

Bachelor of Science/Master of Science in Biology
3+2 MS in Biology Major Advising Worksheets[§]

General Studies for B.S. degree:

Communication Outcome (6-9 credit hours):

2-3 courses, grade of C or better required

| | | | |
|---------------------|-------|----------------------------|---|
| ENG 101 and ENG 102 | — / — | COM 101 | — |
| OR | | (required of all students) | |
| ENG 103 | — | | |

Analysis Outcome (20-21 credit hours; 11-12 credit hours satisfied within major requirements):

Students must take courses from each analytical block as directed:

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|------------------------------------|-------------------------------------|
| <u>Critical Reading (1 Course)</u> | <u>Economics/Finance (1 Course)</u> |
| ENG 200-400 Literature, any | ECON 103, 104, OR FIN 131 |

| | |
|---|---|
| <u>Logic/Critical Assessment (1 Course)</u> | |
| LING 150, PSYC 101 OR PHIL 210 | — |

Self and Cultural Awareness Outcome (18 credit hours):

Students must take courses from each awareness block as directed:

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|-----------------------------|---|
| <u>Fine Arts (1 Course)</u> | <u>Perceptions & Cultures (5 Courses)</u> |
| ART 140, 340, 341, 343, | 4 Courses from different groups |
| FA 101, MUS 130, 132, 133, | GEO 205, 206 |
| THE 100, 300 | POLS 101, 201 |
| | SOC 150, SWK 201 |
| | REL, any |
| | SPAN, FREN, SPA 252 |
| | HE 250 |
| | PHIL, any except PHIL210 |
| | 1 Course HIST |
| | HIST 103, 104, 210, 211 |

General Biology Major:

Core Courses:

| | | | |
|---|------------|--------------------------------|------------|
| BIO 124/125 ^t (Prin Bio/lab) | — / — (4h) | PHYS 101/110 (Phys I) | — / — (4h) |
| BIO 200 (Botany & lab) | — (4h) | PHYS 102/111 (Phys II) | — / — (4h) |
| BIO 202/203 (Zoology/lab) | — / — (4h) | MATH 145 ^t (Precal) | — (3h) |
| CHEM 110/111 ^t (Chem I) | — / — (4h) | BIO 221 (Biostats) | — (3h) |
| CHEM 112/113 (Chem II) | — / — (4h) | | |

^t Courses fulfill General Studies Analysis Outcome for Quantitative and Scientific blocks.

Major Specific Courses:

| | | | |
|------------------------------|--------|----------------------------|--------|
| BIO 302/303* (Anat I/lab) | __(4h) | BIO 401* (Genetics/lab) | __(4h) |
| OR | | BIO 404/405* (Ecology/lab) | __(4h) |
| BIO 426* (Comp An. Phys/lab) | __(4h) | OR | |
| BIO 3XX/4XX* (elective) | __(3h) | BIO 472* (Cell Bio) | __(3h) |
| BIO 325/326 (Micro & lab) | __(4h) | BIO 460/461* (Mol Bio/lab) | __(4h) |
| | | BIO 480 (Capstone) | __(1h) |

Additional Undergraduate Requirements:

| | | | |
|-------------------------|----------|-----------------------|----------|
| CHEM 340/341 (Org I) | __/_(4h) | CHEM 342/343 (Org II) | __/_(4h) |
| CHEM 480 (Biochem I; F) | __(3h) | | |

Graduate Requirements:

| | |
|------------------------------|---|
| BIO 510 Grad Research Skills | __(3h, graded) |
| BIO 525 Grad Seminar | __/_/__(3h total; P/F) |
| BIO 5XX Electives | __/_/__(7-8h total, graded) |
| BIO 580 Indep. Study | __(4h max to hours for graduation; P/F) |
| BIO 598 Thesis + Defense | __(9h; P/F) |

A **minimum of 4 credit hours of upper level biology courses** in the undergraduate curriculum must be **designated for graduate credit** to complete the curriculum in 5 years; courses for which the graduate option is available are denoted with an asterisk (*). Dual-counted courses must be designated before the beginning of the semester in which they are taken.

Students **must take additional 300-400 level General Electives** (6-10h dependent on course choices) to complete the curriculum (136 credit hours with a minimum of 30 graduate credit hours as designated).

- 136 credit hours are required to graduate from West Liberty with the 3+2 BS/MS Biology.
- 30 credit hours, minimum, are biology graduate coursework; a maximum of 9 credit hours may be earned for thesis toward the 30 required graduate credit hours.
- In semester 7, students will register for BIO 510 Graduate Research Skills (3 credit hours) and BIO 525 Graduate Seminar (1 credit hour). BIO 525 Graduate Seminar will be required semesters 7-9 (3 credit hours total) of graduate work except thesis semester.
- Students must complete 14 credit hrs in graded graduate biology courses including BIO 510.
- Students may take up to 9 credit hrs of BIO 580 Independent Study per semester, beginning no earlier than semester 7. Only 4 credit hrs of BIO 580 may be used toward the 30 graduate credits; these credits do NOT count as graded biology grad course credits.
- The 3+2 BS/MS in Biology major requires a cumulative 3.0 GPA with at least a "C" in each course within the program; no more than 6 credit hours of "C" grades may be applied to the total hours for graduation.
- All MS candidates must pass an oral thesis defense upon completion of course requirements and thesis; the MS in Biology will only be awarded to those students who successfully complete all requirements including the oral thesis defense.
- **These worksheets are a guide.** Each student is responsible for their curriculum and meeting the requirements for graduation as stipulated in the college catalog.
- Courses may not be offered every semester and/or year; please consult with Biology advisor for sequencing.