Pedagogy and Place: Greening a Curriculum

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Concordia’s Environmental Studies Program
Obstacles to Success
Assets for Success
Curriculum Development Grant Design
Interim Results
Lessons Learned
Began as minor in 1971

Interdisciplinary

By 1980
- Biology and Physics
- Social Science
- Religion
- Political Science

1991 became major
Environmental Studies Program
Major/Minor/Contract

- 2004 added Environmental Science concentration
  - Required 5-6 science/math courses, 4 non-natural science, plus capstone (10-11 courses)

- Contract major
  - Required 1 science course, 1 ethics course, capstone, plus 5 more courses (8 courses)

- Minor in Environmental Studies
  - Required 1 science course, 1 ethics course, plus 3 more courses
Obstacles to Success

- Sustainability’s historically low priority
  - with administration, faculty and most students
- Steady-state faculty size
  - New hires require another department’s loss
- Constant-size curriculum
  - Old courses must be sacrificed for new courses
- “Department needs first” imperative
  - Environmental Studies Program (ESP) gets crumbs from the table
Assets

- Waldsee Biohaus
  - Completed 2006
  - First certified passivhaus in North America
Waldsee Biohause

- Geothermal ground to air heat exchange
- Solar water heater
- Green roof
Assets

- Waldsee Biohause
  - 85% less energy usage than comparable building
  - Field trip for intro ES class
Assets

- Long Lake Field Station
  - About 43 ha (106 acres)
  - Just west DL
  - 45 minutes from campus
  - “Unused” for 40 years
  - Forest
  - 1800 feet shoreline
  - Wetlands
  - Old fields
  - Farm land
Assets

- Long Lake Field Station
  - Restored ~300 feet shoreline with DNR
  - Restored 40 acres farmland to tall grass prairie and pollinator habitat with NRCS
Long Lake Field Station
- Classroom/lab completed 2009
- Collaborate with Detroit Lakes Middle School science teachers
- Science education majors involved with curriculum development
Assets

- Long Lake Field Station
  - Biology, environmental studies classes
  - Elementary education, psychology, art, English, and video production classes
Assets

- Presidential Task Force on Sustainability
- Margaret Cargill Foundation grant monies
- National matriculation decision data for entering frosh in media
Assets

- Activist student leadership
- Multidisciplinary program priority
- Directed to re-design Environmental Studies Program
- College-wide reprioritization process
- Sustainability’s currently high priority
  - with top administration, more faculty and more students
Margaret Cargill Foundation Grant

- Accumulated two yearly allotments
- Required use of Long Lake Field Station
Need for Grant

- Needed more course alternatives
  - Ethics course not predictably taught
- Needed more disciplines participating
  - More social science with greater environmental content
  - More humanities courses
- Need firmer program foundation
  - Impending retirements
  - Regular staffing for introductory ES course
Cargill Grant Rounds

- Round 1 (2010)
  - Failure: one applicant with a summer conflict
  - Delays in approval
  - Passive recruitment process

- Round 2 (2011)
  - Success: Nine grants, ten faculty
  - Sufficient lead times
  - Active recruitment process
Grant Award Types

- **Course Creation Grants**
  - New courses
  - $2,500

- **Course Renovation Grants**
  - Existing courses
  - $1,250
Grant Workshops

- Ecological Immersion Workshop
  - May 20\textsuperscript{th}, Long Lake Field Station
  - Guided tours of five ecosystems

- Environmental Pedagogy Workshop
  - May 21\textsuperscript{th}, Long Lake Field Station
  - Course design and pedagogy discussions

- Sharing Results Workshop
  - August 23\textsuperscript{rd}, on campus
  - Sharing course designs and pedagogies
Inserted Grant Interest Meeting

- What is ecological literacy?
  - David Orr, Steven Bouma-Prediger
- Is it curriculum or faculty development?
  - Both
- How much of the course must be devoted to environmental matters?
  - The 50% rule
Mid-Course Correction 2

- Extend summer grant into the first semester
  - Problems
    - One day not enough time for all to present and discuss
    - Fall starts to rev up in mid-August
    - Grantees had active summers

- Bi-Weekly Luncheon meetings
  - Two grantee reports each meeting
  - Free lunches
Interim Results

- Nine proposals
  - Five new courses
  - Four revisions of current courses
Interim Results

- Religion and Ecology
- Urban Communities
- Political Sociology
- Global Literature and the Environment
- Art, Artists, and Environmental Activism
- Global Problems, Local Responses: Regional Environmental Histories
- Going Green in Germany: Environmental Issues in Germany Today
- Environmental Politics and Policy
- Environmental Video Production
Interim Results

- Political Sociology (revised)
  - Students will study the relative power of corporations, states, individuals, and social movements in making decisions about how natural resources are used, how waste is handled, and which people are most affected by climate change and pollution.

- Art, Artists, and Environmental Activism (new)
  - Students [spend] a semester of action in which art making, research, and activism unite for the common goal of creating an awareness and understanding of the fragility of our environment. In this class, students will create art using sustainable materials and techniques. Environmental research will also be part of the class as students collect, test, and use locally renewable materials for works of art.
Redesigned Environmental Studies Curriculum

Policy and Perspectives Concentration
- 2 courses natural sciences, GIS
- 4 courses from ethics, arts and humanities, social sciences

Natural Science Concentration
- 4 courses natural sciences, GIS
- 2 courses from ethics, arts and humanities, social sciences

All take senior capstone course
Interim Results

- Redesigned Environmental Studies Curriculum
- Individualized Contract Concentration
  - 1 science, 1 ethics, GIS, plus 5 more approved courses
- Minor in Environmental Studies
  - Foundation ES course plus 4 more courses from the ES major
Lesson Learned

- Proactive recruitment (grant participants)
- Clean slate beginning (curriculum redesign)
- Multidisciplinary participation essential (curriculum redesign and grant participants)
- Administrative backing (for everything)
- Patience and perseverance (about everything)