



## Checklist for Bachelor of Science Degree in Biology, Pre-health Sciences Option

**Bachelor of Science in Biology, Pre-Health Sciences Track — Includes: Pre-Dental, Pre-Medical, Pre-Optometry, Pre-Osteopathy, Pre-Pharmacy, Pre-Physical Therapy, Pre-Physician Assistant, and Pre-Veterinary**

### Highly Recommended Courses

- BIO1023 General Biology for Majors
- BIO1021 Introduction to Biology Laboratory
- CHM1034 General Chemistry for Non-Majors
- CHM1044 General Organic and Biochemistry for Non-Majors

### Required Courses

- BIO2104 General Botany
- BIO2114 General Zoology

Note: Biology majors are required to enroll in and successfully complete botany (BIO2104) and zoology (BIO2114) within their first four semesters at HSU. Students must meet with their departmental advisor to determine the schedule appropriate for them.

- BIO2094 Microbiology
- BIO3054 Genetics
- BIO3524 General Ecology
- BIO4214 Cell Biology
- BIO3084 Comparative Anatomy and Evolution of Vertebrates
- BIO3314 Animal Physiology
- \*BIO3544 Human Anatomy and Physiology I
- \*BIO3554 Human Anatomy and Physiology II

\*Two semesters of Human Anatomy and Physiology (BIO3544 and BIO3554) are required to satisfy the physiology and anatomy requirement.

### Choose ONE (1) of the following upper-level electives

- BIO4414 Infection and Immunity
- BIO4563 Biology of Cancer
- BIO4194 Histology

### Additional Requirements

- CHM 1014, 1024 University Chemistry I and II
- CHM 3063, 3073 Organic Chemistry I and II
- CHM 3051, 3131 Organic Chemistry I and II Laboratories
- MTH 1243 College Algebra (or higher level math) AND
- STA 2053 Applied Biostatistics or equivalent/more advanced course, with departmental approval
- PHY 2034, 2044 General Physics I and II

Total hours required for a major in biology, pre-health sciences track:.....73-75 hours

Biology Courses: 43-44 hours

Physical Science and Mathematics Courses: 30-31 hours

Students should investigate the admissions requirements for the dental, medical, veterinary, etc. school(s) that they wish to attend post-graduation from HSU.

Note: CHM4283 Biochemistry I also is required for students planning to attend dental, medical, or optometry school (see specific notes under degree plan on subsequent page for additional details). MTH1295 Calculus I is required for students planning to attend pharmacy school.

Students must have a "C" grade or better in all courses in the major field and also in the courses listed as "additional requirements."

The biology department highly recommends that students achieve competence in the use of computers for word processing, graph and spreadsheet construction, and PowerPoint presentations before enrolling in upper-level courses. Students should consider enrolling in Introduction to Computers (CSC 2003) if their background in computer use is weak.