Syllabus – Fall Semester 2022

Excluding materials for purchase, syllabus Information may be subject to change. The most up-to-date information is located within the course in HuskyCT.

Course and Instructor Information

BIOL 1102: General Biology
UConn Waterbury / Spring 2022 - 4 credits Room # 218

Instructor: Arpita Ray, Ph.D.
99 E Main St, Room#306
Waterbury, CT 06702
Voice Mail: 203-236-9845
Email: arpita.ray@uconn.edu

Laboratory : Mary Jane Smith – Laboratory Assistant III
Voice Mail: 203-236-9847
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Office Hours : Thursday 12:15 PM-1:15 PM

Course Materials

Text: Biological Science, 7th edition, Scott Freeman, Kim Quillin, Lizabeth Allison, Michael Black, Greg Podgorski, Emily Taylor, Jeff Carmichael. The e-text book is also available through Pearson. Please check out the instructions on HuskyCT about how to register for this course.

Course Description

This course comprises the standard sequence for Introductory Biology for science majors and serves as a general education science course for non-majors. The course uses an interdisciplinary approach emphasizing the process of science and includes the relevance of science to society. The core concepts covered include: the process of science; evolution; structure and function; information flow, storage, and exchange of genetic information. This course will expose students to a broad body of biological concepts that will guide them in building and developing skills that they can apply to real world situations. The lecture and laboratory components will emphasize the acquisition and integration of knowledge using the process of science as the basis for inquiry and analysis.

This course promotes the goals of General Education. These are:

- Become articulate
- Acquire intellectual breadth and versatility
- Acquire critical judgment
- Acquire moral sensitivity
- Acquire awareness of their era and society
- Acquire consciousness of the diversity of human culture and experience
- Acquire a working understanding of the processes by which they can continue to acquire and use knowledge

On successful completion of this course, we would like to be conscious of the diversity of life and its impact on humans.

How to Succeed in this Course

a) Weekly Time Commitment

You should expect to dedicate 5-7 hours a week for this course. This expectation is based on the textbook readings, online resources and *University of Connecticut's policy regarding credit hours*.
More information related to hours per week per credit can be accessed at the Online Student website.

b) Strategies Regarding the Course

This course can be a bit challenging because of the amount of information that will be covered and the many interrelationships. Each lecture topic builds from an earlier one. Preparation in advance of scheduled class time will be critical. Some content may not be discussed in detail during lecture, rather, it will be reviewed. Students are encouraged to read the relevant section in the text before coming to class. In addition, the following are recommended to help you with the course:

1) **Review lecture content and text material on a regular basis**: retention is better in smaller, repetitive doses rather than trying to pull an all-nighter. Often students underestimate the time that they will need to study for an exam. Although some material does require sheer memorization (such as classification of amino acids and their functional groups), much of it requires, understanding, reasoning skills and application. When reviewing the notes or lecture material ask questions like:
   a) How do the conceptual details relate to conceptual understanding? Details need to be placed in a larger context.
   b) How does the current topic connect with the other parts of the course?
2) **Read the assigned chapter more carefully after lecture as a means of reinforcement**: as this is a one semester course, we will not be able to cover all the materials. Unless otherwise indicated, content from the chapters that is NOT included on the slides will not be on the exam.
3) **Slides**: Lecture slides will be available pre lecture. There will be no lecture recordings.
4) **Resources:** Videos will be posted on HuskyCT to reinforce key concepts. These will help you structure and identify the terms and main points of some of the lectures as well as help in reviewing for midterms and finals.
5) **Seek out help:** sooner rather than later if you are falling behind or having difficulty. We will try to be as flexible as possible with exams and lab assignments should any student encounter difficulties which impacts his or her learning. Communication therefore becomes key. Please refer to the following resources:

   https://onlinestudent.uconn.edu/keeplearning/

6) **Tutor Availability:** The Tutoring Center provides academic services for all Waterbury Campus students. Tutoring is available for several 1000 level courses including many of the first year STEM courses such as Accounting, Biology, Chemistry, Economics, Mathematics/Statistics, Psychology and Spanish. In addition, the Waterbury

Campus has a **Study and Life Skills Coordinator** available to assist students with test taking preparation, note taking strategies, study skills, time management techniques and more.

7) **Online Assignments:** these will be provided from time to time for students to work on but will not be graded or be considered for extra credit assignments. This is only to enhance learning and it is the student's responsibility to work through these assignments.
8) **Office Hours:** Will be held after labs in Room #306. It is advisable that you come to office hours with questions in advance for effective use of time. If possible, I would suggest that you email me your questions so that I can address them in order the lectures were presented. Please email me a few days before to set up an appointment.

Class and Laboratory Meeting Schedule

We will be meeting every week for **lectures on Tuesdays and Thursdays from 2:00pm-3:15pm am in Room # 218. Lab meetings are every Monday from 8:00 AM -10:00 AM in Room # 309.** A detailed lecture and laboratory schedule can be found at the end of the syllabus and on HuskyCT. **Please note that the lecture and laboratory schedule may be subject to change.** Please check your syllabus for reading assignments and requirements for class. Pearson assignments if uploaded are not to be graded, it is to benefit the student and aid as a resource in learning. **Office hours are on Thursday 12:00 PM-1:00 PM. You can stop by my office during this time or set up an appointment if you wish to.**

Laboratory Manual: Foundations of Biology 1102 Laboratory Manual, Spring Semester, 2022 (Available from the UCONN Bookstore). You don't have to buy this manual. We will provide you with handouts of the related topics and online assignments that is based on the 1102 Laboratory Manual.

Lab supplies: Lab coat is needed but is not a requirement for this lab. You may require it for some experiments. You can choose to get your own or borrow one from the lab. You can purchase one at the UCONN Bookstore ($8.95 - disposable, long version blue or purple) or use one you already have; however, it will need to stay in the lab all semester.

Course Requirements and Grading

Course Component	Weight
Lecture Content	70%
Laboratory	30%

- **Lecture Component:**

a) 3 Exams (3X100=300 points total): 100 multiple choice questions/per exam
b) 10 in class paper discussion (10X10=100 points): you must be present in class, participate and contribute to get full credit.
c) Report writing (100 points): A choice of several videos will be given to the students to watch. You can choose to write about anyone. Details of the assignment is under the Assignment tab in HuskyCT. Any submission after the due date will result in zero. **Date for report writing assignment is final and cannot change unless the student is physically unable to complete it due to sickness or due to religious reasons. Please check your syllabus for submission dates. Please contact Dr. Ray if there is a conflict in the submission date.**

d) In class student presentation to peer group on any biological topic that interests you. It can be a disease, or a new research method, discovery of a new species, a novel treatment method etc. Details on the grading rubric will be posted on HuskyCT (200 points).

e) This results in a total of 4 exam grades (700 points) and 1 Lab grade (300 points).

- **Laboratory component**

  Lab grades will include complete **participation, attendance (***12x15=180 points***) and graded e-mind homework** (20x5=100 +10x2=20 *Total points =120***).** E mind homework must be completed to get full credit. Please be aware of the dates for homework submission. E mind accounts will be created for you**. This will be a total of 300 points for lab**. **Nonparticipation or absence during lab days will result in earning a zero for that day.** The class will be given review sheets based on their laboratory exercise. These can be done either in the lab or at home, but they need to be completed. Lab e- minds will be graded**.**

- All exams (unless otherwise stated) will be taken online through the Respondus Lockdown down Browser (RLDB) at our regularly scheduled time (see lecture schedule as well as your gradebook). Please make sure that you download the Lockdown browser on your laptops, iPad, Macs, or PCs well ahead of time. Please go over the detailed contents under the Respondus Lock Down Browser tab on your course page if you are not familiar with it. Please make sure that you have a camera installed on your devices, as the exams will be monitored remotely. The final exam day and time will be decided by the University.

- **Final Exam will not be an online exam. It is an in person, paper, and pen-based exam. You do not need to bring in your laptops for the final exam. Please make sure you have transportation available for that date. If you cannot be present on exam date, please let the University of Connecticut know that why you cannot take the exam on the date which has been decided by the University. Please check the updated syllabus for exam date, time, and room number.**

- **Students with approved accommodation** will receive specified exam accommodation and will be contacted by email with a set of instructions for the exam.

- If any student cannot take the exam as scheduled due to University related events, religious observance, illness, personal or family related issues, please contact Dr. Ray as soon as you learn of this conflict to discuss arrangements for a makeup exam. If you miss an exam, then your final exam will be automatically counted twice. In this case, there is **no option** of dropping an exam. **No exams will be administered prior to the exam dates listed on the syllabus. Except for extenuating circumstances, make up exams when approved are to be completed within 1 week of the respective original exam date on the syllabus.**

- Attendance is a must during lectures and is strongly recommended that you attend. You are responsible for all material presented in lectures. Attendance on **examination dates** and during the **laboratory portion** of the course is **mandatory** and may only be made up with the instructor's permission and only under **extremely unusual** circumstances (i.e., death in the immediate family, hospitalization, or serious illness with documentation from a physician). An unexcused absence from an examination will result in an earned **zero** for the exam. The grade for the laboratory portion of the course will reflect any unexcused absences since participation is mandatory. If one has more than **three** laboratory absences (excused and/or unexcused) one will **fail** the course (even if the lecture grades are otherwise adequate to pass the course, one will be ineligible to receive laboratory course credit). An unexcused absence on a laboratory day will result in a **zero** for that specific participation grade and a **zero** for a missed practical exam.

Feedback and Grades
I will be available via email. I will try to reply to emails promptly. Please expect a reply within 24 hrs. on a weekday and 48 hrs. on weekends. To keep track of your performance in the course, refer to My Grades in HuskyCT.
Grading Scale:

Grade	Letter Grade
92-100	A
88-91	A-
86-87	B+
82-85	B
79-81	B-
77-78	C+
72-76	C
69-71	C-
67-68	D+
63-66	D
60-62	D-
<60	F

Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies and resources.

Help and Resources

Technical and Academic Help provides a guide to technical and academic assistance. This course is completely facilitated online using the learning management platform, HuskyCT. If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the Help Center. You also have 24x7 Course Support including access to live chat, phone, and support documents.

Seek out help: Sooner rather than later if you are falling behind or having difficulty. Communication therefore becomes key. Please refer to the following resources:

https://achieve.uconn.edu/online-course/
https://onlinestudent.uconn.edu/keeplearning/

Tutor Availability: The Tutoring Center provides academic services for all Waterbury Campus students. Tutoring is available for several 1000 level courses including many of the first year STEM courses such as Accounting, Biology, Chemistry, Economics, Mathematics/Statistics, Psychology and Spanish. In addition, the Waterbury Campus has a *Study and Life Skills Coordinator* available to assist students with test taking preparation, note taking strategies, study skills, time management techniques and more.

Writing Assistance: UCONN Waterbury has a writing center that can assist students in a wide variety of writing assignments. Please contact benjamin.2.woodard@uconn.edu or ellen.carillo@uconn.edu for guidance and assistance.

If you are experiencing undue personal or academic stress at any time during the semester or need to talk with someone about a personal problem or situation, I encourage you to seek support as soon as possible. I am available to talk with you about stresses related to your work in my class. Additionally, I can assist you in reaching out to any one of a wide range of campus resources, including:

- **Mental Health Resource Center**
  203-236-9817 or Claudia.Pina@uconn.edu
- https://waterbury.uconn.edu/student-life/student-resources/mental-health/
- **Student Services and Academic Advising**
  https://waterbury.uconn.edu/student-life/student-resources/student-affairs/
- **Center for Students with Disabilities**
  https://csd.uconn.edu/

UCONN has recently introduced **BeWell@UConn** for additional mental health support for UConn students.

There is a 24/7/365 Support line available. Counselors are available to support students either on or off campus, anywhere, anytime. Please call 833-3083040.

Accommodations for Illness or Extended Absences

Please stay home if you are feeling unwell and please go home if you are in class and start to feel ill. If illness prevents you from attending class, it's your responsibility to notify your instructor as soon as possible. You do not need to disclose the nature of your illness; however, you will need to work with your instructor to determine how you will complete coursework during your absence. If life circumstances are affecting your ability to focus on your courses and your UConn experience, students can email the Dean of Students at dos@uconn.edu to request support. Regional campus students should email the Student Services staff at their home campus to request support and faculty notification.

Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies, and resources which include:

- The Student Code
  - Academic Integrity
  - Resources on Avoiding Cheating and Plagiarism
- Copyrighted Materials
- Credit Hours and Workload
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

Students with Disabilities

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities or https://csd.uconn.edu/

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government. (Retrieved March 24, 2013, from Blackboard's website)

Software/Technical Requirements (with Accessibility and Privacy Information)

The software/technical requirements for this course includes:

- HuskyCT/Blackboard (HuskyCT/Blackboard Accessibility Statement, HuskyCT/Blackboard Privacy Policy)
- Adobe Acrobat Reader (Adobe Reader Accessibility Statement, Adobe Reader Privacy Policy)
- Microsoft Office (free to UConn students through uconn.onthehub.com) (Microsoft Accessibility Statement, Microsoft Privacy Statement)
- Dedicated accessibility to high-speed internet with a minimum speed of 1.5Mbps (4Mbps or higher is recommended)
- Webcam

For information on managing your privacy at the University of Connecticut, visit the University's Privacy page

Evaluation and Course Experience

Students will be given an opportunity to provide feedback on the course experience and instructor using the University's standard procedures, which are administered by the Office of Institutional Research and Effectiveness (OIRE). The University of Connecticut is dedicated to supporting and enhancing teaching effectiveness and student learning using a variety of methods. The Student Evaluation and Teaching (SET) is just one tool to help faculty enhance their teaching. The SET is used for both formative (self-improvement) and summative (evaluation) purposes.

Bio 1102 Lecture Schedule

Date	Lecture Topic	Reading
Aug 30th (Tue)	Course Preview and Introduction	
Sep 1st (Thu)	Study of Life and Scientific Methods	Chapter 1
Sep 6th (Tue)	In class discussion	GD 1
Sep 8th (Thu)	Water and carbon	Chapter 2
Sep 13th (Tue)	In class discussion	GD 2
Sep 15th (Thu)	Protein structure and function	Chapter 3
Sep 20th (Tue)	In class discussion	GD 3
Sep 22nd (Thu)	Nucleic acids and RNA world	Chapter 4
Sep 27th (Tue)	**Exam 1**	**Chapters 1, 2, 3 and 4**
Sep 29th (Thu)	In class discussion	GD 4
Oct 4rd (Tue)	Carbohydrates	Chapter 5
Oct 6th (Thu)	In class discussion	GD 5
Oct 11th (Tue)	Cells	Chapter 7
Oct 13th (Thu)	In class discussion	GD 6
Oct 18th (Tue)	Mendel and the gene	Chapter 14
Oct 20th (Thu)	In class discussion	GD 7
Oct 25th (Tue)	DNA and the gene	Chapter 15
Oct 27th (Thu)	In class discussion	GD 8
Nov 1st (Tue)	**Exam 2** **Report Writing opens 8:00 am**	**Chapters 5, 7, 14, 15**
Nov 3rd (Thu)	How genes work	Chapter 16
Nov 8th (Tue)	In class discussion	GD 9
Nov 10th (Thu)	Transcription, RNA and Translation	Chapter 17
Nov 15th (Tue)	In class discussion	GD 10
Nov 17th (Thu)	Bacteria and Archaea	Chapter 26
Nov 20(Sun)-Nov 26(Sun)	**Thanksgiving Recess**	**No class**
Nov 29th (Tue)	Viruses	Chapter 33
Dec 1st (Thu)	Student Presentation-1/**Report Writing Due 11:59 pm**	
Dec 6th (Tue)	Student Presentation -2	
Dec 8th (Thu)	Student Presentation 3/Review of material/Last Day of Class!	
Dec 10 (Sat) - Dec 11(Sun)	**Reading Days**	
Final Exam 12/16/2022 1:00pm-3:00pm Room#218	**Exam 3**	**Chapters 16, 17, 26 and 33**

Bio 1102 Laboratory Schedule

Date	Lab Topic	Lab #	Lab e minds/
Aug 29th	Check in/Lab Policies/ Introduction to Microscopes & Cell Diversity		eMind: Cells & Organelles *Due Sep 5th 11:59 pm*
Sep 5th	**Labor Day (No classes)**	No lab	
Sep 12th	Scientific Hypothesis /Microscopes and Cell Diversity	Lab 1	
Sep 19th	Diet Analysis	Lab 2	
Sep 26th	DNA	Lab 3	e-mind DNA Basics *Due Oct 3rd 11:59 pm*
Oct 3rd	Genetics	Lab 4	e-mind: Genetics & Patterns of Inheritance *Due Oct 10th 11:59 pm*
Oct 10th	Sensory Perception	Lab 5	
Oct 17th	Evolution	Lab 6	e-mind: Evolution *Due Oct 31st 11:59 pm*
Oct 24th	Gender Identification and Karyotyping Lab	Lab 7	
Oct 31st	Plant Diversity	Lab 8	
Nov 7th	Animal Diversity-1	Lab 9	eMind: Invertebrates *Due Nov 14th 11:59 pm*
Nov 14th	Animal Diversity -2	Lab 10	e-mind: Vertebrates *Due Nov 21st 11:59 pm*
Nov 20-Nov 26	**Thanksgiving Recess**	**No lab**	
Nov 28th	Environmental Biology	Lab 11	
Dec 5th	Ecology	Lab 12	eMind: Ecology *Due Dec 8th 11:59 pm*