BIOL 3460/5460 Credit Hours 3-3-4

HUMAN PHYSIOLOGY Department of Biology

Instructor: Dr. Timothy J. Fort **Office:** BC 1100

Phone: (229) 249-2643 **Email:** tjfort@valdosta.edu

Office Hours: Monday 2.00pm - 5.00pm & Thursday <math>3.00pm - 5.00pm

 Lecture:
 Tuesday & Thursday
 11.00am - 12.15pm
 BC 1024

 Laboratory:
 Sec. A Tuesday
 2.30pm - 5.20pm
 BC 2070

 Sec. B Wednesday
 11.00am - 1.50pm
 BC 2070

Sec. C Wednesday 2.30pm – 5.20pm BC 2070

Textbook: Vander's Human Physiology, the mechanisms of body function. (11th - 16th Edition)

Widmaier, E.P., Raff, H. and Strang, K.T.

Course Description: Human physiological principles, from cells to systems, with emphasis on the regulation and integration of organ systems.

Prerequisites (**3460**): BIOL 3200 and CHEM 1212/1212L or permission of instructor. **Prerequisites** (**5460**): Admission to the graduate program or permission of instructor.

Course Objectives: By the end of this course, students will be expected to:

- (1) Collect and analyze physiological data, and present the results and conclusions in written format.
- (2) Demonstrate an understanding of the cellular basis of physiology.
- (3) Relate the functioning of individual organ systems to the overall functioning of the human body.
- (4) Demonstrate competency in factual content / interpretation of the major areas of human physiology.

These objectives support in part the Department of Biology Educational Outcomes #'s 1, 3 and the Valdosta State University General Educational Outcomes #'s 3, 4, 5, 7.

Attendance: Attendance of lectures is expected of all students, but is not required. Attendance of laboratory classes is mandatory. Any student missing 2 scheduled laboratory classes, without an acceptable documented reason (determined by the instructor) will receive a failing grade for the course. Student attendance of classes will be recorded.

Conduct: Students are expected to arrive on time and behave with respect in both lectures and laboratories. Students should not talk during lectures, but if you do not understand or do not hear something please ask for clarification. Use of cell phones during lectures and laboratories is not permitted. Cell phones must be turned off during lectures and laboratories. If your cell phone activates during a lecture or lab you will be asked to leave. If your cell phone activates during an exam you will be asked to leave and receive 0% for that exam.

Cheating / Plagiarism: Please refer to the Student Code of Ethics in the Valdosta State University Student Handbook. Any student caught cheating will be penalized, ranging from receiving a zero for that assignment or test, to failure and expulsion from the course. Please refer to the Valdosta State University, Department of Biology Plagiarism Policy.

Non-Discrimination and Title IX Statement: Valdosta State University (VSU) upholds all applicable laws and policies regarding discrimination on the basis of race, color, sex (including sexual harassment and pregnancy), sexual orientation, gender identity or expression, national origin, religion, age, veteran status, political affiliation, or disability. The University prohibits specific forms of behavior that violate Title IX of the Education Amendments of 1972. Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in education programs and activities that receive federal funding. VSU considers sex discrimination in any form to be a serious offense. Title IX refers to all forms of sex discrimination committed against others, including but not limited to: sexual harassment, sexual assault, sexual misconduct, and sexual violence by other employees, students or third parties and gender inequity or unfair treatment based on an individual's sex/gender. The designated Title IX Coordinator for VSU is Ms. Selenseia Holmes. To view the full policy or to report an incident visit: https://www.valdosta.edu/administration/student-affairs/title-ix/

Access Office (https://www.valdosta.edu/student/disability/) for assistance in determining and implementing reasonable accommodations. The Access Office is located in University Center Room 4136 Entrance 5. The phone numbers are 229-245-2498 (V), 229-375-5871. For more information, please visit VSU's Access Office or email: access@valdosta.edu. To request reasonable accommodations for pregnancy and childbirth, contact Ms. Myia Miller, Title IX Compliance Officer, at maburden@valdosta.edu. Please note, you will be required to provide documentation from an appropriately licensed medical professional indicating the requested accommodations are medically necessary.

Privacy Act: Due to the Buckley Amendment, or Privacy Act, an individual's personal information cannot be released to anyone but that individual. As such, grades will not be discussed over the phone, by email, or released to a friend or relative.

Assessment: 3 Lecture Exams @100 points each : 300 points

Cumulative Final: 200 pointsPhysiological Situations Assignment*: 100 pointsLaboratory Assignments: 50 pointsLab Notebook: 50 points

- -*BIOL5460 students will have extra requirements for completing the Physiological Situations Assignment.
- Lab Assignments will be set during lab periods and you will generally have 1 week to complete the assignment.
- Any assigned work submitted late will NOT be graded.
- Any assigned work submitted electronically will NOT be graded, unless prior permission is granted.
- Make up examinations will only be given if an acceptable documented reason (determined by the instructor) is provided.
- Requirements for the PSA, Lab Notebook and Lab Assignments will be explained during the semester.
- Lecture Exams: Question styles will vary depending on the topics being examined and may include (but are not limited to), multiple choice, fill in the blank, diagrams, short answer and essays.

Tentative Laboratory Schedule

Week Beginning	TOPIC
14 August	NO LAB
21August	Introduction to PowerLab and Data Analysis
28 August	Reflexes and Reaction Times
4 September	Frog Sciatic Nerve
11 September	Sensory Physiology / EOG
18 September	EMG / Muscle
25 September	Frog Skeletal Muscle
2 October	Breathing
9 October	NO LAB - FALL BREAK
16 October	Respiratory Airflow and Volume
23 October	ECG, Heart Sounds and Peripheral Circulation
30 October	Blood Pressure
6 November	Dive Reflex
13 November	Frog Heart
20 November	NO LAB - THANKSGIVING
27 November	Galvanic Skin Response and Polygraphs OR Stroop test

Tentative Lecture and Examination Schedule

DATE	TOPIC	Chapter
15/8	Introduction	
17/8	Homeostasis and Cells	1,3
22/8	Enzymes and Metabolism	3
24/8	Metabolism	3
29/8	Movement of Molecules and Chemical Messengers	4,5
31/8	Nerves, Action Potentials and Synapses	6
5/9	Nervous System and Sensory Physiology	6,7
7/9	EXAMINATION #1	
12/9	Sensory Physiology	7
14/9	Muscle Physiology	9
19/9	Muscle Physiology	9,10
21/9	Muscle and Movement Lab Notebook (22/9 by 3.00pm)	10
26/9	Endocrine System	11
28/9	Endocrine System	11
3/10	Endocrine System	11
5/10	EXAMINATION #2 Midterm	
10/10	NO CLASS – FALL BREAK	
12/10	Cardiovascular Physiology Withdrawal Deadline	12
17/10	Cardiovascular Physiology	12
19/10	Cardiovascular Physiology Lab Notebook (20/10 by 3.00pm)	12
24/10	Respiratory System	13
26/10	Respiratory System	13
31/10	Renal System	14
2/11	Renal System	14
7/11	EXAMINATION #3	
9/11	Renal System	14
14/11	Renal System	14
16/11	Gastrointestinal System	15,16
21/11	Gastrointestinal System	15,16
23/11	NO CLASS - THANKSGIVING P.S.A (21/11 by 5.00pm)	
28/11	Reproductive Physiology	17
30/11	Reproductive Physiology Lab Notebook (1/12 by 3.00pm)	17
6/12	FINAL EXAM 10.15am – 12.15pm	