BIOLOGY 140 HUMAN BIOLOGY

Luther College is a federated college at the University of Regina. Grounded in the liberal arts tradition, Luther College is committed to personalized education in a community of scholars who value excellent teaching and engaged learning. Luther courses are student-centred and open to students from all faculties and federated colleges at the University of Regina.

Luther College respectfully acknowledges that it is physically situated on Treaty Four lands, which are the traditional territories of the nêhiyawak, Anihšināpēk, Nakoda, Dakota, and Lakota peoples and the homeland of the Métis/Michif Nation. Our College considers this shared history to be especially significant as we seek truth and reconciliation. We are reminded that we are all treaty people and are aware of the responsibility we have to one another. We encourage you to engage in your learning with an open mind and an open heart.

Course Number: BIOL 140
Course Title: Human Biology
Instructor: Laura Ambrose
Office: LC 113
Term/Year: Winter 2026
Times and Locations
Lectures: Monday and Wednesday, 10:00 to 11:15 am, **Luther College Auditorium**
Labs are in person starting on these dates in Lab Building room 411
L02 Wed Jan 21 2:30 pm
L03 Thurs Jan 22 8:30 am
L04 Thurs Jan 22 16 2:30 pm

Lectures are Hyflex: The lectures will simultaneously occur in-person and on Zoom. You are welcome to attend lectures in whichever format you want to on any lecture day. **The lectures will not be recorded**, but the notes from each lecture will be posted on UR Courses.
Lecture exams are in-person on the days listed in the assessment schedule.
Office Hours are Monday from 1:00 to 3:00 pm, or by appointment. I may also be available before and after lectures. And when my office door is open. Or when I am in the lab.

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.**

As a lab course, there is a higher workload than some other courses. It is **your responsibility** to ensure you are aware of the **full schedule** and understand the **amount of work** required to complete the lab activities and the assessments.

Any student who may need accommodations should discuss these with the course instructor or contact the Centre for Student Accessibility at Student Accessibility | UR Accommodated, University of Regina (uregina.ca). **Due to the confidential nature of the conversation, please make an appointment to discuss your accommodation or other personal matters.**

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 (undergraduate) and Plant Ecology (graduate). I have worked on projects about spiders, meadow voles, prairie plant communities, nitrogen deposition, and seed banks. More recently, I have been working on the implementation of assistive technologies in the post-secondary classroom, implementation of non-majors biology classes and labs online, the use of AI in teaching and learning, and ways to implement principles of Universal Design for Learning in online and in-person classes.
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.
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 lectures, lab activities, and studying, you will develop some meta-skills that will help you in all areas of your life, including academic and professional aspects. Every university class develops these kinds of skills, but in this class, you will find emphasis placed on the following meta-skills:

1. Communication. You will understand information delivered in a variety of formats, including notes, verbal lectures, verbal instructions, videos and data. You will also learn to write using biological terminology and in scientific formats.
2. Numeracy. You will begin to understand how scientific data is used to calculate measures of outcomes of scientific experimentation. You will investigate various formats for communicating patterns and trends based on the data and calculations.
3. Teamwork. You will develop skills in working with a group of students in the lab. In most lab periods you will work cooperatively with other students to complete tasks and learn the concepts needed to complete independent assessments.

4. Personal skills. Success in any university course requires a student to develop time management, goal setting, and work ethic skills.
5. Alongside the academic goals of this course, I hope that you develop an academic mindset and see yourself as a person of learning. This will allow you understand how to be successful in university courses, and beyond.

Delivery Mode and use of Zoom and/or UR Courses: **This is an in-person course** with an option for attending lectures on Zoom. **Lab attendance, in person, is mandatory**. **All assessments (lecture exams, lab quizzes, and the final exam) are in-person and mandatory**.

Optional Textbook:
Textbook: https://openstax.org/details/books/concepts-biology This is not required reading. This open-source, peer-reviewed, and free online textbook is a resource you can use to look up topics for background reading, images, or other examples.

Lab Notebooks: available on UR Courses in the Labs section of the course. A copy of each lab booklet is needed on paper. No devices are allowed to be used in the lab.

Electronic Resources:
It is expected that you will log in and check UR Courses **at least once per week**. On this course website you will find:

- The lab notebooks
- Lecture notes from class
- Required pre-lab quizzes
- Engagement quiz activities
- Grades
- Email and discussion forums
- Required video links and documents for learning content

Class Schedule

Week #	Lecture Dates	Topic	Lab
1	Jan 7	Introduction to course	
2	Jan 12 Jan 14	Seven Characteristics of Life Scientific Process	
3	Jan 19 Jan 21	DNA, DNA Replication, Cell Cycle Mitosis	Lab 1
4	Jan 26 Jan 28	Meiosis Gametogenesis	
5	Feb 2 Feb 4	RNA, Proteins Genetic Code	Lab 2
6	Feb 9 Feb 11	**Midterm 1** No class – video lecture	
7	Feb 16 Feb 18	Break week No classes	
8	Feb 23 Feb 25	Transcription Translation	Lab 3
9	Mar 2 Mar 4	**Midterm 2** Inheritance	
10	Mar 9 Mar 11	Inheritance Inheritance	Lab 4
11	Mar 16 Mar 18	Inheritance Review Cancer	
12	Mar 23 Mar 25	Cancer Cancer	Lab 5
13	Mar 30 Apr 1	Cancer Cancer	Make up lab
14	Apr 6 Apr 8	Evolution Evolution	
15	Apr 13 **Apr 18**	Course Evaluations, Review **Final Exam**	

NOTE: every effort will be made to maintain this schedule, but dates and class content may be subject to change. You will be notified if there are major changes to this outline.

Lab Schedule

Attendance at all labs and completion of the lab work is mandatory

Please check your semester schedule to determine which lab section you registered for. It is important that you attend the lab section for which you are registered.

Section	Date	Time	Lab #	Topic
L02	Wed Jan 21	2:30 pm	1	Microscopes and Cells
L02	Wed Feb 4	2:30 pm	2	Mitosis and Meiosis
L02	Wed Feb 25	2:30 pm	3	DNA and RNA
L02	Wed Mar 11	2:30 pm	4	Inheritance
L02	Wed Mar 25	2:30 pm	5	Sci Method, Cell Resp
L02	Wed Apr 1	2:30 pm		Missed lab quiz make up*
L03	Thurs Jan 22	8:30 am	1	Microscopes and Cells
L03	Thurs Feb 5	8:30 am	2	Mitosis and Meiosis
L03	Thurs Feb 26	8:30 am	3	DNA and RNA
L03	Thurs Mar 12	8:30 am	4	Inheritance
L03	Thurs Mar 26	8:30 am	5	Sci Method, Cell Resp
L03	Thurs Apr 2	8:30 pm		Missed lab quiz make up*
L04	Thurs Jan 22	2:30 pm	1	Microscopes and Cells
L04	Thurs Feb 5	2:30 pm	2	Mitosis and Meiosis
L04	Thurs Feb 26	2:30 pm	3	DNA and RNA
L04	Thurs Mar 12	2:30 pm	4	Inheritance
L04	Thurs Mar 26	2:30 pm	5	Sci Method, Cell Resp
L04	Thurs Apr 2	2:30 pm		Missed lab quiz make up*

* Permission is required to attend the makeup lab periods. Permission is granted after a missed lab form has been submitted on UR Courses and approved. Review lab notes before lab period to prepare for writing the quiz. There is a deduction of two marks for missing lab work.

Evaluation Components and Due Dates

Evaluation Component	Grade Weight (%)	Date
Midterm 1 *	15	Monday, Feb 9, in person, in class
Midterm 2 *	15	Monday Mar 2, in person, in class
Final Exam **	35	**Tentative Saturday April 18 2:00 pm**
Lab quizzes ***		
Lab 1	5	At the end of lab
Lab 2	7	At the end of lab
Lab 3	8	At the end of lab
Lab 4	7	At the end of lab
Lab 5	7	At the end of lab
Engagement Quizzes ****	1	Check each quiz
Total	**100%**	

* Students are allowed to bring a single 8.5x11 inch/22x28 cm page of notes with writing **on one side**. Excess writing will result in a loss of 1% for each 10% extra notes. Notes are checked in the exam.

** Students are allowed to bring a single 8.5x11 inch/22x28 cm page of notes with writing **on two sides**. Excess writing will result in a loss of 1% for each 10% extra notes. Notes are checked in the exam.

*** Lab quizzes are open book using the completed lab activities booklet. The completed activities booklet is submitted with the lab quiz. Incomplete lab booklets will result in a loss of 0.25 marks on the lab quiz for each blank answer in the lab notebook.

**** Engagement Quizzes include the Academic Integrity Quiz and the Syllabus Quiz. Check each quiz for closing dates.

Other important dates:
Last day to add classes is **Monday, January 19, 2026**
Last day for 50% tuition refund is **Monday, February 2, 2026**
Last day to withdraw with a grade of W is **Monday, March 16, 2026**

Professional Conduct & Policies

Accessibility:

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. Students who need these services are encouraged to register with the Centre for Student Accessibility to discuss the possibility of academic accommodation 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 306-337-2200 or emailing student.success@uregina.ca. For further information on what is required to register and receive academic accommodations, please explore the website: Student Accessibility | UR Accommodated, University of Regina (uregina.ca).

Academic Honesty:

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

In an exam or quiz, 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

For this course, for any quiz or exam, you are not allowed to have any electronic devices, including cell phones, smart watches, text messaging devices, translators, or calculators. These items need to remain in your backpack or coat, separate from where you are sitting to write the exam. In any case of suspected cheating, notation will be made beside any question attempted to that point, you will continue with the exam, and then any evidence, along with your exam, 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. In this class, this includes having answers from previous semesters in the lab notebooks and copying answers from other students in the lab.

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

Required Assessments and Late Submission Policy:

All assessments need to be completed, regardless of if they are late or on time. If you miss an assessment, you need to contact the instructor as soon as possible. Make up assessments will not be possible after the assessment is returned.

A grade of NP (not passed) is awarded if a student has missed a required assessment.

Attendance:

Lecture attendance is strongly encouraged. Zoom lectures are not recorded. Learning starts in the lecture, continues in the lab, and is solidified with studying. Please note that **attendance is more than showing up during class time. Attendance means being involved in the class by listening, taking notes, and thinking about the class material.**

Lab attendance is mandatory to get credit for this lab-science course. Please reach out to me if you run into a problem on lab day or if you notice you have a lab conflict.

From the UR Undergraduate Calendar:

> *Regular and punctual attendance at classes provides a foundation for academic success and is expected of all students. When the persistent lateness or absence of a student jeopardizes the learning or the evaluation of the work of other students in the course, the student may be subject to penalty. One written warning will be provided to a student before action is taken. This includes, but is not limited to:*
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> - *being dropped from the course (I have never had to do this);*
> - *being barred from writing the final exam (I have never done this);*
> - *being barred from attending a class or components of a class (this usually only happens when you need skills or content from a previously missed lecture or lab, but we don't have this).*

Use of Cell Phones and Social Media Policy:

You are welcome to bring electronic devices that you are going to use in a productive manner, conducive with the learning environment. It is expected that you will be engaged with the learning process in such a way that other people, including myself and other students, will not be distracted. *Texting, scrolling, and swiping are more distracting than might be anticipated*. Let me repeat, when you are using technology for non-class or lab related work, it is noticeable and disruptive. Disrupting teaching and learning can be academic misconduct.

Other Policies:

In large classes there is often a misconception about the impact of talking during lectures. Talking is distracting in both auditory and visual ways. It is distracting to hear people talking and it is distracting to see people in a conversation. Refrain from holding conversations during lectures. **It is important that the classroom and labs be a respectful and safe learning space for everyone, including students, the instructors, and any guests. Please be aware of how your behavior affects others.**