



# BIO-OPTOMETRY

DEPARTMENT OF BIOLOGICAL SCIENCES  
AT EASTERN ILLINOIS UNIVERSITY

NAME	
E NUMBER	
CATALOG	

SP20

## GENERAL EDUCATION: 30-38 HRS

### LANGUAGE: 9 HRS

Course	Hours	Grade	Semester
ENG 1001G Composition & Language	3		
ENG 1002G Composition & Literature	3		
CMN 1310G Intro to Speech	3		

Grade of "C" or better is required

### SCIENCE AWARENESS: 7HRS

Completed in major.

### MATHEMATICS: 3-5 HRS

Completed in major.

### HUMANITIES/FINE ARTS\*: 9 HRS

Course	Hours	Grade	Semester
Humanities	3		
Fine Arts	3		
Humanities / Fine Arts	3		

## SOCIAL/BEHAVIORAL SCIENCES\*: 9 HRS

Course	Hours	Grade	Semester
PSY 1879G Intro to Psychology	3		
ECN 2800G OR 2801G OR 2802G* Economics of Social Issues/Macro/Micro	3		
SOC 1838G* Intro to Sociology	3		

### SENIOR SEMINAR: 3 HRS

Course	Hours	Grade	Semester
EIU _____	3		

Seminar topic must be outside the major area. See Undergraduate Catalog for Senior Seminars that exclude Biological Sciences majors.

### FOREIGN LANGUAGE: 0-8 HRS

EXEMPT? ☐ YES ☐ NO

Exempt if 2yrs in high school of a single foreign language with average grade of "C" or better.

Course	Hours	Grade	Semester

\* One course must meet Cultural Diversity requirement.

## SCIENCE CORE: 51-53 HRS

Biology Courses	Hours	Grade	Semester
BIO 1150 Biology Forum	1		
BIO 1500 General Biology I	4		
BIO 1550G* General Biology II	4		
BIO 3120* Molecular & Cell Biology	4		
BIO 3200* Genetics	4		
BIO 2220* Anatomy & Physiology II	4		
BIO 3180* Ecology and Evolution	4		
Physics Courses	Hours	Grade	Semester
PHY 1151G* Principles Physics I	3		
PHY 1152G* Principles Physics I Lab	1		
PHY 1161G* Principles Physics II	3		
PHY 1162G* Principles Physics II Lab	1		

Math Courses	Hours	Grade	Semester
MAT 2110G Brief Calculus	3		
MAT 2250G* Elementary Statistics	4		
Chemistry Courses	Hours	Grade	Semester
CHM 1310G General Chemistry I	3		
CHM 1315G General Chemistry I Lab	1		
CHM 1410* General Chemistry II	3		
CHM 1415* General Chemistry II Lab	1		
CHM 2440 Organic Chemistry I	3		
CHM 2445 Organic Chemistry I Lab	1		

\*Additional prerequisite classes may be required. See Undergraduate Catalog

\*BIO 2210 (Anatomy and Physiology I) prerequisite. BIO 2210 counts as BIO elective credit.

\*Required by some optometry schools

\*Recommended by some optometry schools

Departmental Exit Interview is also required prior to leaving EIU.

## MAJOR ELECTIVES: 21 HRS

21 hours of course work in Biological Sciences (with the exception of BIO 3400, workshops, and courses designed for General Education) or Mathematics or Physical Sciences courses above 2000 (with the exception of general education and CHM 2310). A minimum of 15 hrs must be taken in Biological Sciences.

Course	Hours	Grade	Semester
BIO 2210 Anatomy and Physiology I	4		
BIO 3300# General Microbiology	4		
CHM 2840 Organic Chemistry II	4		
CHM 3450* Biochemistry	4		

BIO 2210 (4) Anatomy and Physiology I  
BIO 3210 (4) Immunology  
BIO 3300 (4) General Microbiology  
BIO 3312 (3) Horticulture  
BIO 3322 (3) Dendrology  
BIO 3450 (1-3) Independent Study  
BIO 3451 (1-3) Undergraduate Research

BIO 3610 (3) Survey of Algae & Fungi  
BIO 3612 (3) Plant Evolution & Diversity  
BIO 3620 (4) Funct. Comp. Anatomy  
BIO 3622 (4) Embryology  
BIO 3624 (3) Histology  
BIO 3628 (4) Evolutionary Medicine  
BIO 3690 (4) Clinical Rotation  
BIO 3700 (4) Parasitology  
BIO 3710 (3) Plant-Animal Interactions  
BIO 3720 (4) Entomology  
BIO 3740 (3) Clinical Mycology  
BIO 3810 (3) Freshwater Ecology  
BIO 3850 (3) Environmental Biology  
BIO 3888G (3) Tropical/Marine Ecology

BIO 3950 (3) Vertebrate Natural History  
BIO 3952 (3) Invertebrate Natural History  
BIO 3960 (1-4) Special Topics  
BIO 4400 (1) Teaching in the Lab  
BIO 4751 (3) Adv. Molec. & Cell Biol.  
BIO 4800 (2) Research Techniques  
BIO 4810 (4) Plant Ecology  
BIO 4812 (3) Fisheries Ecology & Mgmt  
BIO 4814 (3) Conservation Biology  
BIO 4816 (3) Biotic Communities  
BIO 4818 (4) Environmental Microbiology  
BIO 4820 (4) Spatial Analysis for Environmental Sciences  
BIO 4830 (3) Comp. Vertebrate Physiology  
BIO 4832 (4) Animal Behavior  
BIO 4833 (4) Neurobiology of Diseases  
BIO 4834 (3) Neurobiology  
BIO 4835 (3) Advanced Neurobiology  
BIO 4836 (4) Pathogenic Microbiology

BIO 4892 (4) Intro. Paleobotany  
BIO 4914 (3) Plant Anatomy  
BIO 4920 (3) Medicinal Plants  
BIO 4940 (3) Phycology  
BIO 4942 (3) Mycology  
BIO 4944 (3) Lichens  
BIO 4946 (3) Bryology  
BIO 4948 (3) Plant Taxonomy  
BIO 4950 (3) Ichthyology  
BIO 4952 (3) Herpetology  
BIO 4954 (3) Ornithology  
BIO 4956 (3) Mammalogy  
BIO 4960 (3) Wetland & Aqua. Vasc. Plants  
BIO 4984 (3) Organic Evolution

Courses numbered 5000-5499 inclusive, may be taken by a senior whose graduation requirements average 2.75 or higher, with the permission of the instructor and the Dean of the Graduate School.

**BE PREPARED: UPDATE THIS FORM BEFORE MEETING WITH YOUR ADVISOR**

Some people will tell you that doctors of optometry diagnose and treat disorders of the eye. What optometrists really do – each and every day – is make a real difference in real lives. Optometrists reveal new vistas, return lost joys, empower greater achievement, and preserve un-lived lives. That's what optometrists do.

Doctors of Optometry complete a four-year doctoral program to earn the Doctor of Optometry (O.D.) degree.

Admission is very competitive and each optometry program has slightly different criteria. **It is important to review the pre-requisites for each school and identify which program you wish to apply and plan accordingly.** On average students should maintain a grade point average near 3.40/4.00 or higher, demonstrate leadership skills, expose yourself to the world of optometry, and perform well on the Optometry Admission Test (OAT).

## WHAT MAKES YOU UNIQUE FROM OTHER APPLICANTS?

### Optometric Experience

- *Volunteer or work experience with a specialist is beneficial.*

### Leadership Experience

*Optometrists are leaders in their communities and demonstrated leadership skills are a must. Campus, church, and community organizations provide excellent leadership opportunities.*

## RESOURCES:

**Assoc. of Schools and Colleges of Optometry** [www.opted.org](http://www.opted.org)

**OAT** [www.ada.org/oat/index.html](http://www.ada.org/oat/index.html)

**Southern College of Optometry (Memphis)**

[www.sco.edu/admissions/Pages/prerequisitecourses.aspx](http://www.sco.edu/admissions/Pages/prerequisitecourses.aspx)

**Illinois College of Optometry**

[www.ico.edu/admissions/apply/preopt\\_requirements.html](http://www.ico.edu/admissions/apply/preopt_requirements.html)

**St. Louis College of Optometry**

[www.umsl.edu/~optometry/students/prospstudpag.html](http://www.umsl.edu/~optometry/students/prospstudpag.html)

**Ohio State College of Optometry**

[optometry.osu.edu/futureStudents/requirements.cfm](http://optometry.osu.edu/futureStudents/requirements.cfm)

**Indiana College of Optometry**

[www.opt.indiana.edu/programs/od/prereqs.htm](http://www.opt.indiana.edu/programs/od/prereqs.htm)

**Chicago College of Optometry (Midwestern)**

[www.midwestern.edu/academics/our-colleges/chicago-college-of-optometry.xml](http://www.midwestern.edu/academics/our-colleges/chicago-college-of-optometry.xml)

## SAMPLE COURSE SEQUENCE:

The suggested sequence assumes that the foreign language requirement has been completed.

FRESHMAN	
FALL	SPRING
ENG 1001G BIO 1500 CHM 1310G/1315G BIO 1150 PSY 1879G	ENG 1002G BIO 1550G CHM 1410G/1415G SOC 1838G MAT Prereq or Stats
SOPHOMORE	
FALL	SPRING
BIO 3120 CHM 2440/2445 MAT 2110G Gen Ed Elective	BIO 3200 CHM 2840/2845 BIO 2210 Gen Ed Elective
JUNIOR	
FALL	SPRING
BIO 2220 PHY 1151G/1152G (Fall ONLY) CHM 3450 (Fall ONLY) BIO Elective >3000 OAT Prep	BIO 4750 OR MAT 2250G (if not taken in FRESHMAN SPR) PHY 1161/1162 CMN 1310G BIO Elective >3000 OAT Exam/Apply to Optometry School
SENIOR	
FALL	SPRING
EIU 4*** BIO Elective >3000 Gen Ed Elective Free Elective Optometry School Admission Interviews	BIO 3180 BIO Elective >3000 Gen Ed Elective Free Elective Exit Interview

