<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topic</th>
<th>Vander 12\textsuperscript{th} edition (black)</th>
<th>13\textsuperscript{th} edition (red)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/22</td>
<td>Introduction, Homeostasis, Cell Physiology, Diffusion</td>
<td>(45-55) (46-57); Ch3 Section C (66-71); Ch4 (96-100); Protein (34-38) (68-72, 97-101, 34-39)</td>
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<tr>
<td>1/29</td>
<td>Transport and Osmosis, Cell Signaling</td>
<td>Ch4 (100-113) (101-114); Ch5 (118-131); Ch6 Section A (136-141) (120-135, 139-144)</td>
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<tr>
<td>2/5</td>
<td>Resting and Active Membrane Potential, AP Conduction, Synaptic Transmission</td>
<td>Nervous System Supplement (see webpage) Ch6 Section B&amp;C (142-168) (145-172)</td>
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<tr>
<td>2/12</td>
<td>Nervous System Organization, Endocrine, Somatic Nervous System, Skeletal Muscle</td>
<td>(175-180) (179-184); (325-337…details on ACTH &amp; TSH only!) (333-346); (251-263; 265-267; 274-277) (257-269; 272-274; 281-284)</td>
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<tr>
<td>2/19</td>
<td>Exam 1 (Optional Hands-on Exercise)</td>
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<tr>
<td>2/26</td>
<td>Cardiac I, Cardiac II</td>
<td>(354-375) (363-385)</td>
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<tr>
<td>3/5</td>
<td>Blood Flow I, Blood Flow II</td>
<td>(377-413) (387-422); CardioVis Program</td>
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<tr>
<td>3/12</td>
<td>Cardiovascular Function Curves, Respiratory I</td>
<td>(435-454) (447-468)</td>
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<tr>
<td>3/19</td>
<td>Respiratory II, Respiratory III</td>
<td>(454-468) (468-482)</td>
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<tr>
<td>3/26</td>
<td>Exam 2 (Optional Hands-on Exercise)</td>
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<tr>
<td>4/2</td>
<td>Renal I, Renal II</td>
<td>(476-488) (491-504); (490-505; 512-514) (506-522; 529-531)</td>
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<tr>
<td>4/9</td>
<td>Renal III, Acid/Base</td>
<td>(506-511) (524-528)</td>
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<tr>
<td>4/16</td>
<td>Sports Physiology, Gastrointestinal I</td>
<td>(267-273; 407-410; 464-465; 566-567) (274-280; 418-421; 478-479; 584-585) (517-547) (534-565)</td>
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<tr>
<td>4/23</td>
<td>GI II/Control of Feeding, Metabolism</td>
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<tr>
<td>4/30</td>
<td>Diabetes, Special Topic</td>
<td>(TBA)</td>
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<tr>
<td>5/7</td>
<td>Final Exam</td>
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John Stein  
[John_Stein@brown.edu](mailto:John_Stein@brown.edu)  
401 863-2263
Course Homepage:

The BIOL2117 Canvas homepage will contain all of the information found on this handout plus a whole lot more. Please refer to the course homepage for the most up-to-date information including office hours, problem sets/keys, and exam results.

Personnel:

Course Director: Dr. John Stein (SFH 354, 401 863-2263, John_Stein@brown.edu)
Course Instructor: Andrea Sobieraj; Andrea_Jeanne_Sobieraj@brown.edu


The Vander text is required for the course. Two other useful texts from which data and figures will be used for class presentation and discussion are Guyton & Hall, Human Physiology and Mechanisms of Disease, 6th edition and Boron and Boulpaep, Medical Physiology, 2nd edition. There will be no required reading from these texts.

Additional Reading Material and Software: On occasion, supplemental reading material and activities will be posted on the Canvas website. These additional assignments will include supplemental notes from the instructor, primary literature or review articles and access to educational software.

Course Information

BIOL2117 provides an advanced introduction to many physiological systems. After a quick review of fundamental concepts in diffusion, cell physiology, membrane potential and cell signaling, we will cover the endocrine, nervous, musculoskeletal, cardiovascular, respiratory, renal and gastrointestinal systems. We will focus on normal human physiology and often times incorporate discussions of the pathophysiology of certain diseases. Toward the end of the course we will cover the integrative topics of sports physiology, feeding behavior and diabetes. The “special topic” at the end will be selected by the class from a list of options.
I. Lectures

Lectures will start promptly at 3pm and finish at 6pm with two breaks of 5 – 10 minutes. Students are encouraged to ask questions during lecture, during the break, and after lecture.

II. Grades

Final grades are determined by performance on 2 exams and a cumulative final exam. The relative weighting of these three factors is as follows:

- Exam 1: 30%
- Exam 2: 30%
- Final Exam: 40%

III. Exams

This course consists of 2 exams and a cumulative final. While the exams are non-cumulative per say, retention of knowledge is essential for success on subsequent parts of the course. All Exams must be taken in black or blue pen (no red, pink or heliotrope ink).

A. Format and Content

Exams will consist of roughly 70% Multiple choice and 30 % short answer. They will be based on information presented in lecture, handouts and reading assignments. Weekly problem sets will be given as practice for exams.

B. Exam re-grades

Requests for exam re-grades are handled by appointment only. You must set up an appointment with me within 2 weeks of the day your exam was returned to you. We can meet after class or possibly before class to discuss exam questions. Any test submitted for a re-grade for a particular question is subject to further re-grading. **Exams must be taken in blue or black ink to be considered for a re-grade.**

IV. Online Office Hours

Weekly online office hours will be held on Sunday evenings from 6-8pm (tentative date and time). You will be able to ask questions via text or audio connection and see my explanations on a shared whiteboard or powerpoint slides.