Pre-Requisite Coursework for Optometry School

**PRE-HEALTH**  Brian Clinton, Lecturer/Pre-Health Advisor, Brian_Clinton@uri.edu
**ADVISING:**  Schedule appointments via e-Campus advising: Click on “Professional/Honors” tab located at top-right.

**Prerequisites for optometry programs vary by school.** This worksheet is only a guide to the requirements of most programs, and you are advised to work closely with the pre-health advisor as you pursue a pre-optometry curriculum. The following pre-requisite courses should be completed before applying to optometry school and before taking the required entrance examination (OAT). It is strongly recommended that the courses listed below be taken during the regular semesters at URI (not summer and not online). Note: Many schools require a C or better in the pre-requisite courses.

**Pre-Admission Clinical Experience (shadowing):** A critical component of a competitive optometry school applicant is prior clinical experience. Each applicant should become acquainted with at least one optometrist and, if possible, obtain some first-hand experience to see what optometrists do on a daily basis. It is recommended that students begin clinical experiences as early in their academic career as possible.

**BIOLOGICAL SCIENCES:** Two semesters are required. Additional upper-level coursework in biology is often required. The minimum recommendation is:

___ BIO 101/103 (3+1 credits)  AND  ___ BIO 102/104 (3+1 credits)

**ANATOMY & PHYSIOLOGY:** Either required or recommended by all programs.
___ BIO 121* (4 credits)  AND  ___ BIO 242* w/ 244 (3+1 credits)
*Open to bio, kinesiology, nursing, pharmacy, pre-physical therapy, clinical lab science, dietetics, and biomedical engineering majors only.

**CHEMISTRY:**
Two semesters of general chemistry:
___ CHM 101 w/ 102 (3+1 credits)  AND  ___ CHM 124 w/ 126 (3+1 credits)
___ CHM 112 w/ 114 (3+1 credits)  OR  ___ CHM 227, 228 w/ 226 (3+3+2 credits)

**BIOCHEMISTRY:** Required by most programs.  ___ BCH 311 (3 credits)  *Pre-req: One semester organic chemistry

**MICROBIOLOGY:** Required by most programs.  ___ MIC 211 (4 credits)

**MATHEMATICS/STATISTICS:** The majority of programs require one semester of calculus and one semester of statistics. (A small number of programs [two] require 6 credits of math, including 3 credits of calculus.)
___ MTH 131 or 141 (Calculus - 3 credits)  AND  ___ STA 308 (Intro Statistics - 4 credits)

**PHYSICS:** Two semesters are required. The three-course sequence of PHY 203/204/205 with labs may be substituted.
___ PHY 111 w/ 185 (3+1 credits)  AND  ___ PHY 112 w/ 186 (3+1 credits)

**ENGLISH:** Two courses are required and, with careful planning, may fulfill general education requirements (see reverse).
___ WRT 104, 105, or 106 (3 credits)  ___ An upper-level ENG (3-4 credits) [not poetry]

**SOCIAL SCIENCES:** Requirements vary but often include 6 credits of coursework in the behavioral/social sciences (e.g., psychology, sociology, anthropology, economics, history, political science), often with one semester specified of (general) psychology. Two courses are recommended and, with careful planning, may fulfill general education requirements (see reverse):
___ PSY 113^ AND  ___ PSY 232^*, 254^*, 255^; SOC 100^, 224; or other related (see reverse)
^Social science gen ed  *Pre-req: PSY 113

**HUMANITIES:** Requirements vary but often include 6 credits of humanities coursework (e.g., art, history, philosophy, religion, English, communication, languages, theater). Two courses are recommended and, with careful planning, may fulfill general education requirements (see reverse for courses to consider).

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"Pre-Health/Pre-Optometry" is not a major, and students from any major can opt to follow a pre-optometry curriculum in conjunction with their major and general education requirements. Optometry schools expect applicants to pursue a challenging, broad-based undergraduate education. However, you should be careful to never take more credits than you can manage successfully.

Students preparing for optometry school must complete all requirements for their chosen major, general education requirements, and the pre-requisites listed above. In addition to (or in conjunction with) those requirements, the courses listed below are wise choices for students preparing for a health profession. Pre-health students are also strongly encouraged to participate in the Honors Program.

OTHER SUGGESTED COURSEWORK:
(plus labs as required)

**Strongly recommended, but not required:**
BIO 327 Vertebrate Histology
BIO 341 Cell Bio
BIO 352 Genetics
PHL 212 Ethics (L)
BUS 110 Business Computing Applications
BUS 140 Introduction to Business
MIC 333 Immunology and Serology

**Other good options, not required:**
BIO 201 Animal Physiology
BPS 201 How Drugs Work (N)
BPS 203 Herbal Medicines and Functional Foods (N)
MIC 491/BCH 491 Research in Microbiology or Biochemistry
NFS 207 General Nutrition or NSF 210 Applied Gen. Nutrition (N)

**Note:** Courses marked with (A), (L), (S), or (N) may fulfill fine arts and literature, letters, social science, or natural science general education requirements, respectively. For students pursuing a Bachelor of Arts, be mindful of the one-course-per-discipline rule, i.e., you may not have all six credits come from the same course code.

In addition to strong academics and entrance exam scores, applicants to optometry programs are expected to have shadowed practitioners, sought out other medically-related experiences, and demonstrated a strong desire to serve others. Research experience is not required, but competitive applicants often partake in research.

Students planning to pursue a pre-optometry curriculum should regularly attend workshops and events offered by the Pre-Health Professions Advising Program.

HEALTH PROFESSIONS ADVISORY COMMITTEE:
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Most optometry schools require that a committee letter of recommendation from the home institution accompany a student’s application for admission. To seek such endorsement, students must provide the Health Professions Advisory Committee (HPAC) with a dossier including five letters of recommendation (3 from science faculty) in the early spring of the calendar year prior to the year in which they plan to commence their optometry program (i.e., 16-18 months prior to entry).

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