

B.A. Degree in Chemistry

(No Emphasis)

The following is a sample schedule to help students plan their coursework. These are suggestions and the schedule is flexible. In addition to fulfilling the courses specifically required for this chemistry degree, it is important that students also fulfill Dragon Core requirements and normal graduation requirements (at least 120 total credits, at least 40 upper/division credits [300/400 level], and a GPA of at least 2.0.)

FALL		FRESHMAN YEAR		DC
Chem	150	Gen Chem I (lab)	4	4IL
ENGL	101	English Composition ¹	4	1B
Math	261	Calculus I ²	4	3
CMST	100	Speech Communication ¹	3	1A
Hlth	122	Personal Health/Wellness	1	
Total Credits			16	

SPRING				DC
Chem	210	Gen Chem II (lab)	4	
Phil	110	Practical Reasoning ¹	3	2
Math	262	Calculus II ³	4	
Electives ⁴			3	
Total Credits			14	

FALL		SOPHOMORE YEAR		
Chem	350	Organic Chem I	3	
Chem	355	Organic Chem Lab I	1	
PHYS	200	Physics I ⁵	4	4I
Electives			7	
Total Credits			15	

SPRING				
Chem	360	Organic Chem II	3	
Chem	365	Organic Chem Lab II	1	
PHYS	201	Physics II ⁵	4	
Chem	380	Analytical Chem (lab)	4	
Electives ⁴			3	
Total Credits			15	

FALL		JUNIOR YEAR		
Chem	400	Biochemistry I	3	
Chem	405	Biochemistry I Lab	1	
Chem	300	Inorganic Chem I	3	
Electives			8	
Total Credits			15	

SPRING				
Electives			15	
Total Credits			15	

FALL		SENIOR YEAR		
Chem	450	Physical Chem I	3	
Chem	455	Physical Chem Lab I	1	
ENGL	387	Tech Report Writing	4	
Electives			7	
Total Credits			15	

SPRING				
Chem	498	Chemistry Seminar	1	
Electives			14	
Total Credits			15	

¹ These are standard Dragon Core courses, but others can be taken in their place.

² ACS math scores or a mathematics placement exam is needed to inform whether a student should begin directly in calculus or a different math class.

³ Math 234 can be taken in addition to or instead of Calculus II.

⁴ In considering electives, keep in mind that all of the Dragon Core requirements must be fulfilled.

⁵ If a student has not taken Calculus, Physics 160/161 can be taken instead of Physics 200/201.



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Curriculum Planning

Dragon Core Checksheet			
Foundation Four			
		Grade	Credits
1A	Oral Communication	_____	W?
1B	Written Communication (W)	_____	
2	Critical Thinking	_____	
3	Mathematics/Symbolic	_____	
Inner Cluster Electives & Middle Cluster – Competency Areas 3-7, seven courses total			
		Grade	Credits
3	Mathematical/Symbolic Systems (optional)		
	3I or 3M	_____	
4	Natural Sciences (One Lab Class Required)		
	4I or 4M	_____	
5	History and the Social Sciences		
	5I or 5M	_____	
6	Humanities		
	6I or 6M	_____	
7	Human Diversity		
	7I or 7M	_____	
Outer Cluster – Competency Areas 8-10, three courses total			
		Grade	Credits
8	Global Perspective	_____	
9	Ethical and Civic Responsibility	_____	
10	People and the Environment	_____	
Total Dragon Core Credits: _____			
(Minimum 14 courses and 42 credits)			
Writing Intensive Requirements			
W 1 (1B)		_____	
W 2 (MC or OC)		_____	
W 3 (MC or OC, 300-400 level)		_____	
W 4 (Major, 300-400 level)	Chem 405	_____	
W 5 (any W course, 200-400 level)	ENGL 387	_____	

Core Requirements		When Offered	Credits	Grade
	23 credits			
	15 ≥300			
CHEM 150/150L	General Chemistry I	F/Sp/Sum	4	
CHEM 210/210L	General Chemistry II	F/Sum	4	
CHEM300	Inorganic Chem I	F	3	
CHEM 350	Organic Chem I	F	3	
CHEM 355	Organic Chem Lab I	F	1	
CHEM 360	Organic Chem II	Sp	3	
CHEM 380/380L	Analytical Chem I	Sp	4	
CHEM 498	Seminar	Sp	1	
Requirements	9 credits			
	9 ≥300			
CHEM 365	Organic Chem Lab II	Sp	1	
CHEM 400	Biochemistry I	F	3	
CHEM 405	Biochemistry Lab I	F	1	
CHEM 450	Physical Chem I	F	3	
CHEM 455	Physical Chem Lab I	F	1	
Restricted Electives	12 credits			
	12 ≥300			
MATH/BIOL/ CHEM/PHYS/ CSIS	Electives		12	
Related Requirements	20 credits			
	4 ≥300			
ENGL 387	Tech Report Writing	F/Sp	4	
MATH 261	Calculus I	F/Sp	4	
MATH 262 or MATH 234	Calculus II or Probability/Statistics	F/Sp	4	
PHYS 200/210L or 160/160L	Physics I	F	4	
PHYS 201/201L or 161/161L	Physics II	Sp	4	