

Instructor: Prof Judy Follo

Office: Goulet 2322 and Virtual Office

Time: Asynchronous

Email: jfollo@anselm.edu

Office Hours: Zoom by appt

Location: Asynchronous

Course Description: The goal of this course is to help students majoring in other fields understand the scientific way of thinking, how it is practiced and its limitations. The course will cover, as a minimum, the following topics: 1) the transfer of energy and materials through cells and the environment, 2) species definitions, 3) evolution, and 4) how populations change over time. Laboratory investigations will focus on testing assumptions about the natural world and exploring how to answer questions through hypothesis testing. Lecture material will clarify these investigations and link to current topics in science and technology.

Required Text/Materials:

- ❖ The textbook is **provided for free** and accessible through the Canvas course.
- ❖ The lab kit will be provided (picked up and returned to Geisel Library)
- ❖ Notebooks, pens/pencils, etc., laptop or other electronic device fully charged
- ❖ Chrome or Firefox (not Safari) as your browser.



Grading- Course Learning Outcomes (criteria upon which you will be graded)

- **CLO #1 (25%):** Identify and describe underlying concepts of biology through responses to classwork assignments. *Rationale: Engagement with material*
- **CLO #2 (25%):** Identify structures, pathways, and biological processes through weekly quizzes. *Rationale: Recall of information*
- **CLO #3 (20%):** Critically assess and synthesize source material to build and add to their framework of knowledge. *Rationale: Biology Department Learning Outcome for Scientific Thinking*
- **CLO #4 (30%):** Collect, analyze, and interpret data on lab reports. *Rationale: Following scientific methodology*

Grading Scale:

A: 93-100%	B+: 87-89%	C+: 77-79%	D+: 67-69%	F: below 60%
A-: 90-92%	B: 83-86%	C: 73-76%	D: 63-66%	
	B-: 80-82%	C-: 70-72%	D-: 60-62%	

Teaching Procedures:

The course curriculum will be presented through lectures that employ videos, lab activities, and student interactions embedded in the lecture material and lab kit provided.

Course Expectations:

- **Safety First!** Always be sure to have your lab kit and materials in a safe place.
- **Read the supporting text information and ask questions!**
- **Set aside enough time to complete the weekly classwork, lab report, and quiz.**

Attendance Policy:

Attendance is mandatory. This course is asynchronous so attendance will be counted by timely submissions of assignments. Late assignments will have deductions after 24 hours. Students should alert me in advance via email of any late submissions and schedule a zoom meeting to review or makeup missed assignments.

Expectations on Submitting Assignments:

- Written work should be original (written by the student) with any information from external sources cited using APA citation style (author's last name, year of publication) and the full reference included at the end of the written work. Uncited material will not receive full credit.
- Photos and screenshots should be embedded (and resized appropriately) into the lab report or classwork word or google document (not pages). Individual photos or screenshots should be converted to jpeg or png files as HEIC files cannot be opened in Canvas and will not receive credit. That means upload JPEGs or PDFs only, please.

AI Policy:

Artificial intelligence is a resource and as such, we must use it in that way. This course recommends a Yellow Caution for AI usage for the following only:



It is okay to use an AI tool (such as [Semantic Scholar](#)) that is grounded in research for finding scholarly sources to add information to your lab report introductions. You still must read through them and cite them as sources!

However, you should not use open AI sources to write your responses for class assignments.

General College Information and Policy: Refer to Link in Canvas for Details

Academic Resource Center:

Peer tutoring and writing support are available at The Academic Resource Center (ARC) free of charge. You are encouraged to take full advantage of the resources available to you through the ARC. Hours of operation are posted online <http://www.anselm.edu/arc> or call the Academic Resource Center at 641-7017.

Academic Integrity and Academic Misconduct:

Cheating or plagiarizing on a quiz, exam or assignment will result in a '0'. See the Student Handbook for Saint Anselm's definition of Academic Integrity and the repercussions of cheating or plagiarizing.

Students with Disabilities / ADA/504 Compliance Statement: Saint Anselm College is committed to providing students with documented disabilities equal access to all university programs and facilities. Students with learning disabilities, chronic medical conditions, mental health diagnoses, autism, hearing and visual impairments, and other concerns may qualify for academic accommodations. If you are experiencing diagnosis-related barriers to accessing your learning, please contact Hannah Davidson, Associate Director of Disability Services, located in the Academic Resource Center (ARC). To ensure that accommodations are arranged in a timely manner, you are encouraged to make your request at the beginning of each semester. For questions or to begin the accommodations process, please contact Dr. Hannah Davidson at hdauidson@anselm.edu or 603.641.7194. Additional information on documentation guidelines can be found here: <https://www.anselm.edu/academics/disability-services> Please Note: If you have a documented disability and require accommodations, please let me know by the second day of class. Thank you.

Core Curriculum: Scientific Reasoning

- ***Goals and Objectives:*** Scientific reasoning is defined as the ability to appreciate, identify, and investigate questions in the theory and praxis of the natural sciences. Courses in scientific reasoning should promote an understanding of the principles governing matter and energy, living systems, and the evolution of systems and should be taught with particular regard to the impact of science and technology on individuals and society.
- ***Student Learning Outcomes:*** Students who have completed their scientific reasoning requirement should be able to:
 - Demonstrate a well-developed understanding of the nature of science, including its goals, its limitations, and the processes by which it is practiced.
 - Comprehend relevant concepts, facts, and theories from both the physical and life sciences which provide the basis for a scientific understanding of the physical universe.
 - Understand the process of scientific inquiry through experiential learning within a laboratory.
 - Demonstrate an understanding of the interrelationship between science and technology, particularly the principles of design in transforming science into technology.
 - Critically analyze and present informed opinions on contemporary issues related to science and technology.
 - Recognize that benefits arising from scientific and technological advances are accompanied by moral implications and public policy ramifications.

Title IX Information:

The Saint Anselm College is committed to creating a safe learning environment free from gender and sex-based discrimination, including sexual harassment, domestic and dating violence, sexual assault, and stalking.

- If you have (or someone you know has) experienced any form of sex or gender-based discrimination or violence and wish to speak with someone confidentially, please contact Nicole Kipphut at The Harbor.
- If you would like information about the Title IX procedures, reporting, or Supportive Measures, please contact Title IX Coordinator Marcie Vaughan or visit <https://www.anselm.edu/about/offices-centers-institutes/student-affairs/title-ix/college-policy>

All Faculty are Required Reporters and must inform the Title IX Office of all information that may implicate Title IX. However, disclosures of gender and sex-based discrimination or violence directly relevant to, and made in response to, a course or assignment/classroom prompt will not result in a referral to the Title IX Coordinator. In such circumstances, I may provide the student with a packet of information about violence prevention and resources available on and off campus.

Statement on Intellectual Property:

No student or community member may record, reproduce, screenshot, photograph, or distribute any video, audio, or visual content from this course without my explicit permission and permission from the College. This restriction includes, but is not limited to:

● Pre-recorded and live lectures ● Live discussions ● Discussion boards ● Simulations	● Posted course materials ● Faculty feedback forms ● Visual materials that accompany lectures/discussions, such as slides ● Virtual whiteboard notes/equations, etc.
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Violation of this policy is an infraction of the Saint Anselm Code of Student Conduct and academic regulations and will result in disciplinary action and may also result in your removal from this course. Please also be aware that unsanctioned recordings may constitute a violation of the educational record protections provided under FERPA and/or New Hampshire state law.

Students with disabilities who need to record classroom lectures or discussions should contact the Associate Director of Disability Services in the ARC to register, request, and be approved for an accommodation. Such recordings are to be used solely for individual or group study with other students enrolled in the class that semester. They may not be reproduced or shared in any way (including electronically or posting in any web environment) with those not in the class in that semester.

Equity Statement for Student Success

At Saint Anselm College we recognize the dignity and diversity of our community members. We practice mutual respect for one another at all times and in all spaces. As a Catholic Benedictine community and a liberal arts college dedicated to the lifelong pursuit of truth, we embrace our unique backgrounds and experiences and acknowledge how difference strengthens our community. We strive to remove barriers to create a culture of equity where all students are provided the opportunity and access to excel academically, socially, personally, and spiritually.

Saint Anselm College commits to:

- Fostering a welcoming and inclusive student-ready learning and living environment that promotes a sense of belonging for all its members
- Educating community members so they can grow intellectually, morally, and spiritually in knowledge of systems of power at the individual, organizational, and systemic levels
- Pursuing equity through data-informed processes and challenging conversations
- Providing opportunities to report and respond to all forms of bias and discrimination such as racism, homophobia, and ableism

To meet our commitments, we must resolve to use our knowledge and understanding to collectively remove barriers at every level by engaging in intentional, transformative education and planning that ensures that every student has what they need to succeed in an environment that promotes justice and equity.

Summer 2026

BI: 102 Mutations and Misconceptions Schedule

This schedule is flexible and any changes will be updated in LMS (Canvas) with notification. Each week runs from Wednesday to Tuesday. So plan on focusing on classwork from Wednesday to Friday with the assignments due Saturdays. Labs and Exams are due on the following Tuesdays.

Week One: **Lecture Material:** Getting Started

Classwork due Saturday 5/23

- Discussion: Introducing Yourself

Syllabus Quiz due Tuesday 5/26

Week Two: **Lecture Material:** Mutations: aren't they bad?

Classwork due Saturday 5/30

- CW 1A: Cell Structures, Functions, and Biomolecules
- CW 1B: Biomolecules, Transcription, and Translation Video
- CW 1C: External Reading: How Sickle Cell and Malaria Defined Evolution

Lab and Exam due Tuesday 6/2

- Lab #1: Making a Protein
 - Unit One Exam
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Week Three: **Lecture Material:** Survival of the Fittest- aren't organisms trying to adapt?

Classwork due Saturday 6/6

- CW 2A: Digestive System Coloring Page
- CW 2B: External Reading: Lactase Persistence

Lab and Exam due Tuesday 6/9

- Lab #2: Digestive Enzymes - The Sugar in Milk
 - Unit Two Exam
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Week Four: **Lecture Material:** Dominance - aren't dominant traits favored?

Classwork due Saturday 6/13

- CW 3A: Division and Dominance
- Discussion: ReBop Gene Exchange
- CW 3B: External Reading: Genetics, X-Linked Inheritance

Lab and Exam due Tuesday 6/16

- Lab #3: ReBops - How Individuals Inherit Traits
 - Unit Three Exam
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Week Five: **Lecture Material:** Tree of Life -don't common ancestors give birth to different species?

Classwork due Saturday 6/20

- CW 4A: Speciation and Darwin's Finches Video
- CW 4B: External Reading - Horse Evolution

Lab and Exam due Tuesday 6/23

- **Lab #4:** Mollusca Diversity - Building a Tree
 - Unit Four Exam
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Week Six: **Lecture Material:** Fossils - don't gaps disprove human evolution?

Classwork due Saturday 6/27

- CW 5A: The Origins of Bipedalism Video
- CW 5B: Musculoskeletal System
- External Reading for Lab Introduction - Lucy's Story
- Discussion: Data Sharing - Footprint Data to Spreadsheet

Lab and Exam due Tuesday 6/30

- Lab #5: Laetoli Footprints: -How tall were they?
- Unit Five (Final) Exam