



College of Engineering

Chemical Engineering (4200)**Certificate: Biotechnology Specialization (420008C)**

The goal of this program is to allow engineering students with an interest in chemistry and biotechnology to develop suitable preparation for graduate study in biotechnology or the medical fields without reducing their potential for careers in traditional chemical engineering. Students will have ample opportunity to work with researchers in biotechnology through their engineering and design electives.

		Credits
All current requirements for the Bachelor's of Science in Chemical and Biomolecular Engineering (except: 3150:313, 314 Physical Chemistry I and II and 4200:305 Material Science). Students choose either 3100:311 or 3100:331.		
3100:111	Principles of Biology I	4
3100:112	Principles of Biology II	4
3100:311	Cell & Molecular Biology	4
3100:331	Microbiology	4
Advanced Chemistry Elective		
3150:401	Biochemistry Lecture I	3
Chemical and Biomolecular Engineering Elective-3 credits chosen from the following:		
4200:472	Separation Proces-Biochem Engr	3
4200:473	Bioreactor Design	3
4200:496	T: Chemical Engineering	1
4200:194	Chemical Engineering Design I	1
4200:294	Chemical Engineering Design II	1
4200:394	Chemical Engineering Dsgn III	1
4200:494	Design Project	3
4200:497	Honors Project	1
4200:499	Res Proj: Chemical Engineering	1
4800:360	Biofluid Mechanics	3
4800:400	Biomaterials	3
Design Electives-3 credits chosen from the following:		
4200:473	Bioreactor Design	3
4200:496	T: Chemical Engineering	1
4200:194	Chemical Engineering Design I	1
4200:294	Chemical Engineering Design II	1
4200:394	Chemical Engineering Dsgn III	1
4200:494	Design Project	3
4200:497	Honors Project	1
4200:499	Res Proj: Chemical Engineering	1

4300:482	Spec Pro: Civil Engineering	1
4800:485	ST: Biomedical Engineering	1

Distribution Requirements

This curriculum guide is a recommended plan of study. Students with questions about requirements should contact an academic advisor.
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Courses 4200:496, 194, 294, 394, 494, 497, 499 and 482 need permission.

The following credit hour requirement applies to this certificate: 21 credits.
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Guide Updated: 08-21-2013