

**SANTA ROSA JUNIOR COLLEGE
BIOLOGICAL SCIENCES DEPARTMENT
PHYSIO 1: HUMAN PHYSIOLOGY
FALL 2018**

INSTRUCTOR INFORMATION

Brennan Chin, MS

Email: bchin@santarosa.edu

Office: Baker Hall 1894

Office Hours: Mon and Wed 4:00pm to 5:00pm or by appointment scheduled through email

Lourdes Hipolito-Geusen, Physiology Lab Instructional Assistant

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Office: Baker Hall 1876

LECTURE

Monday and Wednesday 10:30am to 12:30pm, Baker Hall 1809

LABORATORY

Section 1057 Monday 1:00 pm to 4:00 pm, Baker Hall 1879

Section 1058 Wednesday 1:00 pm to 4:00 pm, Baker Hall 1879

PREREQUISITES

CHEM 60, BIO 10 and ENGL 1A with a grade of 'C' or better are required

Math 150B, ANAT 1 are highly recommended!

REQUIRED TEXTS

1. Human Physiology, Fox, 14th Edition, 2016 (ISBN: 9780077836375)

2. Human Physiology Laboratory Manual, SRJC (ISBN: 9781983513640)

Both are available at the SRJC bookstore and on amazon.com

COURSE DESCRIPTION

Topics covered in this human physiology course will include cell physiology and organ system physiology, including the nervous, endocrine, muscular, cardiovascular, immune, respiratory, digestive, urinary and reproductive systems. Emphasis will be placed on the physical and chemical mechanisms that underlie the function of each system, and the homeostatic mechanisms which maintain body function.

STUDENT LEARNING OUTCOMES

Upon completion of this course students will be able to:

1. Describe the function of the organ systems of the body.
2. Describe in detail the biochemical and cellular mechanisms that maintain homeostasis.
3. Apply knowledge about the function of the body to understanding the physiological basis for some of the major diseases and disorders of the human body.

OBJECTIVES

In order to achieve these learning outcomes, during the course students will:

1. Describe the characteristics of the scientific method and how it forms the basis of all modern scientific research.
2. Define homeostasis and explain how feedback mechanisms function to maintain homeostasis.
3. Explain relationships between structure and function at the molecular, cellular, and systems level of biological organization.
4. Explain how the structures of proteins and cells support the function of organ systems.
5. Compare and contrast the basic mechanisms by which cells, organs, and systems of the body carry out their specific physiological functions and maintain homeostasis.
6. Describe and evaluate the body's response to some major physiological stressors such as exercise, fasting, severe temperature extremes, injury, hemorrhage, infection, and diarrhea.
7. Apply knowledge about the function of the body to understanding the physiological basis for some of the major diseases and disorders of the human body.
8. Conduct physiological experiments that elucidate the functions of the body's organ systems.

LECTURE QUIZZES AND EXAMS

There will be five examinations consisting of four lecture exams and a cumulative final exam. Each exam is worth 100 points. These examinations will include a combination of multiple choice, fill in the blank, short response and essay questions. There are no make-up exams for scheduling conflicts regarding work, other classes or personal events. Under extreme circumstances, such as a documented illness, make-up exams will be offered.

A quiz will be given every week except on weeks of an exam. Each quiz will cover lecture material since the previous quiz or exam, is worth 10 points and may only be taken on the day administered. I will drop your two lowest quiz scores at the end of the semester. There are no make-up quizzes regardless of the circumstance!

LABORATORY

Each week there will be a hands-on laboratory activity and assignment during your laboratory period except during weeks of an exam. These labs are meant to expose you to new concepts and techniques as well as to help reinforce concepts from lecture.

There will be 1-2 lab assignments that you will complete in lab each week and they will be checked at the end of each lab period. Each lab assignment is worth 5 points.

Participation and attendance in laboratory are mandatory and there are no make-up labs regardless of the circumstance!

You can expect to be in lab for the full three hours. Arriving late, leaving early, being absent, displaying disruptive behavior, not following laboratory rules, cheating, and/or leaving a dirty lab bench will result in a point deduction from your total laboratory score.

There will be four laboratory exams each worth 50 points and will be administered on the same day and time as your lecture exams.

GRADING

Lecture Exams (4 x 100 pts)	400 points
Lab Exams (4 x 50 pts)	200 points
Cumulative Final Exam	100 points
Quizzes (11 x 10 pts)	110 points
Lab Assignments (18 X 5 pts)	90 points

Total Points	900 points
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A = 90-100% 810-900 pts

B = 80-89.9% 720-809 pts

C = 70-79.9% 630-719 pts

D = 60-69.9% 540-629 pts

F= 0-59.9% < 539 pts

Grades are based on points earned throughout the semester from exams, quizzes and laboratory assignments. Grades are not curved.

EXAM REVIEW

It is the policy of the Biological Sciences Department to not return exams to students. Once graded, your exams will be filed in my office and available for review during the semester. After each exam is graded you have one week to hand in any rebuttals, in writing, concerning the grading of that exam. After that week, your grade will remain as given. Once final course grades are submitted, students have two months to request an appointment to review any exam for the previous semester. After that time exams will be shredded.

CLASSROOM ETIQUETTE

Students are expected to behave respectfully to each other and the instructor. Disruptive behavior including arriving late, leaving early, talking during lecture or the unnecessary use of electronic devices, other than for note taking, is prohibited. Cell phone use is not allowed during lecture or lab.

ATTENDANCE POLICY

Students are expected to attend all lecture and lab sessions. Any student who fails to attend the first class meeting will be dropped from this class. Additionally, any student who misses two weeks of class (8 lecture hours and 6 lab hours) will be dropped from this class.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

If you need disability-related accommodations for this class, such as access to notes, test taking services, special furniture, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to me as soon as possible. You may speak with the instructor privately during office hours about your accommodations. Please contact DRD if you have not received authorization for accommodations. DRD is located in the Bertolini Student Center on the Santa Rosa campus, and

Jacobs Hall on the Petaluma Campus. The DRD contact phone number for the Santa Rosa campus is 707-527- 4278.

ACADEMIC INTEGRITY

Students are expected to comply with the school's guidelines for academic integrity. Please see Policy 3.11 for Academic Integrity on the school's website. All cheating, including plagiarism, copying another student's work, allowing another student to copy your work or inappropriate access to information during exams, will not be tolerated. If cheating is detected, the student will be assigned a zero on that assignment, quiz or exam. Parties caught cheating may be suspended for one or two class meetings at the instructor's discretion and may be referred to the Conduct Dean for possible disciplinary action.

STUDENT HEALTH SERVICES

Health issues (physical and mental) can interfere with your academic success. Student Health Services is here to support you. Details are at <https://shs.santarosa.edu/>

EMERGENCY EVACUATION PLAN

In case of an emergency where you would usually call 911, at SRJC you must instead dial 527-1000 (from a cell phone) or 1000 (from a campus phone) for an immediate police response. In the event of an emergency during class that requires evacuation of the building, please leave the class immediately, but calmly. Our class will meet on the lawn between Baker Hall and Shuhaw Hall to make sure everyone got out of the building safely and to receive further instructions. If you are a student with a disability who may need assistance in an evacuation, please see me during my office hours as soon as possible so we can discuss an evacuation plan.

PHYSIO 1 LECTURE AND LABORATORY SCHEDULE FALL 2018

Lecture: Sections 1057 & 1058 Mon & Wed 10:30am to 12:30pm

Laboratory: Section 1057 Mon 1:00pm to 4:00pm; Section 1058 Wed 1:00pm to 4:00pm

WEEK	DATES	LECTURE TOPIC	QUIZ	LABORATORY TOPIC	NOTES
1	Aug 20	Introduction		M: Data & Homeostasis	
	Aug 22	Chemistry	Q1	W: Data & Homeostasis	
2	Aug 27	Cells & Enzymes		M: Osmosis & Enzymes	
	Aug 29	Cellular Respiration	Q2	W: Osmosis & Enzymes	
3	Sept 3	No Class: Labor Day		M: No Lab (Lab 3 is Homework)	
	Sept 5	Membranes	Q3	W: No Lab (Lab 3 is Homework)	Sept 9th last day to drop without W
4	Sept 10	Membranes		M: No Lab	
	Sept 12	LECTURE/LAB EXAM 1		W: No Lab	
5	Sept 17	Nervous System		M: Nerve Stimulation	
	Sept 19	Nervous System	Q4	W: Nerve Stimulation	
6	Sept 24	CNS		M: CNS & Reflex Arc	
	Sept 26	PNS, ANS	Q5	W: CNS & Reflex Arc	
7	Oct 1	Senses		M: Senses	
	Oct 3	Endocrine System	Q6	W: Senses	
8	Oct 8	Endocrine System		M: Muscle Contraction	
	Oct 10	Muscle	Q7	W: Muscle Contraction	
9	Oct 15	Muscle		M: No Lab	
	Oct 17	LECTURE/LAB EXAM 2		W: No Lab	
10	Oct 22	Cardiovascular System		M: Cardiac Function & Blood Pressure	
	Oct 24	Cardiovascular System	Q8	W: Cardiac Function & Blood Pressure	
11	Oct 29	Respiratory System		M: Pulmonary Function	
	Oct 31	Respiratory System	Q9	W: Pulmonary Function	
12	Nov 5	Urinary System		M: Renal Function	
	Nov 7	Urinary System	Q10	W: Renal Function	
13	Nov 12	No Class: Veterans Day		M: No Lab	
	Nov 14	LECTURE/LAB EXAM 3		W: No Lab	Nov 18th last day to drop with W
14	Nov 19	Digestive System		M: Digestion	
	Nov 21	Digestive System	Q11	W: Digestion	
15	Nov 26	Immune System		M: Glucose Tolerance, Acid Base	
	Nov 28	Immune System	Q12	W: Glucose Tolerance, Acid Base	
16	Dec 3	Reproductive System		M: Blood	
	Dec 5	Reproductive System	Q13	W: Blood	
17	Dec 10	LECTURE/LAB EXAM 4		M: No Lab	
	Dec 12	Review Session		W: No Lab	
18	Dec 17 and Dec 18	CUMULATIVE FINAL EXAM For Section 1057: Monday, December 17, 2018 at 10:00 AM - 12:45 PM For Section 1058: Tuesday, December 18, 2018 at 7:00 AM - 9:45 AM			

KEEPING TRACK OF YOUR GRADE IN PHYSIO 1

As you receive your scores for your exams, quizzes and lab assignments, record your scores on this sheet to keep track of your grade.

To calculate your current grade, take the sum of "POINTS EARNED" divided by the current sum of the corresponding "POSSIBLE POINTS." Then multiply that value by 100 to get your grade percentage.

EXAMS & QUIZZES	POINTS EARNED	POSSIBLE POINTS	ASSIGNMENTS	POINTS EARNED	POSSIBLE POINTS
Exam 1		100	Lab assignment 1		5
Exam 2		100	Lab assignment 2		5
Exam 3		100	Lab assignment 3		5
Exam 4		100	Lab assignment 4		5
Final Exam		100	Lab assignment 5		5
			Lab assignment 6		5
Lab Exam 1		50	Lab assignment 7		5
Lab Exam 2		50	Lab assignment 8		5
Lab Exam 3		50	Lab assignment 9		5
Lab Exam 4		50	Lab assignment 10		5
			Lab assignment 11		5
Quiz 1		10	Lab assignment 12		5
Quiz 2		10	Lab assignment 13		5
Quiz 3		10	Lab assignment 14		5
Quiz 4		10	Lab assignment 15		5
Quiz 5		10	Lab assignment 16		5
Quiz 6		10	Lab assignment 17		5
Quiz 7		10	Lab assignment 18		5
Quiz 8		10			
Quiz 9		10	Other		0
Quiz 10		10	Other		0
Quiz 11		10	Other		0
Quiz 12		10	Other		0
Quiz 13		10	Other		0

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Quizzes (11 x 10 pts)	110 points	D = 60-69.9%	540-629 pts
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Total Points	900 points
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TIPS TO SUCCEED IN PHYSIO 1

This course is very challenging and demanding. It covers an intensive amount of information regarding the molecular and cellular mechanisms behind the organ systems of the human body. It also requires students to analyze physiological processes and not just simply memorize terms and structures. Conquering this material may require a substantial time investment.

Here are some strategies I employed when I took this course here as a student. You may use one or more of these methods to help you succeed.

- On the same day, after lecture, re-write and organize your lecture notes onto fresh sheets of paper or electronic device.
- Read the sections of the textbook that corresponds with your lecture notes and annotate any missing or new information to your re-written lecture notes.
- Watch a YouTube video on lecture topics to help visualize the material.
- To learn mechanisms, draw them out and list the steps. Mechanisms often exist in a logical order.
- Work with a small study group (2-3 students). Large study group can be distracting. Everyone has the same goal of learning the material and doing well in this course. Each person brings something unique to the learning experience and a group atmosphere makes learning more fun. Learning this material alone can be daunting.
 - With your study group, go over lecture and lab material, draw or write information on a white board, answer each other's questions and quiz each other on the material.
- Don't get behind! It's very easy to procrastinate. There will be a lot of new information put on your plate with each lecture. Take advantage of Thursday-Sunday when you don't have this class to review and learn the material. Manage your time well and make the most out of each day. Falling behind will stress you out and you will not perform well on exams or weekly quizzes.
- Always feel free to visit me during office hours for clarification or further explanation of a topic. Please don't email me questions about the material. Instead visit me during office hours where it's easier for me to explain and for you to understand the material.
- Visit the on-campus tutorial center (first floor of library).
- Monitor your grade throughout the semester using the sheet attached to this syllabus. If you are performing below your liking, approach me for help or advice. Do this before it's too late!
- Use repetition to learn the material. You will not learn something from hearing it once or twice. Learning is enhanced with repetition and also consuming the same information through different mediums such as your lecture notes, textbook and/or online videos. Lastly, practice! A basketball player doesn't get good at making baskets by watching others shoot baskets. By actively shooting baskets and practicing multiple times a week you will get good at making baskets. The same is true for you and this material. Review this material multiple times a week by reading your notes aloud, re-writing your notes, working with a study group to review the material and drawing out processes.