



## Winona State University Four-Year Program Map

Created on 6/12/2017  
Effective Fall 2017

**Program:** Biology (BS BICM)  
**Emphasis (optional):** Cell & Molecular

Fall Semester				Spring Semester			
	Course	Requirement Met	SH		Course	Requirement Met	SH
<b>Year 1</b>	CMST 191/192 or ENG 111 College Reading & Writing	GE Goal 1	3-4	ENG 111 College Reading & Writing or CMST 191/2	GE Goal 1	3-4	
	CHEM 212 Principles of Chemistry I	GE Goal 3/Major	4	CHEM 213 Principles of Chemistry II	GE Goal 3/Major	4	
	MATH 212 Calculus I <sup>^</sup>	GE Goal 4/Major	4	BIOL 241 Basics of Life	Major	4	
	BIOL 242 Organismal Diversity	Major	4	Personal Development Wellness	PDW	3	
	OR 100 Orientation	Recommended	1				
<i>NOTE: <sup>^</sup>Prerequisite: Qualifying score on the mathematics placement exam or MATH 120 Precalculus.</i>							
<b>First-Year Fall Semester Credit Hour Total</b>			<b>16-17</b>	<b>First-Year Spring Semester Credit Hour Total</b>			<b>14-15</b>
<b>Year 2</b>	BIOL 312 General Ecology	Major	3	BIOL 308 Cell Biology	Major/WI	3	
	General Education Course or CHEM 350 Organic Chem I*	GE Goal 5-10 Major	3-4	BIOL 307 Cell Biology Lab or BIOL 311 Genetics Lab	Major/OI	1	
	BIOL 310 Genetics	Major/CAI	3	STAT 305 Biometry (Recommended)	Major Elective	3	
	General Education Course	GE Goal 5-10	3	CHEM 340 Organic Chemistry Survey or 351 Organ Chem II*	Major Elective	4-5	
	General Education Course	GE Goal 5-10	3	General Education Course	GE Goal 5-10	3	
<i>NOTE: *Chemistry required course (4-9 SH) must choose CHEM 340 or CHEM 350 &amp; 351.</i>				<i>NOTE: BIOL 307 fulfills 1 credit of the 3 credits of the Oral Intensive requirement.</i>			
<b>Second-Year Fall Semester Credit Hour Total</b>			<b>15-16</b>	<b>Second-Year Spring Semester Credit Hour Total</b>			<b>14-15</b>
<b>Year 3</b>	CHEM 405 Biochemistry I	Major	3	BIOL 430 Molecular Biology	Major	3	
	CHEM 406 Biochemistry I Laboratory	Major/WI	1	PHYS 202 General Physics II or PHYS 222 University Physics	Major	4	
	Biology Cell & Molecular Option Elective	Major	3	Biology Major Elective*	Major	3-4	
	PHYS 201 General Physics or PHYS 221 University Physics I	Major	4	General Education Course	GE Goal 5-10	3	
	General Education Course	GE Goal 5-10	3	General Education Course	GE Goal 5-10	3	
<i>NOTE: *Select TWO courses from the following : BIOL 309, 393, 394, 402, 409, 431, 445 (6 SH required).</i>							
<b>Third-Year Fall Semester Credit Hour Total</b>			<b>14</b>	<b>Third-Year Spring Semester Credit Hour Total</b>			<b>16-17</b>
<b>Year 4</b>	BIOL 499 Capstone Project	Major/WI	3	Biology Elective	Major Elective	4	
	**Biology Cell & Molecular Option Elective	Major Elective	3	Biology Elective	Major Elective	4	
	Biology Major Elective*	Major Elective	4	General Education Course	GE Goal 5-10	3	
	General Education Course	GE Goal 5-10	3	General Education Course	GE Goal 5-10	3	
	General Education Course	GE Goal 5-10	3				
<i>NOTE: *Select TWO courses from the following : BIOL 309, 393, 394, 402, 409, 431, 445 (6 SH required). **Choose a Cell &amp; Molecular Option Elective that also meets the Oral Intensive requirement.</i>				<i>NOTE:</i>			
<b>Fourth-Year Fall Semester Credit Hour Total</b>			<b>16</b>	<b>Fourth-Year Spring Semester Credit Hour Total</b>			<b>14</b>

Total Credit Hours (SH): 120

Guide to 4 Year Major Maps

- 4 Year Major Maps are intended to show a recommended four-year pathway to a degree. Students must be fulltime, college ready, and ready to declare a major to follow the map exactly as shown. Maps are only a sample; there may be other pathways that lead to completion of the degree in four years.
- Major Maps are NOT intended to take the place of meetings with advisors.
- Major Maps are NOT intended to take the place of the Degree Audit System (DARs).

All courses listed on a major map will be labelled as one or more of the following:

GE Goal	General Education Goal Area	Indicates that the course meets one of the 10 General Education Goals
Gen Elec	General Elective	Indicates that the course does not meet a General Education, Major or Minor requirement but does count toward the degree
Major	Major Requirement	Indicates that the course meets a Major requirement
Major Elec	Major Elective	Indicates that the course counts toward the major as an elective, must be chosen from list of approved courses
Minor	Minor Requirement	Indicates that the course meets a Minor requirement
CAI	Critical Analysis Intensive	Indicates that the course counts as a Critical Analysis Intensive
OI	Oral Intensive	Indicates that the course counts as an Oral Intensive
WI	Written Intensive	Indicates that the course counts as a Written Intensive
PDW	Personal Development and Wellness	Indicates that the course counts as a Personal Development and Wellness Requirement

General Education Goal Areas:

		Minimum credits required
Goal 1	Communication	7 credits
Goal 2	Critical Thinking (Met with completion of all other goal areas)	--
Goal 3	Natural Science	7 credits
Goal 4	Mathematics	3-4 credits
Goal 5	History, Social/Behavioral Sciences	9 credits
Goal 6	Humanities and Fine Arts	9 credits
Goal 7	Human Diversity	3 credits
Goal 8	Global Perspective	3 credits
Goal 9	Ethic and Civic Responsibility	3 credits
Goal 10	People and the Environment	3 credits

Graduation Requirements:

- Minimum of 120 total credits (semester hours) required for Bachelors' Degree
- Minimum of 40 General Education credits required
- Minimum of 40 Upper Division credits required
- Minimum of 30 Residence credits required in Junior/Senior years
- Minimum WSU cumulative grade point average of 2.00; some programs require higher grade point averages

Major Maps are not contracts. Winona State University reserves the right to make changes at any time, without prior notice, to programs, policies, procedures and information described in this major map. Students should consult the appropriate academic department or college for currently accurate program information.