

CHEMICAL ENGINEERING 128-HOUR CURRICULUM WORKSHEET

Chemical Engineering Research and Development Concentration

FRESHMAN YEAR							
First Semester		Credit Hours	Grade Earned	Second Semester		Credit Hours	Grade Earned
CHE 1101	CHE Freshman Seminar*	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	
EN 1103	English Comp. I	3		EN 1113	English Comp. II	3	
MA 1713	Calculus I	3		MA 1723	Calculus II	3	
	Humanities Elective	3		PH 2213	Physics I	3	
	Social Science Elective	3					
	Total	17			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		MA 2743	Calculus IV	3	
MA 3113	Intro Linear Algebra	3		MA 3253	Differential Equations	3	
MA 2733	Calculus III	3		IE 3913	Engineering Economy I	3	
	Social Science Elective	3			Fine Arts Elective	3	
	Total	16			Total	15	

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 3222	CHE Lab I**	2	
CH 4513	Organic Chemistry I	3		CHE 3223	Separations**	3	
CH 4511	Organic Chem. Lab I	1		CHE 3331	Professional Dev. Seminar**	1	
MA 3353	Differential Equations II	3		CH 4523	Organic Chemistry II	3	
	Humanities 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
CH 4413	Thermodynamics & Kinetics*	3		CHE 4223	Process Controls**	3	
CHE 3232	CHE Lab II*	2		CHE 4233	CHE Plant Design**	3	
CHE 4134	CHE Process Design*	4		CHE 4313	Transport Phenomena	3	
CHE 4113	CHE Reactor Design*	3		CHE 4633	Process Safety**	3	
	Chemistry Elective	3			Statistics Elective	3	
				PH 2223	Physics II***	3	
	Total	15			Total	18	

* Only taught during fall semester

** Only taught during spring semester

*** Approved substitutes for PH 2223 are IE 4613 Engineering Stats I, IE 4623 Engineering Stats II and CHE 4313 Transport Phenomena

For Students graduating Spring 2015 or later CHE 4633 Process Safety is required.

Statistics elective: Choose either MA/ST 4543 Introduction to Mathematical Statistics I or IE 4613 Engineering Statistics I

Chemistry Electives are specified on the chemical engineering website at <http://www.che.msstate.edu/pdfs/APPROVEDELECTIVESfm.pdf>