

Annual Report on Academic Program Assessment for 2004-05

College of Agricultural and Life Sciences

1. Has your School/College Assessment plan been updated in the past year?

Yes, the program has been reviewed and updated by the College Assessment Committee and was approved by the Academic Planning Council of the College in November of 2004. It is included here.

A PLAN FOR ASSESSMENT OF STUDENT LEARNING IN THE COLLEGE OF AGRICULTURAL AND LIFE SCIENCES

The University of Wisconsin-Madison is mandated by the Board of Regents and by the University's major accrediting agency, the North Central Association, to develop an assessment plan for measuring and evaluating student learning outcomes in general education, in undergraduate majors, and in graduate education. The University has determined that assessment is best accomplished within the schools and colleges, so each school and college must develop an assessment plan. The plan outlined in this document was formulated by the CALS Instructional Improvement Council and was approved by CALS Academic Planning Council.

The objective of assessment is to measure the results of our academic programs in order to determine if program objectives are met, and to use the knowledge gained from these measurements to improve the quality of education we provide our students. Programmatic assessment is not an evaluation of individual students or faculty but an analysis of the learning results of an entire curriculum. Individual assessment is already a regular part of the activity of the faculty as individual faculty consider the intellectual growth of their student advisees. Assessment is a necessary part of any truly dynamic and progressive educational program.

Assessment is in keeping with the College's long tradition of evaluating our programs to improve the quality of service to students. Each department and program in the College performs programmatic assessment activities such as periodic program reviews, self-studies, curriculum reviews, assessment of advising, review of graduate program results in preliminary examinations or dissertations, analysis of the results of final examinations in individual courses, evaluation of the curriculum integration in capstone coursework, evaluation of student performance on professional credential exams, and surveys of current students and graduates. In many cases, new assessment strategies have been and will continue to be implemented.

OVERALL APPROACH

CALS will employ a logical, three-stage assessment strategy focused at the departmental level:

1. Each department should clearly articulate desired learning outcomes for its students.
2. Each department should then develop mechanisms which measure the extent to which these outcomes have been met.
3. Using these assessments, each department should then monitor its program and make appropriate changes to improve student learning and the attainment of its educational goals.

The College of Letters and Science has developed an assessment plan for general education applicable to all schools and colleges at the University of Wisconsin-Madison based on very successful previous work by the departments of Mathematics and English. The general education assessment procedures address learning in communication and quantitative reasoning. The College of Agricultural and Life Sciences assessment plan incorporates, by reference, the General Education Assessment Plan developed by the College of Letters and Science. The College will review the results of the general education assessment and may, at a later date, develop its own general education assessment.

The Graduate School will be conducting assessment activities on behalf of all graduate programs at the University of Wisconsin-Madison, providing data to departments on time-to-degree, financing of graduate students and other data useful to analysis of graduate programs. The CALS Assessment Plan incorporates, by reference, the assessment activities of the Graduate School, and the College continues work with the Graduate School in assessment activities for graduate programs.

ASSESSMENT IN THE UNDERGRADUATE MAJOR

The nature of the undergraduate major in the College of Agricultural and Life Sciences varies according to departmental educational objectives and the nature of the discipline and its intellectual/skill content. Therefore, the exact nature of the assessment process varies according to each unit doing the assessment. However, the following activities will be a part of all assessment plans:

1. The faculty in each department and program offering an undergraduate major will clearly articulate the goals of the educational program and the desired outcomes attained by students as a result of successful completion of the major.

2. Each department and program will develop mechanisms which measure the extent to which students have achieved desired outcomes deemed essential by the department. These mechanisms may include analysis of performance in capstone courses; surveys of alumni, graduate departments or employers; content analysis of examination performance in key courses; student portfolios; and general tests.
3. The faculty should use these measures, as appropriate, in making changes in the undergraduate program that will address deficiencies or generally improve undergraduate student attainment of desired outcomes.

ASSESSMENT IN GRADUATE EDUCATION

Each CALS graduate program has particular objectives unique to the field of study which will dictate its assessment program. However, the College of Agricultural and Life Sciences adopts the following general procedures for assessment of graduate programs:

1. The faculty in each department and program offering graduate degrees will clearly articulate the goals of the educational program.
2. Each department and program will then develop mechanisms which measure the extent to which the goals of the program have been achieved. These measures include those provided by the Graduate School and others specific to the field of study.
3. The department or graduate program faculty will use these measures, as appropriate, in making changes in the graduate program that will address deficiencies or generally improve graduate student attainment of desired outcomes.

IMPLEMENTATION OF ASSESSMENT PROGRAMS

Departments will use feedback from their assessment activities to continually improve their curricula. In almost all cases, departments have changed assessment plans developed in the late 1990's. It is expected that changes will be made in the future as well.

Adopted by CALS Academic Planning Council, November 23, 2004.

2. Describe Assessment Activities conducted in the school/college for unit-wide programmatic of curricular review.

In a follow up to review of the College's plan for academic program assessment, several activities were conducted to facilitate a continuous attention to program improvement through systematic assessment. The college convened a work group of faculty and staff to study assessment activities in the college and to make recommendations for improvement.

An observation was made that the assessment plans departments and programs developed were separated from routine academic program reviews. For instance, most all Departments in the College are reviewed every 7 years or so in accord with CSREES standards. There are also several external agencies that conduct regular reviews of academic programs (e.g. SAF, ABET, ADA, ASLA). While all reviewers are interested in the academic achievements of students as a part of the review, little attention is given to use of assessment plans as a systematic method for program improvement. At no point has the assessment plan been an integral tool in reviews. Starting in the last year, departments in line for CSREES reviews were asked to include their assessment plans and activities for reviewers. Interestingly, within the last year a Department's external review team asked for the assessment plan and its use independent of the College's interest in use of the plans for academic program improvement.

A second observation was made that faculty feel that assessment was a field of study and they did not have the necessary expertise to focus on yet another complex topic. They are disciplinary scholars but not experts on assessment. They also indicated that the demands on their time were so great that developing a new area of expertise seemed impossible. The College has always emphasized that assessment was needed but that the activities of assessment needed to be appropriate to the program and its resources. In other words, no external funds are readily available for outside parties to conduct assessment on behalf of departments. It is a do it yourself proposition. The committee suggested that the College embark on a project to build internal human resources in existing faculty. They are pursuing the following project to enhance the assessment capabilities of the College:

Enhancing Assessment Capacity in the College of Agricultural and Life Sciences 2005-06

- a. Objective: To increase the College's human abilities and resources which enhance progress and quality of program assessment activities.
- b. Like other units across campus, the College of Agricultural and Life Sciences has developed an assessment plan that reflects the diversity of academic programs in the College. In general all the Departments have created and updated assessment plans that are appropriate to their discipline, culture, abilities, and resources. All departments are making a sincere effort to assess their impact on student learning and program improvement. However, there is wide variation in how assessment is accomplished. One of the problems faced by faculty who are not trained in the

fields of education is the feeling of not knowing the jargon or processes of educational program assessment. Therefore there is some discomfort in approaching assessment as an alien topic.

Last fall the Office of Academic and Student affairs invited a working group of faculty and academic staff to convene and discuss ways to help faculty in departments of the college improve their comfort and abilities to address program assessment. Prof. Rich Hartel (Food Science) served as the Chair of the group. They met approximately once per month to discuss possible approaches to enhancing assessment capabilities.

In February, the group devised a strategy that seems to hold great promise. Given that human and fiscal resources will be limited and that all the assessment activities of the college are products of our own design, the committee decided to recommend yet another approach that continues our “Peace Corps” approach. They agreed to become the “in-house” experts on assessment. To do this, they committed to spend time with the literature on the topic and learn from the experience. They also indicated that an outside expert who could spend time teaching them some basic approaches to assessment would be essential.

Once they complete a term of study, they will offer themselves as assistance to Departments in the college for those who were interested in advancing their assessment activities. In short they will become assessment consultants for the College (and perhaps other units where appropriate).

3. Describe the assessment activity in your academic programs and departments.

In 2003-04 each Academic Department and Program in the College was asked to review their assessment plans and revise them if necessary to meet current activities. They did so and those plans are now on file in the Office of Academic Affairs. If the plans to incorporate assessment plans into program reviews, the plans will be important documents for the units, administration and reviewers in determining program strengths.

The CALS Assessment Plan calls for each department to: (1) identify the knowledge and skills its students should acquire; (2) develop a mechanism to measure the extent to which this knowledge and skill has been acquired; and (3) use the information to make appropriate changes to improve student learning. This assessment process is identical for both undergraduate and graduate education.

The College faculty deliberately adopted a “bottom-up” strategy for the planning and implementing of assessment. First, department plans are developed exclusively by department faculty members. The great advantages of this strategy are: (1) the plans are very well adapted to the goals of the department’s academic program; (2) the plans tend to be highly thoughtful and reflective of the department’s philosophy; (3)

once a plan is developed there is a very high probability that the plan will be implemented. The disadvantages of this “bottom-up” approach are largely due to the individualistic nature of departmental responses: (1) variations in the speed of adoption of assessment activity; (2) variations in the specificity of statements of knowledge and skill outcomes; (3) variations in the level of analytical power of the measurement system; (4) uneven amounts of faculty time and departmental attention devoted to assessment in general.

The second principle of the College’s strategy is that assessment activity should be supported by the resources available in the department. The assessment plan is a “local” plan, produced and implemented by department faculty, even though the use of external resources might produce more elegant analyses. In general, this “local control” of assessment implementation means that the activity is not as extensive, and the approach is not as scientifically or statistically rigorous, as an approach that uses external resources to design and implement detailed assessment studies. On the other hand, the activities are thoughtful and are targeted on issues the faculty believes are important.

The College implementation strategy accepts the variation in the plans and implementation activity as a reasonable price to pay for a set of plans that are well-suited to the department’s program, implemented by departmental faculty, likely to produce results that the faculty in the department will use, and likely to be sustainable over the long run.

All departments report engagement in some form of academic assessment. The most common methods that are in continuous use include: Senior exit interviews; project reviews by a panel of faculty; capstone course performance; admissions to graduate or professional schools; employability of graduates; alumni surveys; business and industry advisory committee reviews; among others. Many of the departments use this information in annual faculty retreats or meetings where academic program improvements are a focus of attention. From these meetings, many programs have decided to modify their programs for students (or the learning outcomes for students) to better address their instructional program abilities.

4. Describe plans for academic assessment activities for the coming year in your school/college.

The College plans for next year are to continue emphasis on improving faculty and staff comfort with systematic program assessment. In part, the linking of program reviews with assessment plans is critical. As stated previously, this has been seen as a separate and disjointed pair of exercises.

A second major effort in the next year will be continued attention building capacity for assessment among our own faculty and staff through a study/work group of volunteers. Given that human and fiscal resources will be limited and that all the assessment activities of the college are products of our own design, the group decided

to recommend yet another approach that continues our “Peace Corps” approach. They agreed to become the “in-house” experts on assessment. To do this, they committed to spend time with the literature on the topic and learn from the experience. They also indicated that an outside expert who could spend time teaching them some basic approaches to assessment would be essential.

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