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 __, __
OR
ENG 103 __

COM 101 __
(required of all students)

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

Students must take courses from each analytical block as directed:

Critical Reading (1 Course)
ENG 200-400 Literature, any __

Economics/Finance (1 Course)
ECON 103, 104, OR FIN 131 __

Logic/Critical Assessment (1 Course)
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:

Fine Arts (1 Course)
ART 140, 340, 341, 343,
FA 101, MUS 130, 132, 133, 134
THE 100, 300 __

Perceptions & Cultures (5 Courses)
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 200 (Botany & lab) __(4h)
BIO 202/203 (Zoology/lab) __/__(4h)
BIO 207 Funds of Eco/Biodiv __ (3h)
OR
BIO 208 Found Mol/Cell Bio __ (3h)

BIO 221 (Biostats) __(3h)
CHEM 110/111[‡] (Chem I)__/__(4h)
CHEM 112/113 (Chem II)__/__(4h)
PHYS 101/110 (Phys I) __/__(4h)
PHYS 102/111 (Phys II)__/__(4h)
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.