THE UNIVERSITY OF WISCONSIN-MILWAUKEE
College of Engineering and Applied Science

F A C U L T Y M E E T I N G

Friday, January 29, 2021 10:30 A.M. Virtually Via Microsoft Teams

A G E N D A

I. DEAN UPDATE

II. ANNOUNCEMENTS

A. Final Exam Policy – Ethan Munson

III. INFORMAL REPORTS – See Attachment 1

A. Opportunity for questions regarding Informal Reports

IV. DETERMINATION OF THE PRESENCE OF A QUORUM FOR FACULTY MEETING

V. AUTOMATIC CONSENT BUSINESS

A. Minutes of the December 11, 2020 meeting

B. Course Changes – See Attachment 2

C. Biomedical Engineering Program Changes – See Attachment 3

VI. NEW BUSINESS

VII. GENERAL DISCUSSION

VIII. ADJOURNMENT

John R. Reisel, Secretary
CEAS Faculty

JRR
Attachments

ATTACHMENT 1

INFORMAL REPORTS

Office of Student Services – Todd Johnson
No Report

Career Services – Juli Pickering
No Report

Curriculum Committee – Prof. Church

The curriculum committee is attempting to clean up the CEAS-related items on the Course Information Management (CIM) system used to track and process course changes. Please do your best to communicate the status of future CIM forms with your department representative to the curriculum committee so it is understood when an item should be considered for action by the curriculum committee.

Graduate Program Committee – Prof. Law
No Report

Academic Planning Committee – Prof. Abu-Zahra

APC held a retreat meeting over two days (Jan 12th-13th) and invited administrators from the Dean's office to present the current state of the college and the challenges and opportunities facing our academic programs, research, students, and finances. APC will review the information and data provided in the presentations in its Spring meetings and will provide the Dean's office with its recommendations accordingly.

Faculty Senate – Prof. Reisel

The January Faculty Senate meeting is scheduled for January 28.

ATTACHMENT 2

COURSE CHANGES (Additions made in green. Deletions Indicated in Red)

BME 301 ~~385~~

FUNDAMENTALS OF ~~INTRODUCTION TO~~ BIOMATERIALS, 3 cr. U
Fundamentals ~~Introduction to the fundamentals~~ of biomaterials including ceramics, metals, ~~and~~ polymers. and natural biomaterials; Biological responses to implants; clinical perspectives; designing new biomaterials; tissue engineering. ~~Important issues in the selection, design, manufacturing, and evaluation of biomaterials.Current applications, and emerging technologies. Jointly offered with & counts as repeat of MatlEng 385.~~
Prereq: BioSci 203(P), ~~jr st~~, MatlEng 201(P)

BME 305

INTRODUCTION TO ENGINEERING BIOMECHANICS, 3 cr., U
Introduction to engineering biomechanics principles applied to the musculoskeletal system and human body for analysis of human movement.
Prereq: BioSci 203(P), BME 302~~/MechEng302~~(P)

BME 320

ENGINEERING OF BIOMEDICAL DEVICES I, 4 cr., U
Physiological and biomechatronic systems, sensors and actuators, signal processing, hearing aid and implants. Laboratory experiments sessions included.
Prereq: jr st., BME 101(P), BME 302(C)/~~MechEng(C), or grad st~~.

CIV ENG 360

INTRODUCTION TO STRUCTURAL ANALYSIS, 3 cr., U
Elementary structural analysis techniques; beams, trusses, statically determinate frames, influence lines; analysis of indeterminate structures by superposition and computer analysis.
Prereq: CIV ENG 303(P) or CIV ENG 203(P)

CIV ENG 372

INTRODUCTION TO STRUCTURAL DESIGN, 4 cr., U
Intro to design of reinforced concrete, steel, and wood structures; material properties; codes; design for flexure, shear and axial loads; connections.
Prereq: jr st. CIV ENG 303(P) or CIV ENG 203(P)

MECHENG 320

INTRODUCTION TO FLUID MECHANICS, 3 cr., U
Basic law of fluid mechanics with applications to engineering problems and with discussion.~~. laboratory demonstrations.~~
Prereq: MechEng 301(C); ElecEng 234(P) & PHYSICS 209(P). ~~Civ Eng 202(P).~~

ATTACHMENT 3

BIOMEDICAL ENGINEERING PROGRAM CHANGES

Summary:

• CIV ENG 201 and CIV ENG 202 are replaced by CIV ENG 203 and Engineering core credits reduced to 24 from 26.

• Total credits in electives are increased from 15 to 17. Students will be required to take 11 credits from the list of electives while there will be 6 free elective credits

CURRICULUM

Engineering Core - 24 credits

BME 101	Fundamentals of Biomedical Engineering	3
CIV ENG 203	Introduction to Solid Mechanics	4
EAS 200	Professional Seminar	1
ELECENG 301	Electrical Circuits I	3
ELECENG 305	Electrical Circuits II	4
MATLENG 201	Engineering Materials	4
MECHENG 101	Computational Tools for Engineers	2
MECHENG 301	Basic Engineering Thermodynamics	3

Technical Electives - 17credits

Select 11 credits from the approved technical electives list below and 6 credits free elective(s):

BIO SCI 150	Foundations of Biological Sciences I
BIO SCI 152	Foundations of Biological Sciences II
BME 585	Advanced Biomaterials
BME 599	Senior Thesis
BME 690	Topics in Biomedical Engineering:
BME 699	Independent Study
BUS ADM 447	Entrepreneurship
CHEM 102	General Chemistry
CHEM 104	General Chemistry and Qualitative Analysis
CHEM 343	Organic Chemistry
CHEM 344	Organic Chemistry Laboratory
CHEM 345	Organic Chemistry
CIV ENG 311	Introduction to Energy, Environment, and Sustainability

COMPSCI 250	Introductory Computer Programming
COMPSCI 411	Machine Learning and Applications
EAS 1	Engineering Co-op Work Period
EAS 497	Study Abroad:
ELECENG 361	Electromagnetic Fields
ELECENG 410	Digital Signal Processing
ELECENG 436	Introduction to Medical Instrumentation
ELECENG 437	Introduction to Biomedical Imaging
IND ENG 360	Engineering Economic Analysis
MECHENG 320	Introduction to Fluid Mechanics
MECHENG 474	Introduction to Control Systems