Loyola University Chicago
John Felice Rome Center
Syllabus Fall Semester 2019
BIOL 251-Cell Biology

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John Felice Rome Center
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Lectures: Tuesday 6:45 pm –9:15 pm
Office Hours: Tuesday 6:00-6:45 pm by Appointment

Prerequisites: **BIOL 102, 112** and **CHEM 102** or **106**

Required Text: "Molecular Biology of the Cell",
Bruce Alberts et al; Garland Science 6th Edition

Students can purchase a **digital ebook** copy on the Garland website of Molecular Biology of the Cell by visiting the book web page and clicking on the "E-Books and Custom Pub" tab. It will then have links to Amazon, Chegg, Kindle, and others where they can buy the ebook.

http://garlandscience.com/product/isbn/9780815344322

Course Objective: The cell is a fascinating, complex, and dynamic unit that forms the fundamental basis of unicellular and multicellular life. The cell makes active decisions involving signal transductions, membrane dynamics, gene expression regulation. The Cell Biology course provides a basic understanding of the structure and function of cell, cellular organelles, cellular components, and the functional interaction of the cell with its microenvironment. As you proceed through the lectures you will increase your knowledge and you will become able to apply this knowledge, skill, and awareness that are critical for any scientific career.

Lecture Information:

- Lectures start promptly. If you arrive late or must leave early for an urgent reason, please do so without disturbing your fellow students.
- Please turn off or silence all mobile devices before lecture begins.
- Slides for each lecture will be available on Sakai

Studying for class: Cell Bio 251 covers a significant amount of material. The book is very detailed, but you are required to know the material discussed during lecture. Reading the book after lecture will allow you to better find and focus on the material covered in class. Study group are good to prepare for the exam where you can share your knowledge and solve your doubts. Please, feel free to ask questions during lecture and during office hour by appointment. Attendance is strongly advised as the exam will focus on my lectures and corresponding slides and I will draw exam questions from them.

Students with Special Needs: If you have any special needs in order to successfully complete this course, please inform me immediately so that available accommodations can be discussed and put into place.

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Academic Integrity: **Plagiarism and other forms of academic dishonesty are unacceptable at the JFRC** and will be dealt with in accordance with Loyola University Chicago's guidelines. Please familiarize yourself with Loyola's standards here: http://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml. You are responsible for understanding what constitutes plagiarism according to the LUC Student Handbook.

Exams and Grading: There will be four exams, three during classes and the fourth during final exam week. The exams will consist of multiple choice-type questions and problems.

My expectations are that the following grade cutoff will apply

Grade	Cut off		
A	94-100%	4.00	Excellent
A-	90-93%	3.67	
B+	87-89%	3.33	
B	84-86%	3.00	Good
B-	80-83%	2.67	
C+	77-79%	2.33	
C	74-76%	2.00	
C-	70-73%	1.67	
No passing grade			
D+	67-69%	1.33	
D	60-66%	1.00	Poor
F	0-59%	0.00	Failure

Attendance Policy: In accordance with the JFRC mission to promote a higher level of academic rigor, all courses adhere to the following absence policy:

- For all classes meeting once a week, students cannot incur more than one unexcused absence.
- For all classes meeting twice a week, students cannot incur more than two unexcused absences.
- For all classes meeting three times a week, students cannot incur more than two unexcused absences.

This course meets **once** a week, thus a total of **one** unexcused absence(s) will be permitted.
Unexcused absences beyond these will result in a lowering of your final grade. Unexcused absences beyond these will result in 1% lowering of the final course grade, for every absence after the "approved limit".

Missed Exams Policy: There will be no makeup exams. A missed exam will be counted as your lowest score and your other in-class exams will be counted.

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<u>Tentative</u> Lecture & Exam Schedule for fall semester 2019
***Note**: The following schedule is subject to change depending on pace of material coverage.*

Date			**Lecture**	**Lecture**	**Book Chapter***
September	T	3	Welcome and Introduction to Cell Bio Introduction to the Cell: Cell Biology, Chemistry and Biosynthesis, Energy an Enzymes	1	1-2
	T	10	Introduction to the Cell: Protein Structure, Protein Function, Protein Kinetics	2	3
	T	17	Genetic Mechanisms: from DNA to protein; Introduction, Transcription, Translation	3	6-7
	T	24	***Exam 1 (Lecture 1-3)***		
October	T	1	Internal Organization of the Cell: Membrane Structure, Function and Transport	4	10-11
	T	8	Internal Organization of the Cell: Intracellular Compartments and Vesicular Transport	5	12-13
	T	15	***No classes- Fall semester break***		
	T	22	Internal Organization of the Cell: Mitochondria and Energy Conversion	6	14
	T	29	***Exam 2 (Lecture 4-6)***		
November	T	5	Internal Organization of the Cell: Cytoskeleton and Molecular Motors Cells in their Social Context: Cell Junction, Cell Adhesion and Extracellular Matrix	7	16-19
	T	12	***Exam 3 (Lecture 7-8)***		
	T	19	Mechanisms of Cell Communication: Signal Transduction, G-Protein Receptors, RTKs	8	15
	T	26	Mechanisms of Cell Communication: Signal Transduction, RTKs	9	17-18
December	T	3	Cell Cycle and Apoptosis	10	17-18
	T	10	***Exam 4 (Lecture 9-10)***		

* Book chapters refer to Bruce Alberts et al “Molecular Biology of the Cell” 6th Edition.