



Winona State University Four-Year Program Map

Created on 5/24/2017
Effective Fall 2017

Program: Biology (BS BIES)
Emphasis (optional): Environmental Science

| Fall Semester | | | | Spring Semester | | | |
|--|---|--------------------|---|---|----------------|-----------------|--------------|
| Course | | Requirement Met | SH | Course | | Requirement Met | SH |
| Year 1 | ENG 111 College Reading and Writing or CMST 191 or 192 | GE Goal 1 | 3-4 | CMST 191 Intro to Public Speaking or ENG 111 | GE Goal 1 | 3-4 | |
| | BIOL 241 Basics of Life | GE Goal 3 | 4 | CHEM 213 Principles of Chemistry II | GE Goal 3 | 4 | |
| | CHEM 212 Principles of Chemistry I | GE Goal 3 | 4 | Mathematics - 120,140, 212, or 213 | GE Goal 4 | 3 | |
| | Mathematics - 120,140, 212, or 213 | GE Goal 4 | 4 | BIOL 242 Organismal Diversity | GE Goal 3 | 4 | |
| | OR 100 Orientation | Recommended | 1 | Physical Development and Wellness | PDW | 2 | |
| | <i>NOTE:</i> | | | <i>NOTE:</i> | | | |
| First-Year Fall Semester Credit Hour Total | | | 16-17 | First-Year Spring Semester Credit Hour Total | | | 16-17 |
| Year 2 | BIOL 312 General Ecology | Major | 3 | BIOL 308 Cell Biology | Major/WI | 3 | |
| | STAT 305 Biometry | Major | 3 | CHEM 340 Org Chem Surv or CHEM 351 Prin of Org Chem II | Major | 4-5 | |
| | BIOL 310 Genetics | Major/CAI | 3 | General Education Course | GE Goal 5-10 | 3 | |
| | CHEM 350 Principles of Organic Chem I or Gen Ed Course | Major/GE Goal 5-10 | 3-4 | GEOS 235 Earth and Life Through Time | Major | 4 | |
| | General Education Course | GE Goal 5-10 | 3 | | | | |
| | BIOL 313 General Ecology Laboratory | Major | 1 | | | | |
| <i>NOTE: To remain under 120 credits, take 3 courses that meet two goal areas within GOALS 5-10.</i> | | | <i>NOTE: Students must earn 40 S.H. credits of 300 & 400 Level Courses.</i> | | | | |
| Second-Year Fall Semester Credit Hour Total | | | 16-17 | Second-Year Spring Semester Credit Hour Total | | | 14-15 |
| Year 3 | BIES required BIOL course | Major | 3-4 | BIES required BIOL course | Major | 4 | |
| | PHYS 201 General Physics I or PHYS 221 University Physics I | Major | 4 | PHYS 202 General Physics II or PHYS 222 University Physics II | Major | 4 | |
| | BIOL Elective** | Major Elective | 3-4 | BIOL Elective** | Major Elective | 3-4 | |
| | GEOS 309 Watershed Science | Major | 4 | BIOL 315 Environmental Biology | Major/OI | 3 | |
| <i>NOTE: *Additional Environmental Science Option Courses (7-8 SH) If you choose 7 SH from this group, you must complete 8 SH of Biology elective courses.</i> | | | <i>NOTE: **Environmental Science Option Electives (7-8 SH). Students are encouraged to take one plant-based course as required or elective course. If you choose 7 SH from this group, you must complete 8 SH of Biology.</i> | | | | |
| Third-Year Fall Semester Credit Hour Total | | | 14-16 | Third-Year Spring Semester Credit Hour Total | | | 14-15 |
| Year 4 | CHEM 320 Environmental Chemistry* | Major | 4 | General Education Course | GE Goal 5-10 | 3 | |
| | BIOL Elective** | Elective | 3-4 | General Education Course | GE Goal 5-10 | 3 | |
| | General Education Course | GE Goal 5-10 | 3 | CHEM/GEOS Requirement^ | Major | 4 | |
| | General Education Course | GE Goal 5-10 | 3 | BIOL 499 Capstone Research | Major/WI | 3 | |
| <i>NOTE: Talk with advisor about other options if CHEM 320 is not offered. If a MATH class is taken for 3 credits student needs to take another 1 credit course.</i> | | | <i>NOTE: ^See DARS for a full list of courses offered for CHEM/GEOS electives.</i> | | | | |
| Fourth-Year Fall Semester Credit Hour Total | | | 13-14 | Fourth-Year Spring Semester Credit Hour Total | | | 13 |

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.