Boston University College of Engineering

44 Cummington Street
Boston, Massachusetts 02215
T 617-353-2800 F 617-353-3468

Kenneth R. Lutchen, Dean
Professor of Biomedical Engineering

February 13, 2008

To: College of Engineering Students
From: Kenneth R. Lutchen
Dean, College of Engineering

Re: The New College of Engineering at Boston University

I am pleased to inform you that following nearly two years of intensive evaluation and effort, the college will be implementing a substantive restructuring beginning academic year 08/09. This restructuring will result in an extraordinary agile and dynamic set of programs and opportunities at the undergraduate and graduate levels all embedded in department and division structures that enhance educational and research cross-talk at levels never before possible.

The process we embarked on about a 1.5 years ago involved a very thoughtful evaluation and development of our philosophy as to what we are trying to accomplish with an undergraduate education in engineering. We converged on the sense that our undergraduate programs must on one hand provide a thorough and substantive foundation in the core-competencies of engineering, inclusive of a suite of specific engineering majors, while on the other hand insure that we provide a foundation for success in life for a wide range of engineering and non-engineering career paths.

Several specific highlights emerged from the above process. First, we identified some key synergisms regarding the intellectual content and expertise of our faculty and the programs in Mechanical, Aerospace, and Manufacturing Engineering. Second we found that the college had developed substantial faculty expertise in the engineering of advanced materials related to energy, biomedical, chemical, electronic, and structural applications. Third, the college had developed increased expertise in the applications of systems theory to a variety of technical and societal challenges. Fourth, the college was an emerging world leader in the process of innovating new biomedical technologies for patient care. Fifth, we sensed that our undergraduate students wanted the capacity to more seamlessly interface with more than one single engineering discipline, while still earning a formal BS degree in a foundational discipline. Sixth, our graduate applicants and students and our faculty wanted to develop more fluid mechanisms to interface with colleagues and students from multiple disciplines.

As a result of this assessment, we have designed the following key exciting aspects of our restructuring:

- Aerospace, Mechanical and Manufacturing Engineering will be merged into a single world-class Mechanical Engineering Department. This department will offer three variations of accredited bachelors degrees including: Mechanical Engineering; Mechanical Engineering with a concentration in Aerospace Engineering; and Mechanical Engineering with a concentration in Manufacturing Engineering. Students in this department will choose specific degree paths aligned with their primary interests. If indeed they want a degree that positions them for careers in Aerospace or Manufacturing Engineering, they will choose the concentration paths, and appropriate notations of the concentration will appear on their transcripts and degrees. Even here, however, because the degrees will also carry the name of Mechanical Engineering, such students will retain competitiveness for a wide spectrum of engineering careers be they within or outside the concentration areas. The new ME department will retain Ph.D. and M.S. degree programs in Mechanical Engineering, and an M.S. in Manufacturing Engineering (including the Global Engineering and dual MS/MBA degree program options).

- The college will offer for the first time the ability to minor in another engineering discipline. Thus a student for example pursuing a B.S. in BME could choose to minor in E.E. or C.E. or M.E.. Minors in E.E. and C.E. were recently approved by the faculty, while those in other disciplines are on track for approval, hopefully in time for the next academic year. They will generally require around five courses in the minor area at the junior or senior level, with three of them being above and beyond what can be counted toward the B.S. degree requirements. Please watch for additional details in a future announcement.

- The college has created two new interdisciplinary Graduate Programs: One in Materials Science and Engineering and one in Systems Engineering. Both will offer the M.S. and the Ph.D. degrees and will admit their first students in the Fall of 2008. Faculty from all departments will participate in the teaching and mentoring of graduate students in these programs. We anticipate that 500 level courses and senior projects or undergraduate research experiences will all be enhanced by these programs. These programs will facilitate cross talk among students and faculty in all departments and will also engage faculty and departments outside the college, most notably Physics, Chemistry, Computer Science and the School of Management.

How Does this Affect You?

All existing degree programs will be retained for all current students. For example, the students currently working towards degrees in Aerospace Engineering or Manufacturing Engineering will still be able to earn an accredited B.S. in those disciplines, as they currently exist. We expect the new degree paths in Mechanical Engineering described earlier to be in place by the beginning of the 09/10 academic year, and sophomores and juniors in those years may opt to follow the new paths or stay with the old.

As noted above, we expect to have several new minors in place by the fall. Students interested in pursuing these new minors should be able to get more detailed information about availability and specific course requirements over the summer.

What is the Next Step?

The most immediate impact of the restructuring will become apparent during the preregistration process for next fall. In anticipation of the new merged Mechanical Engineering department, all AM, MN and some EK courses have been designated ME. Most numbers will remain the same, although some have changed to avoid number conflicts. You will also see a limited number of SE and MS course designators used to indicate courses that are closely related to the new Systems Engineering and Material Science and Engineering programs. A listing of old and new courses will be available at www.bu.edu/eng/merguide to help us all identify the courses we need for the fall.

I am very excited about these changes, as I feel that they help position the College to best carry out our mission of educating the nations future technology, innovation, science and societal leaders.

Best wishes,

Kenneth R. Lutchen