

Biology (B.S.) – Pre-Optometry

2023-2024 Academic Catalog, Bachelor of Science – Biology, Pre-Optometry

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 – SELECT TWO DIFFERENT COURSES 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
GLBL 2310	Cultural Immersion	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
-----------	-----------------	---

MATHEMATICS 3

MATH 2303	Statistics	3
-----------	------------	---

RESEARCH METHODS OR INTERNSHIP 2

BIOL 2170	Research Methods	1
BIOL 2171	Research Methods	1

SOCIAL SCIENCE 3

PSYC 1301	General Psychology	3
-----------	--------------------	---

US HISTORY OR US GOVERNMENT – SELECT ONE 3

HIST 2311	American History to 1877	3
HIST 2312	American History since 1877	3
POLS 2305	United States Government	3
POLS 2306	Texas State and Local Government	3

FRESHMAN SEMINAR 1

UMHB 1101	Freshman Seminar	1
-----------	------------------	---

CHAPEL – 1 to 4 credits

UMHB 1002	Chapel	
-----------	--------	--

Fine Arts Experience – 2 to 8 credits

UMHB 1005	Fine Arts Experience	
-----------	----------------------	--

Biology – Pre-Optometry 62 Hours

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

BIOL 1090	Freshman Evaluation (<i>Freshman Only</i>)	0
BIOL 1350	Biology for Science Majors I	3
BIOL 1150	Biology for Science Majors I Lab	1
BIOL 1360	Biology for Science Majors II	3
BIOL 1160	Biology for Science Majors II 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
------	-------------------	---

No grade lower than a "C" will count toward fulfillment of Biology major requirements

REQUIRED COURSES FOR PRE-OPTOMETRY 26

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 1430	Calculus	4
PHYS 2412	General Physics II	4

Electives 13 Hours

UPPER LEVEL ELECTIVES 13

You need 13 additional hours to reach your minimum 36 UL required hrs.

Total Hours

Academic Core for B.S.	46
B.S. Biology Major Required Courses	36
Required Courses for Pre-Optometry	26
Upper Level Electives	13
Total hours required for graduation	121

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