

University of California at Berkeley
MEETING OF THE FACULTY OF THE COLLEGE OF ENGINEERING
May 9, 2011
11:30 AM to 1:30 PM
290 Hearst Memorial Mining Building

Minutes

Kameshwar Poolla, Chair of the Faculty, opened the meeting with a welcome to attendees.

Undergraduate Admissions

Executive Associate Dean M. Tomizuka reported on Undergraduate Admissions. The data shows a significant increase in the number of out-of-state and international students and a corresponding decrease in the number of California residents admitted. There is no question that the applicant pools are qualified. However, there is concern about whether the current review process results in admitting the most qualified from within the pool of out-of-state and international students, and whether more faculty involvement in the admissions process would be beneficial.

Minutes

K. Poolla called for a vote to approve the minutes of the Fall Faculty Meeting held November 1, 2010. A motion was made and seconded. The motion passed.

Report of the Dean

Dean Shankar Sastry discussed the \$500 million budget cut currently proposed for the UC system. The Berkeley campus share would be 15-18% (\$81 million). The Berkeley campus strategy is to: 1) increase revenue, including out-of-state tuition (\$35-40 million); 2) decrease expenses (Operational Excellence and all the initiatives it involves are estimated to save about \$25 – 30 million) and 3) take the remaining (approximately \$30 million) cut incrementally over three years, which necessitates the campus using reserves the first year to ease the cuts to departments.

The dean noted that managing these deep cuts is extremely challenging and thanked the department chairs and managers for their dedication in finding ways to respond. The dramatic decrease in state support is changing the university's operations in many ways. For instance, these cuts don't provide for building maintenance, which is becoming an unfunded mandate. On the positive side, College buildings are being maintained and several are being upgraded, thanks to our supporters and our outstanding facilities management team. Also, we appreciate the members of our advisory board who have been active in advocating on behalf of the University with the state government.

The College has launched the new Master of Engineering Degree. The level of interest has exceeded our expectations; 88 students enrolled in the first class this fall. Faculty reviewers were diligent in maintaining high admissions standards. The acceptance rate, without any financial aid, was 70%, which is much higher than our acceptance rate for doctoral students with financial aid. Departments not currently participating are welcome. BioEngineering is planning to join and CEE is considering participating.

Minutes

K. Poolla then returned to an earlier agenda item, calling for a motion to approve minutes of the Special Faculty Meeting on February 18, 2011. A motion made and seconded. The motion passed.

College of Engineering Votes

Addition of two Standing Committees to the Bylaws has been proposed. The committees are: 1) Broadening Participation and 2) Engineering Ethics and Social Responsibility. The Broadening Participation committee monitors issues related to inclusion of women and students from underrepresented groups in our student cohorts; this requires faculty oversight and is especially important in the current budget situation. For Engineering Ethics and Social Responsibility, we are fortunate to have received a gift from Warren and Marjorie Minner to establish a program in engineering ethics and responsibility; the committee would work with faculty to incorporate discussion of these issues into the curriculum.

A motion to approve adding these two Standing Committees, Broadening Participation and Engineering Ethics and Social Responsibility, to the Bylaws was made, seconded, and passed.

Changes to the Bylaws

Changes are proposed to bring the College Bylaws current, as explained by Beverly Skinner, staff member who assisted Professors Fiona Doyle and Ron Gronsky in reviewing the changes. The College bylaws had not been updated since 1985 and contained references to Academic Senate Bylaws #64 and #76, which are no longer in use, and to Part 9: Regulations on Curriculum, which is no longer relevant. Full text is attached and is posted at: <http://coe.berkeley.edu/faculty/faculty-meetings-college-committees/faculty-meeting-spring-2011/COE%20By-Laws%202011Proposed%20Revisions.pdf>

The Chair called for a motion to approve changes to the bylaws. A motion was made, seconded, and passed.

Report on Engineering Library

Assistant Dean Scott Shackleton and Librarian Jean McKenzie reported on the renovation of the library to be completed this summer. The changes are in direct response to student requests to make Bechtel “home” for students, especially for undergraduates, by providing student study space and meeting rooms. The new space will provide students with space for group discussions, equipped for internet research and presentation display. There will be capacity for instructional training and space for organized student groups.

Report on the Warren G. and Marjorie C. Minner Endowment for Engineering Ethics and Professional/Social Responsibility

D. Dornfeld, Co-Chair of the Committee on Engineering Ethics and Professional/Social Responsibility, Dornfeld reported that the College received a generous gift to incorporate ethics into our curriculum.

Faculty are invited to apply for a fellowship program this summer which will focus on infusing engineering ethics and responsibility training and discussion into classroom teaching.

Report and Votes of College Committees

Graduate Study Committee

R. Horowitz, Co-Chair, reviewed the report of the Graduate Study Committee. The committee approved 13 new courses and changes for 7 courses. The committee also reviewed and recommended changes in several programs. These include:

1. The Master of Advance Study in Integrated Circuits, proposed by EECS, a two-year fully online degree. The committee has reviewed and recommended submission to Graduate Council.
2. The proposal by the BioEngineering Department to join the Master of Engineering (M Eng) program with a BioEngineering track. The committee recommended BioEngineering have its own track in the Master of Engineering program.
3. The proposed Professional Master of Translational Medicine. This is a program joint with UCSF, which has been reviewed and accepted at UCSF. It had not been reviewed by the College of Engineering at the Berkeley campus. The committee has recommended that the program be submitted to Graduate Council after it is revised and the committee has a chance to re-review.

Vote on graduate study issue: Submission of the Master of Advanced Study of Integrated Circuits (MAS-IC) degree proposal to Graduate Division.

The Chair called for a motion to submit the Master of Advance Study in Integrated Circuits (MAS-IC) degree proposal to the Graduate Division. The motion was made and seconded. In the discussion that followed, C. Spanos explained that planning has been underway for three years to offer a fully online degree program. The Master of Advance Study in Integrated Circuits will be the first offering. Market studies were positive, the business model has been developed, and this idea has been presented before. Since this Masters in Advanced Studies is a separate degree from the Masters in Science degree which the departments currently offer, it is subject to the formal approval process of the Graduate Council. Chair Poolla then called for a vote to approve the submission of the Master of Advance Study in Integrated Circuits (MAS-IC) degree proposal to the Graduate Division. The motion passed unanimously.

Undergraduate Study Committee

Candace Yano, Chair, discussed highlights of the committee's report. The committee submitted three items to the faculty for votes.

The first is Temporary Suspension of Admission to Manufacturing Engineering program. The applicant pool has been quite low and two required classes are not being taught due to budget issues. The temporary period is for 3 years.

The second item is the proposed new major in Energy Engineering Science. T. Zohdi, Engineering Science program chair, explained that there are currently three tracks in the Energy Engineering Science program. The plan is to develop this as a fourth track. The proposal has been reviewed by the College Executive Committee, the Engineering Science Executive Committee, the Engineering Science Committee, and the Undergraduate Study Committee. Each of these bodies has voted unanimously in favor of the proposal.

The third item is the proposed new minor in Energy Engineering.

Chair Poolla called for discussion. After discussion, Chair Poolla called for motions on these proposals.

A motion to temporarily suspend admission to the Manufacturing Engineering program was made and seconded. The motion passed.

A motion to approve the proposed new major in Energy Engineering was made and seconded. The motion passed.

A motion to approve the proposed new minor in Energy Engineering was made and seconded. The motion was approved.

Ad hoc Committee reports: None.

Interdisciplinary Committee Reports: None.

Consent Calendar

Chair Poolla then asked for a motion to approve the Consent Calendar. The Consent Calendar included these items:

1. Vote on Standing Committee Membership for 2011-12
2. Standing Committees Reports
Broadening Participation, O. Dubon Chair
Engineering Ethics and Social Responsibility, W. Kastenberg and D. Dornfeld ,Co-Chairs
3. Ad Hoc Administrative Committees Reports
Engineering Library, G. Glaeser Chair
Jaehne Endowment Committee, R. Yeung Chair
Jane Lewis Award Committee, F. Doyle Chair
Summer Undergraduate Program in Engineering & Research, O. Dubon Chair
4. Interdisciplinary Studies Committees Reports
Applied Science and Technology
Art, Technology and Culture Committee, K. Goldberg Chair
Ocean Engineering, R. Young Chair
5. Approval of Faculty List

A motion to approve the Consent Calendar was made, seconded and approved.

Amendment to Agenda

Next, Chair Poolla called for a motion to amend the agenda to include two items from the BioEngineering Department. These were: 1) the Department of BioEngineering's request to join the Full-time/Part-time Professional Master of Engineering (M.Eng.) degree program of the College of Engineering, with an initial specialization in Bio-Materials, and 2) the Department of Bioengineering's proposed new Professional Masters of Translational Medicine Program, to be jointly offered and administered by the Department of Bioengineering at UC Berkeley and the Department of Bioengineering and Therapeutic Sciences at UCSF. A motion to amend the agenda to include the two items was made and seconded. The motion was approved.

BioEngineering Proposals

M. Tirrell, BioEngineering Department Chair, explained the professional master degree. The BioEngineering Department did not have an existing masters program that could be converted to a professional master in engineering degree. This proposal is to create a masters degree program. The proposal conforms exactly to the format in the other departments (a 24-unit program in the “T” model, with a capstone project and a technical specialization). The proposal has been approved by BioEngineering faculty and submitted to the Graduate Study Committee. This will be the first independent degree our BioEngineering Department has offered. Previous degrees have been offered jointly with UCSF.

Chair Poolla called for a motion to approve the Department of Bioengineering’s request to join the Full-time/Part-time Professional Master of Engineering (M.Eng.) degree program of the College of Engineering, with an initial specialization in Bio-Materials. A motion was made and seconded. The motion was approved.

M. Tirrell then talked about the new translational medicine program, which is a proposal to offer this program jointly with UCSF. The program differs from the M.Eng program in that while M.Eng focuses on early-stage engineering developments, translational medicine focuses on getting devices into use in medical settings. The program could be analogous in medical education to the MPH or business degrees that some physicians take after medical school, and provide more rounded view of how to move an invention into the medical practice. Our BioEngineering Department has offered a pilot of this program, building on existing curriculum; the new proposal creates an original curriculum design which includes not only technical and capstone learning, but also clinical and regulatory, and business leadership. Because this is a new degree, the procedure is that first the Graduate Study Committee reviews it and makes a recommendation to the College faculty. Once approved by the College faculty, the proposal is submitted to the Graduate Division and Graduate Council for review as a new degree. After that it must also be submitted to the Regents for approval.

Chair Poolla called for a motion. A motion was made to approve the Department of Bioengineering’s proposed new Professional Masters of Translational Medicine Program, to be jointly offered and administered by the Department of Bioengineering at UC Berkeley and the Department of Bioengineering and Therapeutic Sciences at UCSF. The motion was seconded. The motion passed.

Petitions of Students: None.

Unfinished business: None.

New business: None.

Adjournment

Chair Poolla then called for a motion to adjourn. A motion to adjourn was made, seconded, and passed.

Respectfully submitted,

/Signed/
Stephanie Smith