

Class: BIOL213H: Cell Structure and Function

Where: Exploratory Hall Rm L111

When:

Instructor: Dr. Geraldine Grant

Email: ggrant1@gmu.edu

Phone: 703-993-4292

Office Hours: By appointment, email ggrant1@gmu.edu

Rm 207 Discovery Hall, PW campus

Text: Lecture - Essential Cell Biology, Alberts, et al., 3rd or 4th edition, Garland Science
Laboratory - Cell Structure and Function Lab Manual. Fox, D; 3rd ed. Kendal Hunt

Also Required: iClicker or iClicker2 (See supplemental page)

Week	Meetings	Lecture Topic	Reading	Recommended Questions
1	1 2	Introduction to Cells Introduction to Cells	Ch01 Ch01	Ch01: 1,4,5,7 Ch01: 8,9,13,
2	3 4	LABOR DAY – NO CLASS Chemical Components of Cells	Ch02	Ch02: 8,10,15,16
3	5 6	Chemical Components of Cells Energy, Catalysis & Biosynthesis	Ch02 Ch03	Ch02: 18,21,22 Ch03: 2,9,15,22,
4	7 8	Protein Structure & Function Protein Structure & Function	Ch04 Ch04	Ch04: 2,3,4,5,6, Ch04: 8,10,13,21
5	9 10	Exam #1 DNA and Chromosomes	Chap 1,2,3,4 Ch05	Ch05: 1,6,9,13
6	11 12	From DNA to Protein From DNA to Protein	Ch07 Ch07	Ch07: 5,7,9 Ch07: 10,11,12
7	13 14	Class meets on Tuesday Membrane Structure Membrane Transport	Ch11 Ch12	Ch11:5,7,8,9,16,1 9 Ch12: 1,3,9
8	15 16	Membrane Transport Exam #2	Ch12 Chap 5,7,11,12	Ch12: 10,11,16
9	17 18	Energy from Food Energy Generation: Mito/Chlpst	Ch13 Ch14	Ch13: 5,8,10, Ch14: 2,8,12,17,21
10	19 20	Intracellular Compartments Intracellular Transport	Ch15 Ch15	Ch15: 4,9 Ch15: 10,22
11	21 22	Cell Communication Cell Communication	Ch16 Ch16	Ch16: 1,3,5 Ch16: 8,11
12	23 24	Exam #3 Cytoskeleton	Chap 13,14,15,16 Ch17	Ch17: 1,3,4,7,8,11
13	25 26	Cytoskeleton NO CLASS- THANKSGIVING	Ch17 Ch18	Ch17: 16,17,21,22,23 Ch18: 1,17,20
14	27 28	Cell Division Cycle Cell Division Cycle	Ch18	Ch18: 23,26,30
15	29 30	Cellular Communities: Cellular Communities: Cancer	Ch20 Ch20	Ch20: 9,10, Ch20: 8,16,19
	TBD	FINAL EXAM (Exams 4 & 5) (28%)	Ex4: Ch 17,18,20 Ex5: Comprehensive	

METHOD OF EVALUATION:

EXAMS (60%): The course will have three examinations during the semester and a final examination. The final exam will be in TWO parts, each worth the equivalent of a lecture exam. The first part will cover NEW MATERIAL presented after the third lecture exam and will be referred to as "Exam 4". The second part will be a COMPREHENSIVE exam that covers the same kind of material found on Exams 1, 2, and 3. Final exam grades (both parts) will ALWAYS count toward the final grade for the course. If a student earns a higher grade on the comprehensive portion of the final exam than on any one of the three lecture exams during the semester, the lowest score will be dropped and substituted with the higher score of the comprehensive portion of the final. Thus, if you do well on the comprehensive final, it can improve your course grade by eliminating a low score and counting a higher score twice.

Individual exams may be curved, but Exam#5 (the comprehensive portion of the final exam) will not be curved.

NOTE: Exam 4 is part of the final exam, and will not be dropped!!

The exam questions will be approximately 50% short answer (one to two sentences) and some essay (a paragraph or more). There may be some fill-in-the-blank and matching types of questions. The other ~50% of the exam will be multiple choice questions. The exams will be based primarily on the material presented in the lectures, but there may also be questions from the assigned readings - text and news articles of interest. The exams during the semester will be each worth 12% of your course grade and the final exam (Exams 4 & 5) will be worth 24%.

POLICY FOR EXAMS - THERE ARE ABSOLUTELY NO MAKE-UP EXAMS!

If you miss a lecture exam FOR ANY REASON (illness, doctor's appointment, car trouble, etc.), the score from the comprehensive portion of the final will be counted twice toward your earned points.... it will count once as the comprehensive final and once as the score for the exam that was missed. In essence, the comprehensive portion of the final serves as a make-up exam at the end of the semester. This option can be exercised only ONCE during the course - i.e. if you miss more than one lecture exam, the additional misses cannot be made up.

If a class is canceled for any reason in which an exam is scheduled, the exam will be given in the next regularly scheduled class. If the class meeting immediately prior to an exam date is canceled so that material to be covered on the exam is not finished in lecture, then the exam will be delayed one class meeting. Your instructor will keep you informed via email.

IN CLASS QUESTIONS (5%): During the semester, twelve (12) quizzes will be given on the previous lecture material or the current lecture material. These will be answered during class time using the iClicker system. No make up questions will be given. The two (2) lowest scores will be dropped.

HOMEWORK/REPORTS (10%): Two to four homework assignments / reports on cell biology topics will be assigned during the semester. Due dates will be assigned when the assignment is given, but at least 2 weeks will be given for each assignment. Each assignment/report will account for 2.5-5% of your overall course grade, depending upon the total number assigned.

GRADE WEIGHTING

GRADE ASSIGNMENT

Exam #1	12%	<u>Avg. % graded material</u>	<u>GRADE</u>
Exam #2	12%	93.0% and above	A
Exam #3	12%	90.0 to 92.9%	A-
Final Exam	24%		
In-class Questions	5%	86.7 to 89.9%	B+
Homework/Reports	10%	83.3 to 86.6%	B
Lab portion of the course	25%	80.0 to 83.3%	B-
		76.7 to 79.9%	C+
		70.0 to 76.6%	C
		60.0 to 69.9%	D
		less than 59%	F

METHOD OF INSTRUCTION

While the primary method of instruction will be classroom lectures using PowerPoint® slides, other instructional approaches may also be used. Newspaper, journal and magazine articles relating to Cell Biology will be briefly mentioned in class. Summaries of these items of interest will be posted on the course page in Blackboard or the reference for the article will be made available. Students will be responsible for the information in these articles.

Syllabus and PowerPoint lecture slides are posted on the course page in Blackboard

Use your GMU email userID and password to login.

I will communicate with students during the semester by email, using your gmU email address. Therefore, you must have an active gmU email account and you must maintain it. You can configure your gmU email account to forward mail to another account (gmail, hotmail, yahoo, etc.), but periodically check your gmU account.

OFFICE OF DISABILITY SERVICES

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 993-2474.

All academic accommodations must be arranged through the ODS. <http://ods.gmu.edu>

OTHER USEFUL CAMPUS RESOURCES

- WRITING CENTER: A114 Robinson Hall; 993-1200; <http://writingcenter.gmu.edu>
 - UNIVERSITY LIBRARIES "Ask a Librarian" <http://library.gmu.edu/mudge/IM/IMRef.html>
 - COUNSELING SERVICES (CAPS) 993-2380; <http://caps.gmu.edu>
 - UNIVERSITY POLICIES <http://universitypolicy.gmu.edu/>
 - UNIVERSITY CATALOG <http://catalog.gmu.edu>
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HONOR CODE

The honor code protects the honest student, the reputation of George Mason University, and the value of degrees earned here. We should all support it both by personal honesty in all things and by refusing to tolerate dishonesty in others. Students may help one another with problems, but any graded work must be one's own work. Students should report suspected cheating to the Honor Committee (OAI@gmu.edu or 993-2884).

Supplemental Information for Syllabus

This course will be using i>Clicker for the unannounced quizzes. i>Clicker is a response system that allows you to respond electronically to questions posed during class, and you will be graded on your answers and participation.

SET-UP:

To be eligible to receive credit on all quizzes, you will need to register your i>Clicker **before the second week of classes.**

Purchase: The i>Clicker is available at the bookstore. If you have an i>Clicker from another class you may use it in this class.

Register: You need to register your i>Clicker at www.iclicker.com/registration

For registration, you need to complete all the fields: first name, last name, student ID, clicker ID, and the verification field.

Student ID = your GMU email prefix

(e.g. my ID would be ggrant1 since my email is ggrant1@gmu.edu)

Clicker ID = serial number found on the back of your i>Clicker.

(note: i>Clicker serial numbers do not contain the letter "O", only zeros)

USE:

The i>clicker will be used for the unannounced quizzes.

We will have 12 quizzes throughout the semester. The 2 quizzes with the lowest score will be dropped.

YOU ARE RESPONSIBLE FOR BRINGING YOUR i>CLICKER TO EVERY CLASS. If you fail to bring your i>Clicker, you will be unable to answer the question and will not receive any credit (paper answers will not be accepted).

You may use either an iClicker or an iClicker2