## 2015-2016 B.S. Biology – Pre-Health Concentration

**A. Core Foundations**

<table>
<thead>
<tr>
<th>Corecourse</th>
<th>ID #</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE 101</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE 102</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HNRS 103*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE 201</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE 202</td>
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</tr>
</tbody>
</table>

**NOTE:** Courses listed in multiple areas can only be used to fulfill a single area requirement.

Students can use only one course with their major prefix to fulfill core requirements.

* Honors course – will meet CORE 101 & 102 for those students in the RU honors program.

### Pre-Health CONCENTRATION

<table>
<thead>
<tr>
<th>Course</th>
<th>ID #</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 160*</td>
<td></td>
<td>(2)</td>
</tr>
<tr>
<td>BIOL 460*</td>
<td></td>
<td>(2)</td>
</tr>
<tr>
<td>CHEM 101</td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td>CHEM 102</td>
<td></td>
<td>(4)</td>
</tr>
<tr>
<td>STAT 219</td>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td>MATH 119/138/151</td>
<td></td>
<td>(3)</td>
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</tbody>
</table>

**Preparatory Course:**

- **ECOL 101**: Ecology and Adaptation
- **ECOL 102**: Ecology of Cells and Microorganisms
- **ECOL 231**: Genetics, Evolution, and Development

**Preparation for Major:**

**B. Core Skills & Knowledge**

- **Courses must be from different disciplines:**
  - MATHEMATICAL SCIENCES (3 SH)
  - MATH 119, 138, or 151
- **NATURAL SCIENCES (4 SH)**
  - CHEM 101
- **HUMANITIES (3 SH)**
  - One of the following:
    - CLS 110
    - ENGL 200
  - ART 100, 215, 216
- **VISUAL & PERFORMING ARTS (3 SH)**
  - CVPA 266 DNCE 111
  - THEA 100, 180
- **SOCIAL/BEHAV. SCIENCES (3 SH)**
  - One of the following:
    - ANSC 101
    - APST 200

**B. National & International Perspectives**

- **Courses must be from different disciplines:**
  - U.S. PERSPECTIVES (3 SH)
  - One of the following:
    - APST 200
    - ECON 101, 105, 106
    - ENGL 203 GEOG 201, 202, 203
    - HIST 111
    - SOCY 110

**B. Supporting Skills & Knowledge**

- **NATURAL SCIENCES OR MATH (3-4 SH)**
  - STAT 219
- **HUMANITIES, VISUAL & PERFORMING ARTS, OR FOREIGN LANGUAGES (3-4 SH)**
  - One of the following:
    - CLS 110
    - ENGL 200
    - HIST 101, 102
    - PHIL 111, 112, 114
    - POSC 111, 112, 203, 206

**Physics Requirement**

- **Choose one of the following two combinations:**
  - PHYS 111/112
  - PHYS 221/222

**Microscopic Biology Requirement**

- **Choose one of the below options:**
  - BIOL 408: Principles of Microbiology
  - BIOL 450: Molecular Biology

**Physiology Requirement**

- **BIOL 410:411**: Human Anatomy and Physiology for Science Majors I and II

**Biochemistry Requirement**

- **BIOL 471**: Biochemistry
  - BIOL 472: Biochemistry II

**A minimum of 7 credit hours chosen from the below courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>ID #</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 301 Bioethics</td>
<td></td>
<td></td>
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<tr>
<td>BIOL 337 Immunology</td>
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<td></td>
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<tr>
<td>BIOL 351 Comparative Animal Physiology</td>
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<tr>
<td>BIOL 361 Parasitology</td>
<td></td>
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<tr>
<td>BIOL 405 Histology</td>
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<td></td>
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<tr>
<td>BIOL 408 Principles of Microbiology</td>
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<tr>
<td>BIOL 409 Virology</td>
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*BIOL 472 is not required but highly recommended

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**Transfer students or others who do not take BIOL 160 must take 4 hours of BIOL 460 (2:2) or 2 hours BIOL 460 plus one additional 3XX/4XX level BIOL elective (excluding BIOL 310, 311, 322, 334, 491, 492 and 495).**

**Prerequisites (BIOL prerequisites require “C” or better)**

- Freshmen only
- BIOL 131, 132, 231, and 232 (232 may be concurrent)

- **APST 200**: ENGL 105, 106, GEOG 101, 102, 103
- **HIST 111, 112**: POSC 120
- **PSYC 100, 121 RELN 205**: SOCY 110, 121
- **NURS 111, 200**: CVPS 111, 214
- **RCPT 200**:
B.S. Requirements: (8 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Grade</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 301</td>
<td>4</td>
<td>F</td>
<td>CHEM 102</td>
</tr>
<tr>
<td>CHEM 302</td>
<td>4</td>
<td>S</td>
<td>CHEM 301</td>
</tr>
</tbody>
</table>

Graduation Requirements: Students must attain a minimum 2.0 in major and overall GPA in order to graduate. Major GPA is calculated using grades received in Biology 131, 132, all Biology courses 200 level or higher, all courses outside of Biology used as electives (including: CHEM 471:472 and Physics if used as elective) and/or any course used as an elective by academic petition. Students are required to complete a minimum of 120 credit hours.