

**2005-07 Catalog Paradigm  
Chemistry**

<b>First Year</b>	
1.	CHEM 105 (GS4) (1 <sup>st</sup> semester)
2.	CHEM 107 (2 <sup>nd</sup> semester)
3.	MATH 124 or MATH 131 (GS8)
4.	Science Elective
5.	General Education
6.	General Education
7.	General Education
8.	General Education

<b>Second Year</b>	
1.	CHEM 220 (1 <sup>st</sup> semester)
2.	CHEM 211 (1 <sup>st</sup> semester)
3.	CHEM 222 (2 <sup>nd</sup> semester)
4.	CHEM 312 (2 <sup>nd</sup> semester)
5.	General Education
6.	General Education
7.	Elective/Minor
8.	Elective/Minor

<b>Third Year</b>	
1.	PHYS 121 or PHYS 111 (1 <sup>st</sup> semester)
2.	PHYS 122 or PHYS 112 (2 <sup>nd</sup> semester)
3.	CHEM 305 (2 <sup>nd</sup> semester)
4.	Chemistry Elective
5.	General Education
6.	General Education
7.	Elective/Minor
8.	Elective/Minor

<b>Fourth Year</b>	
1.	CHEM 330 (1 <sup>st</sup> semester)
2.	CHEM 332 (2 <sup>nd</sup> semester)
3.	Chemistry Elective
4.	General Education
5.	General Education
6.	Elective/Minor
7.	Elective/Minor
8.	Elective/Minor

Elective/Minor courses can be used to take additional major courses, free electives, or to fulfill a minor.

## Progress Sheet Chemistry

Student Name:  Student ID:	
<b>General Education – Lower Biennium</b>	<b>Major</b>
<input type="checkbox"/> <b>GS1</b> – Religious Studies  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS2</b> – Philosophy of Human Nature  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS3</b> – Human Relationships  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS4</b> – Natural Science  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS5</b> – Creative Expression  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS6</b> – United States Heritage  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS7</b> – Foreign Heritages  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS8</b> – Quantitative Skills  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS9</b> – Writing  <input type="checkbox"/> _____ <input type="checkbox"/> _____	<b>Required Courses:</b> <input type="checkbox"/> CHEM 105 – General Chemistry I  <input type="checkbox"/> CHEM 107 – General Chemistry II  <input type="checkbox"/> MATH 131 – Calculus and Analytic Geometry I or MATH 124 – Survey of Calculus  <input type="checkbox"/> CHEM 220 – Organic Chemistry I  <input type="checkbox"/> CHEM 222 – Organic Chemistry II  <input type="checkbox"/> CHEM 211 – Quantitative Analysis  <input type="checkbox"/> CHEM 312 – Instrumental Analysis  <input type="checkbox"/> PHYS 121 – General Physics I or PHYS 111 – Fundamentals of Physics I  <input type="checkbox"/> PHYS 122 – General Physics II or PHYS 112 – Fundamentals of Physics II  <input type="checkbox"/> CHEM 305 – Inorganic Chemistry  <input type="checkbox"/> CHEM 330 – Physical Chemistry I  <input type="checkbox"/> CHEM 332 – Physical Chemistry II  <input type="checkbox"/> CHEM Elective (300 +)  <input type="checkbox"/> CHEM Elective (300 +)
<b>General Education – Upper Biennium</b>	
<input type="checkbox"/> <b>GS1</b> – Religious Studies  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS10</b> – Western Tradition  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS11</b> – Global Society  <input type="checkbox"/> _____ <input type="checkbox"/> <b>GS12</b> – Senior Colloquium (GENS 400)  <input type="checkbox"/> _____ <input type="checkbox"/> _____	Note – A computer course such as BUAD 142 or CSCI 110 is recommended before the senior year. Students intending to go on to graduate studies should realize that mathematics courses such as MATH 132, 233, and 310 are required by many graduate programs in Chemistry.

**2005-07 Catalog Paradigm  
Chemistry  
Biochemistry**

<b>First Year</b>	
1.	CHEM 105 (GS4) (1 <sup>st</sup> semester)
2.	CHEM 107 (2 <sup>nd</sup> semester)
3.	BIOL 120 (1 <sup>st</sup> semester)
4.	BIOL 121 (2 <sup>nd</sup> semester)
5.	MATH 124 or MATH 131 (GS8)
6.	General Education
7.	General Education
8.	General Education

<b>Second Year</b>	
1.	CHEM 220 (1 <sup>st</sup> semester)
2.	CHEM 211 (1 <sup>st</sup> semester)
3.	CHEM 222 (2 <sup>nd</sup> semester)
4.	CHEM 312 (2 <sup>nd</sup> semester)
5.	BIOL 244 (2 <sup>nd</sup> semester)
6.	General Education
7.	General Education
8.	General Education

<b>Third Year</b>	
1.	PHYS 121 or PHYS 111 (1 <sup>st</sup> semester)
2.	PHYS 122 or PHYS 112 (2 <sup>nd</sup> semester)
3.	CHEM 310 (1 <sup>st</sup> semester) or CHEM 305 (2 <sup>nd</sup> semester)
4.	BIOL 373 (2 <sup>nd</sup> semester)
5.	General Education
6.	General Education
7.	Elective/Minor
8.	Elective/Minor

<b>Fourth Year</b>	
1.	CHEM 330 (1 <sup>st</sup> semester)
2.	CHEM 332 (2 <sup>nd</sup> semester)
3.	CHEM 350 (1 <sup>st</sup> semester)
4.	CHEM 351 (2 <sup>nd</sup> semester)
5.	General Education
6.	General Education
7.	Elective/Minor
8.	Elective/Minor

Elective/Minor courses can be used to take additional major courses, free electives, or to fulfill a minor.

There are many options and variations possible beyond the second year depending on interest and career path. Students should consult with their advisor and/or the chemistry discipline to arrange their schedules in the third and fourth years.

**Progress Sheet**  
**Chemistry**  
**Biochemistry**

Student Name: Student ID:	
<b>General Education – Lower Biennium</b>	<b>Major</b>
<input type="checkbox"/> <b>GS1</b> – Religious Studies  <input type="checkbox"/> <b>GS2</b> – Philosophy of Human Nature  <input type="checkbox"/> <b>GS3</b> – Human Relationships  <input type="checkbox"/> <b>GS4</b> – Natural Science  <input type="checkbox"/> <b>GS5</b> – Creative Expression  <input type="checkbox"/> <b>GS6</b> – United States Heritage  <input type="checkbox"/> <b>GS7</b> – Foreign Heritages  <input type="checkbox"/> <b>GS8</b> – Quantitative Skills  <input type="checkbox"/> <b>GS9</b> – Writing   	<b>Required Courses:</b> <input type="checkbox"/> CHEM 105 – General Chemistry I <input type="checkbox"/> CHEM 107 – General Chemistry II <input type="checkbox"/> MATH 131 – Calculus and Analytic Geometry I or MATH 131 – Survey of Calculus <input type="checkbox"/> CHEM 220 – Organic Chemistry I <input type="checkbox"/> CHEM 222 – Organic Chemistry II <input type="checkbox"/> CHEM 211 – Quantitative Analysis <input type="checkbox"/> CHEM 312 – Instrumental Analysis <input type="checkbox"/> PHYS 121 – General Physics I or PHYS 111 – Fundamentals of Physics I <input type="checkbox"/> PHYS 122 – General Physics II or PHYS 112 – Fundamentals of Physics II <input type="checkbox"/> CHEM 305 – Inorganic Chemistry or CHEM 310 – Organic Chemistry III <input type="checkbox"/> CHEM 330 – Physical Chemistry I <input type="checkbox"/> CHEM 332 – Physical Chemistry II <input type="checkbox"/> CHEM 350 – Biochemistry I <input type="checkbox"/> CHEM 351 – Biochemistry II <input type="checkbox"/> BIOL 120 – General Biology I <input type="checkbox"/> BIOL 121 – General Biology II <input type="checkbox"/> BIOL 244 – Genetics <input type="checkbox"/> BIOL 373 – Molecular Biology
<b>General Education – Upper Biennium</b>	
<input type="checkbox"/> <b>GS1</b> – Religious Studies  <input type="checkbox"/> <b>GS10</b> – Western Tradition  <input type="checkbox"/> <b>GS11</b> – Global Society  <input type="checkbox"/> <b>GS12</b> – Senior Colloquium (GENS 400)   	

**College Catalog**  
**Chemistry (CHEM)**

Our objectives are to provide background for successful post-graduate work in chemistry and related fields; to train for industrial, governmental, and educational employment in the field of chemistry, and prepare students for the pre-professional areas such as pre-medicine, pre-dentistry, pre-pharmacy, pre-veterinary medicine, and pre-engineering and to serve the other academic disciplines of the Natural Science Division as well as students from Social Sciences and Humanities.

**Graduate School Advisor:** Dr. Larry Scheich

**2005-07 College Catalog**  
**Chemistry Requirements**

**Chemistry Major (14-18 courses):** CHEM 105, 107, 211, 220, 222, 312, 330, 332; PHYS 111 and 112 or 121 and 122, and MATH 124 or 131 and **completion of a Chemistry concentration from below:**

**General Chemistry Concentration:** CHEM 305 and any two other chemistry courses numbered 300 or above.

**Biochemistry Concentration:** BIOL 120, 121, 244, 373; CHEM 351, 352, and either CHEM 310 or 305.

**Chemistry Minor (6 courses):** CHEM 105, 107, 211, 220, 222 and one elective in chemistry numbered above 200.

**Chemistry Teaching Minor (6 courses):** CHEM 105, 107, 211, 220, 222 and one elective in chemistry numbered above 200.