



29 June 2006

TO: Patrick Farrell, Provost
cc: Mo Noonan Bischof, Co-Chair, University Assessment Council
FROM: Frances Westley, Director, Nelson Institute for Environmental Studies
RE: Academic Program Assessment

Enclosed please find our report on academic assessment in the Nelson Institute. I have not included a copy of the assessment grid because there have been no changes in the last year.

Feel free to contact me if you have any questions.

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**THE NELSON INSTITUTE
FOR ENVIRONMENTAL STUDIES**
University of Wisconsin-Madison

2005-06 Annual Report on Academic Program Assessment

Under the direction of new leadership, the Nelson Institute has undertaken several initiatives during the past year to examine our mission, achievements, and goals for the future. Two retreats were held for faculty, staff, and students and several committees were convened as a result of the first retreat held in September.

At the September 2005 Retreat participants were charged with articulating visions of key elements (teaching, research, outreach) in an “ideal” Nelson Institute and then thinking strategically about how to get there. Results of the retreat with respect to goals for our academic programs included:

1. The Nelson Institute should develop transdisciplinary courses that distinguish the program and graduates as leaders.
2. Students should apply “transdisciplinary skills” through coursework, internships, thesis research, and team projects.
3. Steps should be taken to create a stronger student community through core courses, orientation activities, team projects, etc.
4. Create a two-track (applied and research) system to ensure better student support and placement.
5. Form a task force of highly engaged faculty from across multiple disciplines develop core courses.
6. Continue discussion about “one degree with several program areas versus several degrees each reflecting a separate program area.” Form a committee to develop a proposal.

Retreat participants agreed that in the ideal teaching future, a set of core courses should be developed or hand-picked from current offerings to encourage a consistency and continuity throughout the program.

While the fall retreat was illuminating and served as a springboard for a closer examination of our programs, we clearly had work to do. A direct outgrowth of the retreat was the formation of two faculty committees: program redesign and core competencies. In the latter half of the fall semester and throughout the spring semester these two committees met to explore ways that we could address the issues raised in the previous mission assessment activities and improve our programs. Operating independently, these two committees came to remarkably similar conclusions about the ideal structure for our largest graduate program, Land Resources (see attached model).

Discussions about the future of the Institute continued at a retreat held in the spring where the main charge was to create a profile for two faculty hires by reflecting on the teaching and research needs and possibilities of the Institute, and its commitment to interdisciplinary excellence. The discussions during the retreat highlighted several areas of concern regarding academic programming in Nelson Institute:

- Teaching needs have not been adequately considered in the hiring of new faculty.
- Undergraduate core courses have not received much attention. New hires should commit to teaching one of these courses.
- The Institute should establish an undergraduate environmental studies major.

Again, faculty were energized by this retreat, and we will have two committees meeting during the 2006 summer to continue looking at the ideas generated in this retreat.

In addition to participating in our own Institute-wide activities, several of our staff attended a workshop sponsored by the University Assessment Council and led by Barbara Walvoord.

Although our programs are still in a bit of flux (potential redesign for Land Resources, possibility of an undergraduate major in lieu of a certificate, developing core competencies to be required across all programs), we are prepared to move forward with assessment plans for each program. Using knowledge gained in the Walvoord workshop, we have drafted a document that will be distributed to all of our program chairs in September 2006 along with a charge to develop an assessment plan specifically for each program (see attached). We will also provide staff support to our program committees to help them begin this process. Prior to the first fall meeting of the program committees, we will hold a panel discussion session with potential employers of our students to hear their views of what they want and need from our graduates. This discussion will serve two purposes: 1) it will help us in the process of spelling out core competencies that we would like to see across all of our programs, and 2) it will give the faculty some direction with respect to learning outcomes for our programs from the employer's perspective. During the fall and early part of the spring term, the committees (or a subgroup) will develop drafts of their assessment plans and submit them to the Academic Programs Chair and Nelson Institute Director mid-way through the spring semester (exact deadline to be determined) for comment and query. From that point on, the program committees along with the academic programs office staff will implement the plans and submit reports on an annual basis to the Academic Programs Chair and Director's office.

At present our graduate programs are in compliance with the ten-year review process, and during the spring semester 2005, our undergraduate certificate program surveyed students, faculty and alumni with funding from the UAC.

As a part of the undergraduate certificate assessment project, we surveyed via mail and email our current students, faculty, and alumni. The purpose of the assessment was to evaluate several aspects of the certificate program including its curriculum, impact, and future evolution. Because of the perennial interest in the idea of an environmental major, that issue was also included in the assessment. Some results from the assessment for further reflection include:

- Although most respondents are satisfied with the current certificate, they also registered significant interest in the creation of an environmental major. At the same time, all three populations— alumni, students, and faculty—indicated that if an environmental major were available, they would recommend retaining the certificate as an additional option. The strongest support for an environmental major existed among current students and alumni.
- The alumni survey revealed that, despite the fact that our alumni had majored in a wide variety of traditional disciplines, a surprising number of those respondents (50%) were employed in environmental areas.
- Both current students and alumni recommended that we incorporate more real-world, experiential, and integrative studies into the curriculum. Respondents were divided on the issue of an internship requirement but most thought it was useful as an option in realizing this experiential goal.

A complete copy of the undergraduate assessment report was submitted to the University Assessment Council chairs in July 2005. Please let us know if you would like additional copies.

Attachments:

Land Resources Program Redesign model

Assessment Plan development process for program committees

**Redesign Committee
Spring 2006**

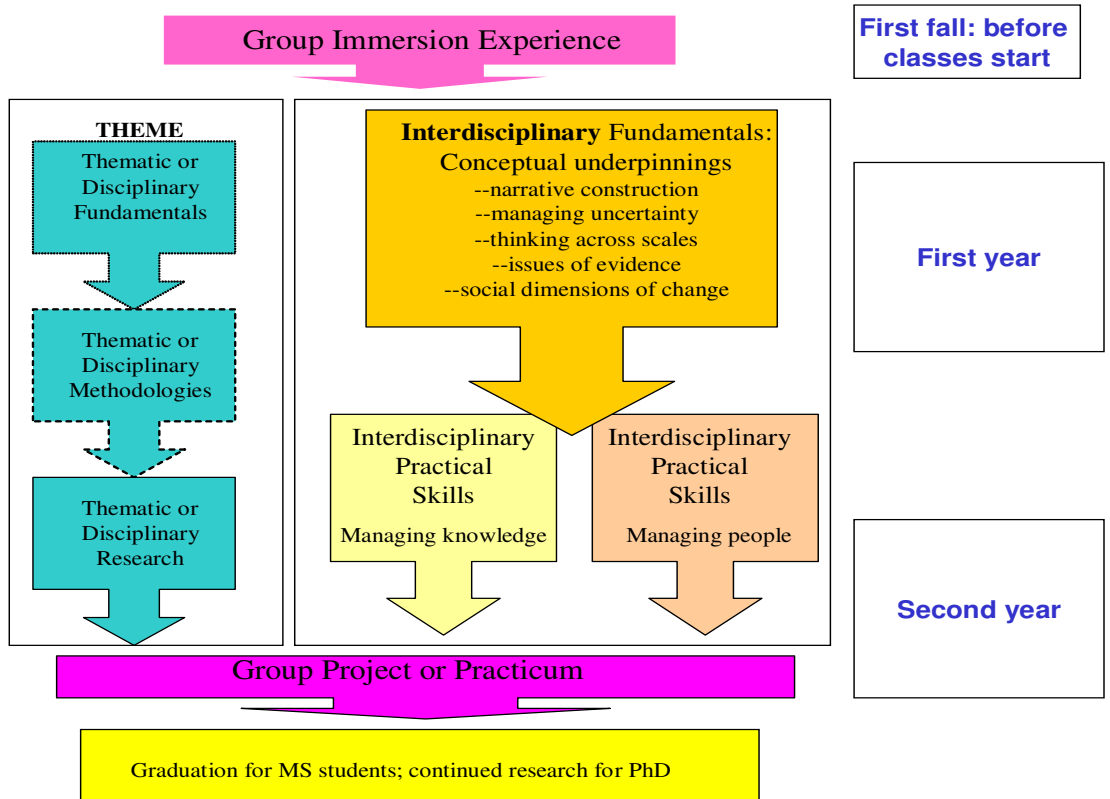
Land Resources Redesign Model

SUGGESTED curriculum revision for **all** entering LR students, MS and PhD

Each student chooses a theme or discipline from among several possibilities, taking classes and doing research **within** a theme.

Students also learn the fundamentals of interdisciplinary research--studying with students from **other** themes, (although professional and research students might take separate courses.)

All students then work on a group project or practicum, with students from **other** themes.



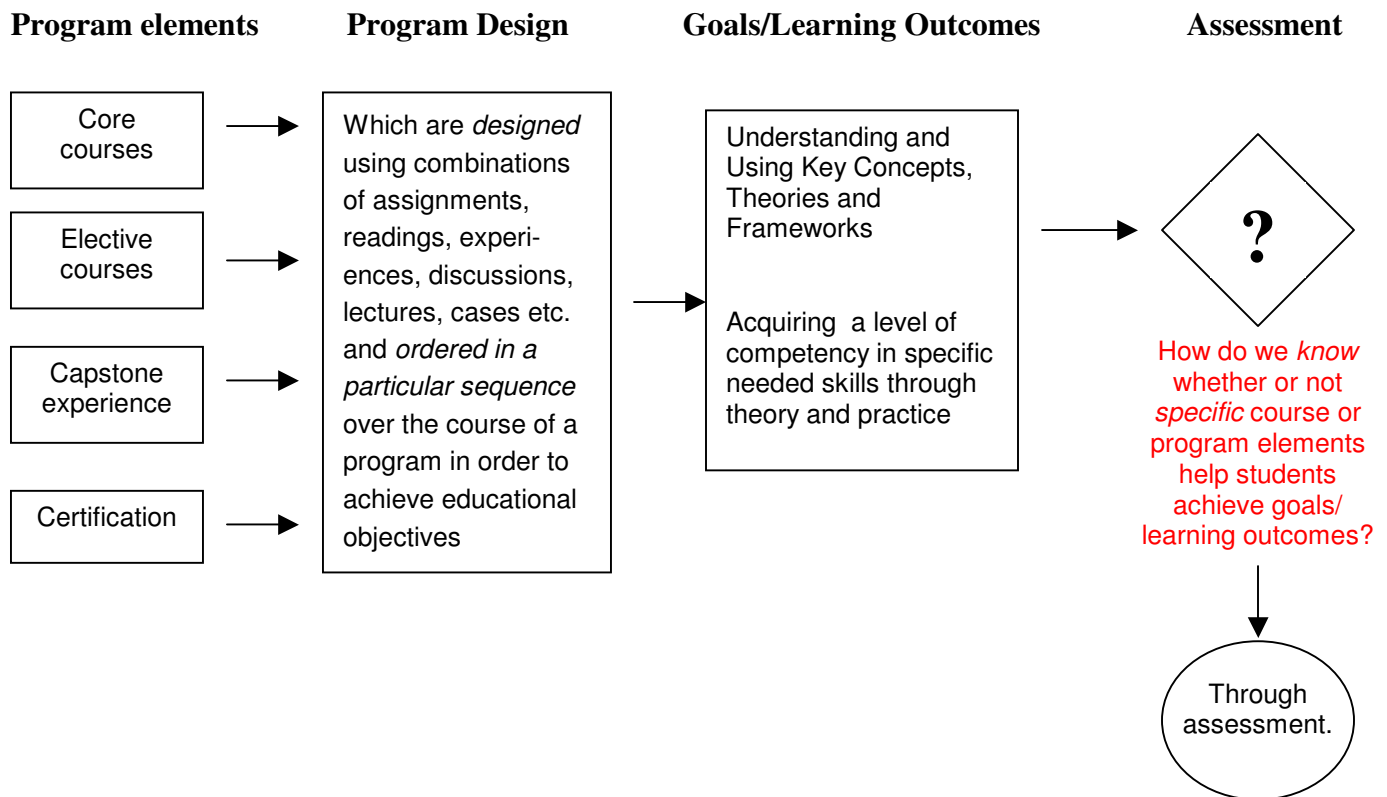
Academic Assessment is

“the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development.”¹

UW-Madison view of assessment:

- Assessment does not evaluate the performance of individual students or instructors
- It does evaluate the whole program or elements of a program
- It’s purpose is to improve the learning experience for students and develop faculty program design capacities
- Each academic program needs to have a plan for assessment

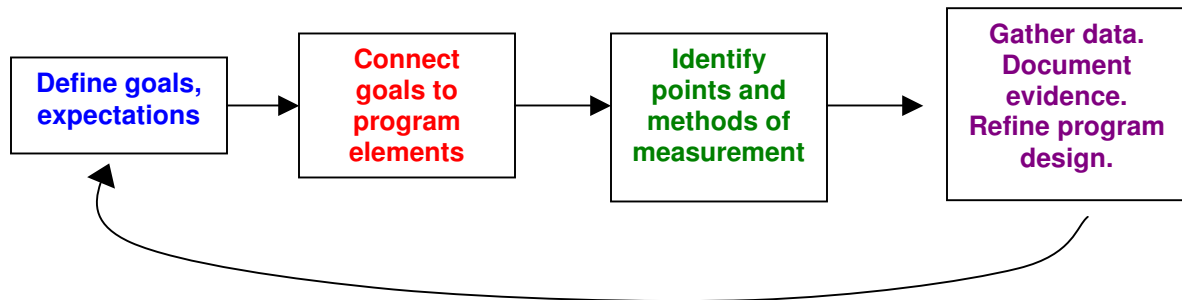
Where does assessment fit into program design?



How do we develop an assessment plan?

The Assessment Spiral – a framework for an assessment plan²

1. Define goals, objectives and expectations
2. Connect goals to the program design (i.e., curriculum and program elements), distinguishing as carefully as possible which program element (readings, lectures, workshop, field work, etc.) is designed to deliver which goal/sub-goal
3. Identify points of measurement (how do you know design meets goal successfully?). Identify methods or tools of measurement (see below).
4. Gather data. Document the evidence. Use the results for program redesign and refinement.
5. Routinely review and re-define goals and objectives.



Goals, Objectives and Expectations

- What is essential in this field?
- What is unique about this program?
- What is important to the unit/college/university?

Student learning outcomes = expectations for students (i.e., goals)

- Content/knowledge goal examples:
 - Knowledge of key concepts
 - Knowledge of research methods
- Skill goal examples:
 - Research methods
 - Technical skills
 - Writing in scholarly genres
 - Oral presentation skills

Connect goals to program elements (i.e., the curriculum)

- Identify program elements where students acquire knowledge or skills articulated in goals
- Program elements may be:
 - Degree and major requirements
 - Courses and course sequences
 - Out-of-classroom activities
 - Program milestones such as point of admission, completion of capstone project or thesis, graduation

Identify points and methods of measurement

- Link measures to milestones/specific program elements
- Direct methods – examine products of students’ work
 - Questions embedded in tests
 - Papers, theses
 - Portfolios
 - Pre/post testing
 - Performances or presentations
 - Testing by external agencies – licensure
 - Scores on standardized tests
- Indirect methods – examine students’ “success from a distance”
 - Admission qualifications
 - Graduation rates
 - Focus groups, exit interviews
 - Surveys of students, alumni, faculty, employers
 - Scores on standardized tests (GRE, LSAT, etc.)
 - Placement rates in jobs or continuing education

Example Matrix for Matching Goals and Evidence Collections³

Goal	Approaches			
	Embedded Tests	Capstone Performance	Surveys	Standardized Testing
Knows key concepts	X	X		X
Writes at scholarly level		X		
Can access scholarly literature		X	X	
Draws evidence-based conclusions	X	X		

Gather data. Document evidence. Refine program design.

Example:

1. Collect capstone papers every year.
2. Remove names and file the papers.
3. Review the collections every three years.
4. Annual meeting to discuss all data collected and identify action items.

Avoid misuse of evidence

- Don't link results to individuals
- Use results at the most local level to make change

¹ Marchese, in Palomba and Banta, *Assessment Essentials*, 1999

² "Assessment: What, Why, How", presentation at UW-Madison Assessment Workshop, July 2005, Jocelyn Milner, Director, Academic Planning and Analysis

³ "Assessment Measures", presentation at UW-Madison Assessment Workshop, July 2005, Jocelyn Milner, Director, Academic Planning and Analysis