BIOL 2311.0h1 Introduction to Modern Biology I

CLASS HOURS (LOCATION): Monday & Wednesday 2:00 – 2:50 PM (SCI 1.220)
Friday (Online)

TEXTBOOK: Biology: The Dynamic Science
(Russell 5th edition)

Professor Contact Information

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Course Modality

Instructional Mode	BIOL 2311.0h1 is offered in Blended/Hybrid mode, according to the following descriptions: https://registrar.utdallas.edu/registration/ https://coursebook.utdallas.edu/modalities
Blended/Hybrid Course Platform	This course can be accessed using your UT Dallas NetID account on the eLearning website. Lectures will be held live Monday and Wednesday (SCI 1.220) and recorded and made available on Microsoft Stream following class. Friday lectures will be recorded and available on Microsoft Stream only. A link to access lecture recordings will be available in eLearning. Your exams and/or assignments will be available online with a flexible window of access. Details will be posted on eLearning.
Office Hours	Office Hours**:** Wednesday 12:00PM – 1:00PM (FN 3.202) or by appointment Virtual Office Hours**:** Friday 12:00PM – 1:00 PM (MS Teams) Link to access will be on the eLearning course homepage. **Office hours start the week of August 30, 2021.**

Course Pre-requisites: CHEM 1311 or CHEM 1315 and CHEM 1312 or CHEM 1316

Course Co-requisites: BIOL 2111 workshop section 5W1, 0W7, 0W8, or 0W9.

Course Description:

Presentation of some of the fundamental concepts of modern biology, with an emphasis on the molecular and cellular basis of biological phenomena. Topics include the chemistry and metabolism of biological molecules, elementary classical and molecular genetics, and selected aspects of developmental biology, physiology (including hormone action), immunity, cancer, and neurophysiology.

Student Learning Outcomes:

1. Students will be able to define the subcellular structures and macromolecules in a eukaryotic cell
2. Students will be able to explain and describe the basic functions of cells including energy production and utilization (in animal and plant cells), cell division, the basic mechanisms of genetic inheritance, structure of DNA, discovery of DNA, transcription and translation process, the regulation of gene expression, and selected aspects of the molecular basis of cancer.
3. Students will be able to understand basic cell signal transduction pathways and their final responses inside cells
4. Students will be able to develop hypotheses to interpret experimental observations and devise experiments to test these hypotheses.

Course Materials

Power point lecture slides, lecture recordings, assessments and grades will be posted on eLearning.

Required Textbook and online tool for the course:

- ***Biology: The Dynamic Science*** **by Russell, 5th edition and the online access tool, MindTap v2.0**

Textbooks and other bookstore materials (Cengage Unlimited subscription) can be ordered online or purchased at the UT Dallas Bookstore.

The Cengage Unlimited subscription

- Cengage Unlimited subscription. With a Cengage Unlimited subscription, you will have access to ALL Cengage eBooks and digital learning products. Cengage Unlimited has a 4-month or a 12-month subscription from the UT Dallas Bookstore. Cengage Unlimited subscriptions are also available at Cengage.com.
- Before you purchase your Cengage Unlimited subscription in the UT Dallas Bookstore or at cengage.com, check out which other courses at UT-Dallas are using Cengage products, and therefore eligible in the Cengage Unlimited subscription, here: https://www.cengage.com/coursepages/unlimited_utdallas.

Technical Requirements

In addition to a confident level of computer and Internet literacy, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on the Getting Started with eLearning webpage.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the eLearning website.

To become familiar with the eLearning tool, please see the Student eLearning Tutorials webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilizes online tools for interaction and communication. Some external communication tools such as regular email and a web conferencing tool may also be used during the semester. For more details, please visit the Student eLearning Tutorials webpage for video demonstrations on eLearning tools.

Student emails and discussion board messages will be answered within 3 working days under normal circumstances.

Distance Learning Student Resources

Online students have access to resources including the McDermott Library, Academic Advising, The Office of Student AccessAbility, and many others. Please see the eLearning Current Students webpage for more information.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Class Materials

The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. **Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments (including Chegg, Course Hero, etc.) except to implement an approved Office of Student AccessAbility accommodation.** Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Classroom Conduct Requirements Related to Public Health Measures

UT Dallas will follow the public health and safety guidelines put forth by the Centers for Disease Control and Prevention (CDC), the Texas Department of State Health Services (DSHS), and local public health agencies that are in effect at that time during the Fall 2021 semester. Public health measures may be required for class participation (e.g., wearing of masks, social distancing) and students who refuse to comply may face disciplinary action for Student Code of Conduct violations. Students who are unable to comply with the university policies including wearing a face covering should consult the Student Safety webpage for further instructions.

Students who have tested positive for COVID-19 or may have been exposed should not attend class in person and should instead follow required disclosure notifications as posted on the university's website (see "What should I do if I become sick?" webpage)

Class Attendance

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

Class Participation

Regular class participation is expected. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework

assignments, readings, or materials covered in the lectures. Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

BIOL 2111 WORKSHOPS*:*

Workshops will be held online each week via MS Teams, beginning the week of August 30th. Each workshop section will be led by an Undergraduate Teaching Assistant (UGTA). Sessions may be recorded, and links to access sections and recordings will be available on the respective section homepage on eLearning.

WORKSHOPS	TIMES	UGTA	Email ID@utdallas.edu
2111.0w7	Thurs 11:00-11:50 AM	Deepika Krishnan	dgk180000
2111.0w8	Wed 11:00-11:50 AM	Gabrielle Castro	glc180001
2111.0w9	Mon 9:00-9:50 AM	Samir Abubaker	saa180018
2111.5w1	Tue 1:00 – 1:50 PM	Nicole Kuo	npk180001

All students enrolled in BIOL 2311 must also enroll in a BIOL 2111 workshop section. Questions remaining about lecture material will be addressed during workshop.

The same grade will be assigned for both BIOL 2311 and BIOL 2111. **If you drop the course, you must drop both 2311 and 2111.**

BIOL 2111 workshops start the week of August 30, 2021.

Course Lecture Schedule

	Lecture		Chapter	Ch. #	Quiz
Week 1	*1*	*Aug 23*	*Introduction and Biological Molecules*	*3*	
	2	*Aug 25*	*Biological Molecules*	*3*	
	3	*Aug 27*	*Biological Molecules*	*3*	
Week 2	*4*	*Aug 30*	*Cells*	*4*	
	5	*Sept 1*	*Cells*	*4*	
	6	*Sept 3*	*Cells*	*4*	
		Assignments due Sept 5	***Check eLearning***		
Week 3		*Sept 6*	*Labor Day Holiday – No class*		
	7	*Sept 8*	*Membranes and Transport*	*5*	
	8	*Sept 10*	*Membranes and Transport*	*5*	***Quiz 1*** *Lectures 1-6*
		Assignments due Sept 12	***Check eLearning***		
Week 4	*9*	*Sept 13*	*Extra day for Chapters 3,4,5*		
	10	*Sept 15*	*Energy*	*6*	
	11	*Sept 17*	*Energy*	*6*	
		Assignments due Sept 19	***Check eLearning***		
Week 5	*12*	*Sept 20*	*Cellular Respiration*	*7*	
	13	*Sept 22*	*Cellular Respiration*	*7*	
		Sept 24	***EXAM 1***		***Lectures 1-11***
Week 6	*14*	*Sept 27*	*Cellular Respiration*	*7*	
	15	*Sept 29*	*Cellular Respiration*	*7*	
	16	*Oct 1*	*Cell Division - Mitosis*	*10*	***Quiz 2*** *Lectures 12-15*
		Assignments due Oct 3	***Check eLearning***		
Week 7	*17*	*Oct 4*	*Mitosis and Meiosis*	*11*	
	18	*Oct 6*	*Meiosis*	*11*	
	19	*Oct 8*	*Cell Cycle*	*10*	
		Assignments due Oct 10	***Check eLearning***		
Week 8	*20*	*Oct 11*	*Cell Cycle*	*10*	
	21	*Oct 13*	*Cell-Cell Communication*	*9*	
	22	*Oct 15*	*Cell-Cell Communication*	*9*	***Quiz 3*** *Lectures 16-21*
		Assignments due Oct 17	***Check eLearning***		
Week 9	*23*	*Oct 18*	*Mendelian Genetics*	*12*	
	24	*Oct 20*	*Mendelian Genetics*	*12*	

	25	*Oct 22*	*Mendelian Genetics*	*12*	
		Assignments due Oct 24	***Check eLearning***		
Week 10	*26*	*Oct 25*	*Genes, Chromosomes and Human Genetics*	*13*	
	27	*Oct 27*	*Genes, Chromosomes and Human Genetics*	*13*	
		Oct 29	***EXAM 2***		***Lectures 12-25***
		Assignments due Oct 31	***Check eLearning***		
Week 11	*28*	*Nov 1*	*Genes, Chromosomes and Human Genetics*	*13*	
	29	*Nov 3*	*DNA Discovery*	*14*	
	30	*Nov 5*	*DNA Discovery*	*14*	
		Assignments due Nov 7	***Check eLearning***		
Week 12	*31*	*Nov 8*	*DNA Replication*	*14*	
	32	*Nov 10*	*DNA Replication*	*14*	
	33	*Nov 12*	*From DNA to Protein*	*15*	***Quiz 4*** *Lectures 26-32*
		Assignments due Nov 14	***Check eLearning***		
Week 13	*34*	*Nov 15*	*From DNA to Protein*	*15*	
	35	*Nov 17*	*From DNA to Protein*	*15*	
	36	*Nov 19*	*From DNA to Protein*	*15*	
		Assignments due Nov 21	***Check eLearning***		
Week 14		*Nov 22*	*Fall Break – no class*		
		Nov 24	*Fall Break – no class*		
		Nov 26	*Thanksgiving Holiday – no class*		
Week 15	*37*	*Nov 29*	*Regulation of Gene Expression*	*16*	
	38	*Dec 1*	*Regulation of Gene Expression*	*16*	
	39	*Dec 3*	*Bacterial and Viral Genetics*	*17*	***Quiz 5*** *Lectures 33-38*
		Assignments due Dec 5	***Check eLearning***		
Week 16	*40*	*Dec 6*	*Bacterial and Viral Genetics*		
		TBD	***EXAM 3***		***Lectures 26 - 41***

Course Evaluation and Grading Policies

Students are assessed based on the following:

1. Exams
2. Quizzes
3. MindTap Assignments

There will be three exams and five quizzes given in BIOL 2311. Scoring on the exams is done by the graduate Teaching Assistants, but the Instructor determines in advance what key points must be included in each answer to get full credit. Weekly MindTap assignments are graded automatically via Cengage.

If you have questions about grading, please contact your instructor as soon as possible. **No grade changes for quizzes or exams will be made three weeks after the assessment date.**

The course grading scale will be determined by the Instructor at the end of the course. Midterm grading scale and final course grading scales may be different. The midterm and final grades assigned to the lecture section (BIOL 2311) will also be assigned to the workshop section (BIOL 2111.xxx).

The final course grade will be based on the weighted total of the numeric scores of all exams, quizzes and the MindTap assignments as follows:

	Total	***Points (each)***	***Possible Points***	***% of final grade (weighted)***
Exams	*3*	*≥ 50*	*≥ 150*	***70%***
Quizzes	*5*	*≥ 10*	*≥ 50*	***20%***
MindTap Assignments	≥ 20	*Varied (via MindTap)*	*Varied*	***10%***
			Total points	***100%***

- ***Exams:***
  1. There are three exams in this course, each worth 50 points. All exams are required, and no exams will be dropped from the final grade calculation. The weighted total of all three exams will determine 70% of your final course grade.
  2. Exams dates and covered materials are listed in the syllabus. Exams will be a combination of multiple choice, T/F, fill-in-the-blank, mix and match, and short answer/free response questions.
  3. Details on window of availability and how to access the exams will be posted at least one week before the exam.
  4. Students needing to request different exam hours should contact the Instructor at least 24 hours prior to exam hours with supporting documents.
  5. Extra credit points may be available on some exams.

- ***Quizzes:***
  1. There are 5 quizzes in this class, each worth 10 points. All quizzes are required, and no quizzes will be dropped from the final grade calculation. The weighted total of all five quizzes will determine 20% of your final course grade.
  2. Quiz dates and covered materials are listed in the syllabus. Quizzes will be a combination of multiple choice, T/F, fill-in-the-blank, mix and match, and short answer/free response questions.
  3. Each quiz will be single-attempt and must be completed within 20 minutes**.**
  4. Details on window of availability and how to access these quizzes will be posted at least one

week before the quiz.

5. Students needing to request different exam hours should contact the Instructor at least 24 hours prior to exam hours with supporting documents.
6. Extra credit points may be available on some quizzes.

- ***MindTap Assignments*:**
  Weekly MindTap assignments will be posted on eLearning and represent 10% (weighted) of the final course grade. These assignments are designed to evaluate and reinforce your understanding of the basic biological concepts presented.

  Use the links posted in eLearning to access and complete the assignments. Once completed, grades will populate in the gradebook automatically. Some of these assignments may be set up for more than one attempt and the best score will be recorded, until the due date is passed.

  Weekly MindTap assignments will be due by 11:59PM on the dates listed in the syllabus and eLearning. No late assignments will be accepted. If you incur technical difficulties, please email your Instructor in advance of the assignment due date.

- ***Missed Exams/Quizzes***:
  Students who miss exams or quizzes should contact your Instructor within 24 hours after exam end time. A makeup exam will be scheduled upon receiving supporting documents and an availability period you are available in the following day to make up the missed exam.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

Academic Support Resources

The information contained in the following link lists the University's academic support resources for all students.

Please go to Academic Support Resources webpage for these policies.

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please review the catalog sections regarding the credit/no credit or pass/fail grading option and withdrawal from class.

Please go to UT Dallas Syllabus Policies webpage for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.