

BIOL1108 – Principles of Biology II

TR 9:35-10:50 am, Science Learning Center 85

INSTRUCTOR

Dr. Erin Dolan pronouns: *she/her*

Office Location: B210B Davison Life Sciences (NOT in Biological Sciences); 2nd floor of B tower – look for green paint on the walls.

Email: eldolan@uga.edu (be sure to include the L after the E)

Office Hours: Please feel free to drop in to office hours on **Tuesdays after class (11-12 noon)**. You do *not* need to email to make an appointment during this time – **just stop by**. If you are *not* available during this time, please email me **three days and times** you are available and I will email you back about which one works best for me.

Please note: The syllabus is a general plan for the course; I will announce any necessary changes during class and on eLC.



Greetings and welcome to BIOL 1108!

This course is designed to prepare you for more specialized coursework in the life sciences. It is intended to complement BIOL 1107, Principles of Biology I, which focuses on molecular, classical, and population genetics. In both courses, you will develop an understanding of five core concepts in biology:

- **Evolution:** The diversity of life evolved over time by processes of mutation, selection, and genetic change.
- **Structure and function:** Basic units of structure define the function of all living things.
- **Information flow:** The growth and behavior of organisms occur through the expression of genetic information in context.
- **Transformations of energy and matter:** Biological systems, from cells to organisms to ecosystems, grow and change by processes based on chemical transformation pathways and are governed by the laws of thermodynamics.
- **Systems:** Living systems are interconnected and interacting over multiple scales.

The course will be taught using a variety of different teaching methods in order to:

- Help you gain **new knowledge** about biology through readings and lectures
- Help you develop **new thinking skills**, primarily by applying your new knowledge to answer questions, analyze data, and solve problems either during class or on homework assignments
- Engage you in learning **interesting, exciting, and relevant** biological ideas and phenomena.

COURSE RESOURCES

- **Textbook:** We will use freely available reading materials and videos instead of a single textbook. I will post these materials or links to them on eLC. If you would like a textbook as a reference, OpenStax has a free biology textbook that you may find useful:
<https://openstax.org/details/books/biology-2e?Book%20details>

- **Powerpoints, assignments, quizzes, and other materials.** I will post these on eLC. Please make sure you have access to the eLC site and email me (eldolan@uga.edu) from your UGA email account if you need to be enrolled.
- **SimBio.** We will be using SimBio materials to help reinforce and apply concepts you are learning. You will need to sign up for this service online; details will be provided on eLC. SimBio costs \$28 for the semester.
- **Top Hat (TH)** <https://tophat.com/> We will be using this wifi- and text-enabled classroom response system for you to practice problem solving and check your thinking and understanding as we progress through the semester. To submit answers, you will need either an internet-capable device (laptop, tablet or cell phone) or a cell phone that can submit text messages. If you do not have device, please let email me (eldolan@uga.edu) to let me know by the end of add / drop (**Friday, January 14**). Please register with Top Hat and use the join code **972013**. TopHat costs \$30 for the semester.

What are the expenses for instructional materials in this course?	
Textbook	\$0
TopHat	\$30*
SimBio	\$28*
Total	\$58
<small>* You may already have a subscription you can use. * There are fee waivers available for TopHat and SimBio for students experiencing financial hardship. Please contact Dr. Dolan if you need a waiver.</small>	

PEER LEARNING ASSISTANTS

We are lucky enough to have Peer Learning Assistants (PLAs) in our class! They are part of the PLAdawgs program (<https://ose.uga.edu/stem-plas/>) and have been selected based on their successful completion of BIOL 1108 and their interest in helping others learn. Once the PLAs for our course have been finalized, I will introduce them and share their contact info. PLAs will help you make progress on in-class problems by asking you guiding questions, redirecting you when you get stuck, and making sure your ideas are represented to the class during discussion. They will also help you review before each exam. Please take some time to get to know them and tap them as a resource.

COMMUNICATION

To comply with the Family Educational Rights and Privacy Act (FERPA), all communication that refers to individual students must be through a secure medium (UGAMail or eLC) or in person. Instructors are not allowed to respond to messages that refer to individual students or student progress in the course through non-UGA accounts, phone calls, or other types of electronic media.

COURSE ORGANIZATION AND DESIGN

The course is divided into five (5) units, each of which will culminate in an exam. There will be an optional final exam. Each unit will have learning objectives (i.e., things you should be able to do by the end of the unit), and a calendar to help you keep track of readings, quizzes, assignments, and the exam for each unit. Please review the calendar when we begin each unit, and complete the readings, quizzes, and assignments as noted on the calendar.

Section	Unit Dates	Exams
Unit 1. Reforestation of Mt. St. Helens	Jan 13-Feb 1	Feb 3
Unit 2. Surviving Extremes: Desert Ecosystems	Feb 8-22	Feb 24
Unit 3. Reintroducing Sea Otters	Mar 1-Mar 22	Mar 24
Unit 4. Diabetes in America	Mar 29-Apr 12	Apr 14
Unit 5: Sensing the Environment	Apr 19-26	Apr 28
Last class – Conclusions	May 3	

COURSE ACTIVITIES

Our course will involve five types of activities:

- 1. Practice quizzes.** You will complete ~10 quizzes on eLC during the semester as you read material and view videos outside of class. You will be able to complete each quiz *twice* to practice – revising your responses based on feedback and further studying as needed. Only your highest score will count and there should be feedback that becomes visible after you have complete the quiz the first time. The quizzes must be completed BEFORE class (see eLC calendar and unit calendars for due dates). Quizzes comprise a total of 10% of your grade. There are no make-ups or extensions, but your lowest quiz score will be dropped so you can miss one without harming your grade. You will be most successful in this class if you complete all of the readings/videos and quizzes.
- 2. Assignments.** Each unit will include in- and out-of-class assignments (~10 assignments during the semester) that will help you learn the material and apply what you learn, rather than simply memorizing facts. Although you can work with your group on these assignments, you are expected to complete and submit your own assignments in your own words. Assignments will comprise a total of 10% of your grade. The due dates for all assignments will be noted in the unit calendars and on each assignment. There are no make-ups or extensions, but your lowest assignment score will be dropped so you can miss one without harming your grade. You will be most successful in this class if you complete all of the assignments.
- 3. In-class questions.** I will be asking questions in class via Top Hat (TH). You will text or submit your responses via wifi using your cell phone or other wifi-enabled device (e.g., smartphone, laptop, tablet). This will allow me to gauge your understanding of key concepts and plan my teaching accordingly. **You will earn credit based on the percent of TH you respond to in class. If you respond to 90% of the questions, you will earn full credit.** For less than 90%, you will receive that percentage (e.g., if you respond to 85% of the questions, you will earn 8.5%). ***It is your responsibility to make sure your responses are recorded as you submit them.*** Please contact Top Hat technical support if you are having problems.

4. **Solo exams.** There will be an exam at the end of each unit for a total of five exams (10% each, totaling to 50% of your final grade). Each exam will include 20 multiple choice questions. They will be designed to assess your knowledge and comprehension of biological concepts as well as your ability to analyze data and solve problems similar to those we have worked on in class. Each exam will focus on assessing your knowledge and skills related to the content of that unit, building on the knowledge you gained from the previous unit(s).
5. **Group exams:** Sometimes you will not recognize you don't understand something until you see an exam question you don't know how to answer. Group tests offer another chance to learn and to demonstrate your knowledge and skills. During the second week of the semester, you will be assigned to a group. For each of the five solo exams, you will be given an opportunity to take the same test a second time with your group, and earn an additional grade (4% each, totaling to 20% of your final grade). If you did not understand material on the exam, this is your opportunity to get input from others and clarify your thinking. This instant feedback will not only improve your grade, but it will help you learn the material better.
6. **Final exam.** There will be an **optional** final exam worth 10% (same as a solo exam). If you are not satisfied with your solo exam scores, you can choose to take the final to replace your lowest solo exam score. The five best exam scores (out of the five unit exams and final exam) will be used to calculate your final solo exam grade. The final exam will be cumulative and multiple-choice: 50 questions total with 10 questions per unit.

COURSE GRADING

You will earn points in the course as follows:

Activity	Weight (% of final grade)
Practice quizzes (eLC)	10%
Assignments	10%
In-class questions (Top Hat)	10%
Solo Exams	50% (10% each)
Group exams	20% (4% each)
Total	100%

Final grades will be assigned as follows:

Grade Earned	Approximate Percentage	Grade Earned	Approximate Percentage
A	>93%	C+	77-79%
A-	90-92%	C	73-76%
B+	87-89%	C-	70-72%
B	83-86%	D	60-69%
B-	80-82%	F	<60%

HOW TO BE SUCCESSFUL IN THIS COURSE

To be successful in this course, I encourage you to:

- **Complete the assigned readings and videos, then treat them as references.** Do not just read or view them over and over again – this is NOT a helpful way to study. Instead, focus on answering the types of questions and problems posed in the quizzes, on Top Hat, and on assignments. Consider how you might alter a question or problem, and how the altered version could be solved.
- **Focus on the learning objectives.** The exams will assess your accomplishment of the learning objectives. Use the learning objectives as a guide for what to focus on when you are completing assignments and studying for exams.
- **Not spend time memorizing.** You can look up facts when you are working on assignments. Some facts will be provided for you on exams so that you can focus on applying knowledge rather than just regurgitating facts. You will come to remember the most important facts as you practice solving problems.
- Study with classmates, including working on problems together in a safe, socially distanced way. **You must submit all work in your own words**, but working with classmates will help you learn key concepts and skills.

Education research has demonstrated that the more opportunities students have to verbalize their thinking either in writing or aloud, the more students learn. Education research has also shown that when instructors prompt students with questions, rather than giving explanations themselves, students learn more. Thus, I have designed my part of the course to maximize your opportunities to explain your thinking to yourself, to your classmates, and to me. As a result:

- You will be able to figure out what you don't know and study accordingly,
- I will be able to figure out what you don't know and tailor my instruction accordingly,
- You will be better prepared to solve problems both on exams and throughout life, especially if you pursue a career involving science or evidence-based decision making.

We will make active use of the Course Discussion Board on eLC. You are encouraged to post questions you have about course content on the Discussion Board and to respond to your classmates' questions. The instructor and PLAs will respond regularly during the workweek (i.e., Monday through Friday) to questions or topics posted on the Discussion Board. You are strongly encouraged to respond to your classmates' posts. **No student will be penalized for posting an incorrect idea** – you should consider this a safe environment for articulating and checking your thinking. *If you are interested in a career in the health professions (physician, dentist, nurse, physician's assistant, etc.), this is a great place to demonstrate your ability to interact with others in ways that are respectful, empathetic, and informed.*

In posting to the Discussion Board, please adhere to UGA's Code of Conduct (http://conduct.uga.edu/code_of_conduct/index.html) by following these rules:

- **Treat everyone with respect (including the instructor and PLAs!):** Disagreements are fine, but the discussion should not get personal. There is a big difference between "I think you're wrong" and "I think you're an idiot" (or worse). Please keep your posts civil.

- **Stay on topic:** Discussions can meander, but the point of this Discussion Board is to discuss biology (not your plans for the weekend). Please keep your posts related to the content of the course. Off-topic posts may be moved or deleted without notice.
- **Stay within the boundaries:** You may not post messages that are illegal, harassing, intimidating, defamatory, profane, or indecent. Never say something on the Discussion Board that you wouldn't say in front of a group of people or face-to-face.
- **No UGA website can be used for advertising:** This means that you are not allowed to sell your notes or post URLs for note-taking, tutoring, or other products or services on eLC.

OTHER COURSE INFORMATION

Well-being, mental health, and student support: If you or someone you know needs assistance, you are encouraged to contact Student Care & Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu/>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services. UGA has several resources to support your well-being and mental health: <https://well-being.uga.edu/> Counseling and Psychiatric Services (CAPS) is your go-to, on-campus resource for emotional, social and behavioral-health support: <https://caps.uga.edu/>, TAO Online Support (<https://caps.uga.edu/tao/>), 24/7 support at 706-542-2273. For crisis support: <https://healthcenter.uga.edu/emergencies/>. The University Health Center offers FREE workshops, classes, mentoring and health coaching led by licensed clinicians or health educators: <https://healthcenter.uga.edu/bewelluga/>

Tutoring: Everyone comes to college with different knowledge, skills, abilities and resources, and everyone has a different definition of what college success looks like. This means there isn't one correct path to success! The Division of Academic Enhancement (DAE) offers free peer tutoring in over 200 of UGA's most rigorous courses including writing tutoring. To engage with a tutor, download the Penji app, available on iOS and Android, and create an account using your MyID@uga.edu email address. Don't have a smart phone? Navigate to <https://web.penjiapp.com> and create an account using your MyID@uga.edu email address. Need help? Visit their website (<https://dae.uga.edu/services/tutoring/>) or send an email to tutor@uga.edu for more information on how to engage with a tutor. In addition to tutoring, the DAE provides Academic Coaching, Student Success Workshops, and more. The DAE is committed to the success of all students at the University of Georgia. For more on these and other resources, please visit: <https://dae.uga.edu/> I encourage you to use any or all of the DAE and other university resources to help you be successful!

Disability Resource Center (DRC): The traditional education system is not set up for everyone to succeed; accommodations make this possible. The DRC (<https://drc.uga.edu>; 114 Clark Howell Hall; 706-542-8719 voice; 706-542-7719 fax; 706-542-8778 tty) has services and resources in place for students who have a disability. Students who seek accommodations due to a disability should contact me during the first week of the semester or as soon as the need for the accommodation is discovered. I am happy to work with students and the Disability Resource Center to provide appropriate accommodations.

Attendance policy: The course content and discussions will be tailored to build on your existing knowledge and address your questions and concerns, so your attendance is essential. There will be times you may miss class because of an illness, emergency, or other professional or academic commitment. I have structured the grading in this course to minimize the impact of missing a class for legitimate reasons. **What to do when you miss class:**

- If you are ill, please stay home! This limits the spread of any illness and allows you to rest so you can recover more quickly. Assignments, quizzes, and Top Hat questions cannot be submitted late, but your grade will not suffer because you can miss an assignment, a quiz, and 10% of Top Hat questions without penalty. If you miss an exam, you will earn a zero for the exam and you can take the final exam to replace the zero with your final exam score. ***You do not need to provide a doctor's note or notify the instructor.*** You should **contact a classmate** to figure out what you missed and get their notes from class. See COVID-specific details below.
- If you know in advance that you are going to miss an exam or other assignment due to illness, authorized representation of the University, or extraordinary personal circumstances, please notify me as soon as possible in advance of the day(s) you anticipate missing. Please provide documentation for your absence and we will work together to reschedule the exam or assignment due dates.

Academic Honesty and the Honor Code: As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "[A Culture of Honesty](http://www.uga.edu/honesty)" found at: www.uga.edu/honesty. Academic work includes, but is not limited to, course assignments, quizzes, exams, and in-class questions. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor. ***Specifically, this means the following examples are violations of the policy, and you WILL NOT:***

1. Post academic work to or use academic work from a text message (e.g., GroupMe, website (Course Hero, Koofers, etc.), electronic media, or physical space.
2. Copy someone else's academic work, or sharing your academic work with others.
3. Complete academic work for someone else.
4. Look at another person's exam while taking your own exam.

NOTE: You are allowed to share your personal course notes if you would like to.

CORONAVIRUS INFORMATION

UGA adheres to guidance from the University System of Georgia and the recommendations from Georgia Department of Public Health (DPH) related to quarantine and isolation. Since this may be updated periodically, we encourage you to review the latest guidance [here](#). The following information is based on guidance last updated on December 29, 2021.

Face coverings: Following guidance from the University System of Georgia, face coverings are recommended for all individuals while inside campus facilities.

How can I obtain the COVID-19 vaccine? University Health Center is scheduling appointments for students through the UHC Patient Portal

(https://patientportal.uhs.uga.edu/login_dualauthentication.aspx). Learn more here – <https://www.uhs.uga.edu/healthtopics/covid-vaccine>. The Georgia Department of Health, pharmacy chains and local providers also offer the COVID-19 vaccine at no cost to you. To find a COVID-19 vaccination location near you, please go to: <https://georgia.gov/covid-vaccine>. In addition, the University System of Georgia has made COVID-19 vaccines available at 15 campuses statewide and you can locate one here: <https://www.usg.edu/vaccination>

What do I do if I have COVID-19 symptoms? Students showing COVID-19 symptoms should self-isolate and get tested. You can schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see <https://www.uhs.uga.edu/info/emergencies>.

Isolation: What do I do if I test positive for COVID-19? If you test positive for COVID-19 at any time, either through a PCR test, an Antigen test, or a home test kit, you are required to report it through the [DawgCheck Test Reporting Survey](#). Follow the instructions provided to you when you report your positive test result in DawgCheck. As of December 29, 2021, when an individual receives a positive COVID-19 test: Everyone, regardless of vaccination status, should:

- Stay home for 5 days.
- If you have symptoms or your symptoms are resolving after 5 days, you can leave your house and return to class.
- Continue to wear a mask around others for 5 additional days.

Quarantine: What do I do if I have been exposed to COVID-19? If you have been exposed (within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period – unmasked; “masked-to-masked” encounters are not currently considered an exposure; this type of interaction would not warrant quarantine) to someone with COVID-19 or to someone with a positive COVID-19 test and you are:

- Boosted, or have become fully vaccinated within the last 6 months (Moderna or Pfizer vaccine) or within the last 2 months (J&J vaccine)
 - You do not need to quarantine at home and may come to class.
 - You should wear a mask around others for 10 days.
 - If possible, get tested on day 5.
 - If you develop symptoms, get tested and isolate at home until test results are received, then proceed in accordance with the test results.
- Unvaccinated, or became fully vaccinated more than 6 months ago (Moderna or Pfizer vaccine) or more than 2 months ago (J&J vaccine) and have not received a booster:
 - You must quarantine at home for 5 days. After that you may return to class but continue to wear a mask around others for 5 additional days.
 - If possible, get tested on day 5.
 - If you develop symptoms, get tested and isolate at home until test results are received, then proceed in accordance with the test results.

You should report the need to quarantine on [DawgCheck](#) (<https://dawgcheck.uga.edu/>), and communicate directly with your faculty to coordinate your coursework while in quarantine. If you need additional help, reach out to Student Care and Outreach (sco@uga.edu) for assistance.