

## Sample Program Plan Chemistry Degree (Non-Calculus-Ready)

Fall 2008

<b>Freshman Year</b>					
Fall		Winter		Spring	
CHEM 204 General Chemistry [1]	5	CHEM 205 General Chemistry [1]	5	CHEM 206 General Chemistry	5
MATH 111 (College Algebra) [2]	4	MATH 112 Pre-Calculus [2]	4	Electives [3]	10
Electives [3]	6	Electives [3]	6		
Total Credits		Total Credits		Total Credits	
	15		15		15
<b>Sophomore Year</b>					
Fall		Winter		Spring	
CHEM 334 Organic Chemistry I	4	CHEM 335 Organic Chemistry II	4	CHEM 336 Organic Chemistry III	4
CS 161 Foundations of Computer Sci	4	CHEM 338 Org. Chemistry II Lab	1	CHEM 339 Organic Chemistry III Lab	1
CHEM 401 Research [3]	1	MATH 252 Calculus	4	CHEM 285 Chemical Safety	1
MATH 251 Calculus	4	Electives [2]	6	MATH 253 Calculus	4
Electives [2]	2			Electives [2]	5
Total Credits		Total Credits		Total Credits	
	15		15		15
<b>Junior Year</b>					
Fall		Winter		Spring	
PHYS 221 General Physics w/ Calculus	5	PHYS 222 General Physics w/ Calculus	4	PHYS 223 General Physics with Calculus	5
CHEM 320 Analytical Chemistry	3	Science/Math Electives [4]	5	Chemistry Electives [4]	5
CHEM 321 Analytical Chem Lab	2	Electives [3]	6	Electives [3]	5
Electives [3]	5				
Total Credits		Total Credits		Total Credits	
	15		15		15
<b>Senior Year</b>					
Fall		Winter		Spring	
CHEM 440 Thermodynamics	4	CHEM 441 Quantum Mechanics *	4	CHEM 442 Chemical Dynamics	4
CHEM 443 Thermodynamics Lab	1	CHEM 444 Quantum Mechanics Lab	1	CHEM 445 Chemical Dynamics Lab	1
CHEM 407 Seminar	1	CHEM 421 Instrumental Analysis	3	Electives [3]	10
Electives [3]	9	CHEM 422 Inst. Analysis Lab	2		
		Electives [3]	5		
		<i>*only if taken under a CHEM Prefix and not if taken under the prefix PHYS 321.</i>			
Total Credits		Total Credits		Total Credits	
	15		15		15

[1] Students not meeting admission requirements to CHEM 204,205 should enroll in CHEM 101, 102.

[2] Students may need to enroll in lower level math sequence as determined by an Eastern evaluation.

[3] Selected to meet general educational requirements.

[4] Selected from CHEM 360/361 Environmental Chemistry; CHEM 411 Inorganic Chemistry; CHEM 450 Structural Biochemistry; CHEM 451 Metabolic Biochemistry; or CHEM 410 Selected Topics.

[5] Selected from 300 or 400 level physics, mathematics, statistics or computer science to meet the chemistry program requirements.