

## BIO 103 -- PRINCIPLES OF BIOLOGY I LAB

2025 SUMMER SESSION 1

TUES & THURS, 4:00–6:20PM – CBL3 340

	DATES	LAB TOPICS	IN-LAB ASSESSMENTS	ASSIGNMENTS - DUE 11PM FRIDAYS
1	MAY TUES 20	REACTION TIME- DATA PRESENTATION (COMPUTER GRAPHING)		A1: REACTION TIME FIRST DRAFT DUE: MAY 23 FINAL DUE: MAY 30
2	THUR 22	MICROSCOPY & PIPETTING		
3	TUES 27	MOLECULAR BIO I: PREP DNA FOR PCR	Q1: MICROSCOPY	
4	THUR 29	MOLECULAR BIO II: DIGEST DNA. RUN DNA ON GEL.	Q2: PCR	
5	JUNE TUES 3	CELLULAR RESPIRATION	Q3: GEL ELECTROPHORESIS:	A2: CELL RESPIRATION DUE: JUNE 13
6	THUR 5	MITOSIS/MEIOSIS	Q4: CELL RESPIRATION	
7	TUES 10	GENETICS	Q5: MITOSIS & MEIOSIS	
8	THUR 12	<u>DAPHNIA</u> PHYSIOLOGY	Q6: GENETICS	A3: <u>DAPHNIA</u> PHYSIOL. DUE: JUNE 20
9	TUES 17	GENETIC VARIATION & GENE EXPRESSION	LAB PRACTICAL	
10	THUR 19	CIRCULATORY SYSTEM & HEART DISSECTION	Q7: GENETIC VARIATION & GENE EXPRESSION	EXTRA CREDIT +1 PT: HEART DISSECTION COMPLETED IN LAST LAB. +1 PT: 1-PAGE REVIEW BIO103 GRADES WITH STRATEGIES TO IMPROVE.

### COURSE LEARNING OUTCOMES

**By the end of the semester, students in BIO 103 should be able to:**

Use laboratory equipment effectively to conduct biological experiments (including compound and dissecting microscopes, micropipette, balance, centrifuge, thermocycler, gel electrophoresis setup, respirometer, CO<sub>2</sub> meter, and learn to work with live zooplankton).

Apply key biological concepts to the results of biological experiments.

Create computer spreadsheets to collate and synthesize data.

Produce computer graphs to analyze results.

Summarize and communicate results of experiments.

Extrapolate from lab experiments to describe and explain biological concepts.

## COURSE AND INSTRUCTOR INFORMATION

**Course:** BIO 103 – Principles of Biology Laboratory I

**Credits:** 1 credit lab course, taken in conjunction with 3-credit lecture course: BIO 101 or BIO 110

**Format:** In-person, hands-on laboratory experience

**Where:** CBLS 340, 120 Flagg Road, University of RI, Kingston, RI

**Contact:** Grad Teaching Assistant (GTA): \_\_\_\_\_

Lab Pedagogy Specialist: Linda Forrester LindaForrester@uri.edu

## COURSE MATERIALS

**Text:** — BIO 103 Principles of Biology Lab I Manual, available FREE online, OR purchase printed copy from [URI Campus Store website](#) or URI Campus Store in URI Memorial Union. Students must have lab manual (on a device or a hard copy) in class.

**Lab equipment:** — BIO 103 **does NOT require** students to bring a lab coat, safety glasses, goggles, or gloves. These will be provided as needed.

**Online site: BrightSpace** — the URI Learning Management System (online education portal) Announcements, course materials/resources, and grades will be posted to the BrightSpace course site. It is your responsibility to check the site regularly to stay current with the class. Your TA will not respond to questions about course material that are covered in this syllabus!

Here are some useful links/tips to help you get started with Brightspace:

➔ Brightspace Login: <https://brightspace.uri.edu/> or <https://web.uri.edu/brightspace/>

➔ [Turn on “Notifications”](#) within the course site: log into your BrightSpace account. Click your profile name in the top right corner. Select "Notifications" from the dropdown menu. Turn ON notifications for announcements, assignments, and grades. You can also set whether you receive notifications via email or text.

## COURSE REQUIREMENTS AND GRADING

Course components	Number	Percent of grade
Quizzes	7 quizzes given. Lowest score dropped end of semester.	60%
Assign-1 first draft	1 first draft – Assignment 1 only.	2%
Assignments	3 assignments. Lowest score dropped end of semester.	26%
Lab practical	1 practical.	10%
Attend & participate	– 0.01% every absence. – 1.0% present but low/no participation. Students missing 4 labs for <b>ANY reason</b> can NOT pass this course.	2%
Extra credit	+1 = Review of Bio103 work. <i>(See guide on BrightSpace. List grades &amp; describe where points were lost. Include plans to improve.)</i> +1 = IN LAB: part of heart dissection group.	+2%
	Total possible score →	102%

A	94
A-	90
B+	87
B	84
B-	80
C+	77
C	74
C-	70
D+	67
D	64
F	< 64

### Grading scale

Students are expected to monitor their grades on the BIO103 BrightSpace site.

Students must contact GTA to report mistakes with posted grades.

Grading strictly follows rubrics designed by the course coordinator.

### Attendance — Attend every lab. Arrive ON TIME.

Students missing 4 or more labs for ANY reason cannot pass this course. **Students missing 4 or more labs will receive a grade of Fail, or a grade of Incomplete with URI approved documentation.** See URI guidelines for excusable absences (e.g., URI sanctioned activities or religious absences).

### Assignments — Must be submitted electronically.

**Late assignments are accepted but with a “10% off per day” penalty, maximum of 50% off.**

Assignments are accepted until the last day of the semester, but students must alert GTA about any late submission. All lab data must be presented using a computer spreadsheet program and word document program.

Assignments are due in BrightSpace at 11pm on Fridays according to the syllabus.

Students are encouraged to submit assignments BEFORE this time.

GTAs can help students during the day, but GTAs are not available late Friday nights.

## COURSE HELP OPTIONS

**GTA Help through email** — Contact your GTA (see emails above) with questions not covered in this syllabus.

→ **YOU can be successful with EVERYTHING covered in this lab course!**

While you may not be familiar with some material **at this time**,  
we are confident that YOU CAN LEARN TO BE SUCCESSFUL in this course.  
Your TAs are here to help you develop your own strategies to be successful.

**Academic Enhancement Center (AEC)**: Located in Roosevelt Hall.

Attend GTA help hours for direct help with BIO 103 material. For more general help, please visit the **AEC** in Roosevelt Hall.

The AEC offers free face-to-face and web-based services to undergraduate students seeking academic support. Peer tutoring is available for STEM-related courses by appointment online and in-person. The Writing Center offers peer tutoring focused on supporting undergraduate writers at any stage of a writing assignment. The UCS160 course and academic skills consultations offer students strategies and activities aimed at improving their studying and test-taking skills.

Details about all on the AEC website, [uri.edu/aec](http://uri.edu/aec).

**STEM Tutoring** - for 100 and 200 level math, chemistry, physics & **biology** courses.

The STEM Tutoring program offers free online and limited in-person peer tutoring.

Select from occasional or weekly appointments. Appointments and locations will be visible in the TutorTrac system: [aec.uri.edu](http://aec.uri.edu). More info at [uri.edu/aec/tutoring](http://uri.edu/aec/tutoring).

## USE OF ARTIFICIAL INTELLIGENCE (AI)

**Use of AI:** Developing competency with AI technologies, such as Chat GPT, is a skill set you need. We want to help you develop AI competency while also learning and understanding the course material. In this course, we allow the use of AI, following this policy (*modified from Mark Phelan, from Syllabi Policies for AI Generative Tools*). Students are expected to follow this policy to avoid plagiarism reports.

1. You may use generative AI in constructive ways when working on your assignments, but never in unconstructive ways.

**Constructive uses** include having AI search for resources on a topic, on which you subsequently follow up. Having AI make suggestions related to the concision and clarity of your answers, which you then thoughtfully consider and use as editorial feedback in a writing process to improve your assignments. Having a dialogue with an AI through which you sharpen your responses or improve your consistency with biology terminology.

**Unconstructive uses** include copying and pasting an AI response to assignment questions and turning it in, or having AI draft an outline then filling in the details for your assignments.

**Students submitting AI content as their own work will lose an additional 10%/day until work is resubmitted, at the discretion of the instructor.**

2. **You must include a statement to describe how you used AI.** Whenever you use a generative AI resource (e.g., OpenAI, Chat GPT, Claude, Gemini, etc.), at the end of the assignment, you must list how you used the resource (e.g., to check for spelling/grammar mistakes) and how the resource helped to improve your assignment or your thinking on the topic (e.g., it helped me clarify my response).

*NOTE:* the boundary between constructive and unconstructive uses remains vague.

There are sure to be borderline cases. You can avoid problems by following #2 above.

Include a statement in any assignment you use AI and be SURE you are using AI constructively.

If you are uncertain, ask the TA.

Constructive use of AI depends on YOUR input in a creative and essential manner.

## STUDENT RESPONSIBILITIES AND RESOURCES

As members of the University of Rhode Island student community, students are held to certain standards and academic policies. There are many URI resources available to help you succeed in your academic work. Review these important standards, policies, and resources, which include:

- **Maintaining academic standards.**  
Students in lab will share lab data, but every student is expected to create their own assignment reports independently. Students must provide citations for any work obtained from other people or sources. [Students should review the University of RI guidelines to avoid cheating and plagiarizing.](#) GTAs are expected to report any quiz or assignment that is plagiarized *in whole or in part*. Students involved will receive a grade of zero and the student(s) involved will be reported to the Office of Student Life. Read also the “Use of Artificial Intelligence (AI)” section of this syllabus.
- [Notifying appropriate URI resources if you are concerned about fellow students.](#)  
Students may see other exhibiting concerning behaviors. You may be the first contact person who can help another student in need. Being aware of distress signals, ways to intervene, and resources to help a student may assist you in responding effectively to such an event. If you find yourself feeling worried, alarmed, or threatened, take signs of distress seriously. Use this ANCHOR site to determine who to call for assistance, report your concerns to the suggested contact below, or access resources to share with the student.  
You might be the one saving a life by being available in the right place at the right time.
- **Safety**— No food or drink is allowed in the lab EVER. Water bottles may be stored in backpacks but NOT used in the lab room. Wear sensible clothing and use caution to protect yourself from hazardous laboratory equipment and chemicals.  
Notify TA immediately if there is any injury or hazardous activity.  
Students not following safety rules must leave the lab-room.  
BIO 103 **does NOT require** students to bring a lab coat, safety glasses, goggles, or gloves. These will be provided as needed.

## STUDENT BELONGING INFORMATION

Our teaching team values every student.

We are committed to a climate of mutual respect and full participation.

Our goal is to create learning environments that are open to all and welcoming.

To help address all learning styles that students possess, we use a strengths-based learning approach.

If there are barriers to your access, accurate assessment, or achievement, please contact the lab pedagogy specialist, [LindaForrester@uri.edu](mailto:LindaForrester@uri.edu), and the URI office of Disability, Access, & Inclusion (DAI) in the Office of Student Life, 330 Memorial Union. Call: 401-874-2098.

[Submit your DAI information and letter](#) early in the semester so we can make arrangements.

If you have not yet established services through DAI, contact them to engage in a confidential conversation about the process for requesting what you need in the classroom.

**DAI contacts:** 401-874-2098 | [web.uri.edu/disability](http://web.uri.edu/disability) | [dai@uri.edu](mailto:dai@uri.edu)

All students **must complete their assessments within two weeks** from the date of the scheduled quiz/practical. Uncompleted assessments will receive a grade of zero.

## HELP FOR STUDENTS WITH UNEXPECTED SITUATIONS

### Biological Sciences Bereavement OR Unexpected Situation Policy

If life circumstances are affecting your ability to focus on courses and your URI experience (for example, if you are grieving, have extreme illness for you or your immediate family, or have experienced the death of a loved one), the Biological Sciences faculty, staff, and TAs understand and want to support you during this difficult time.

Students are asked to complete the “Student Bereavement Notification Request” form on this link:

[https://cm.maxient.com/reportingform.php?UnivofRhodeIsland&layout\\_id=32](https://cm.maxient.com/reportingform.php?UnivofRhodeIsland&layout_id=32)

The Dean of Students office will alert your instructors regarding your situation.

When you are ready, contact your instructor or GTA to discuss questions about missing class or assignments.

If you want to speak with your dean directly, their contact information is listed below.

Dean of **University College**: 401-874-5903.

Dean of **CELS**: Dean Kim Anderson [kand@uri.edu](mailto:kand@uri.edu) 401-874-5026.

### **Resources for Students Experiencing Distress**

Your mental health matters. If you or someone you know is experiencing suicidal thoughts, call the National Suicide Prevention Hotline at 988. If you are in crisis or need support call URI Counseling Center at 401-874-2288 or <https://web.uri.edu/counseling/crisis/>

The URI Counseling Center service is paid for by your student fees so it will not cost you anything to talk with them. We encourage you to call; it might help you.

The University of Rhode Island is committed to supporting students in their mental health, their psychological and social well-being, and their connection to their academic experience and overall wellness. The university believes that academic, personal, and professional development can flourish only when each member of our community is assured equitable access to mental health services. The university aims to make access to mental health attainable while fostering a community reflecting equity and diversity and understands that good mental health may lead to personal and professional growth, greater self-awareness, increased social engagement, enhanced academic success, and campus and community involvement. The URI Counseling Center can offer further support.

### **COURSE EVALUATION AND FEEDBACK**

Students will be provided with an opportunity to evaluate instruction in this course. Students are asked to give formal feedback at mid-term and end of term.

Students wishing to give feedback at other times during the semester are asked to write to the course pedagogy specialist, Linda Forrester at [LindaForrester@uri.edu](mailto:LindaForrester@uri.edu), or [Office of Community Standards](#).

### **UNIVERSITY OF RHODE ISLAND LAND ACKNOWLEDGEMENT**

The University of Rhode Island occupies the traditional stomping ground of the Narragansett Nation and the Niantic People. We honor and respect the enduring and continuing relationship between the Indigenous people and this land by teaching and learning more about their history and present-day communities, and by becoming stewards of the land we, too, inhabit.