Current

DEGREE: BACHELOR OF CHEMICAL ENGINEERING
MAJOR: CHEMICAL ENGINEERING

CURRICULUM		CREDITS
UNIVERSITY REQUIREMENTS		
ENGL 110	Critical Reading and Writing (minimum grade C-)	3
First Year Experience (FYE)		0-4
Breadth Requirements		12
Discovery Learning Experience (DLE)		3
Multi-cultural Course(s)		3
MAJOR REQUIREMENTS		
Breadth Requirements		21

The College of Engineering requires 21 total credits, which includes 9 addtional credits above and beyond the 12 University Breadth Requirement credits. Coursework may include courses from the University Breadth Requirement list and the College of Engineering Supplemental Course list. See College of Engineering Breadth Requirements for a detailed description. For timely progress toward degree completion, 3 credits must satisfy the University Multicultural Requirement. All courses must be passed with a minimum grade of C-. Additionally, three of the Breadth Requirement courses (minimum of nine credits) must be in the same department or program, and at least one of these three courses must be above the introductory level. Courses classified as Mathematics, Natural Sciences, and Technology in the University Breadth Requirement list may not be used to fulfill this requirement.

Superior figures indicate year (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior) and semester (F = fall, S = spring) in which the course should be taken.

Core Courses		
CHEG 112	Introduction to Chemical Engineering	3^{1S}
CHEG 231	Chemical Engineering Thermodynamics	3^{2F}
CHEG 320	Engineering Economics and Risk Assessment	3^{3S}
CHEG 325	Chemical Engineering Thermodynamics	3^{2S}
CHEG 332	Chemical Engineering Kinetics	3^{3F}
CHEG 341	Fluid Mechanics	3^{3F}
CHEG 342	Heat and Mass Transfer	3^{3S}
CHEG 345	Chemical Engineering Laboratory I	3^{3S}
CHEG 401	Chemical Process Dynamics and Control	3^{4F}
CHEG 432	Chemical Process Analysis (DLE)	3^{4S}
CHEG 443	Mass Transfer Operations	3^{4F}
CHEG 445	Chemical Engineering Laboratory II	3^{4F}
CHEM 111	General Chemistry	3^{1F}
CHEM 112	General Chemistry	3^{1S}
CHEM 220	Quantitative Analysis	3^{2F}
CHEM 221	Quantitative Analysis Laboratory	1^{2F}
CHEM 331	Organic Chemistry	3^{3F}
CHEM 332	Organic Chemistry	3^{3S}
or CHEM 527	Introductory Biochemistry	
CHEM 333	Organic Chemistry Laboratory I (lecture only)	1^{3F}
CHEM 444	Physical Chemistry	3^{2S}
CHEM 445	Physical Chemistry Laboratory I	1^{2S}

The student has the option of taking two credits of CHEM 333 Organic Chemistry Laboratory (laboratory and lecture) and not taking CHEM 445 Physical Chemistry Lab I.

CISC 106	General Computer Science for Engineers	3^{1F}
EGGG 101	Introduction to Engineering (FYE)	2^{1F}
MATH 242	Analytic Geometry and Calculus B	4^{1F}
MATH 243	Analytic Geometry and Calculus C	4^{1S}
MATH 305/CHEG 305	Applied Mathematics for Chemical Engineering	3^{2S}
MSEG 302	Materials Science for Engineers	3^{2F}
PHYS 207	Fundamentals of Physics I	4^{1S}
PHYS 208	Fundamentals of Physics II	4^{2F}

TECHNICAL ELECTIVES

Revised

DEGREE: BACHELOR OF CHEMICAL ENGINEERING
MAJOR: CHEMICAL ENGINEERING

CURRICULUM		
UNIVERSITY REQUIREMENTS		
ENGL 110	Critical Reading and Writing (minimum grade C-)	
First Year Experience (FYE)		
University Breadth Requirements		
Discovery Learning Experience (DLE)		
Multicultural Course(s)		
MAJOR REQUIREMENTS		
College Breadth Requirements		

The College of Engineering requires 21 total breadth credits, which includes 9 addtional credits above and beyond the 12 University Breadth Requirement credits. The College Breadth selections may include courses from the University Breadth Requirement list and/or the College of Engineering Supplemental Course list. See College of Engineering Breadth Requirements for a detailed description. ~~For timely progress toward degree completion,~~ 3 credits must satisfy the University Multicultural Requirement. All courses must be passed with a minimum grade of C-. ~~Additionally, three of the Breadth Requirement courses (minimum of nine credits) must be in the same department or program, and at least one of these three courses must be above the introductory level.~~ Courses classified as Mathematics, Natural Sciences, and Technology in the University Breadth Requirement list may not be used to fulfill this requirement.

Superior figures indicate year (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior) an semester (F = fall, S = spring) in which the course should be taken.

Core Courses	
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or CHEM 527	Introductory Biochemistry
CHEM 333	Organic Chemistry Laboratory I (lecture only)
CHEM 444	Physical Chemistry
CHEM 445	Physical Chemistry Laboratory I

The student has the option of taking two credits of CHEM 333 Organic Chemistry Laboratory (and lecture) and not taking CHEM 445 Physical Chemistry Lab I.

CISC 106	General Computer Science for Engineers
EGGG 101	Introduction to Engineering (FYE)
MATH 242	Analytic Geometry and Calculus B
MATH 243	Analytic Geometry and Calculus C
MATH 305~~/CHEG 305~~	Applied Mathematics for Chemical Engineering
MSEG 302	Materials Science for Engineers
PHYS 207	Fundamentals of Physics I
PHYS 208	Fundamentals of Physics II

TECHNICAL ELECTIVES

The student must take four General Technical Electives (12 credits) and three Chemical Engineering Electives (9 credits) OR, upon approval by her/his academic advisor, take three General Technical Electives (9 credits) and four Chemical Engineering Electives (12 credits). In either case the student must complete a minimum of 21 credits of General Technical and Chemical Engineering Elective courses.

General Technical Electives 12-9

The purpose of the technical electives is to advance the scientific or engineering background of the chemical engineers. The technical electives program consists of a minimum of twelve credits taken from the College of Engineering and the College of Arts and Sciences (see below). At least three of these courses (nine credits) must be at the intermediate level (generally 300-600). Students should select their technical electives in the spring of sophomore year to avoid scheduling conflicts. Students should formulate an academic plan for their technical and Chemical Engineering electives with the assistance of their academic advisor.

The technical elective program is under constant review by the faculty. An updated list is available in the department office, and a formal mechanism exists to make substitutions coupled with the Chemical Engineering Technical Electives to obtain a technical concentration.

Chemical Engineering Electives 9-12

The curriculum provides three Chemical Engineering Electives in the senior year. In addition, the student can exchange one of the General Technical Electives provided in the senior year for a Chemical Engineering Elective after consultation with the academic advisor. These courses are intended to provide some flexibility in selecting a Chemical Engineering program at the advanced level. Students should decide with the assistance of their advisor if they should conduct a program of independent research and then choose their course elective(s). Chemical Engineering Electives are defined as follows: any Chemical Engineering course numbered 466 to 474; UNIV 401/UNIV 402 Senior Thesis (directed by a Chemical Engineering faculty); any 600- or 800-level course in Chemical Engineering. Courses at the 600 and 800-level are graduate courses open, with the consent of the instructor, to students with senior standing.

CREDITS TO TOTAL A MINIMUM OF **126**

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Electives (9 credits) OR, upon approval by her/his academic advisor, take three General Techr
Electives (9 credits) and four Chemical Engineering Electives (12 credits). In either case the st
complete a minimum of 21 credits of General Technical and Chemical Engineering Elective co

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chemical engineers. The technical electives program consists of a minimum of twelve credits
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Engineering faculty); any 600- or 800-level course in Chemical Engineering. Courses at the 60
level are graduate courses open, with the consent of the instructor, to students with senior st
(Only 6 credits may be taken as research credit)

CREDITS TO TOTAL A MINIMUM OF

CREDITS

3

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12

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