

Syllabus – Fall 2016
BIOLOGY 111 Section 04 : Intro. to Cell and Molecular Biology(CRN 10117)
MWF 1:30p.m.-2:20 p.m., HWWE 217

Instructor: Dr. Farahdiba Jafri PhD

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Offices: SSMB Room no. 326

Office Hours: M 10:30-11:30 a.m. & 2:30-3:30 p.m., and W 10:30-11:30 a.m. in SSMB 326. You may also email me to schedule an appt. at another time

Course Goals

This course is intended to be a foundation course for science majors, providing an introduction to basic principles of biology and emphasizing the concept of structure and function in biological systems at the molecular and cellular levels.

Learning Outcomes:

This general education science sequence provides:

- 1-Identify and use basic vocabulary of cellular biology, cell structure and function.
- 2-A background for understanding and evaluating contemporary topics in biology.
- 3-Students develop a foundational understanding of core concepts to use and on which to expand in upper level courses.
- 4-Demonstrate the ability to work as a team

Supplemental Instruction (SI):

Supplemental Instruction, or SI, is a collaborative, peer-assisted group study session, led by a student who has previously successfully completed the course. The SI leader helps students, in weekly sessions outside of class, to develop strategies in order to successfully master the material. **Attending at least one session each week is highly recommended.**

Co-requisites

BIOL 111 Laboratory – you **MUST** enroll in a lab section in addition to this lecture.

Required Course Textbook

Biological Science by Freeman, Quillin & Allison, Sixth Edition, (Pearson Publishers). You can buy it, rent it, get the ebook, borrow it, or share it with a classmate, but you **MUST** have access to this textbook! You will also need it for Biology 112 (and Biology 211 if you are a Bio. major). Use the text and figures to preview and to reinforce what you are learning in class. There are self-quizzes that can be great study guides, as well as a variety of web links to help you understand the material. There is a lot of material to cover in this course, **so keep up with the reading!**

Suggested Course Material

The Study Guide for *Biological Science* by Freeman, Sixth Edition, (Pearson Publishers). This is not required, but it is available in the book store and is very helpful for many students.

Online Course Materials: Assignments, announcements, study guides, will be available online through OAKS. You can access OAKS via MyCharleston.

Teaching Philosophy

I encourage participation and interaction in my lectures and will do my best to create a fantastic learning environment. However, it is not all up to me. I depend on you, the student, to also take an active role in your education (after all, you pay to be here!) by challenging me with questions and participating.

Course Policies and Requirements

Any student in this class who has a documented disability should speak to me as soon as possible, as well as contact the Center for Disability Services (CDS/SNAP program), located on the first floor of the Lightsey Center, Suite 104, (843) 953-1431, SNAP@cofc.edu

Class Attendance

You are expected to attend all meetings of the class. Students are responsible for **getting their own notes from a classmate** for any class missed. Exams will be based almost entirely on lectures with the text used for background information and reinforcement. **You will not do well in this course if you miss lectures.** Also, missed surprise quizzes CANNOT be made up (see below). **This material is challenging and requires work on your part for success!**

Assignment

You will have one additional homework assignment assigned during the semester, and the due date is listed on my calendar below. This assignment is intended to reinforce material covered in class and to encourage critical thinking. It will require you to seek information from sources outside of class and in addition to your textbook. **Because of this assignment and other actual credit opportunities in this course, I do not offer any extra credit projects.** You are expected to turn in your assignment (which is to be done independently, unless otherwise stated) by the beginning of the class period on the date it is due, and it will only be accepted **typed and stapled** (otherwise points will be lost). Assignments will lose one full letter grade for every day of delay (**after 5 p.m. counts as the next day**). You should hold onto all graded assignments and quizzes until the final grade has been turned in.

Students are required to adhere to the guidelines outlined by the Honor Board in the Student Handbook (please see <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>, sec. 9, p. 10 and 11 specifically). **This includes lying, which will not be tolerated in this course.** All work that you turn in for this course (whether for an assignment, quizzes, or exams) must be **your own independent scholarship**, and have not been used, partially or totally, to fulfill requirements for other classes. Any form of plagiarism (intentional and unintentional), cheating, or presenting someone else's work as one's own will be treated as a serious academic transgression and will be communicated accordingly by the instructor as an honor code violation to the Division of Student Affairs. Be especially cautious of plagiarism when using Internet sources. **Cheating, attempted cheating, or plagiarism will result in a grade of zero on that assignment or exam and may result in a final overall grade of F or XF (failure due to academic dishonesty) for the course.**

Quizzes

Short quizzes will be given throughout the semester. They are intended to encourage students to keep up with the large amount of information in this course by studying a little each and every day. **No make-up quizzes are given, but your lowest non-zero quiz score will be dropped.** A missed quiz will result in a 0 for that quiz, unless the student provides a valid and documented absence memo (through the Absence Memo Office – see below). Acceptable excuses include serious illness, personal tragedy or extreme circumstances beyond the student's control. **If you have a quiz excused, all of your remaining quiz scores will count toward your final grade (none will be dropped).** **No more than 2 quizzes may be excused.** All cell phones, pagers, iPods, iPads, tablets, laptops, etc. are to be **turned off and put away** during each quiz.

Exams

There are 5 exams total: 4 regular exams scheduled during the semester (see calendar below for dates) and 1 cumulative final exam scheduled during the final examination period. **You will need to bring a #2 pencil**

with you to exams, as they will be Scantron (please see me ASAP if you are not familiar with this testing procedure!). **There will be no make-up exams.** Anyone who misses an exam will receive a 0, unless the student provides a valid and documented absence memo (through the Absence Memo Office, 67 George St., 953-3390, <http://studentaffairs.cofc.edu/about/absence-memo/index.php>, absencememo@cofc.edu) for missing a scheduled exam. Acceptable excuses include serious illness, personal tragedy or extreme circumstances beyond the student's control. If you have any conflicts with the scheduled exams, you must see me ahead of time, well before the exam date. After receiving one excused exam, a student will be in danger of receiving a grade of Incomplete for the course if any more exams are missed. **All cell phones, pagers, iPods, iPads, tablets, laptops, etc. are to be turned off and put away during each exam.**

Grading

The quizzes will count for a total of 20% of your final grade. The assignment will count for 10% of your final grade. The 4 regular exams will count for a total of 55% of your final grade. The cumulative final exam will count for 15% of your final grade. Grade calculation formula (easy to use in an Excel spreadsheet):

$$[(\text{Quiz avg.}) * 0.20] + [(\text{Assign.}) * 0.10] + [(\text{Exam avg.}) * 0.55] + [(\text{Final exam score}) * 0.15] = \text{Final grade}$$

Letter grades will be determined by the following breakdown:

Letter	%	GP
A	93-100	4.0
A-	90-92	3.7
B+	87-89	3.3
B	83-86	3.0
B-	80-82	2.7
C+	77-79	2.3
C	73-76	2.0
C-	70-72	1.7
D+	67-69	1.3
D	63-66	1.0
D-	60-62	0.7
F	Below 60	0.0
XF	Failure due to academic dishonesty	0.0

My Expectations of students in my class:

1. **TURN OFF** all cell phones, pagers, iPods, iPads, tablets, laptops and anything with alarms before coming into my class **AND PUT THEM AWAY**. If you forget to do so you may be asked to leave and not to return that class period. If you have a legitimate need to use a laptop, please see me to discuss.
2. **DO NOT TALK OR TEXT** (your phone should be off and put away anyway) **WHEN I AM LECTURING**. I am trying to do my job and others are trying to learn – please be courteous and pay attention! If you have a question, please ask me – I love questions from students!
3. It will take me some time to learn your names. However, I have an excellent memory and I can see everyone, so please stay awake, participate and be attentive. **Start behaving now like the student you will want me to write that stellar recommendation letter about!**

COURSE CALENDAR (lecture schedule is tentative –some days we may do more or less, and I will notify class of any changes – but exam dates are firm!)

Date	LECTURE TOPIC	Chapter
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August		
W 24	Welcome, Introduction to Cell, start Prokaryotes	1.1, 1.2, 1.4,7.1
F 26	Prokaryotic and Eukaryotic Cell Structure	7.1, 7.2, p. 221 Chap. 12, 7.5
M 29	Eukaryotic Cell Structure& Microscopes	7.2, 7.5, p. 143 Chap. 8, Bioskill 11 on p. B18-B20, 7.3, 7.6
W 31	Start Cell Membranes & Transport, Diffusion & Osmosis	7.6, 6.3, 6.4
September		
F 2	Channels, Carriers & Pumps, Cell to Cell, Atoms	6.4, 11.1, 11.2, 2.1
M 5	Finish Channels, Carriers & Pumps, Cell to Cell, Atoms	6.4, 11.1, 11.2, 2.1
W 7	Bonding, Properties of Water, pH	2.1, 2.2
F 9	Bonding, Properties of Water, pH	2.1, 2.2
M 12	**EXAM 1**	
W 14	Organic molecules and Functional Groups	2.4, 2.5
F 16	More Functional Groups, start Proteins	2.5, 3.1
M 19	Macromolecules: Proteins	3.1, 3.2, 3.3,
W 21	Macromolecules: Proteins, start Nucleic Acids	3.4, 4.1
F 23	Macromolecules: finish Nucleic Acids	4.1, 4.2, 4.3, 4.4
M 26	Macromolecules: Carbohydrates &start Lipids	5.1, 5.2, 5.3, 6.1
W 28	Finish Lipids, Distant Cell Signaling	6.1, 6.2, 2.3, 11.3, 8.1, 8.2
F 30	Distant Cell Signaling, Energy	2.3, 11.3, 8.1, 8.2
October		
M 3	**EXAM 2**	
W 5	More Energy& Enzymes	8.1, 8.2, 8.3, 8.4, 8.5
F 7	Redox & ATP, begin Photosynthesis	8.2, 10.1, 10.2
M 10	Photosynthesis	10.1, 10.2
W 12	Finish Photosynthesis,start Cellular Respiration	10.3, 10.4, 9.1
F 14	Cellular Respiration	9.1, 9.2, 8.5, 9.3
M 17	Cellular Respiration	9.1, 9.2, 8.5, 9.3, 9.4, 9.5
W 19	Fermentation	9.6
F 21	Cell cycle & Mitosis / Bio. Assignment Due	12.1, 12.2, p. 350 & 353 Chap. 19, p. 240
M 24	**EXAM 3**	
W 26	Finish cell cycle and cancer	12.3, 12.4
F 28	DNA Replication	15.3, 15.4, 15.5
M 31	DNA Replication	15.3, 15.4, 15.5
November		
W 2	Meiosis	13.1, 13.2, 13.3, 13.4,
F 4	Meiosis	13.1, 13.2, 13.3, 13.4,
M 7	Fall Break	
W 9	Start Mendel, Chromosomes, Linked Genes and Inheritance	14.1, 14.2, 14.3
F 11	More Linkage and Inheritance	14.4, 14.5
M 14	Finish Linkage and Inheritance	14.5, 14.6
W 16	How genes work	16
F 18	**EXAM 4**	
M 21	Transcription and Translation	17
W 23	Thanksgiving	
F 25	Thanksgiving	

M 28	Some aspects of biotechnology	
W 30	Revision for Finals	
F 2	Revision for Finals	
M 5	**FINAL CUMULATIVE EXAM, 12 – 3 p.m., This Room!	

**** Please note: as stated in the Undergraduate Catalog, p. 25 (<http://catalogs.cofc.edu/pdf/Undergraduate-Catalog-2014-2015-3rd.pdf>):**

Examinations **must** be taken at the time scheduled, **except** when:

1. Two or more exams are scheduled *simultaneously*.
2. The student has three or more exams within a 24-hour period.
3. Legitimate **AND** documentable extenuating circumstances prevent the student from completing the examination at the scheduled time (e.g., burial services for an immediate family member)
4. *Note: Forms for permission to reschedule one exam may be obtained from the Office of the Registrar Forms website. Written permission of the instructor and all relevant signatures must be obtained at least 24 hours prior to the scheduled time for the final examination.*

Make it a habit to always check out your final exam schedules on your own as well: <http://registrar.cofc.edu/pdf/exam-schedule-Fall2016.pdf>