

## MINUTES OF THE GRADUATE CURRICULUM COMMITTEE MEETING December 6, 2001

**Members Present:** Bidstrup-Allen (ChE), Fisk (PSYCH), Green (MATH), Hertel (NRE), Jagoda (AE), Klein (for Bostrom PUBP), McDowell (ME), McIver (REG), Parsons (MGT), Sanders (MSE), Schwartz (Student)

**Visitors:** Alexander (BIOL), Kilroy (Grad Studies)

1. A motion was made to approve the minutes of November 1, 2001 as amended. The motion was seconded and approved. Unanimous.
2. A petition to allow an undergraduate student to take a graduate level course with less than a 2.7 GPA was discussed. A motion was made to approve the petition. The motion was seconded and defeated.
3. The Department of Health and Performance Science presented the Master of Science in Prosthetics and Orthotics. After discussion concerning who would offer the degree, a motion was made to table the request so the department could to revise the request to clarify which school would be granting the degree. The motion was seconded and approved. Unanimous.
4. The SCHOOL OF BIOLOGY requested the approval of the following courses. A motion was made to approve the courses. The motion was seconded and approved. Unanimous.

### New course

BIOL/CHEM/CEE 6756 Discovery of Signaling Molecules 3-0-3

BIOL 6620 Aquatic Chemical Ecology 3-0-3

BIOL 6621 Aquatic Chemical Ecology Laboratory 0-3-1

BIOL 6623 Experiments in Aquatic Chemical Signaling 2-12-6

BIOL 6180 Biological Applications of Environmental Fluid Mechanics 0-3-1

BIOL 8005 Signals in the Sea Seminar 2-0-2

BIOL 8106 Tools of Science 2-0-2

5. The DUPREE COLLEGE OF MANAGEMENT requested that MGT 6788, Legal Issues in Biomedical Engineering, be changed to MGT 6790, Legal Issues in Technology Transfer. This course is crossed listed with ECE, CHE, ME and BMED. A motion was made to approve the request. The motion was seconded and approved. Unanimous.

6.

### NEW COURSE

MGT/ECE/BMED/CHE/ME 6790 Legal Issues in Technology Transfer 3-0-3

### MAKE INACTIVE

MGT/ECE/BMED/CHE/ME 6788 Legal Issues in Biomedical Engineering.

7. A request was made to accept a student in the Masters in International Logistics program. After much discussion, a motion was made to deny the request. The motion was seconded and approved.
8. The College of Engineering requested the approval of a Certificate in Information Technology for

Engineered Systems. A motion was made to approve. The motion was seconded and approved.  
Unanimous.

9. The committee reviewed 21 petitions, all were approved unless noted:

- 1-to process late grade change (**denied**)
- 2-to receive hours of transfer credit/course credit
- 1-to waive 7-year rule
- 2-to register Spring 2002 after withdrawing Fall 2001
- 10-to withdraw past deadline
- 1-to waive residency requirement
- 1-to graduate without 3.0 gpa
- 1-to register for MATH 7334 and MATH 8813 without 2.7 gpa (**denied**)
- 3-to accept credit for 9000 course for 7000 course

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Adjourned,

M. Jo McIver  
Registrar

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**Certificate in IT for Engineered Systems**

IT Council, July 9, 2001

**THE CERTIFICATE**

We imagine a future in which geographically distributed engineers collaboratively develop, build, and test solutions to design-manufacture problems encountered in the product realization process. In this context, we want to provide an educational foundation to support the realization of industrial products for a global marketplace through distributed design and manufacture. Accordingly, the Certificate is constructed around four themes, namely, Integrated Product Realization, Global Supply Chain Management, Enterprise Integration and Human Centered Technologies for Information Transfer. Additional themes could be developed and added in the future.

*Integrated Product Realization (IPR)* focuses on explicit recognition of life cycle linkages between marketing, engineering design, manufacturing, and information technology during product development for global markets.

*Global Supply Chain Management (GSCM)* focuses on linking product realization and supply chain management by considering opportunities for enhancing agility and efficiency of the global value chain.

*Enterprise Integration (EI)* focuses on the creation and management of information infrastructure that enables the integrated and distributed effort in the product realization process in a global environment.

*Human Centered Technologies for Information Transfer (HCTIT)* focuses on modeling, design and measurement of human-integrated systems, including individual IT applications, IT organizations and IT systems. Emphasis is placed on linking cognitive function to the principles and practices of human-

centered design.

### **CERTIFICATE STRUCTURE**

Successful completion of the IT for Engineered Systems Certificate entails a student taking:

- two courses from a list that frames the *Information Technology content*, and
- two courses from a list that frames the *Information Technology application*.

No more than two courses of the four courses can be from a single discipline or be from a single academic unit.

### **ADMINISTRATION**

The Certificate will be administered the Director of the Manufacturing Education Program, Manufacturing Research Center. An oversight committee (IT for Engineered Systems) chaired by the Director of the Manufacturing Education Program with members appointed by the Dean of Engineering will be responsible for keeping the certificate requirements up to date.

### **COURSES THAT FRAME THE IT CONTENT**

Students are required to take any two courses from the following table to satisfy the IT requirement of the certificate.

CoC	ME
6300: Software Development Process	
6750: Human-Computer Interaction	
6754: Engineering Data Management	6754: Engineering Data Management

### **COURSES THAT FRAME THE IT APPLICATION**

Students are required to take two courses from within one of the Theme areas described below. Additional restrictions (noted) may apply within a Theme area.

#### **Theme 1 - Application:** Integrated System Realization

The two courses must be taken from within one column.

<i>Design-Manufacture</i>	<i>Flight Vehicles</i>	<i>Chemical Process Control</i>	<i>Construction Planning</i>	<i>Materials</i>
ME6101 Engineering Design	AE6320 Aeronautics	CHE6400 Advanced Process Control	CE6100 Construction Project Planning	MSE6796 Structure-Property Relationships in Materials
ME6102 Designing Open Engineering Systems	AE6322 Space Launch and Vehicle Design	CHE6410 Dynamics Behavior of Process Systems	CE6120 Environmentally Conscious Design and Construction	MSE6795 Mathematical, Statistical and Computational Techniques in Materials Science
ISyE6201 Manufacturing Systems	AE6341 Fixed Wing Aircraft Design I			

MGT6325 Product Planning	AE6342 Fixed Wing Aircraft Design II			
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**Theme 2 - *Application*:** Global Supply Chain Management

ME6102: Designing Open Engineering Systems  
ISyE6203: Global Supply Chain Management  
MGT6506: Electronic Commerce

**Theme 3 - *Application*:** Enterprise Integration

ME6102: Designing Open Engineering Systems  
MGT6506: Electronic Commerce

**Theme 4 - *Application*:** Human Centered Technologies for Information Transfer

ISyE6215: Models of Human-Machine Systems  
ISyE6223: Understanding and Supporting Human Decision Making  
ISyE6231: Design of Human-Integrated Systems  
ISyE6234: Measurement of Human-Integrated Systems

**Points of Contact**

Jim Craig, AE  
Robert Fulton, ME  
Julie A. Jacko, IsyE  
Farrokh Mistree, ME