

**MINUTES UNIVERSITY MATERIALS COUNCIL MEETING  
O'HARE HILTON, CHICAGO, ILLINOIS  
OCTOBER 11, 1998**

**Chairs Present:**

R. Abbaschian	University of Florida
M. Akinc	Iowa State University
N. Altiero	Michigan State
H. Andrejasik	University of Pittsburgh
R. Doherty	Drexel University
T. Eagar	Massachusetts Institute of Technology
K. Faber	Northwestern University
E. Hellstrom	University of Wisconsin-Madison
G. Janowski	University of Alabama-Birmingham
T. Langdon	University of Southern California
J. Li	University of Rochester
P. Liaw	University of Tennessee
J. Liedl	Purdue University
F. Mohamed	University of California-Irvine
J. Morral	University of Connecticut
I. Robertson	University of Illinois-Urbana
A. Saxena	Georgia Tech
R. Siegel	Rensselaer Polytechnic Institute
R. Singh	University of Cincinnati
R. Sisson	Worcester Polytechnic Institute
R. Snyder	Ohio State University
C. White	Michigan Technological University
D. Williams	Lehigh University

Tom Eagar called for suggestions for new business, in addition to the topics listed below. Suggested subjects included start-up packages, undergraduate curriculum, recruiting MS&E students. A brief discussion of start-up packages ensued.

**ABET**

Ashok Saxena opened discussion of the new ABET accreditation procedures, as he chairs the first MS&E department accredited under the new system. It was noted that the collection, assimilation and use of data from alumni, and other external bodies takes about three years to organize. Tom Eagar mentioned that it is not necessary to construct new processes; that we have to document our current structures and processes better than we have in the past. Benchmarking is used by ABET. Such issues as salaries, benefits, stipends, scholarships, tuition are possible items to include when benchmarking your department against others.

**PROFESSIONAL MASTER'S DEGREE**

Dave Williams chaired debate on the role of professional master's degree programs - there are many non-thesis MS degrees, some as short as one year in duration. There was virtually no consensus on such topics as the degree title (MS or MEng), the length of the program (1, 2 or more years), the need for a thesis or a non-thesis degree. The question was asked if engineering should become a professional occupation such as a lawyer or MD, by the institution of a graduate degree requirement equivalent to the bar exam.

## **GRADUATE STUDENTS**

Cal White discussed the problems of marketing, admissions, retention, and resources for graduate students. One success of the UMC was the prevention of graduates being 'poached' from one institution by another. The annual list of all rising seniors with a GPA suitable for a graduate degree was being created. The untapped potential of physics and other students at 4-year colleges was noted; such students were attracted to focused recruiting weekends or evenings, often shared with other engineering departments on campus.

## **DIVERSITY PIPELINE**

Ashok Saxena described the extraordinary success of Georgia Tech in recruiting minorities. He emphasized the need for a total university commitment to diversity and discussed the SECME program that gave opportunities for high school minorities. The OMED program is responsible for retention of minority students, and partnerships exist with the historically black colleges and universities/minority institutions. There is also a strong recruiting program for minority high school seniors. It is important to create an environment in which minorities feel comfortable and see role models, emphasizing that they can survive (and even thrive) at universities. It was suggested that such assimilation onto the campus, as well as the local community/culture, was more difficult in places which, unlike Atlanta, did not have large minority communities in which graduates with successful careers were plentiful.

## **EVALUATING FACULTY**

Tony Rollett introduced the Carnegie-Mellon approach to the review of senior faculty. A 7-year post-tenure review has been instituted. It was important to put a positive spin on such evaluations rather than imply that the faculty were being "set-up" for criticism, or even worse that the evaluation was a first step towards dismissal. It was emphasized that self-evaluation of this sort enables faculty to realize what they want to do with their careers. It is important for faculty to plan where they want to be in the next five-seven years. Georgia Tech and Alfred have a post-tenure review every five years. Faculty response was mixed. The question was raised about what to do with tenured faculty who refused to be reviewed in this way. Is it possible to use this review process to shift a poor teacher into the research stream or a low-productivity researcher into the classroom? The review process can help to address these and other thorny issues.

## **BIOMATERIALS**

Reza Abbaschian described the biomaterials program at Florida (8 out of 35 faculty in MS&E are in the Bio area). Three degree programs exist: (1) A combined BS/MS with 12 credits double counted towards both degrees; students were eligible for an RA and the MS thesis grew out of a senior thesis. If the MS is a non-thesis degree, there must be a BS project as part of the double degree. (2) A BS/MS in biomedical engineering was also available and MS&E faculty were active in this area. A MD/PhD is also an option in conjunction with the School of Medicine. The candidates are admitted to both schools and it takes 7 years for the combined degrees.

## **NEXT MEETING**

May 13, 1999 - Courtyard by Marriott in Crystal City, Virginia

Respectfully submitted,

D. B. Williams  
01/18/99