

**West Texas A&M University
Advising Services
Degree Checklist
2020-2021**

(For assistance completing this form, contact Advising Services at 806-651-5300)

NAME: _____ WT ID: _____ DATE: _____

**Biology
Department of Life, Earth and Environmental
Sciences – NSB 348A 651-2570**

CORE CURRICULUM COURSES: 42 HOURS ♦			
Specific course(s) required for this major are listed in the next section.			HRS
Communication (Core 10)			
ENGL 1301 Introduction to Academic Writing and Argumentation	3		
COMM 1315, 1318, or 1321	3		
Mathematics (Core 20)			
See University Core Requirements below	(3)		
Life and Physical Sciences (Core 30)			
See University Core Requirements below	(6)		
Language, Philosophy and Culture (Core 40)			
ANTH 2351, ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311, 2323, 2372; MCOM 1307; PHIL 1301, 2374; SPAN 2311*, 2312**, 2313*, 2315*, or 2371 Choose 1	3		
Creative Arts (Core 50)			
ARTS 1301, 1303, 1304; DANC 2303; MUSI 1306, 1307 (for music majors), 1310; or THRE 1310 Choose 1	3		
American History (Core 60)			
HIST 1301, 1302, 2301, 2381 Choose 2	6		
Government/Political Science (Core 70)			
POSC 2305 and 2306	6		
Social and Behavioral Sciences (Core 80)			
AGBE 2317*; COMM 2377; CRIJ 1301; ECON 2301, 2302; PSYC 2301; SOCI 1301 Choose 1	3		
Component Area Option (Core 90)			
See University Core Requirements below	(6)		
BIOLOGY MAJOR REQUIREMENTS: 51-63 HOURS			
A grade of "C" or better must be earned in all courses required for major.			
UNIVERSITY CORE REQUIREMENTS: 15 HOURS ♦			
CORE 20			
MATH 1314*, 1316*, or 2412*[3]	3		
CORE 30			
BIOL 1406[3] and 1407*[3] or BIOL 1411[3] and 1413[3]	6		
CORE 90			
ENGL 1302* Research and Rhetoric OR ENGL 2311* Introduction to Professional and Technical Communication	3		
CORE 90			
BIOL 1406L[1] and 1407L[1] OR 1411L[1] and 1413L[1]; and Fourth hour from MATH 2412[1], additional lab hour from Life & Physical Sciences, or IDS 1071	3		
BIOLOGY ELECTIVES: 20-28 HOURS—SEE NOTE			
Take six biology courses (2000, 3000 or 4000 level) of which five must include laboratories.			
BIOLOGY ELECTIVE WITH LAB			
BIOLOGY ELECTIVE WITH LAB			
BIOLOGY ELECTIVE WITH LAB			
BIOLOGY ELECTIVE WITH LAB			
BIOLOGY ELECTIVE WITH LAB			
BIOLOGY ELECTIVE			

**Bachelor of Science Degree
BS.BIOL (102)**

ADDITIONAL MAJOR REQUIREMENTS: 16-20 HOURS			
CHEM 1411*, 1411L Chemistry I	4		
CHEM 1412*, 1412L Chemistry II	4		
GEOL 1403, 1403L Physical Geology AND GEOL 1404, 1404L Historical Geology OR PHYS 1401*, 1401L General Physics I AND PHYS 1402*, 1402L General Physics II	8		
Take one of the following (if not taken for University Core): MATH 1316* Plane Trigonometry MATH 1342 Elementary Statistical Methods MATH 2412* Pre-Calculus MATH 3360* Statistical Methods	0-4		
ADVANCED ELECTIVES—SEE NOTE			
ADVANCED ELECTIVES (Courses must be at 3000- or 4000-level)			
Additional advanced hours to provide a minimum of 39 hours selected from biology, chemistry, biotechnology, environmental science, geology, mathematics or physics. (NOTE: Advanced hours taken for Biology Electives count towards these 39 hours.)			
BACHELOR OF SCIENCE REQUIREMENTS			
Covered by requirements for major.			OPTION
ELECTIVES—SEE NOTE			
ELECTIVES ♦ As needed to provide a total of 120 hours.			
MINIMUM HOURS REQUIRED TO COMPLETE DEGREE			120

♦ NOTE: The core curriculum must total **exactly 42 hours**; excess hours must be moved to the major as an elective or a major requirement and stay within the 120-hour requirement or approved total submitted to the Coordinating Board for degree requirements.

* Indicates prerequisites—see catalog for more information.

** Or an equivalent course (second year, second semester) in a foreign language.

NOTE: The number of elective and advanced elective hours needed cannot be determined without knowing your choice of biology courses. At least 39 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU, and 30 of the final 36 hours counted toward the degree must be earned at WTAMU. A maximum of six semester hours in religion (RELI) and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

Note: This is NOT a degree plan. Upon completing 30 credit hours, students must request an official degree plan (using the online [Degree Plan Request](#) form) in order to progress. Students who have questions about their degree plan should contact the office of the dean of the Paul Engler College of Agriculture and Natural Sciences, which is located in the Happy State Bank Academic & Research Building, Suite 262 (phone 806-651-3570).

WTAMU ADVISING SERVICES

2020-2021 Curriculum Guide

Major: Biology, B.S.

Major Code: 102

First Year Boldface type indicates major requirements																																			
Fall <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">CORE 10(1) - ENGL 1301</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE 20 - Take 1 course from:</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>MATH 1314, 1316 or 2412 4th hr of 2412 counts for Core 90</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE 30(1) - BIOL 1406 or 1413</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE 90 - BIOL 1406L or 1413L</td><td style="border: 1px solid black; text-align: right; padding: 2px;">1</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"> </td><td style="border: 1px solid black; padding: 2px;"> </td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; text-align: right; padding: 2px;">13</td></tr> </table>	CORE 10(1) - ENGL 1301	3	CORE 20 - Take 1 course from:	3	<small>MATH 1314, 1316 or 2412 4th hr of 2412 counts for Core 90</small>		CORE 30(1) - BIOL 1406 or 1413	3	CORE 90 - BIOL 1406L or 1413L	1	CORE - See checklist for options <small>(see also Note 1 below)</small>	3			Semester Hours	13	Spring <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">CORE 90 - ENGL 1302 or 2311</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(required for major)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">MATH 1316 or 2412</td><td style="border: 1px solid black; text-align: right; padding: 2px;">0-4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(if not taken for Core 20)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE 30(2) - BIOL 1407 or 1411</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE 90 - BIOL 1407L or 1411L</td><td style="border: 1px solid black; text-align: right; padding: 2px;">1</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CHEM 1411/1411L</td><td style="border: 1px solid black; text-align: right; padding: 2px;">4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; padding: 2px;"> </td></tr> </table>	CORE 90 - ENGL 1302 or 2311	3	<small>(required for major)</small>		MATH 1316 or 2412	0-4	<small>(if not taken for Core 20)</small>		CORE 30(2) - BIOL 1407 or 1411	3	CORE 90 - BIOL 1407L or 1411L	1	CORE - See checklist for options <small>(see also Note 1 below)</small>	4	CHEM 1411/1411L	4	Semester Hours	
CORE 10(1) - ENGL 1301	3																																		
CORE 20 - Take 1 course from:	3																																		
<small>MATH 1314, 1316 or 2412 4th hr of 2412 counts for Core 90</small>																																			
CORE 30(1) - BIOL 1406 or 1413	3																																		
CORE 90 - BIOL 1406L or 1413L	1																																		
CORE - See checklist for options <small>(see also Note 1 below)</small>	3																																		
Semester Hours	13																																		
CORE 90 - ENGL 1302 or 2311	3																																		
<small>(required for major)</small>																																			
MATH 1316 or 2412	0-4																																		
<small>(if not taken for Core 20)</small>																																			
CORE 30(2) - BIOL 1407 or 1411	3																																		
CORE 90 - BIOL 1407L or 1411L	1																																		
CORE - See checklist for options <small>(see also Note 1 below)</small>	4																																		
CHEM 1411/1411L	4																																		
Semester Hours																																			

Second Year																																	
Fall <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">BIOL Elective 1</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(see Note 2 below)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">BIOL Elective 2</td><td style="border: 1px solid black; text-align: right; padding: 2px;">4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(see Note 2 below)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CHEM 1412/1412L</td><td style="border: 1px solid black; text-align: right; padding: 2px;">4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"> </td><td style="border: 1px solid black; padding: 2px;"> </td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; text-align: right; padding: 2px;">14-16</td></tr> </table>	BIOL Elective 1	3-5	<small>(see Note 2 below)</small>		BIOL Elective 2	4	<small>(see Note 2 below)</small>		CHEM 1412/1412L	4	CORE - See checklist for options <small>(see also Note 1 below)</small>	3			Semester Hours	14-16	Spring <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">BIOL Elective 3</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(see Note 2 below)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">BIOL Elective 4</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(see Note 2 below)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"> </td><td style="border: 1px solid black; padding: 2px;"> </td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; text-align: right; padding: 2px;">12-16</td></tr> </table>	BIOL Elective 3	3-5	<small>(see Note 2 below)</small>		BIOL Elective 4	3-5	<small>(see Note 2 below)</small>		CORE - See checklist for options <small>(see also Note 1 below)</small>	3	CORE - See checklist for options <small>(see also Note 1 below)</small>	3			Semester Hours	12-16
BIOL Elective 1	3-5																																
<small>(see Note 2 below)</small>																																	
BIOL Elective 2	4																																
<small>(see Note 2 below)</small>																																	
CHEM 1412/1412L	4																																
CORE - See checklist for options <small>(see also Note 1 below)</small>	3																																
Semester Hours	14-16																																
BIOL Elective 3	3-5																																
<small>(see Note 2 below)</small>																																	
BIOL Elective 4	3-5																																
<small>(see Note 2 below)</small>																																	
CORE - See checklist for options <small>(see also Note 1 below)</small>	3																																
CORE - See checklist for options <small>(see also Note 1 below)</small>	3																																
Semester Hours	12-16																																

Third Year																																							
Fall <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">BIOL Elective 5</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(see Note 2 below)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">GEOL 1403 or PHYS 1401</td><td style="border: 1px solid black; text-align: right; padding: 2px;">4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>Must include lab.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Advanced Elective</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>See checklist or Note 3 below for options.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;"> </td><td style="border: 1px solid black; padding: 2px;"> </td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; text-align: right; padding: 2px;">13-17</td></tr> </table>	BIOL Elective 5	3-5	<small>(see Note 2 below)</small>		GEOL 1403 or PHYS 1401	4	<small>Must include lab.</small>		CORE - See checklist for options <small>(see also Note 1 below)</small>	3	Advanced Elective	3-5	<small>See checklist or Note 3 below for options.</small>				Semester Hours	13-17	Spring <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">BIOL Elective 6</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>(see Note 2 below)</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">GEOL 1404 or PHYS 1402</td><td style="border: 1px solid black; text-align: right; padding: 2px;">4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>Must include lab.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Advanced Elective</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>See checklist or Note 3 below for options.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Advanced Elective</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-4</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>See checklist or Note 3 below for options.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;"> </td><td style="border: 1px solid black; padding: 2px;"> </td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; text-align: right; padding: 2px;">13-18</td></tr> </table>	BIOL Elective 6	3-5	<small>(see Note 2 below)</small>		GEOL 1404 or PHYS 1402	4	<small>Must include lab.</small>		Advanced Elective	3-5	<small>See checklist or Note 3 below for options.</small>		Advanced Elective	3-4	<small>See checklist or Note 3 below for options.</small>				Semester Hours	13-18
BIOL Elective 5	3-5																																						
<small>(see Note 2 below)</small>																																							
GEOL 1403 or PHYS 1401	4																																						
<small>Must include lab.</small>																																							
CORE - See checklist for options <small>(see also Note 1 below)</small>	3																																						
Advanced Elective	3-5																																						
<small>See checklist or Note 3 below for options.</small>																																							
Semester Hours	13-17																																						
BIOL Elective 6	3-5																																						
<small>(see Note 2 below)</small>																																							
GEOL 1404 or PHYS 1402	4																																						
<small>Must include lab.</small>																																							
Advanced Elective	3-5																																						
<small>See checklist or Note 3 below for options.</small>																																							
Advanced Elective	3-4																																						
<small>See checklist or Note 3 below for options.</small>																																							
Semester Hours	13-18																																						

Fourth Year																																	
Fall <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">Advanced Elective</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>See checklist or Note 3 below for options.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Advanced Elective</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>See checklist or Note 3 below for options.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Advanced Elective</td><td style="border: 1px solid black; text-align: right; padding: 2px;">3-5</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>See checklist or Note 3 below for options.</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"> </td><td style="border: 1px solid black; padding: 2px;"> </td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; text-align: right; padding: 2px;">12-18</td></tr> </table>	Advanced Elective	3-5	<small>See checklist or Note 3 below for options.</small>		Advanced Elective	3-5	<small>See checklist or Note 3 below for options.</small>		Advanced Elective	3-5	<small>See checklist or Note 3 below for options.</small>		CORE - See checklist for options <small>(see also Note 1 below)</small>	3			Semester Hours	12-18	Spring <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border: 1px solid black; padding: 2px;">CORE - See checklist for options <small>(see also Note 1 below)</small></td><td style="border: 1px solid black; text-align: right; padding: 2px;">3</td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Advanced Elective(s)</td><td style="border: 1px solid black; text-align: right; padding: 2px;">TBD</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>-as needed to total 39 advanced in science/math</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Additional Any-Level Elective(s)</td><td style="border: 1px solid black; text-align: right; padding: 2px;">TBD</td></tr> <tr><td style="border: 1px solid black; padding: 2px;"><small>-only if needed to total 120 hours overall</small></td><td></td></tr> <tr><td style="border: 1px solid black; padding: 2px;"> </td><td style="border: 1px solid black; padding: 2px;"> </td></tr> <tr><td style="border: 1px solid black; padding: 2px;">Semester Hours</td><td style="border: 1px solid black; text-align: right; padding: 2px;">TBD</td></tr> </table>	CORE - See checklist for options <small>(see also Note 1 below)</small>	3	Advanced Elective(s)	TBD	<small>-as needed to total 39 advanced in science/math</small>		Additional Any-Level Elective(s)	TBD	<small>-only if needed to total 120 hours overall</small>				Semester Hours	TBD
Advanced Elective	3-5																																
<small>See checklist or Note 3 below for options.</small>																																	
Advanced Elective	3-5																																
<small>See checklist or Note 3 below for options.</small>																																	
Advanced Elective	3-5																																
<small>See checklist or Note 3 below for options.</small>																																	
CORE - See checklist for options <small>(see also Note 1 below)</small>	3																																
Semester Hours	12-18																																
CORE - See checklist for options <small>(see also Note 1 below)</small>	3																																
Advanced Elective(s)	TBD																																
<small>-as needed to total 39 advanced in science/math</small>																																	
Additional Any-Level Elective(s)	TBD																																
<small>-only if needed to total 120 hours overall</small>																																	
Semester Hours	TBD																																

Degree Total Hours 120

DISCLAIMER: This curriculum guide should be used in conjunction with the corresponding degree checklist for general planning purposes only. The degree checklist (later a student's official degree plan) should be referred to as the comprehensive list of all courses required for the degree. An official degree plan is required after completing 30 hours. Students should always seek the advice of their academic adviser before scheduling classes.

Identified Marketable Skills:

Top 3 Local Employers or Industries/Professional Programs/Possible Career Opportunities

Prerequisites/Important Sequences/Other degree Notes:

Note 1 - CORE: Biology majors are required to take specific courses for Core 20, Core 30, and Core 90. For all other core categories, they may select from any available options (see degree checklist). Apart from the major-specific core requirements, there is no set order in which core courses must be taken.

Note 2 - BIOL Electives: Take six biology courses (2000, 3000 or 4000 level) of which five must include laboratories.

Note 3 - Advanced Electives: Additional advanced hours (3000- or 4000-level) to provide a minimum of 39 hours selected from biology, chemistry, biotechnology, environmental science, geology, mathematics or physics. The hours required for individual courses may range from 1-6 depending upon the courses selected. **Advanced hours taken for BIOL Electives count towards these 39 hours.**