

## Chemistry Major 4-year Plan for Students starting in Math 160

<b>1<sup>st</sup> Year - Fall</b>		
Course		Credits
CHEM 111	General Chemistry I	3
CHEM 111L	General Chemistry I Lab	1
ENGL 101	Composition	3
MATH 160	Calculus I	4
UNIV 110	First Year Experience	3
<b>Total Semester Credit Hours</b>		<b>14</b>
<b>Total Overall Credit Hours</b>		<b>14</b>

Course		Credits
CHEM 112	General Chemistry II	3
CHEM 112L	General Chemistry II Lab	1
CHEM 150	Communication in Physical Science	3
MATH 161	Calculus II	4
ENGL 211	Introduction to Technical and Professional Writing	3
	Core Course	3
<b>Total Semester Credit Hours</b>		<b>17</b>
<b>Total Overall Credit Hours</b>		<b>31</b>

<b>2<sup>nd</sup> Year - Fall</b>		
Course		Credits
CHEM 321	Quantitative Chemistry	3
CHEM 321L	Quantitative Chemistry Lab	1
CHEM 331	General Organic Chemistry I	3
CHEM 331L	General Organic Chemistry I Lab	1
MATH 260	Calculus III	4
PHYS 211	Essentials of Physics I	3
PHYS 211L	Essentials of Physics I Lab	1
<b>Total Semester Credit Hours</b>		<b>16</b>
<b>Total Overall Credit Hours</b>		<b>47</b>

<b>2<sup>nd</sup> Year - Spring</b>		
Course		Credits
CHEM 332	General Organic Chemistry II	3
CHEM 332L	General Organic Chemistry II Lab	1
PHYS 212	Essentials of Physics II	3
PHYS 212L	Essentials of Physics II Lab	1
	General Elective	3
	Core Course	3
<b>Total Semester Credit Hours</b>		<b>14</b>
<b>Total Overall Credit Hours</b>		<b>61</b>

<b>3<sup>rd</sup> Year - Fall</b>		
Course		Credits
CHEM 441	Physical Chemistry I	3
CHEM 441L	Physical Chemistry I Lab	1
CHEM 351	Biochemistry I	3
CHEM 351L	Biochemistry I Lab	1
CHEM 399	Independent Study	1
	General Elective	3
	Core Course	3
<b>Total Semester Credit Hours</b>		<b>15</b>
<b>Total Overall Credit Hours</b>		<b>76</b>

<b>3<sup>rd</sup> Year - Spring</b>		
Course		Credits
CHEM 422	Instrumental Analysis	3
CHEM 422L	Instrumental Analysis Lab	1
CHEM 442	Physical Chemistry II	3
CHEM 442L	Physical Chemistry II Lab	1
CHEM 499*	Directed Undergraduate Research	2
	General Elective	3
	Core Course	3
<b>Total Semester Credit Hours</b>		<b>16</b>
<b>Total Overall Credit Hours</b>		<b>92</b>

<b>4<sup>th</sup> Year - Fall</b>		
Course		Credits
CHEM 311	Inorganic Chemistry	3
CHEM 3xx/4xx	Upper Level Chem Elective	4
CHEM 499*	Directed Undergraduate Research	1
	General Elective	3
	Core Course	3
<b>Total Semester Credit Hours</b>		<b>14</b>
<b>Total Overall Credit Hours</b>		<b>107</b>

<b>4<sup>th</sup> Year - Spring</b>		
Course		Credits
CHEM 3xx/4xx	Upper Level Chem Elective	4
CHEM 499*	Directed Undergraduate Research	1
	General Elective	3
	Core Course	3
	Core Course	3
<b>Total Semester Credit Hours</b>		<b>14</b>
<b>Total Overall Credit Hours</b>		<b>120</b>

\* 3 hours of CHEM 499 can be replaced with a General Elective

Course Classes must come from Core 4,5,6,7 or 8.  
Completed Core 4  5  6  7  8

<b>1<sup>st</sup> Year - Spring</b>
-------------------------------------