



COURSE OUTLINE

1. **Course:** BIOL 435, Biology of Fungi - Fall 2021

Lecture 01: MWF 15:00 - 15:50 - Online

Instructor	Email	Phone	Office	Hours
Dr Heather Addy	addy@ucalgary.ca	403 220-8963	EEEL 235C	Please see D2L

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.

Welcome to BIOL 435!

In Fall 2021, lectures and labs in BIOL 435 are online.

Lectures: Classes on **Mondays/Wednesdays** each week will be synchronous Zoom classes. Generally, these synchronous classes will involve working on **applying what you learn**, working either individually or, more often, with your teammates. While I will sometimes lecture to clarify things that aren't clear or to provide more information, you will usually be actively working during class rather than listening to a lecture. To prepare for these classes, you will watch/read assigned lecture videos and/or brief readings before class.

These synchronous classes will not be recorded because they involve team discussions in Zoom breakout rooms; if I do provide brief lectures, I will record those parts of the class.

Friday classes are asynchronous and provide some of the time you'll need to watch the assigned lecture videos and complete assigned readings. I will also have Student Hours via Zoom during our regular class time on Fridays.

Labs: All labs are synchronous via Zoom. Note that some weeks will not have labs: see Course Schedule posted on D2L. **Labs start in the week of Sept. 13** (i.e., there are no labs on Sept 7 or 9).

These synchronous labs will not be recorded because they involve team discussions in Zoom breakout rooms. The interactive nature of the labs means that it would be very difficult for you to make up any labs that you miss; please discuss any missed labs with me as soon as possible.

Please let me know if you have concerns or if your circumstances make it difficult for you to follow these arrangements.

Course Site:

D2L: BIOL 435 L01-(Fall 2021)-Biology of Fungi

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

2. **Requisites:**

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

Prerequisite(s):

Biology 313 and 331.

Antirequisite(s):

Credit for Biology 435 and 335 will not be allowed.

3. **Grading:**

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

In this course, overall grades will be determined following the information outlined below.

In BIOL 435, I use a grading approach called **specifications grading**, in which your course grade is not based on the percentage score you earn on assignments but rather on how many and which assignments you successfully complete. Each assignment is graded according to a rubric that outlines the specifications for that assignment. More information on grading of assignments is provided below the table and on D2L. Due dates for all assessments are available on D2L.

To earn a given letter grade, you must successfully complete all the requirements listed for that letter grade, as indicated in the table below. The table may look daunting but don't panic! Many of the assignments are brief and are designed to help you stay on track; they also help me know what material is not yet clear to you.

The table below summarizes the requirements for each letter grade, with information on +, -, and F grades provided below the table. The **Pass** and **High Pass** categories are described briefly in the "More Information" section below.

Component	Requirements for each letter grade*			
	(to earn a grade, meet all of the requirements in that column)			
	D	C	B	A
Course Goals & Background	X	Yes	Yes	Yes
Avg score on 5 Assigned Reading/Video Quizzes (lowest score dropped)	60%	70%	75%	85% (A+ = 90%)
Class Prep Questions	3/6	3/6	4/6	5/6
Lab Prep Questions	4/8	5/8	6/8	7/8
Explanation & Analogy Assignments	X	1/3	2/3	2/3 (High Pass on 1)
Critique of TV show/movie/book chapters	X	X	X	Yes (Pass or High Pass)
Course Wrap-up				
o Course Goals Revisited	X	Yes	Yes	Yes
o Course Reflection	X	X	Yes	Yes
o "Elevator pitch"	X	X	X	Yes (High Pass on 2)
Active contribution to Lecture Team Assignments (done in class)	7/11	8/11	9/11	10/11
Active contribution to Lab Team Assignments (due at end of lab period)	4/8	5/8	6/8	7/8
Peer Feedback Surveys (mid- and end-of-term)	2/2	2/2	2/2	2/2

* Determination of "+", "-", and F letter grades (see D2L for examples showing how various grades are earned):

- o If your work does not successfully meet **all** requirements for a D grade, you will earn an F grade.
- o If your work exceeds **all** requirements for a given letter grade, you will earn a "+"-letter grade.
- o If your work does not successfully meet **one** (and **only one**) of the specifications required for a given letter grade **and** meets all of the specifications for the next-lower letter grade, you will earn a "-" letter grade

More information on Grading:

All assignments are marked using "pass/fail" rubrics but because you can revise and re-submit (once) work that does not yet meet expectations using a free pass as outlined below, I use the terms "Pass" and "Not Yet" rather than "pass/fail".

- o You will have **5 'free passes'** that can be used to re-submit assignments. The completed free pass and revised assignment must be submitted within one week (7 days) of the graded assignment being returned to you. There is only one free pass per assignment and one re-submission per free pass. The free pass must be completed and attached to the re-submitted assignment.
- o Free passes can also be used to **extend the due date for some assignments** by up to one week after the original due date; information on D2L indicates which assignments are eligible for this extension. Free passes are not transferable to other students.
- o Each **team** will have **3 free passes** that can be used to re-submit team assignments, following the same procedures as described for individual free passes. These team passes cannot be used for extending the deadlines of team assignments, nor for individual assignments.

How are the various assignments marked?

The **Course Goals & Background Assignment**, **Class Prep Questions & Lab Prep Questions** are marked **Pass** if they are submitted on time, answer all components of the questions, and demonstrate thought & genuine effort and marked **Not Yet** if they do not meet these specifications (e.g., if a question is left blank).

- A free pass cannot be used to extend the deadline for these assignments but can be used to re-submit it if earns a Not Yet.

The **Explanation & Analogy Assignments**, the **Critique** and the **Course Wrap Up** components are marked **High Pass/Pass/Not Yet**, as per the descriptions below:

Not Yet: work does not meet specifications of assignment. Partial understanding is evident but there are significant gaps/errors in content and/or communication. Needs further work and/or more review. A free pass can be used for most assignments to resubmit work that earned a Not Yet.

Pass: work meets specifications of assignment and demonstrates good understanding of concepts/material with only one or two minor inaccuracies. Communication is mostly clear and complete. A free pass can be used for most assignments to resubmit work that earned a Pass, if you want to try for a High Pass.

High Pass: Work meets or exceeds specifications and demonstrates mastery of material. Communication is clear, complete and accurate. Presentation is professional with attention paid to details such that the work could be used as an example for other students.

- For an A grade, you must earn High Pass on a certain number of these assignments, as outlined in the grade table above (and see D2L for more-detailed examples)
- Free passes can be used to extend the deadline for these assignments and to re-submit a revised version

Team Assignments are marked as **High Pass/ Pass/Not Yet**, as outlined above. Note that your team does**not** have to earn High Pass on a specific number of assignments to earn a specific letter grade.

- Team free passes cannot be used to extend the deadline for these team assignments, but they can be used to re-submit a revised version if it earns Not Yet.

The University of Calgary offers a [flexible grade option](https://science.ucalgary.ca/current-students/undergraduate/program-advising/flexible-grading-option-cg-grade), Credit Granted (CG) to support student's breadth of learning and student wellness. Faculty units may have additional requirements or restrictions for the use of the CG grade at the faculty, degree or program level. To see the full list of Faculty of Science courses where CG is not eligible, please visit the following website: <https://science.ucalgary.ca/current-students/undergraduate/program-advising/flexible-grading-option-cg-grade>

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, one possible arrangement is that the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course. This option is at the discretion of the coordinator and may not be a viable option based on the design of this course.

5. Scheduled Out-of-Class Activities:

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

6. Course Materials:

Required Textbook(s):

Jens Petersen, *The Kingdom of Fungi*: Princeton University Press.

Links to assigned readings, videos or other resources will be provided on D2L.

There is also an optional book for this course available through the UC library as well as at the UC bookstore: Merlin Sheldrake (2020). *How Fungi Make our Worlds, Change our Minds & Shape Our Futures* (Random House).

For the Critique assignment (required only for the A grade), you can choose to critique two chapters from this book or you can do the critique on a TV show or movie (details on D2L). I have selected two chapters from this book that are available as pdfs, but you could choose two other chapters of interest to you. Even if you don't choose to do the critique, I'd recommend reading this book—it is an excellent and entertaining book.

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:

The quizzes on assigned readings/videos will be available on D2L for three days prior to the required completion date. The quizzes are designed to be completed in approximately 15 minutes; you can attempt each quiz twice. These quizzes are designed to test your understanding of the lecture videos/readings and thus are closed book and to be completed individually.

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.

- a. **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) 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/legal-services/sites/default/files/teams/1/Policies-Sexual-and-Gender-Based-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:

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf>

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf>.

Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, by filling out the [Request for Academic Accommodation Form](#) and sending it to Lisa Gieg by email imgieg@ucalgary.ca preferably 10 business days before the due date of an assessment or scheduled absence.

- 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](#) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [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.

Course Outcomes:

- Contrast the features that distinguish fungi from plants, animals and bacteria
- Describe the phyla of fungi and their life histories
- Describe the characteristic morphology of a fungal mycelium and explain its pattern of differentiation with development
- Explain the links between fungal lifestyle and reproductive biology
- Explain the ecological roles and global importance of fungi as saprotrophs, symbionts, and sources of food, antibiotics, allergens and toxins
- Work safely with fungal cultures using sterile technique
- Critically read research articles about fungi; interpret and explain figures/tables from articles
- Work effectively as part of a team and provide constructive feedback to team members
- Communicate effectively both in writing and orally

Electronically Approved - Sep 02 2021 08:27

Department Approval

Electronically Approved - Sep 02 2021 12:41

Associate Dean's Approval