

CHEMICAL ENGINEERING - BIOLOGY TRACK - Class of 2015

Total Credits = **127**

Freshman Year *Fall* Semester

Course Code	Description	Cr	
CHM 101	General Chemistry I Lec [GE-N]	3	
CHM 102	General Chemistry I Lab	1	
EGR 105	Foundations of Engineering I	1	
MTH 141	Intro Calculus w/Analytic Geom [GE-N]	4	
PHY 203	Elementary Physics I Lec [GE-N]	3	
PHY 273	Elementary Physics I Lab [GE-N]	1	

13

Freshman Year *Spring* Semester

Course Code	Description	Cr	
BIO 101	Principles of Biology [GE-N]	4	
CHM 112	General Chemistry II Lec [GE-N]	3	
CHM 114	General Chemistry II Lab	1	
ECN 201	Principles of Microeconomics [GE-S]	3	
EGR 106	Foundations of Engineering II	2	
MTH 142	Intermed Calc with Analytic Geom [GE-MQ]	4	

17

Sophomore Year *Fall* Semester

Course Code	Description	Cr	
CHE 212	Chemical Process Calculations	3	
CHM 227	Organic Chemistry Lec I	3	
MTH 243	Calculus for Functions of Several Vars	3	
	General Education Elective*	3	
	General Education Elective*	3	

15

Sophomore Year *Spring* Semester

Course Code	Description	Cr	
BCH 311 <i>or</i> BIO 341	Intro Biochemistry <i>or</i> Cell Biology	3	
CHE 272	Intro to Chemical Engineering Calculations	3	
CHE 313	Chemical Engineering Thermodynamics I	3	
CHE 332	Physical Metallurgy	3	
MTH 244 <i>or</i> MTH 362	Differential Equations <i>or</i> Advanced Engineering Mathematics I	3	

15

Junior Year *Fall* Semester

Course Code	Description	Cr	
BIO 341 <i>or</i> BCH 311	Cell Biology <i>or</i> Intro Biochemistry	3	
CHE 314	Chemical Engineering Thermodynamics II	3	
CHE 347	Transfer Operations I	3	
PHY 204	Elementary Physics II	3	
PHY 274	Elementary Physics II Lab	1	
	General Education Elective*	3	

16

Junior Year *Spring* Semester

Course Code	Description	Cr	
BIO 352	General Genetics	4	
CHE 348	Transfer Operations II	3	
CHE 464	Industrial Reaction Kinetics	3	
MIC 211	Intro Microbiology	4	
	General Education Elective*	3	

17

Senior Year *Fall* Semester

Course Code	Description	Cr	
CHE 328	Industrial Plants	1	
CHE 345	Chemical Engineering Lab I	2	
CHE 349	Transfer Operations III	2	
CHE 351	Plant Design and Economics I	3	
CHE 425	Process Dynamics and Control	3	
	Approved Professional Elective	3	
	General Education Elective*	3	

17

Senior Year *Spring* Semester

Course Code	Description	Cr	
BIO 437	Chemical Engineering Lab II	3	
CHE 346	Chemical Engineering Lab II	2	
CHE 352	Plant Design and Economics II	3	
	Approved Mathematics Elective**	3	
	Approved Professional Elective	3	
	General Education Elective*	3	

17

* Note the following *specific* requirements and restrictions for General Education [GE] electives:

-Refer to *specific* Chemical Engineering-BiologyTrack General Education *course requirements* (see 2015 CHE-BIO Track Check Sheet).

Note the following *specific* requirements and restrictions for General Education [GE] electives:

-[GE-ECw] *Must* take at least *one (1)* General Education course in *writing* [GE-ECw].

-[GE-ECw] Can only take *one (1)* of the following **100-level** writing courses for General Education credit [GE-ECw]: WRT 104, WRT 105, WRT 106.

** **Mathematics Elective** is MTH 215 or any 300-500 level MTH course *except* MTH 381.

