

Human Physiology I

BIPN 100, Winter 2016

Tuesdays and Thursdays 8:00-9:20 am, Solis 107

Instructor: **Dr. James Cooke**

Office: 3205 Natural Sciences Building, for now...

email: j2cooke@ucsd.edu (if you email me, please include "BIPN 100" in the subject)

Office hours: Tuesdays after class (9:30-ish to 10:30-ish)

Required Materials:

- Textbook: Human Physiology by Silverthorn, 7th edition (older versions are okay, but page numbers will likely be different)
- iClicker: it is your responsibility to register your clicker on our TED website.

Evaluation:	Pre-Reading Quizzes	5%
	In class participation (clickers, worksheets, ...)	5%
	Discussion section participation	5%
	Midterm 1	15%
	Midterm 2	20%
	Final Exam	50%

TED website for BIPN 100:

- You can access your pre-reading assignments and quizzes.
- You can also access your grades.
- You can access lecture notes. I will do my best to post lecture notes before class, and we will definitely be posting the lecture slides after class is over. So for each lecture, there will be a "pre" and "post" set of notes.

Academic Honesty

Plagiarism or any form of cheating is not tolerated. Cheating can include (but is not limited to):

- 1) Taking an exam on someone else's behalf.
- 2) Copying someone else's exam.
- 3) Using your phone or other electronic device during an exam.
- 4) Smuggling course related information into an exam.
- 5) Sending an email that contains fabricated statements (i.e. "I'm sick" when you're not)
- 6) Using someone else's clicker.

Please see the UCSD rules on Academic Integrity and Standards (academicintegrity.ucsd.edu). When in doubt, just ask a member of the teaching team.

Policy on missed midterm

If you miss a midterm with a valid excuse (ie: illness with doc’s note), I’ll take the relevant questions on the final (from same material of the missing midterm) and make them worth the missing 20%.

Pre-reading quizzes: Each week, I will assign some reading from your textbook and there will be a quiz that goes along with the pre-reading. Both the assigned reading and quiz will be located in the “pre-reading” folder for that particular week on our TED site. I will (try to) post the quizzes by midday Friday, and they will be due at 11:59 pm on Monday night. You can take each quiz twice, and I will record the higher of the two grades.

Discussion Sections: you will have practice exam questions during discussion sections that will count for participation. You will write an exam question from a previous quarter, then get into groups and answer the question with the aid of your peers. You will then hand in your question for participation points.

Midterm Group Exams: we are going to try group exams for a portion of our midterms. Here’s how it works: you write a midterm and hand it in (pretty typical so far!). You will get the opportunity to re-write one of the questions from the midterm a second time (I will take the higher of the two scores). You hand that in. You then get into a group of 3 to 5 people. In your groups, you will then answer another one of the midterm questions that you wrote (they are typically 1 page long, and take ~10 minutes each) a second time. If your group score is higher than your individual score for that question, I will make the group score worth 25% of that question and the individual score worth 75% for that question. For example: if you got a 7/10 the first time, and a 10/10 with your group, your final score for that question will be: $(7 \times 0.75) + (10 \times 0.25) = 7.75/10$. If your group score is lower than your individual score, I will toss the group score and your individual score will be the only grade that is counted.

Grades will follow the scheme below:

A+	90+	C+	70 - 72
A	85 - 90	C	65 - 69
A-	83 - 84	C-	60 - 64
B+	79 - 82	D	55-59
B	73 - 78	F	<55

Please do not ask for a bump in grade because you are 1% below a cut-off. Ten percent of your grade is participation, and five percent are from pre-reading quizzes that can be taken twice.

Teaching Team, Sections and Office Hours

Who		What	Where	When
Richard Loi	rqloi@ucsd.edu	Section	Sequo 148	Mon 1:00 - 2:00
			Centre 203	Mon 6:00 - 7:00
		Office hour	Sun God Lounge	Tues 9:30 - 10:30
May Tay	mltay@ucsd.edu	Section	Mande B-104	Fri 9:00 - 10:00 a
			WLH 2112	Fri 10:00 - 11:00a
		Office hour	PC Theatre Lobby	Thurs 9:30-10:30
Dallas Mindo-Panusis	dpanusis@ucsd.edu	Section	Centre 203	Mon 7:00-8:00 pm
				Earl's
Kennedy Carpenter	klcarpen@ucsd.edu	Section	Centre 218	Wed 6:00 - 7:00 p
				Middle of Muir
Calah Cozine	cacozine@ucsd.edu	Section	HSS 1315	Mon 3:00 - 4:00
				Mandeville coffee cart
Robert Fisher	r3fisher@ucsd.edu	Section	HSS 2321	Mon 2:00 - 3:00
				Hi Thai
Bruno Perthus	bperthus@ucsd.edu	Section	HSS 2321	Wed 4:00 - 5:00
				Middle of Muir
Paul Zhou	sczhou@ucsd.edu	Section	Centre 207	Thurs 7-8 pm
				Hi Thai

Tentative Schedule BIPN100, Winter 2016

Date	Topic
Jan 5, 7	Intro, membranes and membrane transport Resting membrane potentials and permeability
Jan 12, 14	action potentials Synaptic transmission
Jan 19, 21	organization of the nervous system spinal cord organization Somatic NS: Motor pathways
Jan 26, 28	Somatic NS: sensory pathways Autonomic nervous system
WED Jan 27 8:00 to 10:00 PM	Midterm 1 in GH 242
Feb 2, 4	Endocrinology: Feedback loops, hormones, receptors, HPA axis Skeletal muscle: anatomy, excitation-contraction coupling
Feb 9, 11	Skeletal muscle: excitation-contraction coupling, cross-bridges and power strokes Skeletal muscle: recruitment, contraction, metabolism
Feb 16, 18	Smooth muscle contraction and regulation Cardiac muscle: excitation-contraction coupling, action potentials of pacemaker and contractile cells
Feb 23, 25	EKG Cardiac cycle and Wigger's diagram
WED Feb 24 8:00 to 10:00 PM	Midterm 2 in GH 242
March 1, 3	P/V loops inotropy, chronotropy, dromotropy Blood flow, pressure and resistance Regulation of blood pressure
March 8, 10	Capillary exchange Measuring renal flow rates Clearance and absorption Endocrine control of renal function
March 17 8:00 to 11:00 am	Final exam: Comprehensive