

PCB 3023 - Molecular Cell Biology - Summer 2014

Section B001: MTWR 12:00–01:50 PM Lecture (HPA1-119)

Updated 6/23/14

Instructor: Dr. Cynthia Bayer

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Phone: 407-823-1460

Office (BIO 439) Hours: Mon & Wed: 2:00-4:00 pm

Tues 10:00-11:00 am

Undergraduate Assistant: Reshma Sharma e-mail: ReshmaSharma@knights.ucf.edu

Office (BIO 414) Hours: Mon & Wed 10:00-11:00 am

Course objectives: To examine the biology of the cell. We will study the structure and function of eukaryotic cells from the level of molecules to sub-cellular components, as well as the regulation of biological processes. Topics will include genome structure and dynamics, DNA repair and recombination, bioenergetics, metabolism, membrane structure and transport, intracellular vesicle trafficking, organization and function of the cytoskeleton and extracellular matrix, cell signaling, apoptosis and cell cycle control.

Prerequisites: Some topics covered in General Genetics (PCB 3063) and Organic Chemistry I (CHM 2210) may be reviewed briefly in this course, but not discussed in depth. These 2 courses are required as prerequisites in order to help you succeed in this course. If an error in PeopleSoft allowed you to register for this course without the proper prerequisites, I would strongly encourage you to re-consider the wisdom of remaining in this course.

Required Textbook: Essential Cell Biology, 3rd edition by Alberts *et al.*, 2010. Garland Science.

Required i>clicker: We will be using the i>clicker classroom response system on a daily basis. You will need to purchase an i>clicker remote and bring it with you to every class lecture. It would be wise to bring extra batteries as well, as we will be using the remotes in activities that count for class points. The purchase of a remote is NOT optional; it will be used as an integral part of this course. *Note: Students need purchase only one remote because the same unit can be used in every course that uses the i>clicker system.* You must register your remote no later than **June 26, 2014**. **TO REGISTER:** Log into your **Webcourses** account. Choose our course and click on the i>clicker link. Follow the instructions to type in your clicker ID (which is directly under the barcode on the back of your remote). You may use either the original multiple choice-only **i>clicker**, **i>clicker+**, or the alphanumeric-capable **i>clicker2** remote, as I will only utilize multiple-choice responses to questions in this course.

Course Website & Communication: Access our course website at Webcourses@UCF via the myUCF portal using your PID and PID password. There you will find a folder of **Lecture PowerPoints** for you to print and bring to lecture. I will use the **Inbox** link to the **Conversations** page at our Webcourses site for communication with students.

Classroom Conduct: By enrolling at UCF, all students have agreed to abide by *The Golden Rule*. Please become familiar with this document at: <http://www.goldenrule.sdes.ucf.edu/> It is assumed that all students will act in a mature manner in the classroom showing consideration for their peers and the instructor. Please also use common courtesy in class by arriving and departing on time, refraining from talking during class, and silencing cell phones and other electronic devices.

Grading: 90% = Best **3 out of 4** lecture exams
10% = i>clicker points - class participation = 3 pts.
- graded questions, correct = 1 pt., incorrect = 0.25 pt.

There will be 4 lecture exams, each worth 100 points. The exams will be based on material covered in lecture, which includes topics not covered in the textbook. Some notes and diagrams presented in lecture are not included in the PowerPoint slides available at the Webcourses website. Therefore, students who routinely skip lectures will be at a significant disadvantage.

Exam scores will be posted on the Grades page at the Webcourses site. **90%** of your course grade will be based on the **best 3 out of 4** exam scores. **You must take Exam 4 on the last day of class** in order to have the option of dropping Exam 4 from the final grade calculation.

The points earned from i>clicker class participation and graded questions will comprise **10%** of your course grade. Flat letter grades for the semester will be awarded according to the scale below. Letter grades will adhere to these grade ranges with no exceptions. **Note: This is a 3-credit course.**

90-100% = A, 80-89% = B, 70-79% = C, 60-69% = D, below 59% = F

Missed Exam Policy: If you miss **Exam 1, 2, or 3** for any reason, that exam will receive a score of 0 and will be the exam that is dropped from the final grade calculation. If you miss a second or third exam, you must provide acceptable documented evidence from an appropriate authority (doctor, police, judge, etc.) that circumstances beyond your control prevented you from taking the exam, or that you were required to participate in official UCF business. A doctor's note must be on letterhead with a contact phone number, and must indicate that a medical condition was treated. Documented evidence must be presented to me within 24 hours of the start of the exam. Make-up exams will be given on **the last day of class** or at a mutually convenient time to be arranged. In the absence of acceptable documentation, a grade of 0 will be assigned for the second or third missed exam.

Every student must take Exam 4 on the last day of class.

Taking Exams: All electronic devices must be inaccessible during exams. Use or display of any unauthorized electronic device will result in a zero for the exam, referral to the Office of Student Conduct, and a "Z Designation" on the student's official transcript (see below). All exams will use scantrons that will be provided to each student. It is your responsibility to bubble in the scantron answers completely and erase clearly. You will need to bring a #2 pencil and your valid UCF Student ID card. Your name and PID number must be printed on the answer sheet and will be checked as you leave the exam. If you arrive late to a test, you will be allowed to take the test. However, you must turn in the test paper at the regular scheduled end of the test. You will not be allowed extra time unless a documentable emergency has occurred (see above).

Extra Credit: Each class period you will have the opportunity to earn extra credit points by working in a group of 3 to 4 students to write an i>clicker-type multiple choice **Review Question**. Each member of a group will earn 0.5 pt. when a Review Question form (printed from our Webcourses site) is turned in to me at the end of the mid-lecture break. The completed form must include a properly formed question, appropriate answer choices (with the correct answer circled), and the printed name and signature of each participating group member. I will choose several of the best questions to use for the review session prior to each exam day. Each student in the group that wrote each chosen question will earn an additional 2 pts. (Each student can earn a maximum of 4 extra credit points per exam.)

Cheating will not be tolerated! Turn baseball caps backward while taking exams. Go to the restroom before the exam. Any student caught using unauthorized materials, including electronic devices, in an exam, copying off another paper, signing in for someone else on an exam, or in any way misrepresenting their work will receive an automatic F and the matter will immediately be referred to the UCF Office of Student Conduct for disciplinary action. In addition, a "Z Designation" will be placed on the student's official transcript indicating academic dishonesty, where the letter Z will precede the final grade for this course. For more information about the Z Designation, see <http://z.ucf.edu/>.

Reviewing Exams: Scantrons will not be returned to students. Individual test report sheets with all correct and incorrect responses marked on it will, however, be available. Scores will be posted on the Grades page at the Webcourses site. Exam papers and scantrons can be reviewed in my office, during regularly scheduled office hours, for the period of time up until the next exam (e.g., exam 1 can be reviewed up until exam 2 is administered).

Disability Access Statement: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. Students with disabilities who need accommodations in this course must contact the instructor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the instructor to request accommodations. Students who need accommodations must be registered with Student Disability Services, Ferrell Commons 7F, Room 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, <http://sds.sdes.ucf.edu/> before requesting accommodations from the instructor.

Help & SARC: Please ask for help if you need it! I am here to answer your questions. Additionally, there is help available through SARC (Student Academic Resource Center, Howard Phillips Hall, Room 113: 407-823-5130; <http://www.sarc.sdes.ucf.edu/>). Students can request a Learning Consultation with a Learning Skills Specialist, or attend Academic Success Workshops to improve study skills & strategies.

Important Academic Dates:

Holidays:

June 23	Classes begin	July 4	Independence Day
June 26	Drop/Swap deadline		
June 27	Add deadline		
July 17	Withdrawal/Grade forgiveness deadline		
July 31	Last Day of Class		
August 2	Commencement		
August 8	Grades Available on myUCF		

Tentative Lecture Schedule

June 23: <i>Course introduction</i> Chapter 1 – <i>Cells</i>	
June 24: Chapter 1 Chapter 2 - <i>Molecules</i>	
June 25: Chapter 2 Chapter 4 - <i>Proteins</i>	
June 26: Chapter 4 Chapter 5 - <i>Genome Organization</i>	June 26: Drop deadline 11:59 pm June 27: Add deadline 11:59 pm
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June 30: Chapter 5 Chapter 6 - <i>DNA Repair & Recombination</i>	
July 01: Chapter 6 Catch-up & Review	
July 02: Exam 1 (Chapters 1, 2, 4, 5, 6)	
July 03: Chapter 8 - <i>Cell Differentiation</i> Chapter 9 - <i>Evolution of Genes & Genomes</i>	
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July 07: Chapter 11/12 - <i>The Cell Membrane</i> Chapter 11/12 - <i>Membrane Transport</i>	
July 08: Chapter 3 - <i>Energy</i> Chapter 3	
July 09: Chapter 13/14 - <i>Respiration</i> Chapter 13/14	
July 10: Chapter 13/14 Catch-up & Review	
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July 14: Exam 2 (Chapters 8, 9, 11, 12, 3, 13, 14)	
July 15: Chapter 14 - <i>Biosynthesis</i> Chapter 14	
July 16: Chapter 15 - <i>Secretion</i> Chapter 15	
July 17: Chapter 16 - <i>Cell Communication</i> Chapter 16	July 17: Withdrawal/Grade forgiveness deadline 11:59 pm
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July 21: Chapter 16 - <i>Signal Transduction</i> Chapter 16	
July 22: Chapter 16 Catch-up & Review	
July 23: Exam 3 (Chapters 14, 15, 16)	
July 24: Chapter 17 - <i>Cytoskeleton</i> Chapter 17	
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July 28: Chapter 18-20 - <i>Apoptosis/Cell Renewal</i> Chapter 18-20	
July 29: Chapter 18-20 Chapter 18 - <i>Cell Cycle</i>	
July 30: Chapter 18 Catch-up & Review	
July 31: Exam 4 (Chapters 17, 18, 20)	
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Note that the instructor reserves the right to make changes to the syllabus or other aspects of the course at anytime. These changes will be announced in class.

i>clicker Instructions

Required i>clicker: We will be using the i>clicker classroom response system on a daily basis. You will need to purchase an i>clicker remote and bring it with you to every class lecture. It would be wise to bring extra batteries as well, as we will be using the remotes in activities that count for class points. The purchase of a remote is NOT optional; it will be used as an integral part of this course.

You have the option of using the original **i>clicker** remote, the newer **i>clicker+** (ISBN: 1464120153), or the alphanumeric-capable **i>clicker2** remote (ISBN: 1429280476). You may purchase a remote at the UCF Bookstore or online <http://iclicker.com/purchase/>. Instructions are on the back of the remote.

IMPORTANT INFORMATION BEFORE PURCHASING YOUR i>CLICKER:

- **Be sure to consider which of your other courses may require an i>clicker or i>clicker2 remote.** I will only ask Multiple Choice questions in class. However, you may need an i>clicker2 remote for answering numeric/alphanumeric questions in another course.

INSTRUCTIONS FOR i>CLICKER COURSE REGISTRATION: i>clicker is a response system that allows you to respond to questions I pose during class, and you will be graded on that feedback and/or your in-class participation. In order to receive this credit, you will need to register your i>clicker remote by **JUNE 26, 2014**. You must have come to class at least once and voted on at least one question in order to complete this registration.

Log into your **Webcourses** account. Choose our course and click on the i>clicker link. Follow the instructions to type in your clicker ID (directly under the barcode on the back of your remote). i>clicker will be used every day in class, and you are responsible for bringing your remote daily.

i>CLICKER POLICIES:

Cheating policy:

I consider bringing a fellow student's i>clicker remote to class to be cheating and a violation of UCF's *The Golden Rule* Rules of Conduct. If you are caught with a remote other than your own or have votes in a class that you did not attend, you will forfeit all clicker points and may face additional disciplinary action.

Forgotten clicker policy:

Note that we will be using i>clicker in almost every class and clicker points will make up 10% of your final grade. Please remember that it is your responsibility to come prepared to participate with a functioning remote every day. However, I do realize that difficult circumstances do arise, and for this reason I will drop the single lowest i>clicker day from your total participation grade.

Broken/lost clicker policy:

If you have lost or broken your i>clicker remote, you will have to purchase another one. Please email me with your new remote ID so that I can manually register your new remote.

i>clicker Refunds and Exchanges: Unopened i>clicker remotes can be returned to the UCF Bookstore for a full refund during the first week of classes with a receipt.