Curriculum Enhancement to
Transform the Undergraduate and Graduate Programs in the
College of Agricultural and Life Sciences
University of Florida

September 7, 2007

The College of Agricultural and Life Sciences has participated in two national leadership summits that addressed the curriculum and teaching needs of the future for the land-grant colleges. The first activity, sponsored by the National Academy of Sciences, NASULGC and USDA/CSREES, provided an overview of the various issues that should be addressed. The second, held at Texas A&M University, provided further opportunity for discussion and dialogue in support of individual institutions as they address the issues and plan for the future.

A planning committee consisting of the participants from CALS (Barrick, Rieger, Turner and House) has set forth the following description of the current situation in CALS and proposes a process for a comprehensive curriculum enhancement project to transform the undergraduate programs of the College. The goal, of course, is to ensure that CALS graduates in the future are well-prepared for the career pathways of the future. Since in most situations the undergraduate and graduate curricula are interdependent, it is envisioned that many departments will address all programs during this effort.

The Situation

The current situation for the undergraduate and graduate programs in CALS varies from department to department and program to program. The following statements vary from casual observations to data-based facts. As the various units address curriculum enhancement, the situation for the program under study needs to be carefully examined, utilizing these statements and others as appropriate.

Curricular Issues

The College does not have a clear set of curriculum, teaching, advising and mentoring goals, adequate evidence of the need for programs, nor well-defined outcomes measures.

Academic Learning Compacts will continue to be required, but they lack depth and detail and are insufficient for measuring outcomes.

Curricular goals and outcomes should be integrated with goals established as part of the Southern Association of Colleges and Schools accreditation reports.
The undergraduate curricula must be based on clearly-defined programmatic themes (e.g., technical expertise in the subject, technology and computer literacy, critical thinking and problem-solving, leadership and interpersonal development, social and cultural issues, communication, scientific inquiry, data analysis, global awareness).

Graduate programs often lack a well-defined core set of competencies that are addressed through a core set of requirements.

In all programs, the curriculum tends to be more subject- and/or teacher-centered than student-centered. Student-centeredness is a desirable trait to achieve.

There may be insufficient connection between general education requirements and the majors, and there is little connection across majors within CALS undergraduate programs.

Some programs lack clear ties to the “real world” with insufficient opportunity for students to complete internships as a part of the academic program.

The curricula lack a global dimension, and international study is underutilized as a component of a degree program.

Introductory courses in CALS undergraduate majors are not offered widely in community colleges, creating a “squeeze” to fit four years of the major into two academic years.

The College should be actively engaged in programs that enhance the First-Year Experiences of undergraduate students.

CALS probably offers too many distinct courses, and low enrollment in courses is difficult to justify at the undergraduate and graduate levels. There are no set rules; however, Academic Affairs has indicated that fewer than 18 students in an undergraduate course and fewer than 10 students in a graduate course may not be defensible.

Related Issues

Student Credit Hours generated will continue to be an important driving force in budget allocation to the College, and on to the units. SCHs generated at the graduate level fall below targeted expectations.

CALS is the best-kept secret in Florida higher education. The College is under-enrolled when compared to other states with large agricultural and life sciences economies.

Imbalances exist in enrollments across departments and programs and in respect to faculty FTE assigned to teaching and advising.
Summer course offerings may be insufficient to meet the needs of students.

There is an unusual mix of undergraduate students in terms of time within CALS (internal transfers, community college and other institution transfers, new freshmen), which tends to complicate decision-making regarding the curriculum.

A variety of approaches to academic advising and mentoring exists in the College in terms of personnel (faculty/staff), advising loads, and expectations of the advising process. There is no one way that is best, but units must be thoughtful in determining how academic advising and mentoring will be conducted.

Student involvement in programs varies considerably among ethnic groups, and the College and departments may not be fully embracing diversity.

The Process

The following process is proposed to provide leadership for curriculum enhancement activities as the College moves forward in reaching the goal of providing an education for the future for its undergraduate and graduate students.

A College-wide Coordinating Committee will be appointed by the Dean in consultation with the unit leaders and CALS Curriculum Committee. Membership will include:

Selected faculty from diverse units
One undergraduate and one graduate student
CALS Associate Deans
CALS Curriculum Committee Chair

The Curriculum Enhancement Coordinating Committee will provide leadership and support for the effort as well as oversight of program changes prior to submission of those changes to the CALS Curriculum Committee for approval.

Each department will establish a Committee to Envision Curriculum Enhancement (CECE) that includes faculty, students and industry input. The CECEs will be charged to:

Justify the need for majors, specializations, minors,
Propose curriculum goals for majors, specializations and minors, including advising approaches,
Establish enrollment targets for majors and degree programs,
Indicate outcomes measures to be used for each,
Propose changes in program requirements and course offerings, and
Report progress monthly to the Coordinating Committee.
The Goal

The ultimate goal of curriculum enhancement is to further the mission of the College: to provide undergraduate and graduate students with a high quality education that results in knowledge and abilities for gainful employment and additional education, productive citizenship, and lifelong learning in the areas of food, agriculture, natural resources, and life sciences as they relate to human resources, the environment, individual communities, and a global society.

Curriculum Enhancement Coordinating Committee

Lynn B. Bailey                        Food Science and Human Nutrition
David G. Clark                        Environmental Horticulture
Christina L. Staudhammer              Forest Resources and Conservation
Willie G. Harris, Jr.                 Soil and Water Science
Richard N. Weldon                     Food and Resource Economics
Shannon G. Washburn                   CALS Curriculum Chair
Ann M. Delay                          Graduate Student
Brian M. Kasten                       Undergraduate Student
Lisa A. House                         Food and Resource Economics
Mark W. Rieger                        Associate Dean
R. Elaine Turner                      Associate Dean