# ACADEMIC PLANNING GUIDE - BIOMEDICAL SCIENCES

Effective with 2018-2019 Catalog

## MAJOR REQUIREMENTS

### Required Semester Hours:
- **B.A.:** 36 semester hours + 12 prerequisite semester hours
- **B.S.:** 44 semester hours + 12 prerequisite semester hours

### Prerequisites and Supporting Courses: 12 semester hours

**Both B.A. & B.S. Degrees:**
- CHEM 1150: General Chemistry I (4) - meets Physical Science Requirement
- CHEM 1160: General Chemistry II (4)

**B.A. Degree:**
- One of the following:
  - CHEM 2310: Organic Chemistry I (4)
  - CHEM 1021/1031: Survey of Organic Chemistry (2) / Survey or Biochemistry (2)

**B.S. Degree:**
- CHEM 2310: Organic Chemistry (4)

### Required Core Courses: B.A. degree: 20 semester hours, B.S. degree: 28 semester hours

**Both B.A. & B.S. Degrees:**
- BIOL 1250: Introduction to Human Anatomy (4) - meets Life Science Requirement
- BIOL 1260: Introduction to Cell Biology (4) - meets Writing Intensive Course Requirement
- BIOL 4901: Comprehensive Examination (0)

**B.A. Degree:**
- One course from each alternative:
  - BIOL 2270: Introduction to Zoology (4) - WR or BIOL 2280: Introduction to Botany (4) - WR
  - BIOL 2910: Microbiology (4) or BIOL 2930: Advanced Human Physiology (4)
  - BIOL 2930: Advanced Human Physiology (4)
  - BIOL 2910: Microbiology (4) or BIOL 2270: Introduction to Zoology (4) - WR or BIOL 2280: Introduction to Botany (4) - WR
  - BIOL 3210: Genetics (4) or BIOL 3230: Molecular Biology (4)

**B.S. Degree:**
- BIOL 3210: Genetics (4)
- BIOL 3230: Molecular Biology (4)

**Elective Courses: 16 semester hours**
- BIOL 2100: Topics (2)
- BIOL 2360: Medical Terminology (2)
- BIOL 2950: Medical Parasitology (2)
- BIOL 3140: Histology (4)
- BIOL 3160: Exercise Physiology (4)
- BIOL 3290: Bioinformatics (2)
- BIOL 3510: Embryology (4)
- BIOL 3530: Neuroscience (4)
- BIOL 3610: Medical Microbiology (2)
- BIOL 3620: Immunology (2)
- B.A. Only: BIOL 4930: Directed Research in BIOL (2-4)
- B.A. Only: BIOL 4970: Internship in BIOL (1-4)

### Notes:
- Students must take a national biology comprehensive exam (BIOL 4901) during their last semester of full-time enrollment.
- Biology Internship (BIOL 4970) and Directed Research (BIOL 4930) requires a GPA of 3.00 in biology courses at North Park.
- Students are strongly advised to take BIOL 3010: Ethics in Biology.
- Only 4 sh of directed research or internship can count toward the major.
- Students interested in graduate programs should talk to their advisors about potential prerequisite courses in physics, chemistry, etc.
- A student completing both Genetics and Molecular Biology will have one of the courses counted toward the semester hours of electives. A B.A. student completing both Advanced Human Physiology and Microbiology will have one of the courses counted toward the semester hours of electives.

The Academic Planning Guide is designed as a guide for students planning their course selections. The information on this page provides only a suggested schedule. Actual course selections should be made with the advice and consent of a faculty advisor. While accurately portraying the information contained in the college catalog, this form is not considered a legal substitute for that document. Students should become familiar with the catalog in effect at the time in which they entered the institution.
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### CORE CURRICULUM

Starting with the framework of North Park’s identity as a Christian, liberal arts institution, our Core Curriculum is intentionally multi-disciplinary and multi-year. It is set up as a progress through three areas: Foundation Courses, Explorations Courses, and Capstone Courses.

[http://www.northpark.edu/Academics/Undergraduate-Studies/Core-Curriculum](http://www.northpark.edu/Academics/Undergraduate-Studies/Core-Curriculum)

<table>
<thead>
<tr>
<th>Foundations</th>
<th>Explorations</th>
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<tbody>
<tr>
<td>Preparing for more in-depth work in both the Core Curriculum and your major</td>
<td>Knowledge in specific disciplines, with strong emphasis on how you can use them in the context of your own life</td>
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<tr>
<td>Cornerstone Seminar (4sh)</td>
<td>Art and Aesthetics (2sh)</td>
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<tr>
<td>Biblical Studies (4sh)</td>
<td>Christian Life &amp; Thought (4sh)</td>
</tr>
<tr>
<td>Health and Well-Being (2sh)</td>
<td>Life Science (2sh/lab)</td>
</tr>
<tr>
<td>Analytical &amp; Quantitative Reasoning (4sh)</td>
<td>Physical Science (2sh/lab)</td>
</tr>
<tr>
<td>Global Histories (4sh)</td>
<td>Culture and Society (4sh)</td>
</tr>
<tr>
<td>Modern Languages (8sh)</td>
<td>Ethical Reasoning (2sh)</td>
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<tr>
<td></td>
<td>BIOL 3010 is suggested</td>
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### Intermediate Level Writing

Two courses in the context of your major that specifically address writing clearly and doing effective research

<table>
<thead>
<tr>
<th>Writing Intensive Course (4sh)</th>
<th>Research Writing Course (4sh)</th>
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<tbody>
<tr>
<td>met by BIOL 1260</td>
<td>met by BIOL 2270 or BIOL 2280</td>
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### Keystone

Interdisciplinary integration of skills and knowledge applied to contemporary social issues

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<tr>
<th>Keystone Seminar (4sh)</th>
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