EXECUTIVE COMMITTEE  
COLLEGE OF ENGINEERING  
REPORT TO THE RIVERSIDE DIVISION  
FEBRUARY 23, 2021

To be adopted:

Proposed Changes to Chemical Engineering

PRESENT:

1. Lower-division requirements (76 units)
   a) BIOL 005A, BIOL 05LA
   b) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC, CHEM 008A, CHEM 008B, CHEM 008C, CHEM 08LA, CHEM 08LB, CHEM 08LC
e) CS 010A
   d) MATH 008B or MATH 009A, MATH 009B, MATH 009C, MATH 010A, MATH 010B, MATH 046
c) PHYS 040A, PHYS 040B, PHYS 040C
   f) CEE 010

2. Upper-division requirements (63 units)
   a) CEE 158
   b) CHE 100, CHE 110A, CHE 110B, CHE 114, CHE 116, CHE 117, CHE 118, CHE 120, CHE 122, CHE 160B, CHE 160C, CHE 175A, CHE 175B
c) CHE 130/ENVE 130, CHE 160A/ENVE 160A
c) ENGR 118

3. Option requirements: choose one option
   a) Biochemical Engineering option
      (18 units)
      (1) BCH110A/BCH 100
      (2) CHE 124, CHE 124L, CHE140
      (3) Four (4) units of technical electives chosen from BIEN 125, BIEN 140A/CEE 140A, BIEN 159/CEE 159, BIOL 121/MCBL 121, CEE 125, CEE 132, CEE 135, CHE 102, CHE 150

PROPOSED:

1. Lower-division requirements (76 units)
   a) BIOL 005A, BIOL 05LA
   b) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC, CHEM 008A, CHEM 008B, CHEM 008C, CHEM 08LA, CHEM 08LB, CHEM 08LC
c) CS 009P
   d) MATH 008B or MATH 009A, MATH 009B, MATH 009C, MATH 010A, MATH 010B, MATH 046
c) PHYS 040A, PHYS 040B, PHYS 040C
   f) CEE 010

2. Upper-division requirements (63 units)
   No Change

3. Option requirements: choose one option
   No Change
b) Chemical Engineering option (16 units)
(1) Sixteen (16) units of technical electives chosen from CEE 125 or CEE 135, CEE 132, CHE 102, CHE 131, CHE 136, CHE 171, ENVE 120, ENVE 133, ENVE 134, ENVE 138

c) Nanotechnology option (19 units)
(1) CHE 105
(2) CHE 161
(3) CEE 135
(4) Eight (8) units of technical electives chosen from CHE 102, CHE 131, ENVE 133, ME 114, MSE 160, MSE 161

Justification:
We require CHEN majors to take a one-quarter programming class from the Computer Science department. We have been encouraged by that department to remove our current requirement of CS010a (Introduction to Computer Science for Science, Mathematics, and Engineering I) because it is the first in a three-part series and is intended for students taking all three. They recommend substitution with one of their one-quarter CS009 courses (Introduction to Programming). Within that group of courses, we have selected the course that uses the programming language Python, CS009P, because of the common use that language in Chemical Engineering and related fields.

Approvals:
Approved by the faculty of the Department of Chemical and Environmental Engineering: October 20, 2020
Approved by the Executive Committee of the College of Engineering: November 16, 2020
Approved by the Committee on Educational Policy: December 16, 2020