



COURSE OUTLINE

1. **Course:** BIOL 313, Principles of Ecology - Winter 2021

Coordinator(s)

Name	Email	Phone	Office	Hours
Ecology Program Technician Louise Hahn	lhahn@ucalgary.ca	403 220-5280	BI 264	TBA

Section(s)

Lecture 01: MWF 13:00 - 13:50 - Online

Instructor	Email	Phone	Office	Hours
Dr Ariane Cantin	acantin@ucalgary.ca	na	TBA	TBA
Dr Robert Barclay	barclay@ucalgary.ca	na	BI 330	TBA

The course coordinator is Dr. Ariane Cantin

Online Delivery Details:

This course is being offered online in real-time via scheduled meeting times, you are required to be online at the same time.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

This course has a registrar scheduled, asynchronous final exam. The writing time is 2 hours + 50% buffer time, but the exam can be written any time in a 24-hour window.

Lectures will be synchronous on Zoom and the recordings will be made available to students on D2L.

TopHat will be used to assess student participation and provide students with practice questions. Questions will be set as "homework" so students can complete them on their own time.

Labs will be synchronous on Zoom and will not be recorded, participation to lab team work is mandatory.

Zoom link for office hours and synchronous sessions will be shared on D2L

We will be working hard to **answer your emails within 24 hours** (except on weekends and holidays)

General questions on Lecture/Lab materials should be asked on the **D2L Discussion Board**

ITP Metrics will be used to form teams and do peer assessments during the term

For any assessment, time will be adjusted for SAS students if needed and accommodations for students will be done on a case-by-case basis.

The Midterm will be available on D2L from February 23rd 2PM until February 24th 2PM and student will have 3 hours to complete the exam.

Course Site:

D2L: BIOL 313 L01-(Winter 2021)-Principles of Ecology

Note: Students must use their U of C account for all course correspondence.

As with in person classes, students are expected to behave in a professional and respectful manner during online teaching and learning sessions, and when using course tools such as discussion boards. The chat function in an online program such as Zoom is reserved to ask questions in a respectful manner or to respond to questions posed in class. The chat function must not be used for posting disrespectful comments towards other students or the course instructor, nor be used for having side-conversations, including private chats. Please note that if the

instructor downloads the chat history for the session, ALL chats (including private chats) will be included in the history. Please be sure to not type anything in the chat that you would not be comfortable with the instructional team seeing.

Course Outcomes:

- Demonstrate that ecological interactions happen at different scales and discuss why/how we examine those interactions to explain the distribution and abundance of organisms
- Develop links to why ecology is important for many disciplines of biology and has relevance to our everyday lives, conservation, etc
- Explain how/why ecological interactions need to be considered in an evolutionary context
- Explain the process of optimization, and how natural selection favors individuals whose behaviors lead to an increase in fitness
- Explain the fitness consequences for mate choice and the differences that exist between males and females
- Link individual rates of survival and fecundity and life history strategies to population growth rates
- Explain why exponential/geometric growth results from density independent per capita rates and how logistic growth results from density dependent per capita rates
- Explain how ecology processes and interactions, can promote and maintain biological diversity
- Describe and predict human impacts on ecology systems, making links to the global carbon cycle, climate change, and global scale ecological process
- Design, conduct, and analyze an authentic ecological experiment. Report the results of this experiment in the format of a scientific paper.

2. **Requisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

Prerequisite(s):

Biology 241 and 243.

3. **Grading:**

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the online University Calendar.

In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %	Date
Lecture	<i>Lecture total 60%</i>	
Midterm	25	February 24
Final	30	TBA - Registrar Scheduled
Participation (TopHat & Case Studies)*	5	All semester
Lab	<i>Lab total 40%</i>	
Team		
In-Lab Activities** (8 * 1.25%)	10	See schedule
Individual		
Project Introduction	5	Week of Feb 8
Project Methods	5	Week of March 1
Project Results	5	Week of March 15
Project Discussion / Peer Review	5	Week of March 29
Final Project	10	April 15

*Students need to complete **ALL** of the TopHat/Case Studies questions to get the 5% participation mark.

**Team activities done during lab time are designed to take less than the session time (170 minutes) but will be handed on D2L before 10PM on the day of the activity to account for any technical issues.

At the end of the term, each student will evaluate the contributions of the other members of their team (peer evaluation). All team members will get a “peer score” based on the final peer evaluation. The peer score for a student is the average rating of the student, divided by the overall average rating for all members of the team. This provides a way to evaluate the relative contributions of each team member to the team’s work. Each student’s total teamwork mark will be multiplied by their peer score to determine their final mark for the la

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the

student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	95 %	90 %	85 %	80%	75%	70 %	65 %	60%	55%	50 %	45 %

This course will have a final exam that will be scheduled by the Registrar. [The Final Examination Schedule](#) will be published by the Registrar's Office approximately one month after the start of the term. The final exam for this course will be designed to be completed within 2 hours.

The final exam will be administered using an on-line platform. Per section [G.5](#) of the online Academic Calendar, timed final exams administered using an on-line platform, such as D2L, will be available on the platform. Due to the scheduling of the final exams, the additional time will be added to **the end** of the registrar scheduled **synchronous** exam to support students. This way, your exam schedule accurately reflects the **start time** of the exam for any **synchronous** exams. E.g. If a **synchronous** exam is designed for 2 hours and the final exam is scheduled from 9-11am in your student centre, the additional time will be added to the **end** time of the **synchronous** exam. This means that if the exam has a 1 hour buffer time, a synchronous exam would start at 9 am and finish at 12pm. - **updated April 6, 2021**

- the latest you should start an asynchronous exam would be 8 am in order to be able to submit the exam at 11am and have the full 3 hours.

4. Missed Components Of Term Work:

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

Students will be assigned a team at the beginning of the semester. Each team will write and sign a contract detailing how they plan to communicate and organize themselves. If a student is unable to attend a synchronous component they should contact their team, TA, and course coordinator right away (if possible, before the synchronous session) to discuss how they can make up for the missed component. **A student can only miss a maximum of two synchronous lab team activities** as the group work builds each week and their absence directly impacts the progression of other members of the team. **Should a student miss more than two activities:**

a. they need to reach out immediately to the course coordinator. The student will then be removed from the group and be required to complete assignments on their own should they wish to progress in the course.

b. the student will receive a maximum grade of B in the course.

5. Scheduled Out-of-Class Activities:

There are no scheduled out of class activities for this course.

6. Course Materials:

Required Textbook(s):

Molles, Manuel C., Laursen, Andrew, *Ecology: Concepts and Applications*. McGraw-Hill Education.

Lecture and pre-lab slides will be made available on D2L.

Note that the 3rd, 4th and 5th Canadian Editions of the textbook can be used for this course.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);

- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC [ELearning](#) online website.

7. Examination Policy:

Midterm and Final Exams are asynchronous and administered on D2L. Both the midterm and final are individual and open book. Both exams will be made available for 24 hours and are designed to take 2 hours but students will be given 3 hours to complete to account for any technical issues. Students are allowed access to their lecture notes during the exams, but are not allowed to consult shared documents (Google docs etc) or chat servers (Discord, WhatsApp etc), they are specifically prohibited from working or contacting any other individuals while they complete their exams. Violation of these rules is considered academic misconduct with penalties as described in the University Calendar section K.

Time will be adjusted for SAS students if needed and accommodations for students with issues (e.g., caregiving responsibilities, ability to secure an appropriate test-taking environment, different time zones) will be done on a case-by-case basis. Please contact Dr. Cantin at least 14 business days prior to the assessment to discuss the matter.

Students should also read the Calendar, [Section G](#), on Examinations.

8. Approved Mandatory And Optional Course Supplemental Fees:

There are no mandatory or optional course supplemental fees for this course.

9. Writing Across The Curriculum Statement:

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section [E.2](#) of the University Calendar.

10. Human & Living Organism Studies Statements:

Students will not participate as subjects or researchers in human studies.

See also [Section E.5](#) of the University Calendar.

STUDIES IN THE BIOLOGICAL SCIENCES INVOLVE THE USE OF LIVING AND DEAD ORGANISMS. Students taking laboratory and field-based courses in these disciplines can expect involvement with and experimentation on such materials. Students perform dissections on dead or preserved organisms in some courses. In particular courses, students experiment on living organisms, their tissues, cells, or molecules. Sometimes field work requires students to collect a variety of living materials by many methods, including humane trapping.

All work on humans and other animals conforms to the Helsinki Declaration and to the regulations of the Canadian Council on Animal Care. The Department strives for the highest ethical standards consistent with stewardship of the environment for organisms whose use is not governed by statutory authority. Individuals contemplating taking courses or majoring in one of the fields of study offered by the Department of Biological Sciences should ensure that they have fully considered these issues before enrolling. Students are advised to discuss any concern they might have with the Undergraduate Program Director of the Department.

Students are expected to be familiar with [Section SC.4.1](#) of the University Calendar.

11. Reappraisal Of Grades:

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See [Section I.3](#) of the University Calendar.

- Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections [I.1](#) and [I.2](#) of the University Calendar

- b. **Final Exam:**The student shall submit the request to Enrolment Services. See [Section I.3](#) of the University Calendar.

12. Other Important Information For Students:

- a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, [Mental Health Services Website](#)) and the Campus Mental Health Strategy website ([Mental Health](#)).
- b. **SU Wellness Services:** For more information, see www.ucalgary.ca/wellnesscentre or call [403-210-9355](tel:403-210-9355).
- c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email ([svsa@ucalgary.ca](mailto:svs@ucalgary.ca)) or phone at [403-220-2208](tel:403-220-2208). The complete University of Calgary policy on sexual violence can be viewed at (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>)
- d. **Misconduct:** Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional [Code of Conduct](#) and promote academic integrity in upholding the University of Calgary's reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor's consent; submitting or presenting work as if it were the student's own work; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

[Student Handbook on Academic Integrity](#)
Student Academic Misconduct [Policy](#) and [Procedure](#)
[Research Integrity Policy](#)

Additional information is available on the [Student Success Centre Academic Integrity page](#)

- e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at [procedure-for-accommodations-for-students-with-disabilities.pdf](#).

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Associate Head, Undergraduate of the Department of Biological Sciences, Heather Addy by email addy@ucalgary.ca or phone 403 220-6979. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See [Section E.4](#) of the University Calendar.

- f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see [Legal Services](#) website.
- g. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](tel:403-220-3913) Email: sciencerep@su.ucalgary.ca. [Student Ombudsman](#), Email: ombuds@ucalgary.ca.
- h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.
- i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes,

assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or [non-academic misconduct](#), in addition to any other remedies available at law.

Tentative Course Schedule

Electronically Approved - Apr 06 2021 16:48

Department Approval

Day	Date	Lecture topic*	Lab topics**	Assessment***
M	Jan			