

**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:

<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:

<u>Fine Arts (1 Course)</u>	<u>Perceptions & Cultures (5 Courses)</u>
ART 140, 340, 341, 343, FA 101, MUS 130, 132, 133, 134 THE 100, 300	4 Courses from different groups GEO 205, 206 POLS 101, 201 SOC 150, SWK 201 REL, any SPAN, FREN, SPA 252 HE 250, 300 PHIL, any except PHIL210
___	___ ___ ___ ___ ___ ___ ___
	1 Course HIST
	HIST 103, 104, 210, 211

General Biology Major:

Core Courses:

BIO 124/125 [†] (Prin Bio/lab)	___/___(4h)	BIO 221 (Biostats)	___(3h)
BIO 200 (Botany & lab)	___(4h)	CHEM 110/111 [†] (Chem I)	___/___(4h)
BIO 202/203 (Zoology/lab)	___/___(4h)	CHEM 112/113 (Chem II)	___/___(4h)
BIO 207 Funds of Eco/Biodiv	___ (3h)	PHYS 101/110 (Phys I)	___/___(4h)
OR		PHYS 102/111 (Phys II)	___/___(4h)
BIO 208 Found Mol/Cell Bio	___ (3h)	MATH 145 [†] (Precal)	___(4h)

[†]Courses fulfill General Studies Analysis Outcome for Quantitative and Scientific blocks.

Major Specific Courses:

BIO 302/303* (Anat I/lab) ___(4h)	BIO 404/405* (Ecology/lab) ___(4h)
OR	OR
BIO 426* (Comp An. Phys/lab) ___(4h)	BIO 472* (Cell Bio) ___(3h)
BIO 325/326 (Micro & lab) ___(4h)	BIO 460/461* (Mol Bio/lab) ___(4h)
BIO 401* (Genetics/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; S) ___(3h)	
OR	
BIO 470 (Biol. Chem; 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.