December 8, 2011

To: Enrique J. Lavernia, Dean
   College of Engineering

   Linda Bisson, Chair
   Academic Senate

Fr: Marjorie Longo, Chair
    Engineering Executive Committee

Re: Approval of Closure to Admissions and Discontinuation of Electronic Materials Engineering Major

The Engineering Executive Committee met and discussed at their December 7, 2011 meeting the request submitted from the Department of Chemical Engineering and Materials Science to close for admissions and discontinue the Electronic Materials Engineering Major. The reasoning provided by the department, due to low enrollments and other factors as detailed in the department’s request are compelling. Executive Committee members voted 6 in favor, with 1 abstention recommending this request. In addition, due to the upcoming ABET review, this request had to be fast-tracked to meet December deadlines; therefore the CEC reviewed this request in conjunction with the college Undergraduate Educational Policy committee. This committee will also forward their recommendation.

APPROVAL RECOMMENDED:

[Signature]

Enrique J. Lavernia, Dean
College of Engineering

Cc Mary Ramirez
December 14, 2011

To: Linda Bisson, Chair
   Academic Senate

From: Ahmet Palazoglu, Chair
       Department of Chemical Engineering & Materials Science

RE: Request to both discontinue and close the Electronic Materials Engineering major

The faculty of the Department of Chemical Engineering & Materials Science (CHMS) met December 1, 2011 and voted unanimously to both close and discontinue the Electronic Materials Engineering (EME) major housed in the department. The College of Engineering Executive Committee also approved the closure and discontinuance by unanimous vote on December 7, 2011. We now request the appropriate Academic Senate committees to give their approval. This request is based on the continuing low numbers of students participating in this major. As is described in more detail below elimination of the major would cause no harm to students and would free up some resources.

PPM 200-25, Section III–B, requires that six points be addressed in order to discontinue a program. Here are our responses to the six points:

1. Justification and impact: The freshmen enrollment figures for the EME major in recent years are:
   
   2004-5:  4
   2005-6:  5
   2006-7:  3
   2007-8:  5
   2008-9: 12
   2009-10: 1
   2010-11: 2

   Note: there have been no transfer student enrollments for the past six years.

   The number of graduates in recent years are listed below:
   
   2006-07:  1
   2007-08:  1
   2008-09:  1
   2009-10:  2
   2010-11  1

   Clearly the program enrolls few students and graduates even fewer. The major has proven unable to attract viable numbers of high school and transfer students – most do not understand what this major is. Consequently, it seems appropriate at this time to request that the program be officially discontinued, and new enrollment to the major closed.

   The EME major is unique in the nation but this has actually not proved helpful, as potential employers do not know how to categorize EME students in their hiring plans.

   Existing students in the major will be allowed to complete their course of study; some students early in the program might wish to transfer to a major in Electrical Engineering with a minor in Materials Science (which is in the process of being approved).
Closing the major would have no negative impact on the campus given the low numbers. No courses would be eliminated, as the EME major consists entirely of courses already offered in the CHMS and Electrical Engineering departments. All of these courses would continue to be offered. There are no courses dedicated solely to this major.

There would be a small positive impact to the department as with elimination of the major the associated extensive time and resource consuming ABET accreditation reporting would be eliminated. There will also be a small additional savings in the student adviser (SAO) time as s/he will not need to maintain upkeep of the major and will be able to focus on the four remaining majors that CHMS offers. Overall the workload in CHMS faculty and staff time to support four majors (three ABET accredited) will be less than for five majors (four ABET accredited).

There are no effects on space utilization and no positions will be reduced or eliminated due to the closure of the major.

2. Phase-out plan:  The students in the program at this time will be allowed to complete degrees in EME. Any new students admitted before closure will also be allowed to complete degrees in EME if they so desire. Since no unique courses are required for EME it should not be difficult to allow students in the pipeline to complete their degrees. The SAO will work with the students to ensure that they are aware of and fulfill all their degree requirements.

There are no accommodations needed for faculty, non-senate academic appointees, or staff, as the number of students involved is so small and no courses or positions will be reduced or eliminated.

3. Steps needed and timetable:  The only remaining step is for the Academic Senate to give its approval to closing and discontinuing the major. We request that this is done as soon as possible. If the incoming Fall 2012 class includes EME majors, and they finish in four years, the last EME student will graduate in June 2016. An exact timetable is hardly needed as no unique courses are required for the EME major. Even if students take until 2017 to graduate there is little impact to the department, other than the SAO working with the students to make sure that all necessary courses are completed.

4. Consultation:  The core EME teaching faculty discussed the discontinuation at length and the matter was discussed with the entire CHMS faculty before the unanimous vote to discontinue and close. There would be no impact on other majors or departments as no courses will be eliminated.

5. Relationship to the Academic Plan:  The most recent CHMS Academic Plan, a 22 page document, makes only one explicit mention of the EME major. That comment is in reference to its unique status, which as mentioned earlier, has not proven advantageous. The bottom line is that the major is very small and its discontinuance will have no overall impact on a department with over 500 undergraduates and four other majors offered.

6. Comments: The faculty unanimously approved the plan for closure and discontinuance. Professor Sabyasachi Sen, the lead faculty for the EME program, offered these comments:
   “The compelling reasons for discontinuing the EME program are as follows:
   a. Insufficient enrollment
   b. Getting a degree in an area of major with a unique name is not being helpful for students in the current job market.
   c. We are currently considering better options such as specialization within the Materials Science Engineering program to achieve the same objective without the extra ABET accreditation work and the problem associated with the unusual program name.”