOME- AND ASSESSMENT-BASED GEOSCIENCE CURRICULA

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OUTLINE OF PRESENTATION

- **Expected Student Outcomes & Assessment**
- **Electronic Portfolio System**
- **Academic Roadmap**
- **History of the Process in CELS**

BACKGROUND

- 1996 Introduction of wide-scale undergraduate research and experiential learning
- 1999 CELS faculty/student discussions on student learning and achievement
- 2000 CELS faculty seek training
- 2001 Articulation of CELS outcomes
- 2002 Electronic portfolio
- 2004 Academic Roadmap

ACKNOWLEDGEMENTS

- Deborah Grossman-Garber
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- Dave Bengston
- Tom Husband

LINKS

See items on Cutting Edge server, under ESSAYS-DPM

CELS OUTCOMES

- Knowledge
  - Depth and application of knowledge
  - Quantitative competence
  - Methods of inquiry
  - Problem-solving
- Communication
  - Information management
  - Multidisciplinary perspective
- Personal Growth
  - Ethical principals
  - Global awareness
  - Personal development

KNOWLEDGE: Content

By the time you graduate you will have knowledge of:

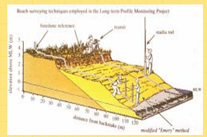
- Earth processes
- Geologic time
- Earth history
- Evolution of life
- Plate tectonics
- Global climate
- Effect of natural processes and human activity on the environment

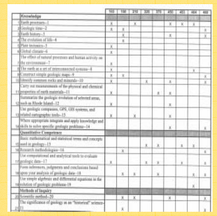
KNOWLEDGE: Abilities

By the time you graduate you will have the ability to:

- Construct simple geologic maps
- Identify common rocks and minerals
- Carry out measurements of the physical and chemical properties of earth materials
- Summarize the geologic evolution of selected areas, such as Rhode Island
- Use geologic compasses, GPS, GIS systems, and related cartographic tools

OUTCOME MATRIX





ASSESSMENT

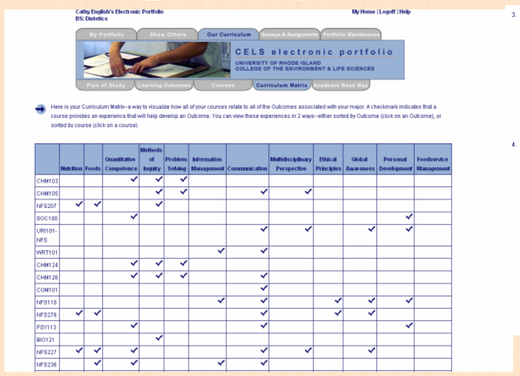
E-Portfolio: Items are submitted digitally, for assessment
Entry and Exit Tests
Capstone Courses
Extracurricular activities, Such as Internships, Environmental Efforts, or Other Outreach Activities
Feedback from Alums, Employers, & Grad Schools

E-P HOME PAGE

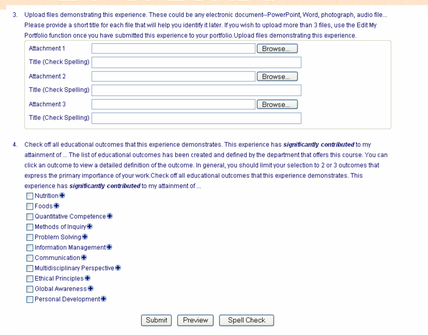
E-P OUTCOMES

E-P COURSE

E-P MATRIX

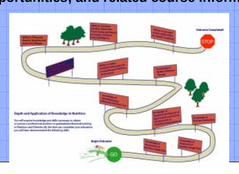


E-P UPLOADS

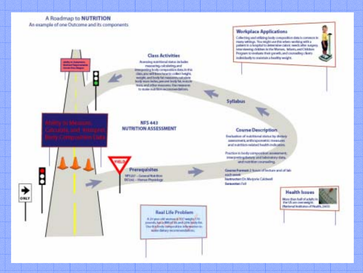


ACADEMIC ROADMAP

This NSF-funded project is designed to enhance undergraduate student learning, retention, and recruitment through the development of academic roadmaps, which will guide academic planning, advising, and study. This will be accomplished by:
Developing a transferable web-based template and two actual conceptual student roadmaps that describe academic and career information in two science disciplines, geology and nutrition. These web-based electronic maps illustrate educational pathways, requirements, and expectations for learning; relevance to national issues and trends; workplace applications and career tracks; research, internship, and volunteer opportunities; and related course information.

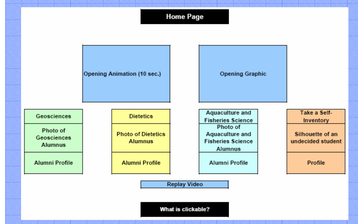


SIMPLE MAPS

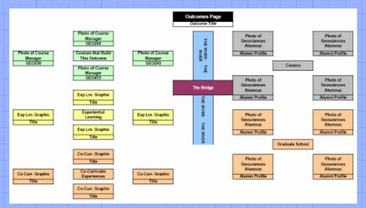


GEOLOGY COURSE

ROADMAP WEBSITE: Home Page



ROADMAP WEBSITE: Program Page



ALTERNATIVE MAPS