



Course Number: BIOL 140 310/311 WEB DELIVERED

Course Title: Human Biology ONLINE

Term/Year: Winter 2024

Times and Locations All content is delivered asynchronously online via UR Courses

Pre-Requisites/Co-Requisites: None. This course is designed for students who do not intend to be biology majors and who are not in pre-professional health programs. Students cannot receive credit for both BIOL 140 and 150. Students who have credit for BIOL 100 or BIOL 101 cannot subsequently receive credit for BIOL 140. **Please note: if you took high school biology you will notice overlap in topics covered in your high school class and in this class. If you are interested in a more detailed study of introductory topics in biology, you may want to look at taking BIOL 100 or BIOL 101.**

Instructor Name and Title: Refer to UR Self Service

Office Location: [Click here to enter text.](#)

Email:

Office Hours: [Click here to enter text.](#)

*Any student who may need accommodations should discuss these with the course instructor and contact the Coordinator of the Centre for Student Accessibility at 306.585.4631 or accessibility@uregina.ca. This is a confidential matter, so I ask that you **use a confidential communication, such as email.***

Course Description:

This course surveys basic principles of biology at an introductory level using examples from humans and their environment. An important aspect of the course is to introduce the methods of science, allowing students to begin to think critically about the information they encounter. For all topics, the content starts with foundation knowledge (What is it?), builds on the foundation (How does it work?), and continues to a complex topic that is relevant to contemporary humans (Why does it matter that we know this and how can we understand the world or solve problems?). In many cases the historical context of the foundation knowledge is also introduced.

Instructor's Bio:

I have been teaching at the post-secondary level since my graduate school days in 1996. My academic background is in Ecology and Plant Ecology. I have worked on projects about spiders, meadow voles, prairie plant communities, nitrogen deposition, and seeds banks. More recently, I have been working on the implementation of technology in the post-secondary classroom, implementation of non-major biology classes and labs online, and ways to increase accessibility of non-majors biology.

https://www.luthercollege.edu/university/academics/faculty-profiles/laura_ambrose

Learning Objectives and/or Outcomes:

Students will understand and be able to talk about the following:

1. The process of science, how science knowledge is generated, and how to think critically about the science information we read each day.
2. Introductory understanding of the unifying principles of biology: gene theory, cell theory, evolution by natural selection, and homeostasis. These principles form the foundation of the semester.
3. The foundation patterns of inheritance, including how genes are inherited and the impact on the whole organism
4. Characteristics of cancer cells, cancer diagnosis, cancer treatments
5. Data collection, data analysis, and drawing conclusions from data collected during an experiment.

Meta-skills and/or Capabilities:

Through unit notes, lab activities, studying, and completing assessments, you will develop some higher-order skills. These higher-order skills, also called meta-skills, help you in all areas of your life, including academic and professional aspects. Every university class develops these skills, but in this class, you will find emphasis placed on the following meta-skills:

1. Communication. You will need to read and understand information in a variety of formats, including unit notes, lab notes, written communications, and scientific data. You will also learn to write using biological terminology and in scientific formats.
2. Numeracy. You will, through guided steps, begin to understand how scientific data is used to calculate meaningful measures of outcomes of scientific experimentation. You will implement various formats for communicating patterns and trends based on the data and calculations.
3. Personal skills. Success in any university course requires a student to develop time management, goal setting, and work ethic skills. In this course, you will be guided in the areas of time management, goal setting, balancing different areas of your life, and ethical behaviour. Alongside the academic goals of this course, I hope that you develop yourself as a person of learning and begin to understand how to be successful in university courses, and beyond.

Textbook and Lab Notebooks:

1. Concepts of Biology from Open Stax. This is a peer-reviewed open-source textbook. You can access the book from the Open Stax website. Click on the link below and then click on the Get this book button below the image of the cover of the book. You can use any general biology or human biology textbook you have. If you have questions about textbooks, please contact me.
<https://openstax.org/details/concepts-biology>
2. Biology 140 Lab Notebook/Manual, University of Regina. Required and available online from the UR Courses website. *It is not permitted to use a lab notebook from a previous semester.*

Semester Schedule

Week Number	Week Dates	Unit and Topic	Learning Activities	Textbook chapters
1	Jan 8	Welcome and orientation activities		
2	Jan 15	No new content Start on Unit 1	Notes	1
3	Jan 22	Unit 1 Introduction, Sci. Method Unit 2 Cells, Systems, Homeostasis	Notes	1 3, 16.1
4	Jan 29	Lab 1 – Cells and Microscopes	Notes, online activities, drawings	3
5	Feb 5	Unit 3 Cell Division, DNA Replication Unit 4 Cancer	Notes, animations Notes, animations	6.1, 6.2, 7.2, 9.2 6.3
6	Feb 12	Lab 2 – Cell Division and Cancer	Notes, animations, activities	6.1, 6.2, 6.3, 7.2
7	Feb 19	Break week		
8	Feb 26	Unit 5 DNA, RNA, Proteins	Notes, animations	9
9	Mar 4	Lab 3 – DNA, RNA, Proteins	Notes, activities	9.1, 9.3, 9.4
10	Mar 11	Unit 6 Inheritance	Notes, animations, videos	8, 9.5
11	Mar 18	No new content Start Unit 7		
12	Mar 25	Unit 7 Cardio. & Respiratory Systems Lab 4 – Body Systems	Notes, animations Notes, experiment	16.2, 16.3
13	Apr 1	Unit 8 Evolution	Notes, animation	11.1, 11.2
14	Apr 8	Catch up, last day of classes April 12		

Course Assessments

Carefully read this table to see when the assessments are due.

Quizzes/Exams	Description	Value (%)	Date (by 11:59 pm)	Submission procedure
Lab 1 open book quiz* (Open book/note, not timed, multiple attempts)	Questions about lab 1 activities	5	Tues, Feb 6	Quiz
Exam 1 open book quiz* (Open book/note, timed, one attempt)	Unit 1 and Unit 2	10	Thurs Feb 8	Quiz
Lab 2 open book quiz* (Open book/note, not timed, multiple attempts)	Questions about lab 2 activities	10	Tues Feb 27	Quiz
Exam 2 open book quiz* (Open book/note, timed, one attempt)	Unit 3 and Unit 4	15	Thurs Feb 29	Quiz
Lab 3 open book quiz* (Open book/note, not timed, multiple attempts)	Questions about lab 3 activities	10	Tues Mar 12	Quiz
Exam 3 open book quiz* (Open book/note, timed, one attempt)	Unit 5 and Code of Life	15	Thurs Mar 14	Quiz
Inheritance open book quiz (based on practice problems, not timed, one attempt) *	Unit 6	15	Thurs Mar 21	Quiz
Lab 4 open book quiz* (Open book/note, not timed, multiple attempts)	Questions about lab 4 activities and Unit 7	10	Thurs April 4	Quiz
Evolution open book quiz* (Open book/note, not timed, multiple attempts)	Unit 8	5	Tues April 9	Quiz
Engagement Marks (optional**)	Optional quizzes	5	By April 12	Quiz
Total Mark		100		

*** All assessments (except Engagement Marks) listed in this table must be completed and submitted for grading to receive a grade for this class. If an assessment is missed, contact me as soon as possible. You are welcome to submit assessments before the due date, except for exams, which are to be completed on the date indicated in the table.**

**** Engagement Marks are like participation marks and are optional. It is up to you if you want to complete the activities. They have been designed to have you think about the content you are learning in this course. If you do not complete these activities, you will receive 0, but you will still receive a grade for the course. *The more activities you do, the higher your mark will be.***

Course Policies

Academic Honesty:

In this class, you will be held to high standards of academic conduct.

In an exam, cheating includes:

- copying from someone by looking at their exam or talking to them
- using something you have brought into the exam that you are not allowed to have

In any case of suspected cheating, the exam and any evidence will be handed over to the Assistant Dean for investigation. Disciplinary action could include zero for the exam, zero for the course or expulsion from the University of Regina. A zero in a course that arises from academic misconduct is marked with a special notation and remains as a permanent record. In all cases, the misconduct is recorded with the University Secretary. Each case of misconduct has an impact on the discipline of further cases of misconduct.

Plagiarism is a form of cheating where you represent someone else's work as your own. This could be an essay, a lab assignment, or any other kind of assignment. It includes copying an answer from a friend during a lab quiz, handing in work from a previous semester, copying directly from a source without indicating it is a quote, or using ideas from a source without indicating the source you used.

If you are unclear at all about these definitions of cheating and plagiarism, please see me.

This course has been set up to reduce the opportunity for cheating. If you are worried about being prepared enough for an assessment, before you resort to cheating, please reach out. I have great confidence that we can figure out a solution.

Students are prohibited from using generative artificial intelligence text software, such as ChatGPT, on any assignments for this course. Students are expected to complete all course work without substantial assistance from others, including automated tools. Unauthorized use of generative AI is considered a breach of academic integrity. Any suspected cases of academic misconduct will be shared with the Assistant Dean of Luther College for a formal investigation.

All work submitted for this class is individual work. You are encouraged to work on labs with your peers, but all answers you submit for grading must be your own and in your own words. You cannot copy from any source, including the unit notes, lab notebook, other students, or previous students.

Late Submission Policy:

All assessments need to be completed, regardless if they are late or on time. Assessments handed in after the due date/time may be assessed penalties as follows:

Next 3 business days	1% of mark achieved per day
4 days +	5% per day to a maximum of 50%

If you find yourself in a bind, let me know as soon as **possible**. **Remember, ALL assessments need to be submitted to receive a mark in the class.**

How the course works

The very nature of an online course requires that the student share some of the responsibility for keeping up the pace of learning. In contrast to a face-to-face course where the instructor guides the pace of lectures and labs, in an online course, the instructor can only set guidelines

and deadlines, and use the quizzes and exams to ensure that the student is learning the content on schedule. **Therefore, it is important to schedule blocks of time every week that are devoted to coursework.** These blocks of time should provide you with enough time to get set up at the computer, log in to the website, and spend a couple of hours working. In the face-to-face class, there are 150 minutes each week spent in class and 160 minutes spent in the laboratory every second week. This does not include quiz time, studying time, or reading the textbook and lab notebook. General university guidelines suggest students need to plan on studying an average of an additional 6-9 more hours per week per course. That is a total of 12 to 15 hours per week on each class. Some weeks will require that full amount of time, and other weeks will not. Look over the schedule and budget your time wisely.

Evaluation

All assessments will be submitted online. **All work submitted must be individual work and written in your own words, even if you work in small groups for lab activities.** Here are some important notes:

1. **The unit exams** will be available online within UR Courses from 6:00 am to 11:59 pm on each of the dates noted in the schedule. The exams will be timed, meaning you will have a set number of minutes to complete each exam. Once you start the exam, you will have to complete it in one sitting. Remember, if you decide to complete an exam outside of the Help Desk's normal working hours (see <http://www.uregina.ca/compserg/helpdesk/> for hours) you will not have access to technical support should you have technical problems. *****The exam will close at 11:59 pm. If you want to use the full time allotted for that exam, you must start at the appropriate time. For example, if you have 2 hours for the exam, you must start before 9:59 pm to guarantee you will get your full two hours. *****

The exams are open book/open note. The exams are designed so that you will have enough time to complete the exam using the approved resources. It is strongly recommended that, if you want to ensure success in this course, you will put in the time studying before the exam. Your exam answers must be your own. **You cannot work with another person, in any way, during the exam.**

2. **The lab quizzes.** All lab quizzes are to be done independently. You may work collaboratively with someone during the lab activities, **but you must sit down on your own to complete the quiz.** You need to answer the questions in your own words, not copying from the lab notebook, videos, or any other source. Writing the answers in your own words demonstrates you have learned the content, while copying demonstrates you know how to find the answer. You are welcome to use sources other than what is provided, just include the citation in your quiz.

Lab quizzes are not timed, are open book/open note, and allow multiple attempts. For some quiz questions you will need to upload a photo of the lab activities you did as part of the lab work. **You must upload your own photos and not share them with other people.**

3. **Inheritance quiz.** This is an open book/open note quiz based on a set of practice problems. You will be given the practice problems to work on and answer as if you were going to hand them in. Then you can use the practice problems, with your answers, to complete the online inheritance quiz. The quiz is individual work, and you cannot work with someone else during the quiz. The quiz is not timed, but you are limited to one attempt.

4. The Evolution quiz is an open book/open note quiz based on a video and the evolution unit notes. The quiz is not timed.

A week in the life of a Biology 140 online student...one possible scenario

It has been mentioned that the successful completion of this course requires self-discipline. It cannot be overstated that you need to provide yourself with enough distraction-free time to attend to the written lecture content, the lab activities and the exams and quizzes. At the beginning of each week it is a good idea to check out the schedule of lectures, labs, quizzes and exams for the week and the following week. That gives you a big picture of what is happening. After getting the big picture figured out, you need to figure out what you need to do in order to get all of the work done. What do you have to read for lecture notes, textbook, and lab manual? Thinking honestly about how you work, you need to estimate how much time it will take you to actively read and learn the content from the lectures, labs and textbook. If you work out a realistic weekly work schedule with specific goals, you are much more likely to succeed in this course. Active learning is when you do more than let your eyes move across the screen or page. Active learning can include making jot notes or study notes while you are reading, practicing saying new terms and their definitions out loud, making cue cards, writing out answers to summary questions, etc. This takes more time, but it will enable you to engage in the content in an active manner, thereby increasing your learning. When you start to study for a Unit Exam, you will find that you have learned and retained some of the information while you were reading. This gives you an advantage in that there will be less content that seems new when you are studying.

Again, welcome to this adventure in learning. Biology is a dynamic subject that intersects many aspects of our life. There is so much to learn and think about. I hope you enjoy this introduction. May it spark a fire of curiosity!

Winter 2024

Services for Students with Disabilities, Health Conditions, Illnesses, and Injuries

The University of Regina wishes to support all students in achieving academic success while enjoying a full and rewarding university experience. The Centre for Student Accessibility upholds the University's commitment to a diverse and inclusive learning environment by providing services and support to enable students with disabilities, health conditions, illnesses, and injuries to approach their studies in an equal and effective manner. The Centre for Student Accessibility aims to encourage independence, self-advocacy, and equality for all students, while maintaining privacy and confidentiality. Students who need these services are encouraged to register with the Centre for Student Accessibility to discuss the possibility of academic accommodations and other supports as early as possible. The deadline to register and/or request accommodation letters for instructors coincides with the W drop deadline(s) for courses each semester. To register with the Centre for Student Accessibility, please book an appointment with an Accessibility Advisor by calling (306) 585-4631 or emailing accessibility@uregina.ca. For further information on what is required to register and receive academic accommodations, please explore the website: <https://www.uregina.ca/student/accessibility/index.html>

Student Responsibilities and Course Prerequisites

Students are responsible for understanding and following the academic regulations outlined in the University Calendar. Please see the Academic Regulations section of the 2023-2024 Calendar under Responsibilities of Students. Ensure that you have the necessary prerequisite for this class. If not, you will not receive credit for it at graduation time, and you may have difficulty in completing your degree program. Please note unauthorized video or audio-recording of classes is not permitted. If you have a complaint about this course or the instructor, please contact the Academic Dean of Luther College. [2023-2024-ug-calendar-mar-15.pdf \(uregina.ca\)](#)

University Email Accounts

All official university and course-related correspondence is sent to your University of Regina email account. Check it regularly or have your university email forwarded to your preferred

email address; see <http://www.uregina.ca/is/student/email/>.

Procedures and Dates for Dropping Courses

All changes to course registration must be made through UR Self Service. Students who are not attending but have not formally withdrawn are still considered to be registered, are liable for fees, and are assigned a failing grade of NP for failing to complete the course. **Non-attendance does not constitute withdrawal.** [2023-24.pdf \(uregina.ca\)](#)

Last day to add a course and drop a course with no record and receive a 100% refund January 19, 2024

Last day to withdraw from a course and receive 50% refund February 2, 2024

Last day to withdraw from a course without a failing grade March 15, 2024

Procedures for Requesting Deferrals of Final Exams or Term Work

If you are unable to finish your final exam or term work for reasons beyond your control (e.g., illness, accident, death in the family), please contact the Assistant/Associate Dean of the Faculty or College through which you are registered as soon as possible for advice.

Procedures for requesting deferral of final examinations or term work are outlined in the Academic Regulations section of the 2023-2024 Calendar. If you experience any personal difficulties during the semester, for example due to illness or family issues, please discuss your situation with your instructor and/or your Assistant/Associate Dean as soon as possible.

University Harassment and Discrimination Prevention Policy

All members of the University community are entitled to a professional working and learning environment free of harassment and discrimination. See the General Information for Students section of the 2023-2024 Calendar for more details.

Wishing you a successful semester!