

# Class of 2016 Curriculum

## Bachelor of Science Program

### Chemical & Biochemical Engineering

#### FALL

#### SPRING

#### COMMON TO ALL ENG'G FIRST-YEAR STUDENTS

##### Freshman Year

01:160:159	Gen. Chemistry for Eng.	3.0	01:160:160	Gen. Chemistry for Eng.	3.0
01:355:101	Expository Writing	3.0	01:160:171	Intro. Experimentation	1.0
14:440:100	Eng. Orientation Lectures	1.0	14:440:127	Intro. Computers for Eng.	3.0
01:640:151	Calculus I	4.0	01:640:152	Calculus II	4.0
01:750:123	Analytical Physics I	2.0	01:750:124	Analytical Physics I	2.0
__:__:__	Hum./Soc. Science Elective	<u>3.0</u>	14:440:221	Eng. Mechanics Statics	3.0
		16.0	__:__:__	Hum./Soc. Science Elective	<u>3.0</u>
					19.0

#### COMMON TO ALL DEPT. SOPHOMORES

##### Sophomore Year

14:155:201	Analysis I	M3.0	14:155:208	Thermodynamics I	M3.0
01:160:307	Organic Chemistry I*	4.0	14:155:298	Professional Skills Develop	M1.0
01:640:251	Multivar. Calc.	4.0	01:160:308	Organic Chemistry II	4.0
01:750:227	Analytical Physics II	3.0	01:640:244	Differ. Equat. Eng. & Physics	4.0
01:750:229	Analytical Physics II Lab	<u>1.0</u>	01:220:102	Microeconomics	3.0
		15.0	__:__:__	Hum./Soc. Science Elective	<u>3.0</u>
					18.0

#### CHEMICAL OPTION

##### Chemical Option: Junior Year

14:155:303	Transport Phen. I	M3.0	14:155:304	Transport Phen. II	M3.0
14:155:307	Analysis II	M3.0	14:155:324	Design Separ. Process	M3.0
14:155:309	Thermodynamics II	M3.0	01:160:328	Physical Chemistry	4.0
01:160:311	Organic Chemistry Lab^	2.0	__:__:__	General Elective	3.0
01:640:421	Advanced Calc. for Eng.	3.0	__:__:__	General Elective	<u>3.0</u>
__:__:__	Hum./Soc Science Elective	<u>3.0</u>			16.0
		17.0			

##### Chemical Option: Senior Year

14:155:407	Processing & Prop. Materials	M3.0	14:155:416	Process Engineering II	M4.0
14:155:411	Intro. to Biochem. Eng.	M3.0	14:155:422	Process Simul. & Control	M3.0
14:155:415	Process Engineering I	M4.0	14:155:428	ChemE & BiochemE	M4.0
14:155:427	ChemE & BiochemE	M3.0	__:__:__	Design. & Econ. II	<u>3.0</u>
	Design & Econ. I		__:__:__	Technical Elective	<u>3.0</u>
14:155:441	Kinetics	<u>M3.0</u>			14.0
		16.0			

**TOTAL: 131.0**

FALL

SPRING

**BIOCHEMICAL OPTION**

**Biochemical Option: Junior Year**

14:155:303	<b>Transport Phen. I</b>	M3.0	14:155:304	<b>Transport Phen. II</b>	M3.0
14:155:307	<b>Analysis II</b>	M3.0	14:155:324	<b>Design Separ. Process</b>	M3.0
14:155:309	<b>Thermodynamics II</b>	M3.0	01:694:301	Intro. Biochem. & Molec. Bio.<	3.0
01:447:390	Gen. Microbiology+	4.0	01:160:328	Physical Chemistry	4.0
01:640:421	Advanced Calc. for Eng.	<u>3.0</u>	01:694:313	Intro. Biochem. Lab	1.0
		16.0	_:_:	Hum./Soc. Science Elective	<u>3.0</u>
					17.0

**Biochemical Option: Senior Year**

14:155:407	<b>Processing &amp; Prop. Materials</b>	M3.0	14:155:416	<b>Process Engineering II</b>	M4.0
14:155:411	<b>Intro to Biochem. Eng.</b>	M3.0	14:155:422	<b>Process Simul. &amp; Control</b>	M3.0
14:155:415	<b>Process Engineering I</b>	M4.0	14:155:428	<b>ChemE &amp; BiochemE</b>	M4.0
14:155:427	<b>ChemE &amp; BiochemE</b>	M3.0		<b>Design &amp; Econ. II</b>	
	<b>Design &amp; Econ. I</b>		_:_:	General Elective	<u>3.0</u>
14:155:441	<b>Kinetics</b>	<u>M3.0</u>			14.0
		16.0			

**TOTAL: 131.0**

- \* 01:160:315, 316 are accepted in place of 01:160:307, 308.
- ^01:160:309 is accepted in place of 01:160:311, and may be taken with 01:160:308.
- +The official prerequisite (01:119:101, 102:General Biology) is waived if 01:160:307, 308 OR 01:160:315, 316:Organic Chemistry has been completed. See Associate Dean for Academic Affairs for prerequisite override. May register for 11:680:390 OR 01:447:390. They are the same course offered by different Depts. on different campuses.
- <May complete 11:115:301 OR 01:694:301.