



# Biology for Health Sciences

## BSC 1020 - Online

### Fall 2021

Week of	TENTATIVE Schedule - subject to change!!	Reading
Aug 18 <sup>th</sup>	Introduction (Properties of Life, Levels of Organization, Importance of Scientific Literacy)	Ch. 1
Aug 23 <sup>rd</sup>	Fundamental Chemistry	Ch. 2
Aug 30 <sup>th</sup>	Macromolecules	Ch. 3
Sept 6 <sup>th</sup>	<b>Exam 1 (Unit 1) - Sept 6<sup>th</sup>-8<sup>th</sup></b> Cell Structure	Ch. 4
Sept 13 <sup>th</sup>	Cell membranes, Metabolism	Ch. 5, 6
Sept 20 <sup>th</sup>	Cellular respiration and the Carbon Cycle	Ch. 7
Sept 27 <sup>th</sup>	<b>Exam Midterm (Unit 1 and 2) - Sept 27<sup>th</sup>-29<sup>th</sup>, proctored using HonorLock</b> Cell Division	Ch. 10
Oct 4 <sup>th</sup>	Meiosis , Patterns of Inheritance	Ch. 11
Oct 11 <sup>th</sup>	Patterns of Inheritance	Ch. 12, 13.2
Oct 18 <sup>th</sup>	DNA Structure and Replication	Ch. 14
Oct 25 <sup>th</sup>	Genes (Understanding the Genetic Code and Central Dogma, Regulation of Gene Expression)	Ch. 15.1 Ch. 16.1
Nov 1 <sup>st</sup>	Evolution and History of Life <b>Exam 3 (Unit 3 and 4) - Nov 3<sup>rd</sup>-5<sup>th</sup></b>	Ch. 18.1, 20
Nov 8 <sup>th</sup>	Intro to Viruses, Bacteria, Protists	Ch. 21-23
Nov 15 <sup>th</sup>	Animal Body Plan	Ch. 33
Nov 29 <sup>th</sup>	<b>Final Exam (All Units), using Honorlock - Nov 29<sup>th</sup> - Dec 3<sup>rd</sup></b>	

We will not be covering entire chapters with some of these, pay attention to PowerPoints and Worksheets

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

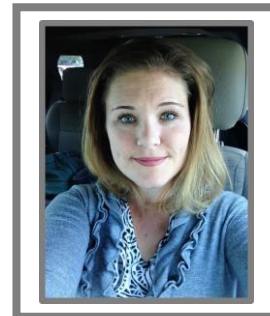
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#### TEXT

*Openstax Biology* - this is an open resource book. You do not have to pay to download a PDF, see my website for a link to the book. You can order a printed copy through Amazon if you choose.

**Website:** [www.jcapers-irsc.weebly.com](http://www.jcapers-irsc.weebly.com)

My name is Dr. Capers and I will be your instructor for the semester. I have a passion for science and am a full science nerd ☺ I earned my Bachelor Degree in Biology from Central Michigan University (I'm originally from Michigan). I earned my PhD in Biology (emphasis marine studies and immunology) from the University of Southern Mississippi. My husband and I moved from Mississippi to Florida in 2006 and we now have 2 wonderful children, Ella and Jameson. I have been an instructor at IRSC since 2008. I truly hope you enjoy this class. I am here to help you in any way. However, I will be honest and tell you that it will take a lot of work on your part - this class has a lot of information and taking it online will require a lot of time. But it can be done and students are successful when they put in the time and the work ☺



### ACADEMIC HONESTY STATEMENT

As we all know, we are still in the Covid-19 crisis. In order to keep everyone safe and healthy it is indeed necessary to have more classes online and testing centers are still limited. To maintain education rigor and integrity, it is important for you as a student to maintain academic honesty. It is important for you to do the work for the course (not someone else) and for you to study beforehand, not go into an exam and just copy and paste answers with little thought. Why? Because you are taking this course for a reason - you need the knowledge to succeed in other courses, to take certifying exams, etc. So please keep the following in mind:

- YOU must be the one to complete all assignments and exams (no friends, no family member, no paying anyone). All assignments should be your work.
- DO NOT share exam questions with other students in the course who have not yet taken the exam.
- DO NOT post questions from the exams online.
- You should take an unproctored exam as if it is proctored. Therefore, it is cheating to get answers beforehand, to look up answers, etc. The only time looking up answers is allowed is when I indicated that the test is open book (even then, you should still thoroughly study for the test beforehand).
  - ANSWERS MUST BE IN YOUR OWN WORDS. If your class has short answer questions and I see you have copied and pasted answers from my Powerpoints or other sources, that will be seen as CHEATING. There is a cheating clause in the syllabus stating that cheating can result in a 0 on the assignment and even an F in the course depending on the circumstances.

The faculty want to ensure your higher academic experience is robust and that the Covid-19 crisis does not set you back - but we need YOUR help to do so! Thank you and Take care!

### MASK POLICY STATEMENT

In order to maintain a safe environment for students, faculty, staff and the community during the Covid-19 pandemic, we ask that you abide by CDC guidelines. When you are in lecture or lab, wear a mask and maintain social distancing as much as possible. It is our duty to follow the science and do our part for each other. We have the tools to get this pandemic under control (vaccines and masks)!

### COURSE DESCRIPTION

This course is designed for students entering into the health sciences. Topics will include properties of life, chemistry and macromolecules, cell structure, metabolism, genetics and basic evolutionary concepts. You should take this course if you are looking to take MCB 2010/L and BSC 2093/L. If you are a biology major or science education major, you should take BSC 2010/L instead of this course.

## GRADING

**Exams (500 points)** - There will be 4 Exams.

- Exam 1 - 100pts, covers Unit 1, 50 multiple choice questions, taken on Blackboard unproctored
- Exam Midterm - 200pts, covers Units 1 and 2, 100 multiple choice questions, taken in Blackboard, proctored by HonorLock
- Exam 3 - 100pts, covers Units 3 and 4, 50 multiple choice questions, taken on Blackboard unproctored
- Comprehensive Final - 200pts, covers Units 1-5, 100 multiple choice questions, taken in Blackboard, proctored by HonorLock

The lowest Exam 1 or Exam 3 will be dropped. The Midterm and Final CANNOT be dropped.

**Homework (100 points)** - Every chapter will have a worksheet to complete. Print the worksheet and hand write the answers. Pay attention to the due dates in Blackboard. You will upload the worksheets in a Dropbox in Blackboard before the exam. No late work will be accepted!!!! You will have one drop worksheet grade as well.

	Earned Points	Possible Points
Exam 1		100
Exam Midterm		200
Exam 3		100
Exam Comprehensive Final		200
Worksheets		100
	<b>Your total:</b>	<b>Total: 600 (100 points dropped)</b>
		<b>Your total/600 = your average</b>

Remember to drop your lowest Exam 1 or 3 when calculating your final grade here; you will not see that happen in Blackboard but I will do it before entering final grades

The semester average is based on the percentage of total percentage points:  
90 - 100 = A; 80 - 89 = B; 70 - 79 = C; 60 - 69 = D; below 60 = F

## LEARNING OUTCOMES

At the completion of this course, the student will be able to:

- describe the properties of life and commonalities between organisms;
- explain properties of atoms, different types of bonds, classify macromolecules, describe properties of water, and explain pH scale;
- compare and contrast prokaryotic and eukaryotic cell structures;
- describe the cell cycle and the process of cell division;
- describe the process of DNA replication and label the basic structure of DNA;
- explain key parts of the cellular respiration process;
- solve problems using Mendelian genetics, and be able to describe the mechanisms of heredity;
- describe the central dogma of molecular biology and how it relates to fundamental properties of life;

## PROGRAM OUTCOMES

Apply problem solving, analytical, and communication skills based on the scientific method that will provide the foundation for lifelong learning and career development.

## MAKE-UP POLICY

**No make-up exams will be given!!!!!!** Students will be allowed to drop one 100-point valued exam grade during the semester. You will also be given one drop worksheet grade. I understand that things come up during the semester - therefore, the drops should cover any illness, emergency, or other circumstance. You should bank this opportunity. You cannot drop the midterm or the final. The worksheets are loaded at the beginning of the semester, it is important to print them out and get them done sooner than later. Therefore there should be no late work.

## WITHDRAW AND INCOMPLETES

**Withdraw (W)** - deadline is Oct 25<sup>th</sup> ; 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 expected to be prepared and present in lecture session. It is your responsibility to obtain and review information if you miss a class!

## 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. Please see the statement I provided earlier in this document addressing academic honesty during this time of COVID-19 when a lot of assignments/assessments are unproctored.

To avoid questions of cheating while doing your online proctored exam, please adhere to the following:

Do not copy and paste answers.

Do not have any device (no cell phone, no smart watch, etc.).

Do not read the question and/or answer out loud.

Try to keep your eyes on the computer as much as possible.

Do not open other windows in your browser.

Do not wear ear buds or headphones (unless you are conversing with Honorlock, otherwise take the ear buds and headphones off).

## 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](mailto: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.