



Bachelor of Science in Biology: Pre-Optometry

School of Math, Science and Engineering

PROGRAM OVERVIEW

The Bachelor of Science (B.S.) in Biology program offers a Pre-Optometry concentration for students who plan to pursue optometry school after completing their undergraduate degree. This concentration is specifically designed to meet the prerequisite requirements for optometry school while providing a strong foundation in the biological and physical sciences essential for success in vision healthcare professions.

The Pre-Optometry concentration integrates core scientific concepts with specialized coursework in basic biology, human physiology, microbiology, human systems biology, biochemistry, chemistry, physics, statistics and psychology. Students also complete advanced coursework in vision science and optics, developing a comprehensive understanding of the biological, physiological and physical principles underlying eye health and visual function. This curriculum is aligned with the competencies assessed on the Optometry Admission Test (OAT) and prepares students for rigorous professional study in optometry.

Through challenging coursework, laboratory experiences and faculty mentorship, students develop critical thinking, scientific inquiry and problem-solving skills necessary for success in optometry school and future clinical practice. In addition, academic advising and career counseling are available to guide students through the optometry school application process and support their professional development as future eye care providers.

CONTACT

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LEARN MORE → [UIW.EDU](https://uiw.edu)

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Your Journey.
Our Mission.

Degree Plan

B.S. in Biology: Pre-Optometry

FRESHMAN YEAR

Fall

ENGL 1311: Composition I (3)
MATH 1311: Pre-calculus (3)
FYES 1211: First Year Experience Seminar (2)
BIOL 1402: General Biology I for Majors & Lab (4)
CHEM 1301: Chemistry Principles I (3)
CHEM 1101: Chemistry Principles I Lab (1)

Total Hours: 16

Spring

ENGL 1312: Composition II (3)
MATH 1312: Calculus I (3)
PEHP Activity Course (1)
BIOL 1403: General Biology II for Majors & Lab (4)
CHEM 1302: Chemical Principles II (3)
CHEM 1102: Chemical Principles II Lab (1)

Total Hours: 15

SOPHOMORE YEAR

Fall

ENGL 2310: World Literature (3)
MATH 2303: Intro to Probability & Statistics (3)
CHEM 2311: Organic Chemistry I (3)
CHEM 2111: Organic Chemistry I Lab (1)
BIOL 2321: Anatomy & Physiology I (3)
BIOL 2121: Anatomy & Physiology I Lab (1)

Total Hours: 14

Spring

PSYC 1301: Intro to Psychology (3)
CHEM 2312: Organic Chemistry II (3)
CHEM 2112: Organic Chemistry II Lab (1)
BIOL 2322: Anatomy & Physiology II (3)
BIOL 2122: Anatomy & Physiology II Lab (1)
BIOL 3311: Cell Biology (3)

Total Hours: 14

JUNIOR YEAR

Fall

Modern Language I (3)
PHIL 1381: Intro to Philosophy (3)
PHYS 1301: General Physics I or 2305 Physics I (3)
PHYS 1101: General Physics I Lab or 2105 Physics I Lab (1)
BIOL 4351: Biochemistry I (3)
BIOL 3361: Genetics (3)

Total Hours: 16

Spring

Modern Language II (3)
VISC 3292: Integrated Ocular Science (2)
PHYS 1302: General Physics II or 2306 Physics II (3)
PHYS 1102: General Physics II Lab or 2106 Physics II Lab (1)
BIOL 3442: Ecology (4)
Pre-Optometry Biology Elective: BIOL 4320, 4372, 4380 (3)

Total Hours: 16

SENIOR YEAR

Fall

RELS Core Course (3)
HIST Core Course (3)
VISC 4311: Visual Optics (3)
BIOL 3202: Research Methods in Cell & Molecular Genetics (2)
BIOL 4310: Advanced Human Physiology (3)

Total Hours: 14

Spring

Fine Arts Elective (3)
Upper Division Philosophy or Religion (3)
VISC 3291: Clinical Internship I (2)
BIOL 3471: General Microbiology and Lab (4)
BIOL Elective: 3000 - 4000 (3)

Total Hours: 15

*120 hours needed to complete the B.S. in Biology Pre-Optometry Concentration

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