

## Sample Course Schedule

## Chemical Engineering with Co-op

revised 11-30-05

Year	Course	Total ch	Equivalent courses		
			* Tri-C	* Lakeland	* Lorain
Year 1 Fall	ESC 120 Intro to Engineering Design	2			
	CHM 261/266 General Chemistry I, lab	5	CHEM 1300/130L	CHEM 1500	CHMY 171
	MTH 181 Calculus I	4	MATH 1610	MATH 2500	MTHM 181
	ENG 101 English I	4	ENG 1010	ENGL 1110 or 1111	ENGL 161
	ASC 101 Orientation	1			
		<u>16</u>			16
Spring	PHY 241 University Physics I	5	PHYS 2310	PHYS 2410	PHYC 251
	ENG 102 English II or MCE 102 (2 or 3 credits)	3	ENG 1020 or 2151	ENGL 1120 or 1121	ENGL 162
	CHM 262/267 General Chemistry II, lab	5	CHEM 1310/131L	CHEM 1600	CHMY 172
	MTH 182 Calculus II	4	MATH 1620	MATH 2600	MTHM 182
	CSC 121 Career Orientation	1			
		<u>18</u>			34
Year 2 Fall	MTH 281 or 283 Multivariable Calc. for Engr.	2	MATH 2310	MATH 2700	MTHM 281
	ESC 151 (Fortran/C)	3	ITMP 2670	CPET 1100 and 2100	
	PHY 242 University Physics II	5	PHYS 2320	PHYS 2420	PHYC 252
	ESC 250 Diff. Equations for Engineers	3	MATH 2520	MATH 2850	MTHM 283
	ESC 321 Thermodynamics I	3			
		<u>16</u>			50
Spring	CHE 300 Chemical Engineering Principles	4			
	ESC 282 Engineering Economy	3			
	ESC 301 Fluid Mechanics	3			
	ESC 350 Linear Algebra and Numerical Methods	3			
	Gen Ed Elective	3			
	Gen Ed Elective	3			
		<u>19</u>			69
Year 3 Fall	CHE 302 Chemical Engineering Thermo.	4			
	CHE 306 Transport Phenomena	4			
	ESC 270 Materials Science	3			
	CHM 331/336 Organic Chemistry 1, Organic or Advanced I	6	CHEM 2300	CHEM 2500	CHMY 271
	CHE 308 Junior Chem. Engr. Lab (writing)	1			
			<u>18</u>		
Spring	Co-op:				
	CSC 300 or CSC 400	1			
		<u>1</u>			88
Summer	ESC 282 Engr. Economy	3			
	Gen Ed Elective	3			
	Gen Ed Elective	3			
		<u>9</u>			97
Year 4 Fall	Co-op:				
	CSC 300 or 400	1			
		<u>1</u>			98
Spring	CHE 404 Intro. To Reactor Design (writing)	4			
	CHE 408 Separation Processes	4			
	PHL 215 Engineering Ethics (writing)	3			
	CHM 322 Physical Chemistry II	4			
		<u>15</u>			113
Summer	Co-op:				
	CSC 300 or 400	1			
		<u>1</u>			114
Year 5 Fall	CHE 440 Process Design I (writing)	3			
	CHE 430 Process Control	4			
	CHE elective	3			
	Gen Ed Elective	3			
	Advanced Chem. Elective	3	CHEM 2310	CHEM 2600	CHMY 272
		<u>16</u>			130
Spring	CHE 420 Chemical Engineering Lab (writing)	4			
	CHE 441 Process Design II (writing)	3			
	CHE Elective	3			
	Advanced CHM or Science Elective	3			
		<u>13</u>			143

\*All equivalent community college course work must be completed before transferring to CSU. Talk to your advisor for further details.