



MME CURRICULUM COMMITTEE
Florida International University
Department of Mechanical & Materials Engineering
Miami, Florida

MINUTES

February 22, 2006

The MME Curriculum Committee and the MME Student Committee met jointly on Wednesday, February 22nd at 1:00 pm in the Industrial Engineering Conference Room, EC 3350.

Attendees:

MME Curriculum Committee: Dr. Arvind Agarwal, Carmen Schenck, Dr. Yong Tao, and Dr. Sabri Tosunoglu.

MME Student Committee: Richard Castillo, Maribel Garcia, Michelle Heethawakage, Tapas Laha, Damien Lloyd, Duy Nguyen, Eddie Pezua, and Alexandra Rolon.

Student committee members raised a number of issues, and the joint committee discussed possible remedies as outlined below.

Concern on combined course offerings:

Holding the same course in two separate classes and instruction by one professor is seen ineffective.

Suggestion:

For the remainder of the semester, students request that a second instructor be assigned so that each class will have an instructor at all times; not only half of the time. Another option is to split the class into two and meet at two different times. This will allow the same professor to lecture in both classes.

In the future, such courses should be scheduled as two separate classes at two different times if the same faculty member teaches it.

Coordination of lectures and lab practice:

Students feel that there is a lack of coordination between lecture courses and labs, and the content of the experiments does not provide much insight into realistic engineering applications.

Suggestion:

Same faculty teaches the lecture course and the related lab. At least the faculty who teaches the theoretical course coordinates lab activities so that lectures and labs relate to each other.

Undergraduate labs:

Content of the undergraduate labs (equipment and experiments) needs to be improved. Department should have a machine shop with at least some traditional machines along with a CNC and rapid prototype units. This will improve the quality of senior design projects and students will be more knowledgeable on the basics of mechanical engineering. Labs owned by other departments do not serve this purpose as they are not readily made available to ME students.

Suggestion:

The department should use the fees paid by students to invest in its undergrad labs more effectively. Other funding should be pursued to establish a departmental machine shop.

Minors in ME:

Although our department offers minors to non-ME students, there is no minor offerings for ME students other than the HVAC area.

Suggestion:

Initially offer two minors to ME students: One in Robotics, and the other in Materials.

Research experience:

Undergraduate students would like to gain research experience by working in research labs which are better equipped than undergraduate labs.

Suggestion:

A new course titled EML 4XXX Undergraduate Research Experience has been approved by the college curriculum committee and will be made available to students in Fall 2006.

Course flowchart:

New course flowchart which reflects the latest changes in course requirements and prerequisites should be made available to students.

Suggestion:

Carmen Schenck will make the flowchart available, and it will be posted at the departmental web page.

Course offerings:

Students would like to see that courses are offered more frequently than once a year. In view of the increasing student body, class sizes of over 50 have disadvantages on the quality of teaching and learning.

Suggestion:

Department is asked to offer more courses more frequently.

Society involvement in classes:

Students would like various professional societies to participate and fund special projects.

Suggestion:

In general, department welcomes such initiatives. Such proposals should be discussed directly with specific faculty.

Full-time assistant to Carmen Schenck:

Latest increase in ME student population has created too much pressure on Carmen Schenck to effectively deal with the students.

Suggestion:

A full-time position should be established to assist Carmen to help her organize registration activities, answering phones, answering e-mails, updating departmental web pages (posting courses, current and future teaching plans, timely updates), and so on.

EGM 3311 Analysis of Engineering Systems:

Students stated that the sections of this course are disconnected and may be reviewed to make it more coherent. Another comment was that this course should be taken before any of the lab courses are taken since the section on statistics is very helpful in lab courses.

A suggestion was that the knowledge on differential equations is not needed to take this course. Hence, MAP 2302 Differential Equations can be dropped from the prerequisites list – allowing students to take it earlier. Instead, Calculus II can be made the new additional prerequisite.

Suggestions on EGM 3311:

Review the course contents.

Add new prerequisite: MAC 2312 Calculus II

Delete the existing prerequisite: MAP 2302 Differential Equations

Make EGM 3311 prerequisite to the following lab courses:

EML 3126L Transport Phenomena Lab

EML 3301L Instrumentation Lab

ME Day:

All professional societies active within the MME department will be invited to organize an “ME DAY” on Friday, April 7, 2006. This will allow the entire department (students, faculty and staff) to get together. Organization of the day will be coordinated by the MME Student Committee, and the details will be announced.

The intention is to bring together everyone in the department twice a year (once in fall, once in the spring semester) around themes and activities designed by the professional student organizations active in the department.

The meeting adjourned at 3:00 pm.

Sabri Tosunoglu, Ph.D.
Chair, MME Curriculum Committee