

**Cell Structure & Function, BIOL 830P (3 credits)
Spring 2019**

Instructor Information

Dr. Saili Moghe

Email: moghes1@unk.edu

You may contact me through email (using your Lopermail account) or Canvas inbox messages. Weekly discussion boards on Canvas can also be used to post general comments/questions/concerns. I will respond to emails, inbox messages and discussion board posts within 48 hours.

Course Description

This course will cover current topics in eukaryotic cell Biology including functions of the membrane, cell organelle functions, cell signaling, and the cell cycle. This course will also cover the involvement of specific cell organelles and cell functions in human diseases. In this course the emphasis will especially be on animal cells.

Learning Objectives

1. Describe the basic properties of eukaryotic cells and their composition
2. List and describe functions of the major biological molecules
3. Describe the function and structure of cellular organelles
4. Describe DNA replication, repair, and expression
5. Describe protein synthesis, processing and regulation
6. Understand cellular signaling as it relates to specific human diseases
7. Understand organelle function as it relates to specific human diseases

Course Materials

- **Required Textbook:** Molecular Biology of the Cell (6th Edition) by Alberts et al., 2014
- **Technical Requirements:** Full access to a computer and Internet are required for this course.

Course Structure

Weekly materials will be posted on Canvas by Monday at noon, and an announcement will always go up at this same time letting you know that all materials are up and provide any information and other details you need to know for that particular week. Exams and quizzes will be available from Tuesday at noon until Monday at noon of each respective week.

BIOL 830P Course Syllabus

Instructor: Dr. Moghe

Each week the following will be posted:

- Video lectures
- Outline lecture notes corresponding to the lecture videos
- Assigned readings from the textbook or supplemental readings
- Weekly quiz
- Link to the weekly discussion board for questions/concerns/comments
- Any needed supplementary materials/resources

Assessments

Your progress in class will be assessed by weekly quizzes and 4 Exams.

- **Quizzes**
 - Weekly, 10pts each (total of 9 quizzes)
 - Multiple-choice, fill in blank, short answer (5-10 questions worth 1-2pts each)
 - 2 attempts allowed, only the score from your final attempt will be recorded
 - 6-day access to each weekly quiz
 - Timed at 10 minutes per quiz
- **Exams**
 - 100pts each (total of 4 Exams)
 - Multiple choice, matching, fill-in the blank, short answer (1-3 sentence answers) questions (~50 questions worth 1-6pts each)
 - 1 attempt only
 - 6-day access to each Exam
 - Timed at 60 minutes per Exam
 - The final Exam is partially comprehensive (timed at 80 minutes) and all other exams will cover topics from indicated lectures (see class schedule)

Grades

3 Regular Exams* (100pts each) – 300pts

1 Final Exam** (100pts) – 100pts

1 Introduction post – 5pts

1 Initial writing assignment – 5pts

9 Quizzes – 90pts

TOTAL: 500pts

* Regular Exams will cover topics from indicated lectures

** Final Exam will be partially comprehensive, i.e. 50% comprehensive, 50% focused on topics from indicated lectures

Grade Assignment

Final grades will be assigned using the following grading scale:

A+	97 - 100%	B+	88 - 89%	C+	78 - 79%	D+	68 - 69%
A	93 - 96%	B	83 - 87%	C	73 - 77%	D	63 - 67%
A-	90 - 92%	B-	80 - 82%	C-	70 - 72%	D-	60 - 62%
						F	Below 60%

All grades are final unless there is a calculation error.

Expectations from Students

As students enrolled in this class it is your responsibility to meet the following basic expectations:

- Log on to Canvas at least weekly and keep up with all posted course materials. Make sure that you read the Announcements and stay informed about what is happening and going to happen in class.
- Complete exams and quizzes within the time that they are available and make any submissions by the given deadlines (keep in mind all times are in Central Standard Time, so please account for any time differences if needed).
- Always be respectful to everyone when using discussion boards. You are encouraged to utilize the discussion board for any comments/questions/concerns that you may have, and to also to interact with your classmates (provided you keep such interactions primarily related to the class).
- Seek help when you need it and do not wait till the last moment to do this.

Understandably, you all have several commitments in your life other than this class. Nonetheless, as students registered for this class, it is your full responsibility to ensure that you can meet the above requirements and commit the needed time for this course.

Class Policies

- **Quizzes and exams will receive zero (0) points if they are not completed by the given due dates**
- **Extensions or rescheduling:** Exams and quizzes will NOT be rescheduled or extended unless circumstances are exceptional – a legitimate excuse (based on my discretion) with provided documentation will be required for such considerations.
- **Policy on academic dishonesty:** Anyone caught plagiarizing or cheating during any exercise will receive a 0 for that exercise; subsequent violations will result in referral to the Vice Chancellor for Academic Affairs for dismissal from the university.

- **Policy on incomplete:** All students are expected to progress through the requirements for this course in a timely fashion. Incompletes will only be considered if circumstances are extenuating and beyond your control, and will require documentation.

Copyright Law and Compliance

Materials for this course are only for the use of students enrolled in this course for purposes associated with this course. Course materials are protected by copyright, and may not be further disseminated, adapted, or copied in anyway.

Students with Disabilities

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students with documented disabilities. To receive accommodation services for a disability, students must be registered with UNK Disabilities Services Coordinator, David Brandt, in the Disability Services for Students office, 175 Memorial Student Affairs Building, 308-865-8214 or by email unkdso@unk.edu

Students Who are Pregnant

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students who are pregnant. To receive accommodation services due to pregnancy, students must contact Sue Pedersen in Student Health, 308-865-8218. The following link provides information for students and faculty regarding pregnancy rights. <http://www.nwlc.org/resource/pregnant-and-parenting-students-rights-faqs-college-and-graduate-students>

Reporting Student Sexual Harassment, Sexual Violence or Sexual Assault

Reporting allegations of rape, domestic violence, dating violence, sexual assault, sexual harassment, and stalking enables the University to promptly provide support to the impacted student(s), and to take appropriate action to prevent a recurrence of such sexual misconduct and protect the campus community. Confidentiality will be respected to the greatest degree possible. Any student who believes she or he may be the victim of sexual misconduct is encouraged to report to one or more of the following resources: Local Domestic Violence, Sexual Assault Advocacy Agency 308-237-2599, Campus Police (or Security) 308-627-4811, Title IX Coordinator 308-865-8655

Veterans Services

Veterans Services UNK works diligently to support UNK's military community by providing military and veteran students and families with resources and services to help them succeed. Veterans Services assists with the GI Bill process and acts as a

BIOL 830P Course Syllabus

Instructor: Dr. Moghe

liaison between the student and the Veterans Administration. If you need assistance or would like more information, please contact Lori Weed Skarka at 308-865-8520 or unkveterans@unk.edu.

BIOL 830P Course Syllabus

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Tentative Class Schedule, BIOL 830P

Topic	Assignment/Quiz/Exam	Reading	Week
Cells and Genomes	Introduction post and writing assignment (<i>Due: Jan 14</i>)	Chapter 1	1 (Jan 7)
Cell Chemistry & Biosynthesis	Quiz 1 (Wk 1 material) <i>Available: Jan 15-Jan 22</i>	Chapter 2	2 (Jan 14)
Proteins	Quiz 2 (Wk 2 material) <i>Available: Jan 22- Jan 28</i>	Chapter 3	3 (Jan 21) MLK day Jan 21
DNA, Chromosomes & Genomes	Exam 1 (Wk 1-3 material) <i>Available: Jan 29-Feb 4</i>	Chapter 4	4 (Jan 28)
Replication, Repair & Recombination	Quiz 3 (Wk 4 material) <i>Available: Feb 5-Feb 11</i>	Chapter 5	5 (Feb 4)
Membrane Structure	Quiz 4 (Wk 5 material) <i>Available: Feb 12-Feb 18</i>	Chapter 10	6 (Feb 11)
Membrane Transport	Quiz 5 (Wk 6 material) <i>Available: Feb 19-Feb 25</i>	Chapter 11	7 (Feb 18)
Intracellular Compartments & Protein Sorting	Exam 2 (Wk 4-7 material) <i>Available: Feb 26-Mar 4</i>	Chapter 12	8 (Feb 25)
Protein Transport	Quiz 6 (Wk 8 material) <i>Available: Mar 5-11 Mar</i>	Chapter 12 & 6	9 (Mar 4)
Membrane & Vesicular Traffic	Quiz 7 (Wk 9 material) <i>Available: Mar 12-Mar 18</i>	Chapter 14	10 (Mar 11)
	SPRING BREAK		11 (Mar 18)
Mitochondria Structure	Exam 3 (Wk 8-10 material) <i>Available: Mar 26-Apr 1</i>	Chapter 15	12 (Mar 25)
Cell Signaling	Quiz 8 (Wk 12 material) <i>Available: Apr 2 – Apr 8</i>	Chapter 16	13 (Apr 1)
Cell Cycle & Cell Death	Quiz 9 (Wk 13 material) <i>Available: Apr 9 – Apr 15</i>	Chapter 17 & 18	14 (Apr 8)
Q & A			15 (Apr 15)
	FINAL EXAM (Wk 1-14 material)		16 (April 22)
FINALS WEEK	FINAL EXAM (Wk 1-14 material)		17 (April 29)

- All lecture material for each week will be posted every **Monday at noon**
- Quizzes and Exams will be available from **Tuesday at noon until Monday at noon** of the following week.
- The final Exam will be available on from **Tuesday at noon before finals week until Wednesday at noon of finals week**
- All times indicated in the syllabus and Canvas are in Central Standard Time