



Cell Biology and Physiology
INDIAN RIVER STATE COLLEGE COURSE SYLLABUS
COURSE NUMBER: PCB 4023

Fall 2021

Tentative Schedule (dates can change):

Week of	LECTURE TOPIC	READING
Aug 18th	Visualizing, Fractionating, and Culturing Cells	Chapter 4
Aug 23rd	Biomembrane Structure	Chapter 7
Aug 30th	Transmembrane Transport of ions and small molecules	Chapter 11
Sept 6th	Exam 1 (Unit 1), online, Sept 6th - 8th Cellular Energetics	Chapter 12
Sept 13th	Moving Proteins into membranes and Organelles	Chapter 13
Sept 20th	Vesicular Traffic, Secretion, and Endocytosis	Chapter 14
Sept 27th	Continued Exam 2 Midterm (Unit 1 and 2), proctored online, Sept 29th - Oct 1st	
Oct 4th	Cell-Signaling I	Chapter 15
Oct 11th	Cell-Signaling II	Chapter 16
Oct 18th	Cell Organization and Movement I	Chapter 17
Oct 25th	Exam 3 (Unit 3), online, Oct 25th - 27th	
Nov 1st	Cell Organization and Movement II	Chapter 18
Nov 8th	Integrating Cells into Tissues	Chapter 19
Nov 15th	Stem Cells and Cell Death	Chapter 21
Nov 29th	Comprehensive Final (all Units), proctored online, Nov 29th - Dec 3rd	All Chapters

INSTRUCTOR: Dr. Jennifer Capers
OFFICE: N-114, Main Campus

PHONE: 772.462.7556
EMAIL: jcapers@irsc.edu

TEXT: Molecular Cell Biology, 9th ed. Lodish, WH Freeman and Company

COMPANION WEBSITES: Blackboard course website
www.jcapers-irsc.weebly.com

COURSE DESCRIPTION: This course studies how different biochemical, metabolic, and molecular pathways of the cell work together to produce the functions associated with cell movement, response to hormones, growth, and protein synthesis and modification.

GRADING

EXAMS - there will be 4 exams in this class. Exams will be a mix of short answer, fill in the blank, essay, multiple choice, drawing, etc.

- Exam 1 - 100pts, Unit 1, online on Blackboard
- Exam 2 Midterm - 200pts, Unit 1 and 2, online and proctored using HonorLock
- Exam 3 - 100pts, Unit 3, online on Blackboard
- Final Comprehensive - 200pts, All Units, online and proctored using HonorLock

You will be able to drop your lowest Exam 1 or Exam 3. You CANNOT drop the Midterm or the Final.

WORKSHEETS - 100pts. There will be worksheets for each unit. The worksheets will be due a couple of days BEFORE the exam for those worksheets. Please pay attention to due dates in Blackboard.

Grades will be posted in Blackboard. However, it is up to the student to keep up with his/her grades that were given for each exam/assignment. Mistakes or miscalculations can happen in Blackboard and might have to be modified during the semester due to Blackboard error or user error.

MAKE-UP POLICY

No make-ups will be given!!!! Exams can be given early ONLY if there is a valid excuse AND if you have discussed it with me ahead of time. Exam 1 or 3 can be dropped, try to bank those for any unforeseen circumstances that might come up during the semester. The Midterm and Final CANNOT be dropped.

WITHDRAW AND INCOMPLETES

Withdraw (W) - deadline is Oct 25th ; please come and see me BEFORE you withdraw.

Incomplete (I) - ONLY if you are passing but emergency prevents taking one exam.

EXTRA CREDIT

No extra credit is given. Students need to spend their time on required material.

ATTENDANCE

Students are responsible for material covered in each session & must be aware of any changes in exam schedule.

CHEATING

Cheating, including plagiarism, of ANY kind will not be tolerated by this department. Any student caught cheating will receive an immediate F on the assignment and possibly in the course (no withdrawal allowed). Plagiarism includes copying and pasting, using papers from a different class, using another student's paper, etc.

LEARNING OUTCOMES

Upon completion of this course, students will be able to:

1. Evaluate the processes involved in culturing, visualizing and working with various cell types;
2. Analyze the function of the plasma membrane and evaluate the movement of material in and out of the cell;
3. Illustrate cellular respiration and photosynthesis;
4. Describe cellular energetics;
5. Identify cell signal pathways;
6. Illustrate a cell signal pathway;
7. Analyze cell organization and movement;
8. Evaluate research on stem cells and cancer research

Program Learning Outcomes (PLOs) - Biology (*indicates this PLO is covered in this course)

- Apply sound research principles.
- *Demonstrate ethical responsibility.
- Demonstrate knowledge of the scientific method.
- *Develop life science knowledge and skills.
- Exhibit leadership in research setting.
- Integrate technology into the decision making process.

*indicates what PLO will be addressed in this class

STUDENT ACCESSIBILITY SERVICES

Indian River State College provides reasonable accommodations to students with documented disabilities through the Student Accessibility Services (SAS) Office. The rights of students with disabilities which pertain to post-secondary education are provided under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. Students who wish to request an accommodation for a documented disability may contact Student Accessibility Services at 772-462-7808, 772-462-7782 or e-mail accessibilityservices@irsc.edu.

It is the student's responsibility to inform the instructor of any accommodations in enough time to prep for such accommodations for any assignment or exam.

DISCRIMINATION POLICY

Indian River State College does not discriminate on the basis of race, color, national origin, ethnicity, sex, religion, age, disability, sexual orientation, marital status, veteran status or genetic information in its programs and activities.
