

**Associate in Science Degree  
Ashland Community & Technical College**

**Bachelor of Science  
Degree in Chemistry with Minor in Biology (5-19-06)  
Marshall University**

<b>YEAR ONE</b>			
<b>Fall Semester</b>	<b>Hours</b>	<b>Spring Semester</b>	<b>Hours</b>
CHE 105 General College Chemistry I	3	CHE 107 General College Chemistry II	3
CIS 100 Introduction to Computers	3	CHE 115 General Chemistry Lab	3
ENG 101 Writing I	3	ENG 102 Writing II	3
GEO 160 Lands/Peoples (international)	3	HIS 104 (or other history course)	3
MT 150, MA 123 or (113) Alg/Calc	3(4)	MA 123, MT 155, or ST 291 Math*	3
Free Elective***	1-(0)	Free Elective***	1
<b>Total Hours</b>	<b>16(17)</b>	<b>Total Hours</b>	<b>16</b>
<b>YEAR TWO</b>			
<b>Fall Semester</b>	<b>Hours</b>	<b>Spring Semester</b>	<b>Hours</b>
BIO 150 Principles of Biology I	3	BIO 152 Principles of Biology II	3
BIO 151 Principles of Biology Lab I	2	BIO 153 Principles of Biology Lab II	2
COM 181 Basic Public Speaking	3	PHI 130 Introduction to Philosophy	3
PHY 211 General Physics	5	PHY 213 General Physics	5
PY 110 Psych (or other social science elective)	3	SOC 101 Intro to Sociology (multicultural)	3
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>16</b>
<b>YEAR THREE</b>			
<b>Fall Semester</b>	<b>Hours</b>	<b>Spring Semester</b>	<b>Hours</b>
BSC 322 (or other 300-400 BSC course)	4	CHM 307 Introductory Physical Chem	4
CHM 345 Intro to Analytical Chemistry	4	CHM 356 Organic Chemistry II	3
CHM 355 Organic Chemistry I	3	CHM 361 Organic Chemistry Lab	3
Foreign Language**	3	Foreign Language**	3
UNI 101 New Student Seminar	1	GEO 317 (international, social science, 300+)	3
<b>Total Hours</b>	<b>15</b>	<b>Total Hours</b>	<b>16</b>
<b>YEAR FOUR</b>			
<b>Fall Semester</b>	<b>Hours</b>	<b>Spring Semester</b>	<b>Hours</b>
CHM 365 (or other CHM elective)	3	BSC 324 (or other 300-400 BSC course)	4
CHM 448 Advanced Inorganic Chem I	4	CHM 432 Seminar	0
CHM 491 Capstone Experience	2	CHM 366 (or other CHM elective)	2
ENG 319 <sup>1</sup> (or other literature elective)	3	ENG 317 <sup>1</sup> (or other literature elective)	3
Foreign Language**	3	Foreign Language**	3
Free Elective***	1	Free Electives*** <sup>1</sup>	5
<b>Total Hours</b>	<b>16</b>	<b>Total Hours</b>	<b>17</b>

\*Two courses in mathematics are required, one of which must be a calculus course.

\*\*Students are required to complete a 12-hour sequence in a foreign language. Depending on high school background, this will require 3-12 hours at the college level.

\*\*\*128 hours of total college credit are required for graduation, 64 must be in the College of Science. 48 of the total hours must be numbered 300-499. This sample schedule requires 3 hours of upper division electives to be taken during Year Four. No additional COS hours are required.

<sup>1</sup>One of these should be a designated Writing Intensive course.