



Biology (BIOL) 205

Principles of Biology II B (Home Lab Version) (Revision 6)

Status:

Replaced with new revision, see the [course listing](#) for the current revision

Delivery mode:

[Individualized study online](#) or [Grouped study](#) with [eText](#), and a [Home Lab](#). This course is charged a [lab fee](#)

Credits:

3

Area of study:

Science

Prerequisites:

[BIOL 204](#) or equivalent, and professor approval.

Precluded:

[BIOL 207](#), [LABB 207](#)

Challenge:

[BIOL 205](#) is not available for challenge.

Faculty:

[Faculty of Science and Technology](#)

Note: [BIOL 205](#) has home labs and lab simulations, but does not include an onsite lab component. AU program students and visiting students who require onsite labs for

credit transfer are required to enrol in BIOL 207 instead. BIOL 205 is charged a **lab fee** [↗](#) .

Notes:

Note: For Athabasca University program students BIOL 207 is mandatory. It cannot be substituted with BIOL 205. (Exceptions: Students in the Biology Minor program and the post-diploma route with a previous biology lab component may take BIOL 205 instead of BIOL 207).

Overview

Biology 205 is the second of two introductory courses in general biology that will prepare students for senior-level biology courses. Designed to help students learn more about the nature of life, the main topics of this course include the diversity of organisms, including fungi, plants, protists, animals, and bacteria. BIOL 205 emphasizes evolution as the overriding biological principle.

Outline

BIOL 205 covers two main topics (Evolution and Diversity) divided into six units:

- Unit 1: Principles of Evolution (Evolutionary theory, natural, artificial and sexual selection, microevolution, population genetics, macroevolution)
- Unit 2: Evolutionary History (Chemical evolution, evolution of cells, history of life, human evolution)
- Unit 3: Diversity of Life I (Prokaryotes, viruses, prions)
- Unit 4: Diversity of Life II (Protists, fungi, plants)
- Unit 5: Diversity of Life III (Animals)
- Unit 6: Conserving and Utilizing Biodiversity (Conservation of biodiversity,

domestication)

Laboratory Outline


BIOL 205 includes eight mandatory labs: Hardy Weinberg calculations, cladistics, sickle cell population simulations (SimBio), dog domestication (SimBio), flowers and trees (SimBio), pig dissection (virtual), conservation biology and cod biology. These labs can be done at home.

Evaluation


To **receive credit** [↗](#) for BIOL 205, you must achieve a course composite grade of at least **D (50 percent)** [📄](#) and a minimum of 50 percent for the lab component; and a grade of at least 50 percent on the final examination. The weighting of the composite grade is as follows:

Activity	Weight
Assignment 1	10%
Assignment 2	10%
Labs and exercises	40%
Midterm Exam	15%
Final Exam	25%
Total	100%



The **midterm and final examinations** for this course must be requested in advance and written under the supervision of an AU-approved exam invigilator. Invigilators include either ProctorU or an approved in-person invigilation centre that can accommodate online exams. Students are responsible for payment of any invigilation fees. Information on exam request deadlines, invigilators, and other exam-related questions, can be found at the **Exams and grades** [↗](#) section of the Calendar.

To learn more about assignments and examinations, please refer to Athabasca University's [online Calendar](#) .

Materials

Russell, P. J., et al. (2016). *Biology: Exploring the diversity of life* (3rd Canadian ed.). Toronto, ON: Nelson Education.  (eText)





eText

Registration in this course includes an electronic textbook. For more information on [electronic textbooks](#) , please refer to our [eText Initiative site](#) .

Other Resources

All other learning resources will be available online. Students must register separately to gain access to the SimBio labs.

Important links

- > [Academic advising](#) 
- > [Program planning](#) 
- > [Request assistance](#) 
- > [Support services](#) 

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from their individualized study counterparts.

Updated September 17, 2024

View **previous revision** [↗](#)
