



Independent Study | in Idaho

BIOL 102
Biology and Society

Providing independent study opportunities for more than 40 years.



The University of Idaho in statewide cooperation with
Boise State University — Idaho State University — Lewis-Clark State College

Course Guide

Independent
Study | in Idaho

Self-paced study. Anytime. Anywhere!

Biology 102 Biology and Society

*University of Idaho
3 Semester-Hour Credits*

Prepared by:

Lisa Bird

University of Idaho

Created: July 2024

Version 1-BIOL 102

Copyright Independent Study in Idaho/Idaho State Board of Education

Welcome!

Whether you are a new or returning student, welcome to the Independent Study in Idaho (ISI) program. Below, you will find information pertinent to your course including the course description, course materials, course objectives, as well as information about assignments, exams, and grading. If you have any questions or concerns, please contact the ISI office for clarification before beginning your course.

Policies and Procedures

Refer to the ISI website at www.uidaho.edu/isi for the most current policies and procedures, including information on setting up accounts, student confidentiality, exams, proctors, transcripts, course exchanges, refunds, academic integrity, library resources, and disability support and other services.

Course Syllabus

Instructor: Lisa Bird

Email: lisah@uidaho.edu

Office & Phone: LSS 164A & 885-6185

Office Hours: MW 8:30-9:20am in-person LSS 164A at the University of Idaho's Moscow campus or Zoom Appointments (email me)

Textbooks (only 1 text is needed for the course):

Concepts of Biology, Updated 2021 (free online at <http://openstaxcollege.org>) OR

Campbell Essential Biology with Physiology, 6th ed., 2019. Simon, Dickey & Reece

Course Description

There has never been a better day to start learning biology. Being a living thing, you interact with the natural world each day. BIO 102 takes the most important content of biology organizing it into five core areas: Ecology; Cells; Genetics; Evolution; and Animal Systems. The goals of the course are to create a better understanding of the living world, relate the core content to students' lives, clarify the process of science and demonstrate how evolution is the overarching theme of biology. Students will start with the big picture by studying ecological systems. Students will then dive into the smallest unit of life, the cell, and explore cellular structures, functions and processes. In the third unit, students will study DNA, inheritance patterns and how genetics impacts their lives. In the fourth unit, students will explore the evolutionary processes that shape the living world. The final unit describes the interface between form and function in our own human bodies. Through these five units, it is my hope that you will make important connections between biology and how it applies to your own life. Biology 102 is a part of the University of Idaho General Education curriculum that emphasizes a multi-year, broad liberal education. This course will discuss environmental issues, genetics, evolution and human health topics that will be integrated into other courses you take here.

Class Notes and Other Information

All class information can be found on the class site on Canvas at canvas.uidaho.edu. You will be prompted to enter your username (vand1234) and password (same as your email account) to access course materials. Lecture notes with study sheets will be posted as guides. All quizzes and exams will occur on Canvas throughout the semester.

Grading

5 Lecture Exams (90 pts each)	450
5 Unit Extension Activities (10 pts each)	50
8 Quizzes (10 pts each)	80
5 Study Sheet Submissions	20 (3 worth Extra Credit)
TOTAL=	600 points

Calculating Your Grade

Letter grades are awarded based on the University of Idaho grade scale:

A 90 – 100%: B 80 – 89.9%: C 70 – 79.9%: D 60 – 69.9%: F 0 – 59.9%

Grades will be updated frequently on the “Grades” section of Canvas.

Quizzes, Extension Activities & Exams

Eight quizzes and five unit exams will consist of a combination of matching and multiple-choice questions. Five Extension Activities will consist of written answers or drawings. Study sheets for each unit have been provided on Canvas to guide students to the important information. All quizzes, extension activities and exams will be open note so having these study sheets completed will help you do well on the assessments of the class. **Quizzes will be 10 questions and have a time limit of 15 minutes. Exams will be 45 questions and have a time limit of 60 minutes. All quizzes, extension activities and exams must be completed in one sitting with one attempt!**

Readings and Videos

Readings are assigned in the unit tables by chapter in the Concepts and Campbell books (only one textbook is necessary for the course). I have also filmed videos of the lectures that can be viewed directly on Canvas or by using my YouTube playlist (linked below). There are also extra help videos from outside sources. These

videos are meant to help students complete the study sheets and look back over information on their own time.

YouTube Playlist= https://youtube.com/playlist?list=PLf1csIMgjjxUH8KO_8Y69WUR_mftAEFKK

Center for Disability Access and Resources (CDAR)

The University of Idaho is committed to ensuring an accessible learning environment where course or instructional content are usable by all students and faculty. If you believe that you require disability-related academic adjustments for this class (including pregnancy-related disabilities), please contact Center for Disability Access and Resources (CDAR) to discuss eligibility. A current accommodation letter from CDAR is required before any modifications, above and beyond what is otherwise available for all other students in this class, will be provided. Please be advised that disability-related academic adjustments are not retroactive. CDAR is located at the Bruce Pitman Building, Suite 127. Phone is 208-885-6307 and e-mail is cdar@uidaho.edu. For a complete listing of services and current business hours visit <https://www.uidaho.edu/current-students/cdar>.

Academic Dishonesty

Acts of cheating or plagiarism will not be tolerated. Your exams, extension activities and quizzes must be your own work. According to university policy cheating or plagiarism can result in you failing this class. The *UI Student Handbook* outlines the expected code of conduct for students at the University of Idaho. Article II addresses academic honesty of students.

Course Outline

Unit 1: Ecology

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
COURSE OVERVIEW	Unit 1 Study Sheet #1	Intro to Bio 102	CHAP 1	CHAP 1

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
POPULATION ECOLOGY Take Quiz #1	Unit 1 Study Sheet #1	Population Ecology	CHAP 18 & 19	CHAP 19
COMMUNITY ECOLOGY	Unit 1 Study Sheet #2	Community Eco	CHAP 20	CHAP 19
ECOSYSTEM ECOLOGY Take Quiz #2	Unit 1 Study Sheet #2	Ecosystem Ecology	CHAP 20	CHAP 20
HUMAN IMPACTS	Unit 1 Study Sheet #3	Human Impacts	CHAP 18-20	CHAP 21
CONSERVATION DILEMMAS	Unit 1 Study Sheet #4		CHAP 18-20	CHAP 21
CONSERVATION SOLUTIONS	Unit 1 Study Sheet #5	Conservation Solutions	CHAP 18-20	CHAP 21
REVIEW	Unit 1 Kahoot			

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
TAKE EXAM 1 SUBMIT UNIT 1 EXT ACT				

***Email me one completed Study Sheet or a page of notes when you complete Unit 1!

Unit 2: Cells & Processes

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
BIOCHEM REV & MACROMOLE.	Unit 2 Study Sheet #1	Chem Review & Macromolecules	CHAP 2-3	CHAP 2
CELL REVIEW	Unit 2 Study Sheet #2	Intro to Cells & Cell Structure/Function	CHAP 4	CHAP 3
CELL MEMBRANE	Unit 2 Study Sheet #2	Intro to Cells	CHAP 4	CHAP 3
MEMBRANE TRANSPORT Take Quiz #3	Unit 2 Study Sheet #3	Passive Transport & Active Transport	CHAP 5	CHAP 3

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
ENERGY & ENZYMES	Unit 2 Study Sheet #3	Energy & Enzymes	CHAP 5	CHAP 4
CELLULAR RES. & FERMENT.	Unit 2 Study Sheet #4	Cellular Respiration & Fermentation	CHAP 6	CHAP 4
PHOTOSYNTHESIS Take Quiz #4	Unit 2 Study Sheet #4	Photosynthesis	CHAP 7	CHAP 5
REVIEW	Unit 2 Kahoot			
TAKE EXAM 2 SUBMIT UNIT 2 EXT ACT				

*****Email me one completed Study Sheet or a page of notes when you complete Unit 2!**

Unit 3: Genetics

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
CHEM OF DNA & RNA	Unit 3 Study Sheet #1	Chemistry of DNA & Drawing Out DNA	CHAP 10	CHAP 9
DNA REPLICATION	Unit 3 Study Sheet #1	DNA Replication & DNA Replication Demo	CHAP 10	CHAP 9
MITOSIS & CANCER Take Quiz #5	Unit 3 Study Sheet #2	Mitosis, Drawing Out Mitosis & Cancer	CHAP 8	CHAP 6
MEIOSIS	Unit 3 Study Sheet #2	Meiosis & Mitosis- Meiosis Compared	CHAP 8	CHAP 7
MENDEL	Unit 3 Study Sheet #3	Mendel	CHAP 9	CHAP 8
PUNNETTS & PEDIGREES Take Quiz #6	Unit 3 Study Sheet #3	Punnett Square Drawing & Pedigree Drawing	CHAP 9	CHAP 8
MENDEL VARIATIONS	Unit 3 Study Sheet #4	Mendel Variations Part I & Part II	CHAP 9	CHAP 8

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
PROTEIN SYNTHESIS	Unit 3 Study Sheet #5	Protein Synthesis	CHAP 10	CHAP 9
DNA TECHNOLOGY	Unit 3 Study Sheet #5	DNA Technology	CHAP 12	CHAP 10
REVIEW	Unit 3 Kahoot			
TAKE EXAM 3 SUBMIT UNIT 3 EXT ACT				

***Email me one completed Study Sheet or a page of notes when you complete Unit 3!

Unit 4: Evolution

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
NATURAL SELECTION	Unit 4 Study Sheet #1	Natural Selection	CHAP 13	CHAP 11
EVIDENCE FOR EVOLUTION	Unit 4 Study Sheet #1	Evidence for Evolution	CHAP 13	CHAP 11

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
MICROEVOL	Unit 4 Study Sheet #2	Microevolution	CHAP 13-14	CHAP 11
MACROEVOL Take Quiz #7	Unit 4 Study Sheet #2	Macroevolution	CHAP 14	CHAP 11
MICROBE EVOLUTION	Unit 4 Study Sheet #3	Microbe Evolution	CHAP 15	CHAP 12-13
TREE OF LIFE EVOLUTION	Unit 4 Study Sheet #3	Tree of Life	CHAP 16-17	CHAP 13-15
REVIEW	Unit 4 Kahoot			
TAKE EXAM 4 SUBMIT UNIT 4 EXT ACT				

***Email me one completed Study Sheet or a page of notes when you complete Unit 4!

Unit 5: Human Body Form & Function

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
HUMAN BODY INTRO	Unit 5 Study Sheet #1	Human Body Introduction	CHAP 21	CHAP 16
HOMEOSTASIS & URINARY Take Quiz #8	Unit 5 Study Sheet #2	Homeostasis & Urinary System	CHAP 21	CHAP 16
DIGESTIVE SYSTEM	Unit 5 Study Sheet #3	Digestive System	CHAP 22	CHAP 16
CIRCULATORY SYSTEM	Unit 5 Study Sheet #4	Circulatory System	CHAP 23	CHAP 16
RESPIRATORY SYSTEM	Unit 5 Study Sheet #5	Respiratory System	CHAP 23	CHAP 16
IMMUNE SYSTEM	Unit 5 Study Sheet #6	Immune System	CHAP 24	CHAP 17
ENDOCRINE SYSTEM	Unit 5 Study Sheet #7	Endocrine System Part I & Part II	CHAP 25	CHAP 16

LECTURE TOPIC	STUDY SHEET	YouTube VIDEO	CAMPBELL TEXT	CONCEPTS TEXT
REVIEW	Unit 5 Kahoot			
TAKE EXAM 5 SUBMIT UNIT 5 EXT ACT				

*****Email me one completed Study Sheet or a page of notes when you complete Unit 5!**