B.S. IN BIOLOGY (AOC: Integrative & Organismal Biology) — DEGREE REQUIREMENT CHECK SHEET for students who matriculated summer 2022 through spring 2023

<table>
<thead>
<tr>
<th>Credit hours:</th>
<th>Purpose:</th>
<th>Date:</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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**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

**CASE MAJOR REQUIREMENTS:**
- Major requirements must be completed with a C- or better.

**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:**

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<thead>
<tr>
<th>Required</th>
<th>Complete</th>
<th>Needed</th>
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<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>
<td>Total Credit Hours</td>
<td>120</td>
<td></td>
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<tr>
<td>300-499 level Hours</td>
<td>36</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. ______**

**BIOLOGY MAJOR REQUIREMENTS:**
- Major requirements must be completed with a C- or better. ★ Chemistry, physics, statistics, and math Addenda

- □ 30 major hours: _____ needed
- □ 18 BIOL hours at IUB: _____ needed
- □ 15 concentration hours: _____ 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 310/K 310, SOC-S 371, SPEA-K 300, SPH-Q 381, LAMP-L 316, MATH-M 365, OR STAT-S 300/S 303

- ★ MATH
  - □ MATH-M 211 OR MATH-M 119 and MATH-M 120 OR MATH-V 119 and MATH-M 120
Biology B.S. degree with Area of Concentration: Integrative & Organismal Biology

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.

**Lecture Courses***

**Physiological Systems Biology Lectures. Two (2) courses:**
- BIOL-B 371 Ecological Plant Physiology (3 cr., Advanced Skills, fall)
- BIOL-L 321 Human Immunology (3 cr., spring)
- BIOL-L 410 Topical Issues in Biology (2–3 cr., D.U.S. approval required)
- BIOL-L 417 Stem Cells in Development, Disease, Regeneration (3 cr., Advanced Skills, spring)
- BIOL-L 423 Brain, Behavior and Evolution (3 cr., Advanced Skills, rarely offered)
- BIOL-P 451 Integrative Human Physiology (4 cr., fall and spring)
- BIOL-Z 462 Genetics of Behavior (3 cr., Advanced Skills, spring)
- BIOL-Z 463 Comparative Neurobiology of Animal Behavior (3 cr., Advanced Skills, rarely offered)
- BIOL-Z 466 Endocrinology (3 cr., Advanced Skills, variable, fall)
- PHSL-P 416 Comparative Animal Physiology (3 cr., fall)
- PSY-P 466 Molec. and Cellular Neurobiology (3 cr., usually fall, P: PSY-P 346)

**Organism-Level Biology Lectures. Two (2) courses:**
- BIOL-B 351 Fungi (3 cr., on hiatus)
- BIOL-B 364 Summer Flowering Plants (4 cr., on hiatus)
- BIOL-B 376 Biology of Birds (4 cr., spring)
- BIOL-L 376 Biology of Birds (4 cr., fall and spring)
- BIOL-L 433 Tropical Biology (3 cr., overseas study in December or May)
- BIOL-L 453 Sensory Ecology (3 cr., fall)
- BIOL-L 460 Microbial Evolution (3 cr., rarely offered)
- BIOL-Z 373 Entomology (3 cr., fall and summer)
- BIOL-Z 374 Invertebrate Zoology (3 cr., alternate fall semesters)
- BIOL-Z 406 Vertebrate Zoology (5 cr., spring)
- BIOL-Z 460 Animal Behavior (3 cr., Advanced Skills, fall and spring)
- BIOL-Z 476 Biology of Fishes (3 cr., alternate fall semesters)

* **AT LEAST ONE (1) OF THE FOUR REQUIRED LECTURE CLASSES ABOVE MUST BE AN ADVANCED SKILLS COURSE FROM THE ADVANCED SKILLS LECTURE LIST:**

**Advanced Skills Lecture list**
- BIOL-B 371 Ecological Plant Physiology (3 cr.) (fall)
- BIOL-L 417 Stem Cells in Development, Disease, Regeneration (3 cr.) (spring)
- BIOL-L 423 Brain, Behavior and Evolution (3 cr.) (rarely offered)
- BIOL-L 453 Sensory Ecology (3 cr.) (fall)
- BIOL-M 460 Microbial Evolution (3 cr., rarely offered)
- BIOL-Z 460 Animal Behavior (3 cr.) (fall and spring)
- BIOL-Z 462 Genetics of Behavior (3 cr.) (spring)
- BIOL-Z 463 Comparative Neurobiology of Animal Behavior (3 cr.) (fall)
- BIOL-Z 466 Endocrinology (3 cr.) (variable, fall)

**Laboratory Courses. Two (2) courses:**
- ABEH-A 350 Animal Behavior Laboratory (3 cr.) (fall) – *it's out of alphabetical order in the Bulletin lab list, but it's approved!*
- ANAT-A 464 Human Tissue Biology (4 cr.) (fall and spring)
- BIOL-B 300 Vascular Plants (4 cr.) (spring)
- BIOL-Z 364 Summer Flowering Plants (4 cr.) (summer, on hiatus)
- BIOL-L 376 Biology of Birds (4 cr.) (fall and spring)
- BIOL-L 433 Tropical Biology (3 cr.) (oversea study in December or May)
- BIOL-L 451 Integrative Human Physiology (4 cr.) (fall and spring)
- BIOL-S 318 Evolution, Honors (4 cr.) (fall and spring) – **Important:** only 1 credit hour of BIOL-S 318 may count toward Concentration Hours
- BIOL-Z 373 Entomology (3 cr.) (fall and summer)
- BIOL-Z 375 Invertebrate Zoology Laboratory (2 cr.) (fall)
- BIOL-Z 406 Vertebrate Zoology (5 cr.) (spring)
- BIOL-Z 460 Endocrinology Laboratory (2 cr.) (spring, rarely offered)
- PSY-P 473 Laboratory in Molecular Neuroscience (4 cr., P: PSY-P 346)
- **ASURE students:** BIOL-X 325 ASURE Biology Research Lab 2 (3 cr.) requires approval of D.U.S. to count in this Area of Concentration

**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: INORGBICON