

## **ANATOMY AND PHYSIOLOGY II – BIOL 2302**

*Instructor:* Dr Crystal Kelehear Graham, Assistant Professor

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*Office Hours:* 12:00-13:00 M, W | 14:00-15:30 Tu, Th | & by appointment

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Lecture: 09:30-10:45 Tu, Th | WSB 201

Required Text: Krieger 2017. Visual Analogy Guide to Human Anatomy & Physiology, 3<sup>rd</sup> Edition. Morton Publishing. *Note:* This text is required for A&PI, A&PII, and the accompanying labs so you will get a lot of use out of it and it is an excellent study aid.

Additional Recommended Text: Saladin 2018. Anatomy & Physiology: The Unity of Form and Function, 8<sup>th</sup> Edition. Mc-Graw-Hill Education.

Course description: The purpose of this course is to introduce students to the importance of the human body and its organ systems. This course is designed as the second semester of a two-semester course, and will cover internal organ systems, including cardiovascular, digestive, endocrine, lymphatic, respiratory, reproductive, and urinary. Students should come away with an understanding of the above systems, how they are anatomically structured, and how that structure aids in each system's functionality.

### Marketable Skills (MS):

The biology student graduating with a BS in Biology should have the following MS's:

- 1) \*Ability to organize, analyze, and interpret data.
- 2) Proficiency in using presentation software.
- 3) \*Experience in managing time and meeting deadlines.
- 4) \*Ability to speak effectively and write concisely about scientific topics.
- 5) \*Experience in the development of professional email correspondence.

\*MS's specifically addressed by this course

### Student Learning Outcomes (SLO):

The biology student graduating with a BS in Biology should be able to:

*SLO1* \* demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA.

*SLO2* demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.

*SLO3* use biological instrumentation to solve biological problems using standard observational strategies.

*SLO4* \* develop writing skills by summarizing and critiquing recent relevant biological literature.

\*SLO specifically addressed by this course

### Student Learning Objectives for this Course:

- 1) Students will illustrate knowledge of internal organ systems.
- 2) Students will diagram the location of the internal organs and blood flow.
- 3) Students will define the physiological responses to different chemical situations.
- 4) Students will demonstrate an understanding of the mechanics of ion movement.
- 5) Students will apply principles learned in the first term of this course toward organ functionality.

### Attendance:

**Attendance is mandatory.** Lectures will not be posted on Blackboard so students must attend lectures to receive the material. Absences are excused only if students have a documented, university approved excuse (illness, death in the family, etc.). As per SRSU policy, any students missing 20% of lectures (6 lectures) over the course of the semester shall be dropped from the class with an F. **Students cannot miss any exams** unless they have a documented, university-approved excuse; in these cases, the instructor needs to be informed **at least 24 hours in advance** of the exam.

### Studying:

As a general rule, students should spend 2-3 hours studying for every 1 hour of lecture material. So, for this class, you need to allocate 5-7.5 hours per week to study the lecture material. I recommend reading your notes in conjunction with reading the relevant textbook chapters and watching instructional videos online (Crash Course videos on YouTube provide good summaries). Studying is best done shortly after the lecture, not all at once the night before the exam. Look up anything that you do not understand or visit with your instructor during office hours.

### Grading:

There will be three lecture exams. Exams will cover the lecture material immediately preceding the exams *i.e.*, there will be no comprehensive final exam. Within the lectures there will be opportunities to gain extra credit by responding to instructor questions: students will be awarded a voucher each time they answer a question correctly in class. The vouchers quantify student participation in lectures. Vouchers can be redeemed in quantities of 5 for an extra point on the ensuing exam (submit your vouchers in quantities of 5 as you hand in your exam). Cheating will not be tolerated and any assessments containing plagiarism or copying will receive zeros and the incident will be reported to SRSU administration. Late work will not be accepted.

	<b>Weighting</b>	<b>Grades</b>
Exam I	22%	
Exam II	25%	
Exam III	28%	
Assignments & Quizzes	25%	
<b>TOTAL</b>	<b>100%</b>	<b>A: 90-100% B: 80-89% C: 70-79% D: 60-69% F: &lt;59%</b>

Class schedule (subject to change):

<b>Date</b>		<b>Topic</b>	<b>Textbook Chapter (Saladin 2018)</b>
14 Jan	Lecture 1	Course Introduction + Endocrine System	17
16 Jan	Lecture 2	Endocrine System	17
21 Jan	Lecture 3	Circulatory System: Blood	18
23 Jan	Lecture 4	Circulatory System: Blood	18
28 Jan	Lecture 5	Circulatory System: Blood	18
30 Jan	Lecture 6	Circulatory System: Blood	18
4 Feb	Lecture 7	Circulatory System: Heart	19
6 Feb	Lecture 8	Circulatory System: Heart	19
<b>11 Feb</b>	<b>EXAM</b>	<b>EXAM I</b>	
13 Feb	Lecture 9	Circulatory System: Blood Vessels & Circulation	20
18 Feb	Lecture 10	Circulatory System: Blood Vessels & Circulation	20
20 Feb	Lecture 11	Circulatory System: Blood Vessels & Circulation	20
25 Feb	Lecture 12	Lymphatic and Immune Systems	21
27 Feb	Lecture 13	Lymphatic and Immune Systems	21
3 Mar	Lecture 14	Lymphatic and Immune Systems	21
5 Mar	Lecture 15	Lymphatic and Immune Systems	21
10 Mar	No Class	Spring Break	
12 Mar	No Class	Spring Break	
17 Mar	Lecture 16	Respiratory System	22
19 Mar	Lecture 17	Respiratory System	22
<b>24 Mar</b>	<b>EXAM</b>	<b>EXAM II</b>	
26 Mar	Lecture 18	Urinary System	23
31 Mar	Lecture 19	Urinary System	23
2 Apr	Lecture 20	Urinary System	23
7 Apr	Lecture 21	Water & Electrolyte Balance	24
9 Apr	Lecture 22	Water & Electrolyte Balance	24
14 Apr	Lecture 23	Digestive System	25
16 Apr	Lecture 24	Digestive System	25
21 Apr	Lecture 25	Digestive System	25
23 Apr	Lecture 26	Reproductive System	27
28 Apr	Lecture 27	Reproductive System	28
30 Apr	No Class	<b>No classes – Dead Day</b>	
<b>4 May</b>	<b>EXAM</b>	<b>8:00-10:00 EXAM III</b>	

Note – Lecture topics are subject to change according to timing constraints, however the exam dates will remain the same.

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Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the Student's responsibility to initiate a request. Please contact Ms. Rebecca Greathouse Wren, M.Ed., LPC-S, Director/Counselor, Accessibility Services Coordinator, Ferguson Hall (Suite 112) at 432.837.8203; mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Students should then contact the instructor as soon as possible to initiate the recommended accommodations.

