

Biology – Pre-Professional Pathways Pre-Medical/Dental; Pre-Veterinary Medicine; Pre-Physician Assistant

Degree Awarded: Bachelor of Science

Requirements for the Major: 53-68 credits, plus 3 prerequisite credits

The B.S. in Biology is designed for students seeking entry into a post-baccalaureate program focused on allied health including medicine, dentistry, physician assistant, podiatry, and veterinary medicine. Admission to these programs requires a broad foundation in the biological sciences and specialization in upper-level courses. Students complete courses that satisfy the requirements for the B.S. in Biology, satisfy the minimum requirements for entry to graduate schools and provide background to prepare for the Medical College Admission Test (MCAT), Dental Admission Test (DAT), or the Graduate Record Examination (GRE).

Students are prepared for their advanced degree program applications with course-based informational sessions and one-on-one mentoring. The goal is to help the student prepare application materials, reflect upon their own individual vocation pathway in allied health, and practice interview skills. In addition, students will master advanced concepts and abilities to improve performance upon entry into such programs. To tailor a program of study that meets an individual student's choice in post-baccalaureate program, the student is expected to work closely with a faculty advisor.

Graduates with a B.S. in Biology can also seek employment in various biology-related fields, such as technical, clinical and laboratory-based environments as a research technician or technologist, including within the field of medicine. Students in this program select from one of three pathways, but no more than one pathway.

Transfer credit for Biology courses must be taken within the last 10 years.

Prerequisite courses for the major:

Essential Competencies-Outcome Iterations **Transfer courses do not receive outcome iterations**

| | | | CI | IL | W | 0 | Q | GA | ٧ |
|----------|-----------------|---|----|----|---|---|---|----|---|
| MATH 121 | College Algebra | 3 | х | | | | х | | |

Requirements for the Major:

Essential Competencies-Outcome Iterations **Transfer courses do not receive outcome iterations**

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|-------------|-----------------------------|------|--|----|---|---|---|----|---|--|--|--|--|
| | | | CI | IL | W | 0 | Q | GA | ٧ | | | | |
| BIOL 101 | General Biology I | 4 | Х | | Х | | | | | | | | |
| BIOL 102 | General Biology II | 4 | Х | Х | Х | | | | | | | | |
| BIOL 150 | Careers in Biology | 1 | | | | | | | Х | | | | |
| BIOL 250 | Journal Club | 1 | | | | | | | | | | | |
| BIOL 251 | Pre-Medical/Dental Seminar | 1 | | | | | | | | | | | |
| BIOL 252 | Pre-Medical/Dental Seminar | 1 | | | | | | | | | | | |
| BIOL 256 | Microbiology | 4 | Х | | | | | | | | | | |
| BIOL 335 | Physiology | 4 | | | | | | | | | | | |
| BIOL 360 | Genetics | 4 | | | | | Х | Х | | | | | |
| BIOL 420 | Gross Anatomy | 4 | | | | | | | | | | | |
| BIOL 450 | Senior Seminar | 2 | | Х | Х | Х | | | Х | | | | |
| CHEM 111 | General Chemistry I | 4 | Х | | | | Х | | | | | | |
| CHEM 112 | General Chemistry II | 4 | | | | | | | | | | | |
| CHEM 321 | Organic Chemistry I | 5 | | | | | | | | | | | |
| CHEM 351 | Biochemistry | 3 | | | | | | | | | | | |
| STAT 241 or | Principles of Statistics or | 4 or | Х | | | | Х | | | | | | |
| STAT 261 | Applied Statistics | 3 | | | | | Х | Х | | | | | |

Take two courses from the following:

Essential Competencies-Outcome Iterations **Transfer courses do not receive outcome iterations**

| | | | CI | IL | W | 0 | Q | GA | V |
|----------|--|-----|----|----|---|---|---|----|---|
| BIOL 140 | Introduction to Nutrition | 3 | Х | | | | | Х | |
| BIOL 380 | Cell Biology | 4 | | | | Х | Х | | |
| BIOL 410 | Histology | 4 | | | | | | | |
| BIOL 415 | Molecular Biology | 4 | | | | | | | |
| BIOL 425 | Reproductive and Developmental Biology | 3 | | | | | | | |
| BIOL 444 | Immunology | 3 | | | | | | | |
| BIOL 499 | Research in Biology | 1-3 | | | | | | | |

Select one of the following pathways:

Pre-Medical/Pre-Dental Pathway

| PHYS 131 or PHYS 241 | General Physics I or Classical Physics I | 4 or 5 | Х | | | х | |
|-------------------------|---|-----------|---|--|--|---|--|
| PHYS 132 or PHYS 242 | General Physics II or Classical Physics II | 4 or 5 | | | | | |

Pre-Physician Assistant Pathway

| No additional courses are needed | |
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Pre-Veterinary Medicine Pathway

| PHYS 131 or | General Physics I or | 4 or | | | | | |
|-------------|----------------------|------|---|--|--|---|-----|
| PHYS 241 | Classical Physics I | 5 | Х | | | Х | ł l |

These courses required for the major and the chosen Pathway will be counted in computing the 2.20 GPA for the major.