

The following is a generic two-year Pre-Optometry course schedule applicable to a student planning to major in the sciences.

Sample Schedule

Freshman Year 1st Semester

GEP 101 First Year Foundations	2 hrs
BMS 110 Intro to BMS or BIO 121 Gen Bio	3 or 4 hrs
CHM 160 Gen Chem I	4 hrs
CHM 161 Gen Chem Lab I	1 hrs
ENG 110 Writing I or COM 115 Fund. of Public Speaking	3 hrs
MTH 136 Precalculus I	3 hrs

Freshman Year 2nd Semester

CHM 170 Gen Chem II	3 hrs
CHM 171 Gen Chem Lab II	1 hrs
ENG 110 Writing I or COM 115 Fund. of Public Speaking	3 hrs
BIO 122 Gen Bio II or BIO 235 Genetics	3 hrs
MTH 137 Precalculus II	3 hrs

Sophomore Year 1st Semester

CHM 342 Organic Chem I	5 hrs
MTH 261 Analytic Geometry & Calculus I	3 hrs
BMS 307 Human Anatomy	4 hrs
ENG 210 Writing II Across the Disciplines or	
ENG 221 Writing II for Professions	3 hrs
Gen Ed Elective	3 hrs

Sophomore Year 2nd Semester

CHM 343 Organic Chem II	5 hrs
PHY 123 Intro to Physics -OR-	4 hrs
PHY 203 Foundation of Physics	5 hrs
PSY 121 Intro. to Psychology	3 hrs
MTH 280 Analytical Geom & Calc II -OR-	
MTH 288 Computational Calc II	3 hrs
General Education Electives	3 h

Junior and Senior Years

A student following the above schedule would take PHY 124 Intro to Phys II (4hrs) or PHY 204 Foundation of Phys II (5 hrs) and BIO 310 (Microbiology, 5 hrs) during the first semester of the junior year. Specific schedules should be made in consultation with your advisor.



General Ed Electives

- Public Affairs: US and MO constitution (6 hrs, PLS 101 American Democracy and Citizenship (3 hrs) is required)
- Public Affairs: Cultural Competence (3 hrs)
- Public Affairs: Public Issues (3 hrs)
- Human Cultures: Soc/Behav. Sci (3 hrs)
- Human Cultures: Humanities (3 hrs)
- Human Cultures: The Arts (3 hrs)



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Pre-Optometry Fact Sheet

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Career Preparation

Optometrists are members of the primary general health team who specialize in the examination, diagnosis and treatment of conditions or impairments in the vision system. They are non-medical doctors who study for four years in a college of optometry, the first two years of which emphasize classroom and laboratory work in the basic life sciences and physical sciences, while the remaining two years are composed primarily of supervised patient care in hospitals, private practices and clinics. This curriculum leads to the Doctor of Optometry (O.D.) degree. Optometrists must be licensed by the state. Since the optometrist is not a medical doctor, he or she cannot treat the eye surgically, with the exception of a few procedures currently sanctioned in a few states. However, an optometrist can be licensed to administer some diagnostic and therapeutic drugs relevant to vision care.

The optometrist prescribes corrective ophthalmic lenses, contact lenses or other optical aids, as well as other vision therapy to restore and preserve

maximum efficiency of vision. Optometrists can practice in a variety of settings, including solo and group practice, hospitals and clinics, government and public health institutions, community health centers and the military. Within these settings, optometrists engage in primary care practice, or they can emphasize within their practice such areas as scientific research and teaching, pediatrics, contact lenses, sports vision therapy, geriatrics and occupational vision.

Academic Program

Undergraduate requirements for entry into one of the nation's schools of optometry vary somewhat with the specific school considered but always consist of selected courses in the life sciences, chemistry, mathematics and physics in addition to general education courses. Most pre-optometry students major in one of the following departments: Biology, Biomedical Sciences, Chemistry, Psychology or Physics, Astronomy and Materials Science. There are a number of elective courses that help prepare the student for the profession regardless of the student's choice of a particular major. Students planning to apply to optometry school need to work closely with a Pre-Optometry advisor in addition to the advisor of their academic major. The roles of the Pre-Optometry advisor are to assist in recommending the sequence of

coursework, in selecting appropriate electives, in communicating professional information and recommendations and in serving as the primary professional and academic reference in the optometry school admission process.

Courses

A typical Pre-Optometry curriculum requires one year of life sciences, one year of general chemistry, one year of organic chemistry, one semester of microbiology, one year of physics, one semester each of calculus and statistics and one course in psychology in addition to the usual general education requirements. Admission to optometry school also is dependent on the student completing significant additional elective coursework in the sciences. These electives are intended primarily to help prepare students for the intense coursework in chemistry, the life sciences and physics taken during the first two years of optometry school and secondarily to prepare the applicant for the Optometry Admissions Test (OAT), which is usually taken late in the junior year or early in the senior year. Please consult the Missouri State Catalog online at www.missouristate.edu/catalog for specific course information.

Potentially useful websites for Pre-Optometry students

- American Academy of Optometry
- Association of Schools and Colleges of Optometry
- Primary Care Optometry News
- Association of Schools and Colleges of Optometry
- Optometry Centralized Application Service (OptomCAS)
- Oat Prep Test Review



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