### Bio 590 Syllabus – Fall 2010

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<tr>
<th>Date</th>
<th>Day</th>
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<th>Lec</th>
<th>Topic</th>
<th>Chapters*</th>
<th>Instructor(s)</th>
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<tr>
<td>Aug 31</td>
<td>Tu</td>
<td>1</td>
<td>1</td>
<td>Introduction to Physiology/ Basic Concepts</td>
<td>1-3</td>
<td>Norgard-Sumnicht</td>
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<tr>
<td>Sep 2</td>
<td>Th</td>
<td>1</td>
<td>2</td>
<td>Energy &amp; Cell Metabolism</td>
<td>3-4</td>
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<td>Sep 7</td>
<td>Tu</td>
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<td>Membrane Dynamics</td>
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<td>Sep 9</td>
<td>Th</td>
<td>2</td>
<td>4</td>
<td>Cell Signaling</td>
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<td><strong>Sep 14</strong></td>
<td><strong>Tu</strong></td>
<td><strong>3</strong></td>
<td><strong>1</strong></td>
<td><strong>Exam 1 (Introduction through Signaling) 100 pts</strong></td>
<td><strong>1-6</strong></td>
<td><strong>Norgard-Sumnicht</strong></td>
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<td>Sep 16</td>
<td>Th</td>
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<td>5</td>
<td>Nervous System- Physiology of Neurons I</td>
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<td>Harris</td>
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<td>Sep 21</td>
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<td>Nervous System- Physiology of Neurons II</td>
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<td>Sep 23</td>
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<td>4</td>
<td>7</td>
<td>Nervous System- CNS</td>
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<td>Sep 28</td>
<td>Tu</td>
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<td>Nervous System- Sensory</td>
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<td><strong>Sept 30</strong></td>
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<td>Oct 7</td>
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<td>Muscles I</td>
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<td>Oct 12</td>
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<td>7</td>
<td>11</td>
<td>Muscles II</td>
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<td>Harris</td>
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<tr>
<td>Oct 14</td>
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<td>12</td>
<td>Control of Body Movement- Integrated Physiology I</td>
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<td>Harris</td>
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<td><strong>Oct 19</strong></td>
<td><strong>Tu</strong></td>
<td><strong>8</strong></td>
<td><strong>Exam 3 (ANS &amp; Muscle) 100 pts</strong></td>
<td><strong>11-13</strong></td>
<td><strong>Harris</strong></td>
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<td>Oct 21</td>
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<td>Cardiovascular Physiology</td>
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<td>Oct 26</td>
<td>Tu</td>
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<td>14</td>
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<td>Oct 28</td>
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<td>9</td>
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<td>Blood Flow and Control of Blood Pressure</td>
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<td>Nov 2</td>
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<td><strong>Nov 4</strong></td>
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<td><strong>Exam 4 (Cardiovascular) 100 pts</strong></td>
<td><strong>14-15</strong></td>
<td><strong>Glembotski</strong></td>
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<td>Nov 9</td>
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<td>17</td>
<td>Mechanics of Breathing</td>
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<td>Veterans Day – No Class</td>
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<td>The Kidneys</td>
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<td><strong>Nov. 23</strong></td>
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<td><strong>Fluid and Electrolyte Balance- Integrated Physiology II</strong></td>
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<td>Nov 25-26</td>
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<td>Thanksgiving Break- No Class</td>
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<td>Nov 30</td>
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<td>Dec 7</td>
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<td>15</td>
<td>24</td>
<td>Endocrine Control of Growth and Metabolism</td>
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<td>Glembotski</td>
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**Dec 14** TUES 1:00-3:00 pm | **Exam 6 (Final) (Metabolism, Endocrine) 100 pts** | 7, 22-23 | Glembotski
Introduction
Bio 590 - Physiology of Human Systems – is team taught by
Dr. Chris Glembotski (North) LS 326C, 594-2959, cglembot@sunstroke.sdsu.edu
Dr. Karin Norgard-Sumnicht, (South) LS 346, 594-2396, knorgard@sciences.sdsu.edu &
Dr. Greg Harris, (North) LS 311, 594-5655, gharris@sciences.sdsu.edu

Individual Office Hours: TBA

This course is intended for students majoring in natural sciences or pre-professional studies.

Prerequisites

Learning Objectives for Bio 590
This course is designed for students who have already had previous course work in biochemistry, cell biology and molecular biology. The pace of this course will be brisk so, be sure to keep up with the assigned reading. The assigned text is required, as is the assigned reading. The lectures are based heavily upon the assigned text, but also include significant amounts of material that are described in more detail than in the text. Accordingly, you cannot rely on the text only to perform your best in this course. During the semester we will discuss most, but not all organs and systems. The topics for human physiology will be presented at both cellular and organ system levels. These topics include: cell signaling and endocrinology, neurophysiology, muscle physiology, cardiovascular physiology and flow dynamics, digestion, respiration & renal function. Since this is a human physiology course, most examples will be related to human physiology in health and disease. Moreover, since a clear understanding of human physiology involves the cellular and molecular basis of organ function, we strongly recommend that you have a firm knowledge of fundamental biochemistry, cell and molecular biology.

Grading
Your grade in this course will be determined by your score on 6 exams that will be given throughout the semester. Together, the exams amount to a maximum of 600 points. Since we will grade on a curve, your final letter grade in the course will be assigned only after ALL the exams have been administered.

Required Text

Keys to Success in this Class
1. Attend class regularly and be on time.
2. Read the section of the text relevant to the class material IN ADVANCE of the class meeting.
3. **Read** the power point material relevant to the class material **IN ADVANCE** of the class meeting.

4. After each class session and before the next session, **study/review** what was covered in class AND review and correlate it with the relevant chapter(s) in the text.

5. Form or join a **study group** to help you better understand the material and prepare for the quizzes.

Class Policies

1. Unless otherwise instructed, turn off cell phones and other devices that can access the internet while you are in class.

2. No text-messaging or other form of e-communication will be allowed during class.

3. Come to class on-time; it is very disruptive and disrespectful to the instructors and the other students when you some to class late.

4. You are expected to attend EVERY class session; we make it a point to get to know all of you early on in the semester, since we conduct a very interactive class. Accordingly, your absence will be noticed. Moreover, you will get the most out of this class if you attend every session.

5. You must notify the professor administering the exam (either Dr. Norgard-Sumnicht (Dr. No), Dr. Glembotski or Dr. Harris) at least 1 week before an exam if you must be absent. You must have a valid excuse and written documentation for the excuse in order to qualify for a make-up exam. The nature of the make-up exam is variable, but may be either a written or an oral exam and must be completed before the next class session.

6. We have a zero-tolerance policy about cheating on exams. Cheating means getting exam answers from an external source, including people in or outside of class, including via classical cheating methods (i.e. roaming eyes), or via state-of-the-art cheating methods (e.g. e-messages).

7. If you are caught cheating, your exam will be confiscated, you will be given a 0 on it, and you will be reported to the department and to student affairs for appropriate action.