May 18, 2007

MEMORANDUM

TO: Nariman Farvardin
    Dean, A. James Clark School of Engineering

FROM: Phyllis Peres
    Associate Provost for Academic Planning and Programs

SUBJECT: Proposal to modify the curriculum of the Applied Science option in the B.S. in Engineering (PCC log no. 06062)

At its meeting today, the Senate Committee on Programs, Curricula and Courses approved your proposal to modify the curriculum of the Applied Science option in the B.S. in Engineering. A copy of the approved proposal is enclosed. The Committee also suggested that you consider revising this option as a Minor.

The changes are effective Fall 2007. The College should ensure that the change is fully described in the Undergraduate Catalog and in all relevant descriptive materials, and that all advisors are informed.

CWR/

Enclosure

cc: Richard Ellis, Chair, Senate PCC Committee
    Sarah Bauder, Office of Student Financial Aid
    Mary Giles, University Senate
    Barbara Hope, Data Administration
    Kathy McAdams, Undergraduate Studies
    Anne Turkos, Archives
    Linda Yokoi, Office of the Registrar
    Gary Pertmer, A. James Clark School of Engineering
THE UNIVERSITY OF MARYLAND, COLLEGE PARK
PROGRAM/CURRICULUM PROPOSAL

DIRECTIONS:
- Provide one form with original approval signatures in lines 1 - 4 for each proposed action. Keep this form to one page in length.
- Early consultation with the Office of the Associate Provost for Academic Planning & Programs is strongly recommended if there are questions or concerns, particularly with new programs.
- Please submit the signed form to Claudia Rector, Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus.
- Please email the rest of the proposal as an MSWord attachment to pcc-submissions@umd.edu.

DATE SUBMITTED 25 April 2007

COLLEGE/SCHOOL  A. James Clark School of Engineering

DEPARTMENT/PROGRAM  B.S. Engineering (Applied Science)

PROPOSED ACTION (A separate form for each) ADD_____ DELETE______ CHANGE X

DESCRIPTION (Provide a succinct account of the proposed action. Details should be provided in an attachment. Provide old and new sample programs for curriculum changes.)

Please see attached

JUSTIFICATION/REASONS/RESOURCES (Briefly explain the reason for the proposed action. Identify the source of new resources that may be required. Details should be provided in an attachment.)

Please see attached

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APPROVAL SIGNATURES - Please print name, sign, and date

1. Department Committee Chair

2. Department Chair

3. College/School PCC Chair

4. Dean

5. Dean of the Graduate School (if required)

6. Chair, Senate PCC

7. Chair of Senate

8. Vice President for Academic Affairs & Provost

VPAAP 8-05
We are requesting a change in the requirements for the B.S. Engineering – Applied Science Option degree program. The rationale for this request is presented below.

1. Program Description

The B.S. Engineering – Applied Science degree program is designed for a student who does not wish to pursue a professional engineering career, but instead intends to use the degree as preparation for entry into fields such as business, law, or medicine. The degree is not ABET accredited. The degree requires that the student select a primary engineering field (any degree program the School offers) and take at least 18 upper level credits in this discipline. (The student is also required to complete the courses of the first two years of the discipline.) The student also selects a secondary field, and completes at least four upper level courses in that discipline. In addition to the primary and secondary fields, there are a number of electives for a student to choose, with the overall intent being that these electives complement the two fields with the end result being a junior-senior curriculum that prepares the student for his/her chosen career after graduation.

2. Program Change

The proposed change is to limit what a student can choose as a secondary field in his/her degree program. The catalog wording is ‘In the applied science program, any field in the University in which the student may earn a B.S. degree is an acceptable secondary science field,...’ The proposed change is ‘In the applied science program, any field in the University in which the student may earn a B.S. degree is an acceptable secondary science field,... The secondary field, however, cannot be another engineering discipline.

3. Rationale for Change

The intent of the Applied Science option is for a student to combine engineering and another discipline outside of engineering – some examples of secondary fields chosen have been mathematics, physics, economics, and business. As stated in the program description, a student choosing this degree is preparing for a non-engineering career after graduation, so allowing a second engineering discipline as the secondary field is counter to the purpose of the degree.

Secondly, allowing a student to select a secondary field in engineering results in a student getting a degree very similar to his discontinued B.S. Engineering – Engineering Option degree. In fact, the requirements for the Applied Science degree are less strict than those of the old Engineering Option degree. One of the reasons for the elimination of the Engineering Option was ABET accreditation concerns. It clearly is not in our best interests to have a student cobble together two engineering fields and electives that meet the degree requirements and graduate with what is, for all intents and purposes, an engineering degree (non-accredited). Such a student would have only junior-senior engineering courses on his/her transcript, whereas a student who pursued the degree as intended would have a significant number of non-engineering courses (e.g. economics, biology, etc), which could not be interpreted as an engineering degree similar to one of our accredited degree programs.