Agenda, May 3, 2002  (Plan on 1 or 2 additional CCGB Meetings beyond this one)

CCGB Meeting

1. Approval of Minutes of 4/26/02 Meeting
2. Undergraduate Announcements
3. Discussion of BME Minor Motion
4. Letter to Provost with Regard to Impact of Residential Internet Fees

CCGB Minutes
April 26, 2002


Ex-Officio:  P. Beebe, D. Cox, B. East, D. Maloney Hahn, J. Saylor, T. Shapiro, T. Thompson

Other:  C. Pakkala, M. Shuler

Approval of Minutes: The minutes of April 19, 2002 were approved as written.

Undergraduate Announcements: D. Maloney Hahn (Advising) mentioned that his office has been soliciting nominations from the freshmen for the McCormick Freshman Advising Award. B. East (Admissions) thanked everyone for their assistance during Cornell Days. T. Jordan (Assoc. Dean) stated that Lockheed Martin is considering initiating multi-year funding for undergraduate programs in engineering. They want a partnership with engineering. If CCGB members have any ideas about how funding could be put to good use, they should let her know.

BME Minor Discussion (Handouts distributed): M. Shuler (ChemE) spoke about the Biomedical Engineering Program structure and the proposed project for the NSF Planning Grant for the Undergraduate Minor in Biomedical Engineering. He views the program as a 5-year program, with an integrated set of courses to meet multiple needs. His proposal is to: 1) Replace the current BME minor with the new BME minor for the Class of 2006, with students in the classes of 2003, 2004 and 2005 able to choose between the old and new minor. 2) Decide whether BioG 110 and Engrg 110 be a) an engineering distribution course, b) an introduction to engineering course, c) a substitution for Physics 214 or d) an approved elective. 3) Make the program flexible enough so that it is feasible that students in all fields of engineering could complete it. F. Gouldin (M&AE) stated that an introductory engineering course couldn’t be required as a prerequisite and wondered if Engrg 110 could be used as a foundation for other courses. M. Shuler stated that he is more comfortable with 110 as an introductory course than as a distribution course. He added that, for some fields, it might be better to allow BioG 110 + Engrg 110 to substitute for Physics 114. The BMEP core faculty will consist of 6 faculty from engineering, 3 from CALS/BEE, 1 from Arts & Sciences and 2 from Veterinary Medicine. The target is to make the minor available in Fall 2004, and he would like to communicate with freshmen as soon as possible about its availability. The new BME minor should: 1) Provide an intellectual foundation for BS/M. Eng. in BME. 2) Consist of a coherent set of courses that integrates biological and engineering concepts, expanding from the molecular to physiologic level. 3) Create a national model for BME education; i.e. develop a definition based on an intellectual core rather than on an application. Current bioengineering programs across the country are typically an engineering field program with a little biology or biology with engineering and no sequencing in an engineering field. A set of courses is needed which defines the minor, and it will continually evolve. E. Giannelis (MS&E) stated that it seems ChemE students could easily complete the minor in 4 years and wondered why a 5th year would be necessary. M. Shuler responded that the program shouldn’t be thought of solely as a minor but as an integrated 5 year program, leading to the MEng degree, which will attract more students. He also indicated that, with enough AP credits, students
could complete the combined BS/MEng program in 4 years. J. Bartsch (BEE) stated that the BEE students continue to do well with the current 4 year program and, in fact, many go to medical school after they graduate from Cornell. He urged M. Shuler not to dismantle the current program but perhaps integrate the new program into the current minor. M. Shuler stated that the old minor was created to respond to student demand. It has had a negative effect on Engrg. 605 and 606, because there has been a large influx of undergraduate students in the graduate courses, which has created a large teaching burden for the instructor. One of the reasons for creating the new minor is that many faculty don’t feel that the current BME minor is satisfactory in preparing students for BME practice. The breadth of subjects has been reasonably addressed, but not the depth. D. Cox (Assist. Dean) mentioned that it is difficult to explain the difference between the bio minors and options to prospective students and their parents. D. Maloney Hahn (Advising) asked how students in the minor would relate that to the pre-med requirements. M. Shuler replied that they need 8 credits of a bio sequence (not fulfilled by Bio 109 and 110), then they would need to add an extra class and organic chemistry. He explained that the proposed course and lab syllabus handout would likely change over time and that, although most of the courses are required, there may be possible substitutions as the program evolves. He stressed that the flexibility of the existing bioengineering option continues to allow students to easily complete the bioengineering option if they can’t do the BME minor. He would also like to admit students who have not completed the Cornell undergraduate BME Minor to the M.Eng. program. F. Gouldin suggested that a student enrolled in the College Program could fit this program into 4 years. D. Maloney Hahn stated that it would be very useful to define the pre-requisites for the M.Eng. students. S. Wicker asked who would own the minor once approved. M. Shuler replied that the BMEP core faculty will be appointed in an academic department and will hold a joint appointment in BMEP. The program faculty will decide who will advise the students and who will be authorized to do other things. M. Shuler stated that the biomedical engineering programs across the country are growing, along with job opportunities in the field. The influx of Whitaker money reflects the demand for this type of minor. He stated that he wants to have a packet of information ready by the end of the summer to describe the bio options to the incoming freshmen. S. Wicker said that the motion would be drafted up and considered next week. M. Shuler stated that the motion will consist of 3 issues: 1) Proposal to replace the existing BME with the new program, 2) How to treat Bio 110 and Engrg 110 and 3) How to handle the scheduling and flexibility issues.

Letter to Provost Martin and Bob Cooke with Regard to Impact of Residential Internet Fees and the need for faculty input to decisions concerning campus networking facilities and fees: S. Wicker (ECE) distributed copies of a letter he’s drafted to Bob Cooke and the Provost. He requested that the CCGB members send any comments that they have to him and/or T. Jordan (Assoc. Dean).

The meeting adjourned at 9:05 a.m.