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MAR 26 2007

OFFICE OF THE
SENATE COUNCIL

REQUEST FOR CHANGE IN UNDERGRADUATE PROGRAM

Program Chemical Engineering

Formal Option _____ Or Specialty Field _____
(if applicable) (if applicable)

Department Chemical and Materials Engineering

College Engineering

Degree Title B.S. Bulletin PP 180, 182-183

CIP Code _____ UK ID No. _____ HEGIS Code _____

Accrediting Agency (if applicable) American Board of Engineering and Technology (ABET)

I. PROPOSED CHANGE(S) IN PROGRAM REQUIREMENTS

1. Particular University Studies Requirements or Recommendations for this program.

	Current	Proposed
English Writing	ENG 104	Same
Communication	COM 181 or Com 199, CME 471	Same
Mathematics	MA 113, 114, 213, 214	Same
Natural Science	PHY 231, 232, 241	Same
Social Science	6 Hrs from Area VII	Same
Humanities	6 Hrs. from Area VIII	Same
Cross Cultural	3 Hrs from Area IX	Same
Electives	6 Hrs of Electives	Same

2. College Depth and Breadth of Study Requirements (if applicable) Not applicable

3. Premajor or Preprofessional Requirements (if applicable)

Current	Proposed
ENG 104	Same
MA 113, 114, 213, 214	Same
PHY 231, 232, 241	Same
CHE 105, 107, 115	Same
CS 221 (2 hours)	CME 199 - Computational Tools in Chemical Engineering Course) - (3 hours)
CME 200	Same

Total Hrs 42 for current and 43 for proposed

4. Credit Hours Required

<u>Current</u>	<u>Proposed</u>
131	132

a. Total Required for Graduation 132

b. Required by level

100 level 25 200 level 30 300 level 6 400 - 500 level 33

Note: Does not include Univ Studies or Electives where level can vary depending on the course.

c. Premajor or Preprofessional 43

f. Hours Needed for a Particular Option or N/A
Specialization

d. Field of Concentration N/A

g. Technical or Professional Support 15
Electives

e. Division of Hrs Between Major N/A
Subject and Related Field

h. Minimum Hours of Free or Supportive 3
Electives

5. Major or Professional Course Requirements

Current	Proposed
CHE 230, CHE 231, CHE 232, CHE 446G, CHE 441G, Chemistry Elective	CHE 230, CHE 231, CHE 232, CHE 446G, Chemistry Elective. (Note: Deleted CHE 441G)
CME 200, CME 320, CME 415, CME 471, CME 330, CME 006, CME 420, CME 425, CME 470, CME 433, CME 455, CME 550, CME 456, CME 462, 2 CME Electives	CME 320, CME 415, CME 471, CME 330, CME 006, CME 420, CME 425, CME 470, CME 433, CME 455, CME 550, CME 456, CME 462, 2 CME Electives, CME 432 (New Lab Course)
MSE 201, EE 305, CS 221	MSE 201, (Note: Deleted CS 221 and EE 305)
Technical Elective, Supportive Elective	Technical Elective, Supportive Elective, Bio or Materials Elective (New Elective)

6. Minor Requirements (If applicable) : N/A

7. Rationale for change (s): (If rationale involves accreditation requirements, please include specific references to those requirements) Our continuous assessment and feedback process with input from students, faculty, advisory board, employers and our accreditation board prompted these changes. The feedback indicated that instead of a

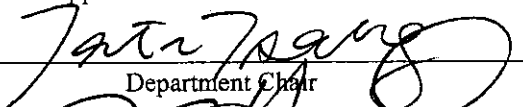
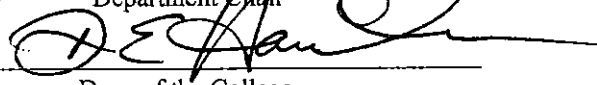
course that focused only on programming (CS 221), our students needed a course that focused on programming (EXCEL) and simulation packages used in the chemical engineering industry. Hence, we have developed a new course (CME 199: Computational Tools in Chemical Engineering). We taught this course three times on a trial basis as an elective and would now like to make it a required course. The feedback also indicated that the chemical engineering students would benefit from more hands-on experience in the chemical engineering lab. A survey of benchmark institutions indicated that Physical Chemistry lab is no longer a common course in the chemical engineering curricula. Hence, we would like to replace CHE 441G with a new course, CME 432: Chemical Engineering Lab I that would focus on statistics, experimental design and short experiments. This would be followed by our current lab course CME 433 that focuses more on long experiments. Finally, feedback from our constituencies and surveys of the benchmark institutions indicated that EE 305 is no longer a necessary and common course in the chemical engineering curricula. Also, because of the growing need for chemical engineers with experience in biology and/or materials, we would like to replace the EE 305 course with a Bio or Materials Elective.

8. List the typical semester by semester program for a major:

See Attached Charts

Will this program be printed in the Bulletin? Yes

Signature of Approval


 Department Chair

 Dean of the College

4/20/06
 Date

1/16/07
 Date

12/4/06
 Date of Notices to the Faculty

3/20/07
 Date


 * Undergraduate Council

 *University Studies

 Date

 *Graduate Council

 Date

 Academic Council for the Medical Center

 Date

 Senate Council

 Date of Notice to University Senate

* If applicable, as provided by the Rules of the University Senate

ACTION OTHER THAN APPROVAL

Bachelor of Science in Chemical Engineering Curriculum

Current Curriculum

FRESHMAN YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 101	Intro to Chemical Engineering	1	CS 221	1st Course in CS for Engr	2
CHE 105	General College Chemistry I	3	CHE 107	General College Chemistry II	3
ENG 104	Writing: Accelerated Found. Course	4	CHE 115	General Chemistry Lab	3
MA 113	Calculus I	4	MA 114	Calculus II	4
University Studies		3	COM 199	Communications	1
			University Studies		3

SOPHOMORE YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 200	Process Principles	3	CME 320	Engineering Thermodynamics	4
MA 213	Calculus III	4	CHE 232	Organic Chemistry	3
PHY 231	General University Physics	4	MSE 201	Materials Science	3
PHY 241	General Physics Lab	1	MA 214	Calculus IV	3
CHE 230	Organic Chemistry	3	PHY 232	General University Physics	4
CHE 231	Organic Chemistry Lab	2			

JUNIOR YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 415	Separation Processes	3	CME 006	Engineering Profession	0
CME 471	Seminar	1	CME 420	Process Modeling	3
CHE 446G	Physical Chemistry	3	CME 425	Heat and Mass Transfer	4
CME 330	Fluid Mechanics	3	CHE 441G	Physical Chemistry Lab	2
Technical Elective		3	University Studies		3
University Studies (Choose from list of Writing Intensive Courses in University Bulletin)*		3	Chemistry Elective		3
			University Studies		3

SENIOR YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 006	Engineering Profession	0	CME 006	Engineering Profession	0
CME 470	Professionalism, Ethics, & Safety	1	CME 456	Chemical Engr. Process Design II	4
CME 433	Chemical Engineering Lab	3	CME 462	Process Control	3
CME 455	Chemical Engr. Process Design I	3	EE 305	Electrical Circuits and Electronics	3
CME 550	Chemical Reactor Design	3	University Studies		3
Supportive Elective		3	CME Elective		3
CME Elective		3			

* Most courses will count toward the Graduation Writing Requirement, and either Humanities or Cross-Cultural portion of University Studies.

TOTAL HOURS 131

Bachelor of Science in Chemical Engineering Curriculum

Proposed Curriculum

FRESHMAN YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 101	Intro to Chemical Engineering	1	CME 199	Comp. Tools in Chemical Eng.	3
CHE 105	General College Chemistry I	3	CHE 107	General College Chemistry II	3
ENG 104	Writing: Accelerated Found. Course	4	CHE 115	General Chemistry Lab	3
MA 113	Calculus I	4	MA 114	Calculus II	4
University Studies		3	COM 199	Communications	1
			University Studies		3

SOPHOMORE YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 200	Process Principles	3	CME 320	Engineering Thermodynamics	4
MA 213	Calculus III	4	CHE 232	Organic Chemistry	3
PHY 231	General University Physics	4	MSE 201	Materials Science	3
PHY 241	General Physics Lab	1	MA 214	Calculus IV	3
CHE 230	Organic Chemistry	3	PHY 232	General University Physics	4
CHE 231	Organic Chemistry Lab	2			

JUNIOR YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 415	Separation Processes	3	CME 006	Engineering Profession	0
CME 471	Seminar	1	CME 420	Process Modeling	3
CHE 446G	Physical Chemistry	3	CME 425	Heat and Mass Transfer	4
CME 330	Fluid Mechanics	3	CME 432	Chemical Engr. Lab I	2
Technical Elective		3	University Studies		3
University Studies (Choose from list of Writing Intensive Courses in University Bulletin)*		3	Chemistry Elective		3
			University Studies		3

SENIOR YEAR

<u>First Semester</u>			<u>Second Semester</u>		
CME 006	Engineering Profession	0	CME 006	Engineering Profession	0
CME 470	Professionalism, Ethics, & Safety	1	CME 456	Chemical Engr. Process Design II	4
CME 433	Chemical Engineering Lab II	3	CME 462	Process Control	3
CME 455	Chemical Engr. Process Design I	3	University Studies		3
CME 550	Chemical Reactor Design	3	CME Elective		3
Supportive Elective		3	Bio Elective Or Materials Elective		3
CME Elective		3			

* Most courses will count toward the Graduation Writing Requirement, and either Humanities or Cross-Cultural portion of University Studies.

TOTAL HOURS = 132