**B.S. IN BIOLOGY (AOC: Biology of Disease) — DEGREE REQUIREMENT CHECK SHEET** for students who matriculated summer 2020 through spring 2021

**Student Name/ID:** __________________________  **Purpose:** __________________________  **Date:** ________________

**Credit hours:**
- Currently enrolled in: ______  semester: ______________
- Currently enrolled in: ______  semester: ______________

**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>Requirement</th>
<th>Required</th>
<th>Complete</th>
<th>Needed</th>
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<tbody>
<tr>
<td>Major Hours</td>
<td>30</td>
<td></td>
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<tr>
<td>Total College Hours</td>
<td>100</td>
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<tr>
<td>Total Credit Hours</td>
<td>120</td>
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<tr>
<td>300-499 level Hours</td>
<td>36</td>
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<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, physics, statistics, and math Addenda Requirements must be completed with a C- or better, but they do not count toward major GPA or major hours.*

- 30 major hours: ______ needed
- 18 BIOL hours at 300-499 level: ______ needed
- Major GPA and concentration GPA ≥ 2.000. Major GPA: ______  Concentration GPA: ______

**BIOLOGY**
- BIOL-L 111
- BIOL-L 112
- BIOL-L 113 [or BIOL-X 150 or BIOT-X 150]
- BIOL-L 211 (P: L 112 and CHEM-C 117)
- BIOL-L 311
- BIOL-L 318

- Four Biology lectures (see reverse for list)
  - ____________ (IUB)
  - ____________ (IUB)
  - ____________ (Advanced Skills)
  - ____________

- Two Biology labs (see reverse for list)
  - ____________ (IUB)
  - ____________ (IUB)

Lectures + labs must = at least 15 credit hours

**★ CHEMISTRY**
- CHEM-C 117 and CHEM-C 127
- CHEM-C 341
- CHEM-C 342
- CHEM-C 343

**★ PHYSICS**
- PHYS-P 201
- PHYS-P 202

**★ STATISTICS**
- EAS-E 314, PSY-K 300/310, SOC-S 371, SPEA-K 300, LAMP-L 316, MATH-M 365, OR STAT-S 300/303

**★ MATH**
- MATH-M 211 OR MATH-M 119 and M 120 OR MATH-V 119 and M 120
Biology B.S. degree with Area of Concentration: Biology of Disease

The following must equal at least 15 credit hours. **Two** of the upper-level lectures and **both** of the upper-level labs must be taken on the IU Bloomington campus.

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

2. **Advanced Skills Lecture. One (1) course:**
   - BIOL-L 411 Adv. Gene Reg.: Transcription, Epigenetics, & Human Disease (3 cr.)
   - BIOL-L 412 Analysis of Cancer Research (3 cr.)
   - BIOL-L 413 Translational Medicine: From Bench to Bedside (3 cr.)
   - BIOL-L 417 Stem Cells in Development, Disease, and Regeneration (3 cr.)
   - BIOL-L 472 Microbiomes: Host and Environmental Health (3 cr.)
   - BIOL-L 485 Genetics, Models of Human Disease, and Biological Research (3 cr.)
   - BIOL-L 486 Advanced Cell Biology (3 cr.)
   - BIOL-L 487 Molecular Mechanism of Development and Disease (3 cr.)
   - BIOL-M 380 Microbiology of Infectious Disease (3 cr.)
   - BIOL-M 416 Biology of AIDS (3 cr.)
   - BIOL-M 440 Medical Microbiology: Lecture* (3 cr.)
   - BIOL-Z 466 Endocrinology (3 cr.)

3. **Lecture Elective. One (1) course:**
   - Additional course from the Advanced Skills Lecture list
   - BIOL-B 351 Fungi (3 cr., rarely offered)
   - BIOL-L 312 Cell Biology (3 cr.)
   - BIOL-L 321 Human Immunology (3 cr.)
   - BIOL-M 430 Virology Lecture (3 cr.)
   - BIOL-P 451 Integrative Human Physiology (4 cr.)
   - BIOL-Z 373 Entomology (3 cr.)
   - CHEM-C 383 Human Biochemistry (3 cr.) **OR** CHEM-C 483 Biological Chemistry (3 cr.) **OR** CHEM-C 484 Biomolecules and Catabolism (3 cr.)
   - MSCI-M 480 Molecular Biology of Cancer: Cell Signaling & Fate (3 cr.)
   - MSCI-M 485 Physiology of Human Disease (4 cr.)

4. **Laboratory. Two (2) courses:**
   - BIOL-B 352 Fungi: Laboratory (2 cr., rarely offered)
   - BIOL-L 324 Human Molecular Biology Laboratory (3 cr.)
   - BIOL-M 315 Microbiology Laboratory (2 cr.)
   - BIOL-M 316 Molecular Microbiology Laboratory* (3 cr.) (see prerequisites)
   - BIOL-M 435 Viral Tissue Culture Laboratory (3 cr.)
   - BIOL-M 445 Medical Microbiology: Laboratory* (3 cr.)
   - BIOL-P 451 Integrative Human Physiology (4 cr.)
   - BIOL-X 325 ASURE Biology Research Lab 2 (3 cr., approval of D.U.S. required)
   - BIOL-Z 373 Entomology (3 cr.)
   - BIOL-Z 469 Endocrinology Laboratory (2 cr.)
   - BIOT-X 325 ASURE Biotechnology Research Lab 2 (3–4 cr.)

* BIOL-M 316, BIOL-M 440, and BIOL-M 445 have Microbiology prerequisites. For Biology B.S. students, BIOL-M 380 may substitute in place of BIOL-M 250 as a prerequisite.

→ BIOL-L 410 Topical Issues in Biology (2–3 cr.) may be used towards the Area of Concentration, depending on the topic covered and with approval of the Director of Undergraduate Studies.

**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.
- A GPA of at least 2.000 for all courses taken in the concentration—including those where a grade lower than C- is earned—is required.
- Most courses have prerequisites. Always check the Bulletin and the Schedule of Classes for course information before taking a course.

Subplan code: BIOLDISCON