

**BIOLOGY 344-002: PHYSIOLOGICAL MECHANISMS**

<b>INSTRUCTOR:</b>	Dr. Christopher Trimby	<b>EMAIL:</b>	<a href="mailto:ctrimby@njit.edu">ctrimby@njit.edu</a>
<b>OFFICE:</b>	340F Central King Bldg.	<b>OFFICE HOURS:</b>	T: 11:00AM – 2:30PM
<b>COURSE SCHEDULE:</b>	M, W: 10:00AM – 11:25AM * CKB 341	<b>COURSE WEBSITE:</b>	<a href="http://moodle.njit.edu/">http://moodle.njit.edu/</a>

**COURSE DESCRIPTION:** This course will utilize clinical (pathological) case studies to reinforce and extend physiological knowledge, providing students a strong basis for future studies in biomedical and health related fields.

**OBJECTIVES:** (1) To provide the student with the ability to apply their knowledge of human physiology to complex pathological scenarios. (2) To improve the ability of students to apply basic science knowledge to real word situations. (3) To improve students critical thinking and presentation skills.

**PREREQUISITES:** Mammalian Physiology (BIOL 340), or may be taken concurrently with permission of instructor.

**INSTRUCTIONAL MATERIALS:** There is no textbook for this course. If you need a resource to reference the relevant physiology, I would suggest using your textbook from Biol340 or purchasing a shorter physiology text such as the Pocket Companion to Guyton & Hall's Medical Physiology (or something similar). You should also procure a 1" 3-ring binder for the in class assignments and case studies.

**SUPPLEMENTAL MATERIALS:** Any additional materials required for class (case study's, primary literature, etc) would either be provided through Moodle (UCID required), handed out in class, or via web link.

**CODE OF STUDENT CONDUCT:** Be aware of the rules set forth in the [Academic Integrity Code](#). In brief, the instructor will not allow cheating or plagiarism.

**REASONABLE ACCOMMODATION:** If you have a special need that may require an accommodation or assistance, please inform me of that fact as soon as possible and no later than the end of the second class meeting. Students with disabilities who require accommodations must contact Dr. Phyllis Bolling, Center for Counseling and Psychological Services (C-CAPS), Campbell Hall, (entry level), room 205, (973) 596-3420.

**COURSE REQUIREMENTS, EVALUATION PROCEDURES, AND POLICIES:**

GRADING	POINTS
Assignments (14)	70pts
Attendance & Participation	75pts
Clinical Discussions /Assignments (4)	45pts
Audience Forms (11)	55pts
Case Study Presentation & Write-ups	75pts
<b>TOTAL</b>	<b>320pts</b>

GRADING SCALE			
A	90-100	C	65-74
B+	85-89	D	50-64
B	80-84	F	0-49
C+	75-79		

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**CLASS ATTENDANCE IS REQUIRED:** Attendance will be taken, and attendance is included in the course grade. This class is not a traditional lecture-based course. In class discussions of clinical studies & primary research articles contribute a significant portion of your grade.

### MAKE-UP POLICY:

- **Assignments:** There are no make-ups for in class assignments **EXCEPT** for a written excused absence. Homework assignments will be posted on Moodle, and are a student's responsibility to check for. In order for an absence to be excused, students must contact the instructor as soon as possible, following their knowing that they will be missing a class. For example: This means if you wake up in the morning and are too ill to come to class, you should email me immediately. Arrangements can then be made. Upon your return to class documentation of your absence should then be provided (Doctors note, court notice etc...).
- **Late Work:** Assignments are due at the beginning of the class as outlined in their descriptions syllabus. If you must be absent on the day work is due, it is your responsibility to turn it in **early** or make arrangements for someone else to turn it in on the due date. Other possibilities include submitting electronically version via email. Unexcused late work will receive a 10% penalty for every day late — this includes forgetting to bring the assignment despite being in class when it is due.

**OTHER POLICIES:** No cell phone usage in class, please turn off or to silent mode.

### HINTS/TIPS:



- ⊛ We will generally be doing discussions and problem sets in class (during which your participation will be noted) –so it may be helpful if you have actually read what we are discussing.
- ⊛ If you don't understand something, ask (more than a couple hours ahead of due date/exam please).
- ⊛ DO NOT Procrastinate.
- ⊛ DO NOT Plagiarize.

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### SCHEDULE AND TENTATIVE COURSE OUTLINE:

WEEK #: DATE	LECTURE / RECITATION TOPIC	GENERAL PLAN & TEXTBOOK READINGS
Week 1: Jan. 21st	Introduction	Basic Introduction and Organizational class session HW1 completed in class
Week 2: 01/26 & 28	Homeostasis & Transport	For In Class Discussion: HW2 (M)/ HW3 (W)
Week 3: 02/2 & 4	Nervous System	For In Class Discussion: HW4 (M)/ HW5 (W)
Week 4: 02/9 & 11	Muscle/Vasculature	For In Class Discussion: HW6 (M)/ HW7 (W)
Week 5: 02/16 & 18	Circulatory	For In Class Discussion: HW8 (M)/ HW9 (W)
Week 6: 02/23 & 25	Respiratory	For In Class Discussion: HW10 (M)/ HW11 (W)
Week 7: 03/2 & 4	GI/Renal	For In Class Discussion: HW12 (M)/ HW13
Week 8: 03/9 & 11	Endocrine/Example	For In Class Discussion: HW14 (M) Example Case Study – Transport (Dr. Trimby) (W)
Week 9: 03/16 & 18	<b>MARCH 16-20: SPRING BREAK</b>	<b>NO CLASSES THIS WEEK</b>
Week 10: 03/23 & 25	Clinical Cases	In Class Case Study #1 (M) In Class Case Study #2 (W)
Week 11: 03/30 & 4/1	<i>Withdrawal Deadline 3/30</i> Clinical Cases	Case Study Presentation: Group 1/2 In Class Case Study #2 (W)
Week 12: 04/6 & 8	Clinical Cases	Case Study Presentation: Group 3/4 In Class Case Study #3 (W)
Week 13: 04/13 & 15	Clinical Cases	Case Study Presentation: Group 5/6 In Class Case Study #3 (W)
Week 14: 04/20 & 22	Clinical Cases	Case Study Presentation: Group 7/8 In Class Case Study #4 (W)
Week 15: 04/27 & 4/29	Clinical Cases	Case Study Presentation: Group 9/10 In Class Case Study #4 (W)
Week 16: 05/4	Clinical Cases	Case Study Presentation: Group 11
<b>FINAL EXAM WEEK: MAY 8-14, 2015</b>		