

**Lock Haven University**  
**Biological Sciences**  
**Bachelor of Science**  
**Biology: Cellular and Organismal Biology**

Effective Fall 2020

<b>Intellectual Foundation</b>	<b>9 sh</b>
<b>Written Communication</b>	<b>(3 sh)</b>
ENGL100: Composition	3
WC Competency 1	
WC Competency 2	
<b>Oral Communication</b>	<b>(3 sh)</b>
	3
<b>Mathematical and Computational Thinking</b>	<b>(3 sh)</b>
MATH141: Calculus I	3
<b>Critical Thinking</b>	
CT Competency 1	
CT Competency 2	

<b>Knowledge and Inquiry</b>	<b>21 sh</b>
<b>Natural Science Inquiry</b>	<b>(6 sh)</b>
BIOL106: Principles of Biology I	3
BIOL107: Principles of Biology II	3
<b>Historical, Behavioral, and Social Science Inquiry</b>	<b>(6 sh)</b>
	3
	3
<b>Philosophical, Literary, and Aesthetic Inquiry</b>	<b>(9 sh)</b>
(at least one from Visual or Performing Arts)	3
(at least one from Philosophy or Literature)	3
	3

<b>Personal and Social Responsibility</b>	<b>12 sh</b>
<b>Global Awareness and Citizenship</b>	<b>(9 sh)</b>
(at least one GAC-Historical Foundation)	3
	3
	3
<b>Wellness</b>	<b>(3 sh)</b>
	3
<b>Experiential Learning</b>	
EL Competency 1	
EL Competency 2	

<b>Electives</b>	<b>17 sh</b>

<b>First Year Student Seminar</b>	<b>1 sh</b>
SCI119: First Year Seminar	1

<b>Major Area and Cognate Courses</b>	<b>60 sh</b>
<b>Cognate Courses</b>	<b>(28 sh)</b>
CHEM120: Principles of Chemistry I#	4
CHEM121: Principles of Chemistry II#	4
CHEM220: Organic Chemistry I#	4
CHEM221: Organic Chemistry II#	4
CHEM410: Biochemistry I#	4
PHYS130: Physics I#	4
PHYS131: Physics II#	4

<b>Biology Requirements</b>	<b>(32 sh)</b>
<b>Required Biology Courses</b>	[17 sh]
BIOL202: Genetics#	3
BIOL206: Botany#	3
BIOL240: Zoology#	3
BIOL330: Cell & Molecular Biology#	4
BIOL340: Microbiology#	4

<b>Biology Electives</b>	[15 sh]
Take 15 credits of 200-400 level# BIOL courses*	

# Advanced coursework

\*Except BIOL215, BIOL225, and BIOL328.

\*A maximum of 3 credits of BIOL369 count in this category.

\*A maximum of 3 credits of BIOL499 count in this category.

**Lock Haven University**  
**Biological Sciences Department**  
**Bachelor of Science**  
**BIOLOGY: CELLULAR AND ORGANISMAL BIOLOGY**  
**Suggested Course Sequence**

<b>Fall Freshman Year</b>		<b>Spring Freshman Year</b>	
SCI119 First Year Seminar	1	BIOL107 Principles of Biology II	3
BIOL106 Principles of Biology I	3	CHEM121 Principles of Chemistry II	4
CHEM120 Principles of Chemistry I (Must be eligible for MATH113)	4	General Education	3
General Education- MATHxxx (depends on Math Placement test)	3	General Education	3
General Education	3	General Education	3
	-		-
	<b>14</b>		<b>16</b>
<b>Fall Sophomore Year</b>		<b>Spring Sophomore Year</b>	
BIOL206 Botany	3	BIOL202 Genetics	3
CHEM220 Organic Chemistry I	4	CHEM221 Organic Chemistry II	4
PHYS130 Physics I (MATH113 Prerequisite)	4	PHYS131 Physics II	4
General Education	3	General Education	3
	-	General Education	3
	-		-
	<b>14</b>		<b>17</b>
<b>Fall Junior Year</b>		<b>Spring Junior Year</b>	
BIOL340 Microbiology	4	BIOL240 Zoology	3
BIOL330 Cell & Molecular Biology	4	BIOLxxx Biology course	3
BIOLxxx Biology course	3	CHEM410 Biochemistry	4
General Education	3	General Education	3
	-	Electives	3
	-		-
	<b>14</b>		<b>16</b>
<b>Fall Senior Year</b>		<b>Spring Senior Year</b>	
BIOLxxx Biology course	3	BIOLxxx Biology course	3
General Education	3	BIOLxxx Biology course	3
Elective	3	General Education	3
Elective	3	Elective	3
Elective	3	Elective	2
	-		-
	<b>15</b>		<b>14</b>