

# Biology (B.S.) – Pre-Optometry – Foreign Language

2022-2023 Academic Catalog, Bachelor of Science – Biology, Pre-Optometry, Global Emphasis: Foreign Language

## Academic Core for B.S.

**46 Hours**

### **CHRISTIAN STUDIES** **6**

CSBS 1311	Engaging the Old Testament	3
CSBS 1312	Engaging the New Testament	3

### **ENGLISH** **9**

ENGL 1321	Rhetoric & Composition I	3
ENGL 1322	Rhetoric & Composition II	3
ENGL	Literature	3

A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.

### **EXERCISE & SPORT SCIENCE** **2**

EXAC	Activity Course	1
EXAC	Activity Course	1

### **FINE ARTS – SELECT ONE** **3**

ARTS 1350	Art Appreciation	3
COMM 2335	Film Appreciation	3
FINA 2330	Exploring the Fine Arts	3
MUSI 1340	Music Appreciation	3
THEA 2350	Introduction to the Theatre	3

### **WORLD CULTURES – SELECT ONE** **3**

ARTS 2354	World Art	3
EXSS 2353	Lifespan Nutrition	3
HIST 1311	History of World Civilizations to 1500	3
HIST 1312	History of World Civilizations since 1500	3
MUSI 2358	World Music	3
PHIL 2315	Introduction to Philosophy	3

### **LAB SCIENCE** **8**

CHEM 1410	General Chemistry I	4
PHYS 2411	General Physics I	4

### **PUBLIC SPEAKING** **3**

COMM 1320	Public Speaking	3
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### **MATHEMATICS** **3**

MATH 2303	Statistics	3
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### **RESEARCH METHODS OR INTERNSHIP** **2**

BIOL 2170	Research Methods	1
BIOL 2171	Research Methods	1

### **SOCIAL SCIENCE** **3**

PSYC 1301	General Psychology	3
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### **US HISTORY OR US GOVERNMENT – SELECT ONE** **3**

HIST 2311	American History to 1877	3
HIST 2312	American History since 1877	3
POLS 2310	State and Federal Government I	3
POLS 2311	State and Federal Government II	3

### **FRESHMAN SEMINAR** **1**

UMHB 1101	Freshman Seminar	1
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### **GLOBAL EMPHASIS – FOREIGN LANGUAGE** **8**

8 credit hours (2 semesters or the equivalent) in one language 8

### **CHAPEL – 1 to 4 credits**

UMHB 1002	Chapel	
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### **Fine Arts Experience – 2 to 8 credits**

UMHB 1005	Fine Arts Experience	
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## Biology – Pre-Optometry

### **B.S. BIOLOGY MAJOR REQUIRED COURSES – PRE-OPTOMETRY** **36**

BIOL 1090	Freshman Evaluation ( <i>Freshman Only</i> )	0
BIOL 1350	Biomolecules, Genes, and Cells	3
BIOL 1150	Biomolecules, Genes, and Cells Lab	1
BIOL 1360	Organisms, Populations, and Ecosystems	3
BIOL 1160	Organisms, Populations, and Ecosystems Lab	1
BIOL 3310	Genetics	3
BIOL 3110	Genetics Lab	1
BIOL 4090	Senior Evaluation	0
BIOL 4194	Capstone Writing	1
BIOL 4295	Capstone Seminar	2
BIOL 4370	Applied Ecology	3
BIOL 4170	Applied Ecology Lab	1

### **Physiology Electives**

BIOL 2380	Microbiology	3
BIOL 2180	Microbiology Lab	1
BIOL 2340	Human Anatomy & Physiology I	3
BIOL 2140	Human Anatomy & Physiology I Lab	1
BIOL 2341	Human Anatomy & Physiology II	3
BIOL 2141	Human Anatomy & Physiology II Lab	1
BIOL 3375	Human Physiology	3
BIOL 3175	Human Physiology Lab	1

### **Biology Electives**

BIOL	Biology Electives	1
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No grade lower than a "C" will count toward fulfillment of biology major requirements

### **REQUIRED COURSES FOR PRE-OPTOMETRY** **28**

CHEM 1420	General Chemistry II	4
CHEM 3410	Organic Chemistry I	4
CHEM 4430	Biochemistry	4
MATH 1306	College Algebra	3
MATH 1320	Pre Calculus	3
MATH 1330	Calculus	3
PHYS 2412	General Physics II	4
WRIT 3344	Scientific Writing	3

### **Upper Level Electives** **10**

### **Total Hours**

Academic Core for B.S.	46
Global Emphasis – Foreign Language	8
B.S. Biology Major Required Courses	36
Required Courses for Pre-Optometry	28
Upper Level Electives	10
<b>Total hours required for graduation</b>	<b>128</b>

### **Additional Graduation Requirements**

Minimum Upper Level hours	36
Minimum hours taken at UMHB	30
Minimum Upper Level hours taken at UMHB	24
Minimum cumulative GPA	2.0