B.S. IN BIOLOGY (AOC: Biology of Disease) — DEGREE REQUIREMENT CHECK SHEET for students who matriculated summer 2022 through spring 2024

<table>
<thead>
<tr>
<th>Credit hours:</th>
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<tbody>
<tr>
<td>Currently enrolled in: _____ semester: ____________</td>
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<tr>
<td>Currently enrolled in: _____ semester: ____________</td>
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AFTER SUCCESSFUL COMPLETION OF CURRENT ENROLLMENT, YOU NEED THE FOLLOWING:

**IUB GENERAL EDUCATION REQUIREMENTS:**

- Foundations:
  - English Composition (minimum grade of C required)
  - Mathematical Modeling (fulfilled by major)

- Breadth of Inquiry:
  - Arts & Humanities (A&H)–6 credits; need: ______
  - Social & Historical (S&H)–6 credits; need: ______
  - Natural & Mathematical (N&M)–(fulfilled by major)

- World Languages & Cultures:
  - World Language–4th semester proficiency
    - OR World Cultures–6 credits
    - OR Approved international experience

- GenEd residency complete: Yes  No  If no, you need: ______

**TOTAL HOURS REQUIREMENTS:**

<table>
<thead>
<tr>
<th>Required</th>
<th>Complete</th>
<th>Needed</th>
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<tbody>
<tr>
<td>Major Hours</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Total College Hours</td>
<td>100</td>
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</tr>
<tr>
<td>Total Credit Hours</td>
<td>120</td>
<td></td>
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<tr>
<td>300-499 level Hours</td>
<td>36</td>
<td></td>
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<tr>
<td>IUB COLL Res. after 60 Hours</td>
<td>36</td>
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IPRP (in-progress repeated course): Yes  No  If yes, credit hours showing as needed in your AAR may not be accurate. Ask an advisor!

College GPA of at least 2.000 is required. ______

**CASE REQUIREMENTS:**

- Public Oral Communication (COLL-P 155)
- English Composition
- Mathematical Modeling (fulfilled by major)
- Critical Approaches to the Arts and Sciences–must be done at IUB
- CASE A&H–2 courses; will count 2 GenEd A&H here; need: ______
- CASE S&H–2 courses; will count 2 GenEd S&H here; need: ______
- CASE N&M–4 courses; fulfilled by major
- Intensive Writing (IW)–must be done at IUB inside the College
- Foreign Language (FL)–3rd semester proficiency
- CASE Culture Studies: Diversity in U.S. course–must be done at IUB

**BIOLOGY MAJOR REQUIREMENTS:**

- Major requirements must be completed with a C- or better.

**CHEMISTRY**

- Major GPA and concentration GPA ≥ 2.000. Major GPA: ______  Concentration GPA: ______

**PHYSICS**

- Major GPA and concentration GPA ≥ 2.000. Major GPA: ______  Concentration GPA: ______

**STATISTICS**

- Major GPA and concentration GPA ≥ 2.000. Major GPA: ______  Concentration GPA: ______

- Four Biology lectures (see reverse for list)
  - ________________ (IUB)
  - ________________ (IUB)
  - ________________ (Advanced Skills)
  - ________________ (IUB)
  - Two Biology labs (see reverse for list)
  - ________________ (IUB)
  - ________________ (IUB)

- Lectures + labs must = at least 15 credit hours

- 30 major hours: _____ needed
- 18 BIOL hours at 300-499 level: _____ needed
- 15 concentration hours: _____ needed

- IUB COLL Res. after 60 Hours: 36

- Four Biology lectures (see reverse for list)
  - ________________ (IUB)
  - ________________ (IUB)

- Lectures + labs must = at least 15 credit hours

- 30 major hours: _____ needed
- 18 BIOL hours at 300-499 level: _____ needed
- 15 concentration hours: _____ needed

- College GPA of at least 2.000 is required. ______
Biology B.S. degree with Area of Concentration: Biology of Disease

The following must equal at least 15 credit hours.

1. **Required Lectures. Two (2) courses:**
   - BIOL-L 312 Cell Biology (3 cr.) (fall and spring)
   - BIOL-L 321 Human Immunology (3 cr.) (spring)
   - BIOL-L 328 Disease Ecology and Evolution (3 cr.) (variable, spring)
   - BIOL-L 380 Microbiology of Infectious Disease (3 cr.) (fall)
   - BIOL-M 315 Microbiology Laboratory (2 cr.) (fall, spring, and summer)
   - BIOL-M 380 Microbiology of Infectious Disease (3 cr.) (fall)

2. **Advanced Skills Lecture. One (1) course:**
   - BIOL-L 411 Advanced Gene Reg.: Transcription, Epigenetics, & Disease (3 cr.) (spring)
   - BIOL-L 412 Analysis of Cancer Research (3 cr.) (on hiatus)
   - BIOL-L 417 Stem Cells in Development, Disease, and Regeneration (3 cr.) (spring)
   - BIOL-L 472 Microbiomes: Host and Environmental Health (3 cr.) (spring)
   - BIOL-L 485 Genetics, Models of Human Disease, and Research (3 cr.) (fall)
   - BIOL-L 486 Advanced Cell Biology (3 cr.) (P: BIOL-L 312) (spring)
   - BIOL-L 487 Molecular Mech. of Develop. and Disease (3 cr.) (spring, rarely offered)
   - BIOL-M 380 Microbiology of Infectious Disease (3 cr.) (fall)
   - BIOL-M 416 Biology of AIDS (3 cr.) (spring, rarely offered)
   - BIOL-M 440 Medical Microbiology: Lecture* (3 cr.) (fall)
   - BIOL-Z 466 Endocrinology (3 cr.) (variable, usually fall)

3. **Lecture Elective. One (1) course:**
   - Additional course from the Advanced Skills Lecture list
   - BIOL-B 351 Fungi (3 cr., on hiatus)
   - BIOL-L 312 Cell Biology (3 cr.) (fall and spring)
   - BIOL-L 321 Human Immunology (3 cr.) (spring)
   - BIOL-L 410 Topical Issues in Biology (2–3 cr.) may be used as Lecture Elective, depending on the topic covered; D.U.S. approval required.
   - BIOL-M 430 Virology Lecture (3 cr.) (spring)
   - BIOL-P 451 Integrative Human Physiology (4 cr.) (fall and spring)
   - BIOL-Z 373 Entomology (3 cr.) (fall and summer)
   - CHEM-C 383 Human Biochemistry (3 cr.) OR CHEM-C 483 Biological Chemistry (3 cr.) OR CHEM-C 484 Biomolecules and Carbohydrates (3 cr.)
   - MSCM-M 485 Physiology of Human Disease (4 cr.) (variable)

4. **Laboratory. Two (2) courses:**
   - BIOL-A 464 Human Tissue Biology (4 cr.) (fall and spring)
   - BIOL-B 352 Fungi: Laboratory (2 cr.) (on hiatus)
   - BIOL-L 324 Human Molecular Biology Laboratory (3 cr.) (spring)
   - BIOL-M 315 Microbiology Laboratory (2 cr.) (fall, spring, and summer)
   - BIOL-M 316 Molecular Microbiology Laboratory* (3 cr.) (see prerequisites, spring)
   - BIOL-M 435 Viral Tissue Culture Laboratory (3 cr.) (spring)
   - BIOL-P 451 Integrative Human Physiology (4 cr.) (fall and spring)
   - BIOL-X 325 ASURE Biology Research Lab 2 (3 cr., D.U.S. approval required)
   - BIOL-Z 469 Endocrinology Laboratory (2 cr.) (spring, rarely offered)
   - BIOT-X 325 ASURE Biotechnology Research Lab 2 (3–4 cr.)

Notes:
- **Except for the GPA requirement,** a grade of C- or higher is required for a course to count toward a requirement in the concentration.

Subplan code: BIOLDISCON