

## **BIOL 306: Cell Biology Section 001, Fall 2015**

**INSTRUCTOR:** Dr. Andrew Wood, LS II 431, 453-5609, wood@plant.siu.edu  
**MEETING TIME:** Lecture MWF 9:00-9:50; LS3 Rm1059  
**OFFICE HOURS:** By appointment.  
**TEXT:** Karp (2013) *Cell and Molecular Biology* 7<sup>th</sup> Ed. (**Required**)  
**ISBN:** 9781118206737 (ca \$200)  
Study Guide to accompany *Cell and Molecular Biology* (**suggested**)

### **COURSE OBJECTIVES:**

- 1) Gain an understanding of the cellular basis of life
- 2) Gain an understanding of the scientific techniques used in the study of cell biology
- 3) Strengthen the ability to critically read scientific material
- 4) Develop the ability to apply 1), 2), and 3) toward the analysis of cell & molecular questions

**GRADING:** Your grade will be based upon the evaluation of three (3) hourly examinations, one (1) cumulative final examination and thirteen (13) quizzes (each worth 5 points; 13 x 5 = 65 pts). Each hourly exam and the cumulative final will be worth 100 points each. Extra credit points can be earned from two (2) quizzes and two (2) short library research papers (10 points each; 20 points total). There will be no make-up exams (see **Course Policies** below). Letter grades will be determined according to the following scale:

<b>418-465 pts. = A</b>	<b>90%</b>
<b>372-417 pts. = B</b>	<b>80%</b>
<b>325-371 pts. = C</b>	<b>70%</b>
<b>279-324 pts. = D</b>	<b>60%</b>
<b>000-278 pts. = F</b>	<b>.....</b>

**COURSE POLICIES:** This course will adhere to the published SIU-C policies. Students are expected to take the course exams and quizzes at the scheduled dates & times unless the student's absence has been officially excused prior to the date of the exam. Students who miss an exam or quiz due to illness or personal emergency may request a make-up exam if proper documentation can be provided.

1. Read the SYNOPSIS section for each chapter, and answer these ANALYTIC QUESTIONS:

Chapter 1: 1, 3, 6, 11 & 12	Chapter 2: 2, 3, 4, 5 & 19
Chapter 3: 1, 4, 7, 11, 14 & 15	Chapter 4: 1, 8, 12, 15 & 25
Chapter 5: 4, 5, 6, 7, 14 & 19	Chapter 6: 1, 2, 5, 15 & 18
Chapter 7: 1, 3, 4, 5 & 9	Chapter 8: 1, 3, 5, 12 & 18.
Chapter 9: 2, 9, 16, 17 & 20	Chapter 11: 3, 5, 7 & 16
Chapter 12: 1, 7, 8, 13 & 20	Chapter 14: 1, 2, 3, 7 & 18
Chapter 15: 1, 2, 4, 12, 19 & 24	

# LECTURE OUTLINE

<u>Date</u>	<u>Lecture #</u>	<u>Topic</u>	<u>Reading Assignment</u>	
• M 8/24	Lecture 1	Introduction & Basis of Life	Chapter 1/2	
• W 8/26	Lecture 2	Basis of Life II	Chapter 2	<b>QUIZ1</b>
• F 8/28	Lecture 3	Bioener, Enzy & Metab I	Chapter 3	
• M 8/31	Lecture 4	Bioener, Enzy & Metab II	Chapter 3	
• W 9/2	Lecture 5	Bioener, Enzy & Metab III	Chapter 3	<b>QUIZ2</b>
• F 9/4	Lecture 6	Bioener, Enzy & Metab IV	Chapter 3	
• M 9/7	<b>HOLIDAY (NO CLASS) LABOR DAY</b>			
• W 9/9	Lecture 7	Plasma Membrane I	Chapter 4	<b>QUIZ3</b>
• F 9/11	Lecture 8	Plasma Membrane III	Chapter 4	
• M 9/14	Lecture 9	Plasma Membrane III	Chapter 4	
• W 9/16	Lecture 10	Mitochondria I	Chapter 5	<b>QUIZ4</b>
• F 9/18	Lecture 11	Mitochondria II	Chapter 5	
• M 9/21	Lecture 12	Mitochondria III	Chapter 5	
• W 9/23	Lecture 13	Photosynthesis I	Chapter 6	<b>QUIZ5</b>
• F 9/25	<b>Test I (lectures 1-12)</b>			
• M 9/28	Lecture 14	Photosynthesis II	Chapter 6	
• W 9/30	Lecture 15	Cell-to-cell I	Chapter 7	<b>QUIZ6</b>
• F 10/2	Lecture 16	Cell-to-cell II	Chapter 7	
• M 10/5	Lecture 17	Cell-to-cell III	Chapter 7	<b>EC*</b>
• W 10/7	Lecture 18	Cyto Memb Sys I	Chapter 8	<b>QUIZ7</b>
• F 10/9	Lecture 19	Cyto Memb Sys II	Chapter 8	
• M 10/12	<b>HOLIDAY (NO CLASS) FALL BREAK</b>			
• W 10/14	Lecture 20	Cyto Memb Sys III	Chapter 8	<b>QUIZ8</b>
• F 10/16	Lecture 21	Cyto Memb Sys IV	Chapter 8	
• M 10/19	Lecture 22	Cytoskeleton I	Chapter 9	
• W 10/21	Lecture 23	Cytoskeleton II	Chapter 9	<b>QUIZ9</b>
• F 10/23	Lecture 24	Cytoskeleton III	Chapter 9	
• M 10/26	<b>Test II (lectures 13-24)</b>			
• W 10/28	Lecture 25	Gene Expression I	Chapter 11	<b>QUIZ10</b>
• F 10/30	Lecture 26	Gene Expression II	Chapter 11	
• M 11/2	Lecture 27	Gene Expression III	Chapter 11	
• W 11/4	Lecture 28	The Nucleus I	Chapter 12	<b>QUIZ11</b>
• F 11/6	Lecture 29	The Nucleus II	Chapter 12	<b>EC**</b>
• M 11/9	Lecture 30	The Nucleus III	Chapter 12	
• W 11/11	<b>HOLIDAY (NO CLASS) Veteran's Day</b>			
• F 11/13	Lecture 31	Cell Cycle I	Chapter 14	<b>QUIZ12</b>
• M 11/16	Lecture 32	Cell Cycle II	Chapter 14	
• W 11/18	Lecture 33	Cell Signaling I	Chapter 15	<b>QUIZ13</b>
• F 11/20	Lecture 34	Cell Signaling II	Chapter 15	
• M 11/23	Lecture 35	Cell Signaling III	Chapter 15	

- W 11/25 & F 11/27      ***HOLIDAY (NO CLASS) THANKSGIVING***
- M 11/30    Lecture 36    Immune Response I                      Chapter 17
- W 12/2     Lecture 37    Immune Response II                     Chapter 17    **QUIZ14**
- F 12/4     **Test III (lectures 25-36)**
- M 12/7     Lecture 38    Immune Response III                    Chapter 17
- W 12/9     Lecture 39    Special Topics    **QUIZ15**
- F 12/11    Lecture 40    Special Topics

**CUMULATIVE FINAL EXAM**  
**Friday December 18<sup>th</sup>, 8:00-10:00 a.m.**