College of Engineering
Phase 1 Planning Report - Summary
October 1, 2009

Executive Summary

The College of Engineering is pleased to submit the Phase 1 Planning Report. As requested, we have undertaken a serious and thorough review of our academic and administrative functions to determine how we would address a possible 15% budget reduction.

COE did not charge a single task force to vet alternatives and develop recommendations. Instead, many individuals within the college, including all academic and administrative leaders, were involved in the analysis process. We formed a number of teams to work on focused areas. Some of these teams recently completed their work; accordingly, many of our recommendations are preliminary and have not been fully vetted with the appropriate stakeholders. In addition, we expect we will have to make adjustments as the realities of implementation make initial options unrealistic.

The majority of our unrestricted resources support salaries and wages. Therefore, we either need to increase our unrestricted revenue, or reduce positions. Although our goal is to protect teaching and research as much as possible, we assume that position reductions will come from both academic and non-academic functions.

Academic activities

Our planning assumption is that we may need to reduce faculty positions by as many as 15 (these numbers do not include Computer Science or Biological and Environmental Engineering). This reduction will happen through natural attrition. Currently attrition rates are very low, so it may take a number of years to reach our target. Timing may be an issue if budget cuts are severe and we cannot adjust this relatively fixed cost.

Our planning process focused on how to maintain the highest quality education and research programs with a shrinking faculty size. Specific conclusions include:

- Faculty hiring will be severely curtailed. Our limited hiring will focus on priority areas such as energy and bioengineering.
- While most of our faculty are incredibly productive, we are implementing a post-tenure review process to encourage department chairs to discuss productivity with individual faculty on a regular basis.
- An organization must be proactive to retain its most valued employees, especially during periods of financial duress. We are working to do so proactively.
- We are in the midst of an interdepartmental process to investigate course offerings to facilitate streamlined undergraduate and graduate curricula.
- Earlier this year, we merged Theoretical & Applied Mechanics with Mechanical & Aerospace Engineering. At this time we believe that no further mergers are warranted.

- We encourage the university to consider a new college that aligns the science-based units in the College of Arts and Sciences, the College of Agriculture and Life Sciences and the College of Engineering into a College of Engineering and Science. Given the complexity of the recommendation and apparent lack of interest, we have taken no concrete action on this idea.

Administrative functions

Our review process included looking at three areas: major processes that span many areas in the college, student services, and specific program areas that serve broad constituencies. Our preliminary recommendations are listed below, but details will likely change as they are vetted further and as the university announces broad approaches in related areas.

- Major administrative processes: We are considering the implementation of shared service centers for human resources and financial functions. We are also considering realigning facility management and organize by building rather than by department. In the information technologies area, we may be able to better leverage existing staff to ensure that we provide critical services to all faculty and staff, and to take advantage of economies of scale when appropriate. Finally, we may redefine several administrative positions to focus solely on research administration functions. These collective actions will not generate large savings initially, but will position us to provide the best service possible with reduced resources and should permit us to become even more efficient over time.
- Student services: Within Engineering, the student service team is considering alternate combinations of staff across units for potential savings. We have also been involved with many of the university task forces and will implement other changes that result from those reviews.
- Programs: The college Budget Advisory Task Force has reviewed a number of programs and has developed recommendations for reducing expenses and effort that supports these activities.

Revenue enhancement

Engineering is fortunate to be in high demand by students (undergraduate, professional and graduate) and research sponsors. If we can maintain our size and reputation, we can generate additional revenue for the college and the university.

- Undergraduate enrollment: Demand for Cornell Engineering degrees has never been stronger. Our applications were up 18% last year. Even though Engineering does not retain UG tuition, we believe we could accommodate approximately 10 percent (70) additional freshman students. This would result in over $2.6 million in gross revenue to the university. We know this is a complex topic, but are willing to absorb the additional students provided our faculty and staff levels remain stable enough to support them.
- M.Eng: The Masters of Engineering program continues to be in high demand. We added approximately 60 on-campus students in Fall 2010 and will continue to add enrollment in areas where we can maintain a quality program and where demand exists.
- Research revenues: Our plan to increase industrial funding will result in additional revenue and cost recoveries for the university.