Social & Historical (S&H)—6 credits; need:	B.S. IN BIOLOGY (AOC: Integrative & Organismal Biology) — DEGREE REQUIREMENT CHECK SHEET for students who matriculated summer 2022 through spring 2024					
Currently enrolled in: semester:   Public Oral Communication (COLL-P 155)   Currently enrolled in: semester:   Public Oral Communication (COLL-P 155)   Currently enrolled in: semester:   English Composition or CURRENT   ENROLLMENT, YOU NEED THE FOLLOWING:   Case Ask H-2 courses; will count 2 GenEd Ask H here; need:   Case Ask H-2 course	Student Name/ID:		Purpose:	Date:		
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   Foreign Language (FL)-3rd semester proficiency   CASE Culture Studies: Diversity in U.S. course—must be done at IUB	Currently enrolled in: semester:  Currently enrolled in: semester:  AFTER SUCCESSFUL COMPLETION OF CURRENT			□ 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		
Natural & Mathematical (N&M)—(fulfilled by major)   World Languages & Cultures:	Foundations:  ☐ English Composition (minimum grade of C required)  ☐ Mathematical Modeling (fulfilled by major)  Breadth of Inquiry:  ☐ Arts & Humanities (A&H)–6 credits; need:					
Required   Complete   Needed   BIOL-L 211 (P: L 112 and CHEM-C 117)   CHEM-C 343     Major Hours   30	World Languages & Cultures:  □ World Language—4 <sup>th</sup> semester proficiency OR World Cultures—6 credits OR Approved international experience  GenEd residency complete: Yes No If no, you need:		<ul> <li>□ 30 major hours: needed</li> <li>□ 18 BIOL hours at 300-499 level: needed</li> <li>□ Major GPA and concentration GPA ≥ 2.000. Major</li> <li>BIOLOGY</li> <li>□ BIOL-L 111</li> <li>□ BIOL-L 112</li> </ul>	□ 18 BIOL hours at IUB: needed □ 15 concentration hours: needed or GPA: Concentration GPA: ★ CHEMISTRY □ CHEM-C 117 and CHEM-C 127 □ CHEM-C 341		
300-499 level Hours  36  IUB COLL Res. after 60 Hours  36  IPRP (in-progress repeated course): Yes No If yes, credit hours showing as needed in your AAR may not be  36  IUB COLL Res. after 60 Hours  36  IUB (IUB)  EAS-E 314, PSY-K 300/K 310, SOC-S 371, SPEA-K 300, SPH-Q 381, LAMP-I 316, MATH-M 365, <b>OR</b> STAT-S 300/S	Major Hours Total College Hours	Required Completion 30 100	lete Needed	<ul> <li>□ BIOL-L 211 (P: L 112 and CHEM-C 117)</li> <li>□ BIOL-L 311</li> <li>□ BIOL-L 318</li> </ul>	<ul> <li>□ CHEM-C 343</li> <li>★ PHYSICS</li> <li>□ PHYS-P 201</li> </ul>	
College GPA of at least 2.000 is required (IUB)	300-499 level Hours  IUB COLL Res. after 60 Hours  36  IPRP (in-progress repeated course): Yes No If yes, credit hours showing as needed in your AAR may not be accurate. Ask an advisor!		☐ (IUB) ☐ (Advanced Skills) ☐ (Advanced Skills) ☐ (IUB) ☐ (IUB)	★ STATISTICS  □ EAS-E 314, PSY-K 300/K 310, SOC-S 371, SPEA-K 300, SPH-Q 381, LAMP-L 316, MATH-M 365, <b>OR</b> STAT-S 300/S 303  ★ MATH		

# Biology B.S. degree with Area of Concentration: Integrative & Organismal Biology

The following must equal at least 15 credit hours. <u>Two</u> of the upper-level lectures and <u>both</u> 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 Developmental Biology & Stem Cells (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 Comp. Neurobio. of Animal Behavior (3 cr., Advanced Skills, fall)
- 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 Neurobio. (3 cr., usually fall, P: PSY-P 346)

## Organism-Level Biology Lectures. Two (2) courses:

- ABEH-A 401 (3 cr., variable)
- BIOL-B 351 Fungi (3 cr., on hiatus)
- BIOL-L 376 Biology of Birds (4 cr., fall and spring)
- BIOL-L 410 Topical Issues in Biology (2–3 cr., **D.U.S. approval required**)
- BIOL-L 453 Sensory Ecology (3 cr., *Advanced Skills*, P or C: BIOL-Z 460)
- BIOL-M 460 Microbial Evolution (3 cr., Advanced Skills, on hiatus)
- 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 LECTURES ABOVE MUST BE AN ADVANCED SKILLS COURSE FROM ADVANCED SKILLS LECTURE LIST:

### Advanced Skills Lecture list

- BIOL-B 371 Ecological Plant Physiology (3 cr.) (fall)
- BIOL-L 417 Developmental Biology & Stem Cells (3 cr.) (spring)
- BIOL-L 423 Brain, Behavior and Evolution (3 cr.) (rarely offered)
- BIOL-L 453 Sensory Ecology (3 cr.) (variable, P or C: BIOL-Z 460)
- 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-B 352 Fungi: Laboratory (2 cr., on hiatus)
- BIOL-B 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.) (overseas study in December or May)
- BIOL-P 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 469 Endocrinology Laboratory (2 cr.) (spring, rarely offered)
- PSY-P 473 Lab in Molecular Neuroscience (4 cr., fall and spring, 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.