

# CHEMICAL ENGINEERING 128-HOUR CURRICULUM WORKSHEET

Biomolecular Engineering Concentration (Rev. 8/4/16)

FRESHMAN YEAR							
First Semester		Credit Hours	Grade Earned	Second Semester		Credit Hours	Grade Earned
CHE 1101	Intro to CHE & PTE*	1		CHE 2213	CHE Analysis**	3	
CH 1213	Fund. of Chemistry	3		CH 1223	Fund. of Chemistry	3	
CH 1211	Inv. in Chemistry	1		CH 1221	Inv. in Chemistry	1	
MA 1713	Calculus I	3		MA 1723	Calculus II	3	
BIO 1134	Biological Sciences I	4		PH 2213	Physics I	3	
EN 1103	English Comp. I	3		EN 1113	English Comp. II	3	
	Total	15			Total	16	

SOPHOMORE YEAR							
First Semester		Credit Hours	Grade Earned	Second Semester		Credit Hours	Grade Earned
CHE 2114	Mass and Energy Balances	4		CHE 3113	Thermo I	3	
CHE 3203	Fluid Flow Ops*	3			Humanities Elective	3	
IE 3913	Engineering Economy I	3		MA 2743	Calculus IV	3	
MA 2733	Calculus III	3			Social Science Elective	3	
	Humanities Elective	3		BIO 1144	Biological Sciences II	4	
	Total	16			Total	16	

JUNIOR YEAR							
First Semester		Credit Hours	Grade Earned	Second Semester		Credit Hours	Grade Earned
CHE 3123	CHE Thermo II	3		CHE 3213	Heat Transfer Ops**	3	
CHE 3413	Engineering Materials*	3		CHE 3223	Separations**	3	
MA 3253	Differential Equations	3		CHE 3222	CHE Lab I**	2	
CH 4511	Organic Chem. Lab I	1		CH 4521	Organic Chem. Lab II	1	
CH 4513	Organic Chemistry I	3		CH 4523	Organic Chemistry II	3	
	Social Science Elective	3		GE 3513	Technical Writing	3	
	Total	16			Total	15	

SENIOR YEAR							
First Semester		Credit Hours	Grade Earned	Second Semester		Credit Hours	Grade Earned
CHE 4113	CHE Reactor Design*	3		CHE 4223	Process Controls**	3	
CHE 4134	CHE Process Design*	4		CHE 4233	CHE Plant Design**	3	
CHE 3232	CHE Lab II*	2		CHE 4633	Process Safety**	3	
BCH 4013	Principles of Biochemistry	3		PH 2223	Physics II***	3	
	Adv. Science Elective	3		BIO 3304	Fine Arts Elective	3	
					Advanced Science Elective	4	
	Total	15			Total	19	

\* Always taught during fall semester

\*\* Always taught during spring semester

\*\*\* Approved substitutes for PH 2223 Physics II are IE 4613, IE 4623, MA 4374, MA 4523, MA 4533, MA 4543, MA 4573 or CHE 4313

**Advanced Science Elective:** Typically a 3000 or 4000 level science course (with advisor approval): However Premed students may choose PH 2233 Physics III (needed for med school entrance); Pre-vet students may need a 3 hour advanced biology course; or, students may choose a 3 hour biotechnology course from an engineering department.