It has been a remarkably busy year for the SOECC. In preparation for our upcoming ABET accreditation visit, the task of the year has been to review and correct the catalog course descriptions, with the aim of ensuring that titles and prerequisites are all appropriate and that courses listed in the catalog are still being offered. Near the beginning of the year, the SOECC chair queried the registrar for lists of courses that have not been offered in the last four years, and presented that list to department chairs. This led to a multitude of requests for course corrections and deletions, summarized briefly at the end of this document.

Aside from this multitude of minor changes, there have been several substantive changes in courses and programs, including the following highlights:

1. **Chemical and Biological Engineering:** Renumbering of four formerly 100-level courses to CHBE201-204 gives coherence to the CHBE graduate core requirements.

2. **Computer Science:**
   a. Exclusion of all Engineering Science from the Bachelor of Science in Computer Science breadth requirement both strengthens the requirement and reduces confusion.
   b. Correction of language in Computer Science Minor clarifies the change from Comp80 to Comp105 (Programming languages) as a core option of the minor.

3. **Electrical Engineering:** A new core sequence in both Electrical and Computer Engineering degrees replaces four courses EE11,12,13,102) with three (EE21,22,23), and makes one credit available for a junior design experience (EE31) in both the BSEE and BSCPE degree programs.

4. **A new minor in Music Engineering** replaces the older Musical Instrument Engineering Minor and provides tracks suitable for students in both Electrical and Mechanical Engineering.

5. **Standards for prerequisite listings:** From a recommendation of the SOECC, the SOE faculty voted unanimously to adopt short-form prerequisites (e.g., CEE1) as a standard for all course listings, school-wide. The registrar’s office agreed to make the required changes and to enforce the policy.

The following pages contain lists of changes approved by the faculty, grouped by the kind of change requested.
New courses:
BIOE 0295/ 0296 BIOENGINEERING MASTER'S THESIS
CEE 0187 GEOGRAPHICAL INFORMATION SYSTEMS
CHBE 0201 MATHEMATICAL METHODS IN CHEMICAL ENGINEERING
  (replaces CHBE 0101)
CHBE 0202 CHEMICAL AND CATALYTIC REACTION ENGINEERING TOPICS
  (replaces CHBE 0103)
CHBE 0203 ADVANCED THERMODYNAMICS
  (replaces CHBE 0135)
CHBE 0204 ADVANCED TRANSPORT PHENOMENA
  (replaces CHBE 0114)
EE 0021 ELECTRONICS I W/LAB
  (replaces EE 0011)
EE 0022 ELECTRONICS II W/LAB
  (approximately replaces EE 0012)
EE 0023 LINEAR SYSTEMS
  (approximately replaces EE 0013 and EE 0102)
EE 0031 JUNIOR DESIGN PROJECT
EN 0081 ENVIRONMENTAL EXPOSURES AND HUMAN DISEASE

Course description changes:
BME 0003 BIOMEDICAL ENGINEERING SOPHOMORE DESIGN AND RESEARCH I
BME 0004 BIOMEDICAL ENGINEERING SOPHOMORE DESIGN AND RESEARCH II
BME 0005 BIOMEDICAL ENGINEERING JUNIOR DESIGN AND RESEARCH I
BME 0006 BIOMEDICAL ENGINEERING JUNIOR DESIGN AND RESEARCH II
BME 0007 BIOMEDICAL ENGINEERING SENIOR DESIGN AND RESEARCH I
BME 0008 BIOMEDICAL ENGINEERING SENIOR DESIGN AND RESEARCH II
BME 0051/0251 INTRODUCTION TO BIOPHOTONICS
BME 0056/0256 BIOPHOTONICS LABORATORY
BME 0085 SPECIAL PROJECTS
BME 0086 SPECIAL PROJECTS
BME 0087 INTERNSHIP
BME 0088 INTERNSHIP
BME 0093 SPECIAL TOPICS
BME 0094 SPECIAL TOPICS
BME 0097 SENIOR DESIGN PROJECT
BME 0098 SENIOR DESIGN PROJECT
BME 0121 PHYSIOLOGY FOR ENGINEERS I
BME 0122 PHYSIOLOGY FOR ENGINEERS II
BME 0141 ANALYTICAL TOOLS FOR BIOMEDICAL ENGINEERING
BME 0257 ADVANCED BIOPHOTONICS
BME 0193 SPECIAL TOPICS
BME 0194 SPECIAL TOPICS
BME 0250 PRINCIPLES OF BIOMEDICAL ENGINEERING
BME 0291 GRADUATE SEMINAR
BME 0292 GRADUATE SEMINAR
BME 0293 SPECIAL TOPICS
BME 0294 SPECIAL TOPICS
BME 0295 MASTER’S THESIS
BME 0296 MASTER'S THESIS
BME 0297 DOCTORAL THESIS
BME 0298 DOCTORAL THESIS
BME 0401 MASTER’S CONTINUATION
BME 0402 MASTER'S CONTINUATION
BME 0501 DOCTORAL CONTINUATION
BME 0502 DOCTORAL CONTINUATION
CHBE 0045 CHEMICAL AND BIOLOGICAL SEPARATIONS
CHBE 0051 CHEMICAL AND BIOLOGICAL ENGINEERING LABORATORY
CHBE 0052 CHEMICAL and BIOLOGICAL ENGINEERING LABORATORY
CHBE 0060 PRODUCT & PROCESS DESIGN
COMP 0040 MACHINE STRUCTURE & ASSEMBLY-LANGUAGE PROGRAMMING

**Name and prerequisite changes:**
BME 0121 QUANTITATIVE PHYSIOLOGY I
BME 0122 QUANTITATIVE PHYSIOLOGY II
CEE 0295 MASTER’S THESIS
CEE 0296 MASTER'S THESIS

**Prerequisite changes:**
BME 0050 INTRODUCTION TO BIOMEDICAL ENGINEERING
BME 0051 INTRODUCTION TO BIOPHOTONICS
BME 0056 BIOPHOTONICS LABORATORY
BME 0062 MOLECULAR BIOTECHNOLOGY
BME 0141 ANALYTICAL TOOLS FOR BIOMEDICAL ENGINEERING
BME 0163 RECOMBINANT DNA TECHNIQUES
BME 0164 BIOMATERIALS AND TISSUE ENGINEERING
CEE 0001 INTRODUCTION TO CIVIL AND ENVIRONMENTAL ENGINEERING
CEE 0032 ENVIRONMENTAL ENGINEERING PRINCIPLES
CEE 0070 INTRODUCTION TO HAZARDOUS MATERIALS MANAGEMENT
CEE 0103 WATER QUALITY MODELING
CEE 0105 FINITE ELEMENTS ANALYSIS
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<td>CEE 0136</td>
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<td>ENGINEERING DESIGN WITH CAD</td>
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<td>ES 0005</td>
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**Name changes:**

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Course listings to be deleted
(immediately or at a specified future time):
BME 0109 OPTICAL ELECTRONICS
BME 0111 SPECIAL TOPICS
BME 0116 APPLIED QUANTUM ELECTRONICS
BME 0150 INTRODUCTION TO BIOMEDICAL ENGINEERING
BME 0156 MEDICAL OPTICS LABORATORY
BME 0191 SEMINAR
BME 0192 SEMINAR
BME 0201 BIOMEDICAL SELECTIVE COURSE I
BME 0202 BIOMEDICAL SELECTIVE COURSE II
CEE 0084 ISSUES IN PROFESSIONAL ENGINEERING PRACTICE
CEE 0239 PHYSIOCHEMICAL PROCESSES IN WATER AND WASTEWATER
CEE 0240 PRINCIPLES OF WASTEWATER TREATMENT
CEE 0241 BIOLOGY, WATER, AND HEALTH
CEE 0264 HAZARDOUS MATERIALS MANAGEMENT & POLICY
CHBE 0023 RATE-CONTROLLED SEPARATIONS
CHBE 0075/ES 0075 BIOMEDICAL ENGINEERING II
CHBE 0175/ES 0175 BIOMEDICAL ENGINEERING II
CHBE 0150 CRYSTALLIZATION
CHBE 0195 SENIOR HONORS THESIS (Replaced by CHBE0095)
CHBE 0196 SENIOR HONORS THESIS (Replaced by CHBE0096)
COMP 0132 DECISION THEORY AND ARTIFICIAL INTELLIGENCE
EE 0011 INTRODUCTION TO ANALOG ELECTRONICS W/LAB
EE 0012 INTERMEDIATE ELECTRONICS W/LAB
EE 0013 CIRCUIT THEORY
EE 0102 LINEAR SYSTEMS
EE 0114 FIBER OPTICAL COMMUNICATION
EE 0123 CUSTOM VLSI DESIGN
EE 0151 OPTICAL MATERIALS LABORATORY
EN 0021 COMPUTERS AND THE ENVIRONMENT (CEE)
EN 0023 BUILDING BIG: INFRASTRUCTURE AND ENGINEERING (CEE)
EN 0038 ENVIRONMENTAL MEASUREMENTS (CEE)
EN 0048 WASTE NOT, WANT NOT-THE ENGINEERING ASPECT OF
REUSE/RECYCLING
EN 0059 REALITY SIMPLIFIED: PROBLEM SOLVING USING COMPUTER
SIMULATION (CEE)
EN 0068 ECOLOGY OF BUSINESS (CEE)
ES 0006 APPLIED MECHANICS-DYNAMICS

Respectfully Submitted,

Alva L. Couch
Chair, SOECC