

Name \_\_\_\_\_ I.D. No. \_\_\_\_\_

## CHEMICAL ENGINEERING

### Curriculum Sheet

REVISED 8-14-08

#### Fall Semester – Year 1

	<u>Cr.</u>	<u>Grade</u>
ENG 101 English I	4	_____
MTH 181 Calculus I	4	_____
CHM 261 General Chemistry I	4	_____
CHM 266 General Chemistry Laboratory I	1	_____
ESC 120 Introduction to Engineering Design***	2	_____
ESC 100 New Student Orientation*	1	_____
	16	

#### Spring Semester – Year 1

	<u>Cr.</u>	<u>Grade</u>
ESC 102 Technical Writing or ENG 102 English II	3	_____
MTH 182 Calculus II	4	_____
PHY 241 University Physics I	5	_____
CHM 262 General Chemistry II	4	_____
CHM 267 General Chemistry Laboratory II	1	_____
	16	

#### Fall Semester – Year 2

	<u>Cr.</u>	<u>Grade</u>
PHY 242 University Physics II	5	_____
ESC 151/152 Programming (C/ Matlab)	3	_____
ESC 250 Differential Equations for Engineers	3	_____
MTH 281 or 283 Multivariable Calc. for Engr.	2	_____
ESC 321 Thermodynamics 1	3	_____
	16	

#### Spring Semester – Year 2

	<u>Cr.</u>	<u>Grade</u>
CHE 300 Chemical Engineering Principles	4	_____
ESC 282 Engineering Economy	3	_____
ESC 301 Fluid Mechanics	3	_____
ESC 350 Linear Algebra and Numerical Methods in Engineering	3	_____
Gen Ed Elective _____	3	_____
Gen Ed Elective _____	3	_____
	19	

#### Fall Semester – Year 3

	<u>Cr.</u>	<u>Grade</u>
CHE 302 Chemical Engineering Thermodynamics	4	_____
CHE 306 Transport Phenomena	4	_____
ESC Elective (ESC 315 Electrical Engineering Concepts or ESC 201 Statics)	3	_____
CHE 308 Junior Chemical Engr. Lab	1	_____
CHM 331 Organic Chemistry I	4	_____
CHM 336 Organic Chemistry Lab I	2	_____
	18	

#### Spring Semester – Year 3

	<u>Cr.</u>	<u>Grade</u>
CHE 404 Chemical Reactor Design	4	_____
CHE 408 Separation Processes	4	_____
ESC 270 Materials Science	3	_____
CHM 322 Physical Chemistry II	4	_____
PHL 215 Engineering Ethics (Writing)	3	_____
	18	

#### Fall Semester – Year 4

	<u>Cr.</u>	<u>Grade</u>
CHE 430 Process Control	4	_____
CHE 440 Process Design I (Writing)	3	_____
Senior CHE Elective _____	3	_____
Advanced Science Elective _____	4	_____
Gen Ed Elective _____	3	_____
	17	

#### Spring Semester – Year 4

	<u>Cr.</u>	<u>Grade</u>
CHE 420 Chemical Engineering Capstone Laboratory (Writing)	4	_____
CHE 441 Process Design II (Writing)	3	_____
Senior CHE Elective _____	3	_____
Gen Ed Elective _____	3	_____
Gen Ed Elective _____	3	_____
	16	

\*Not required for transfer students.

\*\*Optional course. Required for participation in co-op and internship programs.

\*\*\*Required for freshmen and transfer students admitted to Engineering College Fall, 2003 and after.

Minimum number of credits required for degree (excluding orientation and co-op): 136

Name \_\_\_\_\_ Advisor \_\_\_\_\_

## CHEMICAL ENGINEERING Co-op Curriculum Sheet REVISED 8-14-08

<u>Year 1 Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>		
CHM 261 Gen. Chemistry I	4	_____	CHM 262 Gen. Chemistry II	4	_____	Work or School		
CHM 266 Gen. Chem. Lab I	1	_____	CHM 267 Gen. Chem. Lab II	1	_____			
MTH 181 Calculus I	4	_____	MTH 182 Calculus II	4	_____			
ENG 101 English I	4	_____	PHY 241 Univ. Physics I	5	_____			
ESC 100 New Student Orient*	1	_____	ESC 102 Technical Writing or ENG 102 English II	3	_____			
ESC 120 Intro. to Engineering Design***	2	_____	CSC 121 Career Orientation**	1	_____			
<u>Year 2 Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>	<u>Cr.</u>	<u>Grade</u>
PHY 242 Univ. Physics II	5	_____	ESC 201 Statics or ESC 315 Electrical Engr. Concepts	3	_____	Co-op: ESC 300	1	_____
CHE 300 Chemical Engr. Principles	4	_____	ESC 321 Thermodynamics I	3	_____			
ESC 250 Diff. Equations for Engineers	3	_____	ESC 301 Fluid Mechanics	3	_____			
Gen Ed Elective	3	_____	ESC 350 Linear Algebra and Numerical Methods in Engr.	3	_____			
ESC 151 C Programming or ESC 152 Prog. with Matlab	3	_____	MTH 283 Multivariable Calc. for Engineers	2	_____			
			Gen Ed Elective _____	3	_____			
<u>Year 3 Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>	<u>Cr.</u>	<u>Grade</u>
CHE 302 Chemical Engr Thermodynamics	4	_____	Co-op: ESC 300	1	_____	ESC 282 Engr. Economy	3	_____
CHE 306 Trans. Phenomena	4	_____				Gen Ed Elective _____	3	_____
ESC 270 Material Science	3	_____				Gen Ed Elective _____	3	_____
CHM 331 Organic Chem. I	4	_____						
CHM 336 Organic or Adv. Chem. Lab I	2	_____						
CHE 308 Jr. Chem. Engr. Lab (Writing)	1	_____						
<u>Year 4 Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Summer Semester</u>	<u>Cr.</u>	<u>Grade</u>
Co-op: ESC 300	1	_____	CHE 404 Intro. to Reactor Design (Writing)	4	_____	Co-op: ESC 300	1	_____
			CHE 408 Sep. Processes	4	_____			
			PHL 215 Engineering Ethics (Writing)	3	_____			
			CHM 322 Physical Chem. II	4	_____			
<u>Year 5 Fall Semester</u>	<u>Cr.</u>	<u>Grade</u>	<u>Spring Semester</u>	<u>Cr.</u>	<u>Grade</u>			
CHE 440 Process Design I (Writing)	3	_____	CHE 441 Process Design II (Writing)	3	_____			
CHE 430 Process Control	4	_____	CHE Elective _____	3	_____			
Gen Ed Elective _____	3	_____	CHE 420 Chem. Engr. Lab	4	_____			
Adv. Chem. Elective _____	3	_____	Adv. CHM or Science Elective	3	_____			
CHE Elective _____	3	_____						

\*Not required for transfer students

\*\*Optional course. Required for participation in co-op and internship programs.

\*\*\*Requirement for freshmen and transfer students admitted to Engineering College Fall 2003 and after.

Minimum number of credits required for degree (excluding orientation and co-op): 134