

Bachelor of Science in Biology  
Pre-Pharmacy/PharmD 3+4 Major Advising Worksheet<sup>s</sup>

**General Studies:**

Composition & Oral Communication Outcome (6-10 credit hours)

2-3 courses, grade of C or better required

ENG 101 and ENG 102	—/—	COM 101	—
OR		(required for all students)	
ENG 103	—		

Analysis Outcome (3 credit hours; 7-11 credit hours of MATH and BIO/CHEM/PHYS satisfied within major requirements)

Students must take:

COM 203 (Arg/Debate)	—	LING 150 (Intro Ling)	—
ECON 103 (Microecon)	—	PHIL 210 (Logic)	—
FIN 131 (Financial Lit)	—	PSYC 101 (Intro to Psych)	—

Cultural Literacy Outcome (18 credit hours)

Students must take courses from each literacy block as directed:

<u>History (1 Course)</u>		<u>Literature (1 Course)</u>	
HIST 103, 104, 210, 211	—	ENG 202, 204, 205, 214, 215	—

Arts & Humanities (2 Courses)

1 course from each group

GROUP I:

ART 140, 341, 343,  
MUS 130, 132, 133, 134  
THE 100, 300

—

GROUP II:

PHIL 201, 205

REL 250, 335

Any FREN or SPAN

SPA 252

—

Social Sciences (2 Courses)

2 courses from different groups

GROUP I:

GEO 205, 206

—

GROUP II:

POLS 101, 201, 202

—

GROUP III:

SOC 150, SWK 201

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**BS Biology/PharmD 3+4 Major:**

Core Courses (30 credit hours):

BIO 124/125 <sup>s</sup> (Prin Bio/lab)	_/_(4h)	MATH 145 (PreCalc)	_(4h)
BIO 202/203 (Zoology/lab)	_/_(4h)	MATH 210 <sup>s</sup> (Calc I)	_(4h)
BIO 208 (Found Cell & Molec)	_(3h)	BIO 221 (Biostats)	_(3h)
CHEM 110/111 <sup>t</sup> (Chem I)	_/_(4h)	OR	
CHEM 112/113 (Chem II)	_/_(4h)	MATH 160 (Stats)	_(3h)

<sup>s</sup>Courses fulfill General Studies Analysis Outcome for Quantitative and Scientific blocks.

Major Specific Courses (33 credit hours):

BIO 302/303 (A&PI/lab)	__(4h)	BIO 460/461 (Mol Bio/lab)	__(4h)
BIO 317 (Immunology)	__(3h)	BIO 480 (Capstone)	__(2h)
BIO 325/326 (Micro/lab)	__(4h)	CHEM 340/341 (Org I/lab)	__/_(4h)
BIO 328/334 (A&PII/lab)	__(4h)	CHEM 342/343 (Org II/lab)	__/_(4h)
BIO 401 (Genetics/lab)	__(4h)		

Restricted Electives (12h required from the following list):

BIO 330 (Nutrition)	__(3h)	BIO 426 (Comp Phys)	__/_(4h)
BIO 338 (Med. Bot)	__(3h)	BIO 432 (Histol)	__(4h)
BIO 350 (Develop Bio)	__(3h)	BIO 462 (Micro Path)	__(3h)
BIO 360 (Drugs, Brain)	__(3h)	BIO 465 (Virology)	__(3h)
BIO 407 (Human Gen)	__(3h)	BIO 470 (Biol Chem)	__(3h)
BIO 423 (Pathophys)	__(3h)	PHYS 102/111 (Phys II)	__/_(4h)
		PHYS 101/110 (Phys I)	__/_(4h)

**Credit hours of additional general elective courses from different subject codes may be required to fulfill the undergraduate credit hour requirement (104 credit hours total) for the B.S. in Biology, Pre-Pharmacy/PharmD 3+4.**

- 120 credit hours are required to graduate from West Liberty with a B.S.; 40 of those hours must be 300-400 level courses.
- The BS Biology Pre-Pharmacy/PharmD 3+4 major requires a cumulative 3.5 gpa in all math and science courses with at least a "C" in each course within the program.
- All courses listed must be completed in the first three years of study.
  - BIO 124/125 and BIO 208 (or two semesters of approved biology courses) must be completed in the first year of undergraduate study; minimum grade of B.
  - CHEM110/111 and CHEM 112/113 (or two semesters of approved chemistry courses) must be completed in the first year of undergraduate study; minimum grade of B.
  - MATH 210 or its equivalent must be completed by the end of the second year of study; minimum grade of B.
- Students will receive 16 credit hours of undergraduate biology-specific courses waived in lieu of PharmD coursework successfully completed in the first two terms of the graduate degree program.
- Award of BS Biology will occur after successful completion of first year of graduate degree program.
- <sup>3</sup>These worksheets are to be used as 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.
- Professional programs have different prerequisites for admission. While the advisor is present to help each student select the appropriate courses, **the student bears the responsibility to explore each professional program and determine the courses required for admission.**