

Synthesis of CEPS Interviews

Overview

The College of Engineering and Physical Sciences (CEPS) is comprised of nine academic departments: four in engineering (Chemical Engineering, Civil Engineering, Electrical and Computer Engineering, Mechanical Engineering), and five in the basic and applied sciences (Chemistry, Computer Science, Earth Sciences, Mathematics and Statistics, and Physics).

There are four research centers that report to the DEAN of CEPS: the Center for Coastal and Ocean Mapping (CCOM), the Environmental Research Group, the Non-Lethal Technology Innovation Center, and the Structural Biology-Proteomics Center.

There are four inter-departmental and inter-college academic programs associated with CEPS: B.S. programs in environmental engineering, Ph. D. programs in Earth Systems Science, M.S. and Ph.D. programs in Materials Science, and M.S. and Ph.D. programs in ocean engineering.

There are five accredited engineering B.S. programs in the college. These are periodically reviewed by the Accreditation Board for Engineering and Technology (ABET). The B.S. in computer science will undergo accreditation review in 2003. Chemistry, Physics and Mathematics and Statistics have society-approved undergraduate programs.

There are approximately 125 tenure-track faculty and 25 research faculty associated with the College. Enrollments in all undergraduate programs total about 1,100 students. There are about 400 graduate students enrolled in graduate programs. Research awards to CEPS faculty have been increasing over time, from about \$17 million in FY97 to about \$27 million in FY01.

A Dean (Dr. Art Greenberg), Associate Dean, five administrative staff, a Business Service Center (BSC) comprised of one Director of Financial Services (Mrs. Kate Roberts) and seven staff, and two half-time writers comprise the administrative staff for the CEPS Dean's office. The college executive committee is comprised of the dean, associate dean, and all academic department chairs.

Interviews

For this in-depth study of institutional effectiveness, The following were interviewed: the chairs of five academic departments (Chemistry, Earth Sciences, Electrical and Computer Engineering, Mathematics and Statistics, and Mechanical Engineering), one research center (Center for Coastal and Ocean Mapping), the dean and the Business Service Center Director. The interview team was comprised of a former chair of the Civil Engineering Department, the Director of another research center (the Environmental Research Group), and a professor in the Natural Resources Department.

Planning

The college is midway in a significant planning effort. Two retreats were used to discuss academic planning. All academic departments have submitted draft academic plans to the dean and are awaiting feedback. Research centers have not had direct involvement in academic other

than center members who also happen to be in academic positions or be involved with departmental plans. The university completed an academic plan this year. The dean will review departmental academic plans and look for consistency between plans as well as with the UNH academic plan. The college academic plan will then integrate from either end. A current major planning effort revolves around the construction and modifications of Kingsbury Hall.

Various traditional means are employed for faculty development, for example, start-up funds for new faculty, travel support to conferences, interaction with the Office of Sponsored Research, on-campus presentations by representatives of funding agencies, 3-year review committees (Electrical Engineering, Math & Statistics), and faculty mentors (Math & Statistics). The Dept. of Chemistry has proposed the use of full-time lecturers to promote research production of tenured faculty.

Individual units (departments, centers, BSC) use retreats to assist in long term planning activities, and the Departments of Electrical Engineering and Earth Sciences have developed 5-year plans.

Resource Management

The responsibility centered management (RCM) model is still relatively new. Little planning within this model has been developed. The model obviously works well in an era of increasing enrollments. Academic units anticipate rapid rewards within the RCM (for example new FTE positions with increasing enrollments), however the reality is that resources are still precious and at the college level, difficult choices must still be made. Few have considered or planned upon eras of declining enrollments. A college RCM committee was established, but has been inactive. RCM has not been brought down to the level of each unit, although there is a general sentiment that it should.

RCM has made academic units focus more intently on not only recruitment but also retention. Most academic units have enhanced their retention efforts. The Chemistry and Earth Sciences Departments have made deliberate effort to enhance internal retention with new freshman courses/seminars. Service departments (departments with few majors yet large teaching loads such as Chemistry and Math & Statistics) have legitimate concern about the role/reward structure within RCM relative to their teaching efforts within CEPS and University-wide academic needs. This concern transcends three areas, retention of CEPS undergraduates, retention of their program-specific undergraduates, and quality/quantity of general education courses.

The college BSC is very efficient and a campus model for the process redesign for financial and business elements. The college desires to use the reward structure of RCM to create incentives for sound fiscal management and entrepreneurial behavior in each unit and overall.

The Financial Reporting Systems (Banner) is simply too new to assess at this point. This system is still in the debugging process. Its potential for providing accurate and timely management reports seems powerful.

Implementation

Annual budgets begin with that of the previous years and projections for changes in income. Then needs are identified and prioritized. Depending on projections the budgets for each unit within the college are modified by the dean in consultation with the unit heads and the BSC director. The majority of all budgets goes towards fixed costs and therefore there are few discretionary funds at any level. Efforts are in place to increase the size of discretionary funds. Planning and resource management are synthesized and do effect the educational/scholarly/service quality within the college. For example, in pre-tenure decisions. The fact that five of the academic departments undergo regular, rigorous accreditation reviews also ensures high quality programs.

Assessment

Program certifications and accreditations, along with student evaluations of teaching are primary assessment tools. In addition, most departments have advisory committees composed of graduates or professionals in the appropriate fields. These advisory committees also supply input about program quality. Student portfolios are used in a number of majors including Math Education.

The promotion and tenure process is also a significant mechanism to ensure academic quality.