

PSL 250, Fall 2015, 12:40-1:30, MTWTh in Room B115
Wells Hall
Dr. Patrick Dillon, 2178 BPS, 884-5040
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Office Hours, TBA
Review Session, Tuesday, Time and Room TBA

Welcome to PSL 250.

The text for the course is Fundamentals of Physiology: A Human Perspective, 4th edition by Lauralee Sherwood. Outlines with spaces for Dr. Dillon's class notes and previous exam questions are available in the PSL 250 Lecture Guide: Introductory Physiology, Fall 2015. The study guide has the headings for the lecture outlines I will use in class. The spaces within the lecture notes are designed for you to fill in your own notes during class. The notes are in the order we will use them in class. Only material covered in class will be used on exams. The overheads I use in class are not available outside of class. We will try to audio record the classes and upload them as mp3 files on ANGEL, so you can listen to the lectures outside of class. Because of the vagaries of electronic recording, we cannot guarantee that all classes will be recorded: the surest way to hear the material is to come to class. The TA will also have office hours and will conduct review sessions on Tuesday evenings except for those Tuesdays with makeup tests scheduled. If you have an RCPD visa, please contact Dr. Dillon so your needs can be addressed.

In a class of 450 students, it is necessary that students respect each other by turning off sound-generating electronics and minimizing conversation during class. If I can hear you, so can the students around you. Be aware that others are trying to focus on the lecture.

We cover a great deal of material in this class. Make good use of the class notes, readings, audio files, review sessions and office hours. Trying to cram in 10-11 lectures worth of new material the night before the exam is often difficult. Regular study habits usually work best with this material. Questions on exams intentionally have a wide range of difficulty: the hard questions require integration of material from several lectures. Many students find working with the figures in the book useful in preparing for these. I will use many of the figures from the book in class.

I have several suggestions for study habits. When covering new material, limit your study time to 40-60 minutes, or about one lecture. If you go longer, you may find you are forgetting the first things you studied. After you have studied the material, take a break for a while, then have someone orally quiz you on the material you

just covered. If you can give the correct answer out loud, then you really do know the material. If you answer, "Yeah, I think I know that" but can't put the answer into words, you probably don't know the answer. If you know all the information on a page of the study guide, put a check mark on that page. When you see those check marks on the night before the test, you will know that you already understand that material, and you can concentrate on other areas you may not know as well. Previous students have found these suggestions useful.

There will be four in-class multiple-choice examinations, the first consisting of 40 multiple choice questions, tests 2, 3 and 4 having 50 questions each and an 80 question final. Tests 2, 3 and 4 will have 10 questions repeated from the previous test along with 40 questions from new material. Test days are Wednesday 9/30 (Lectures L1-L10), Wednesday 10/21 (new material L11-L20), Wednesday 11/11 (new material L21-L31), Wednesday 12/2 (new material L32-L41). There is an 80 question final exam on Thursday 12/17 from 12:45-2:45. The final will include 40 questions from Lectures 42-51 as well as 40 comprehensive questions from the L1-L41 lectures. The comprehensive questions will not be exact repeats from previous tests. The class is divided for exams. The division of the class for tests will be announced in class. You must bring a picture ID to each exam. The study guide contains questions from last year's exams. The answers to these questions are in the back of the study guide. Exams cannot be given at different times: if I change the time for one student, I have to make that option available for every student, and that is not possible with over 450 students in the class.

Makeup exams will be held during the scheduled Tuesday evening review session time during week following the tests: 10/6 for test 1, 10/27 for test 2, 11/17 for test 3 and 12/8 for test 4. The makeup exams will have 40 fill in questions, not multiple choice, from the new material for that test. There will also be 10 repeated multiple choice questions from the previous test on the makeups for tests 2, 3, and 4. There is no extra credit in this class.

There are 270 points available (one 40 point test, three 50 point tests and the 80 point final). If you get 225 or more points, you get a 4.0; if you get 210-224, you get a 3.5; etc. The grading scale with the minimum points for a grade is below.

Points	225	210	195	180	165
Grade	4.0	3.5	3.0	2.5	2.0
	150	135	Below 135		
	1.5	1.0	0.0		

L31 – Regulation of Respiration – Lung Diseases 46, 373-377

New Lectures for Test #4

L32 – Renal Function – Filtration - Reabsorption 381-393, 395-398

L33 – Renal Control – Secretion – Filtrate Dilution 393-395, 398-405

L34 – Urine Production – Bladder Function 405-413

L35 – Fluid Balance 417-426

L36 – Acid-Base Balance 426-434

L37 – Cardiovascular Regulation – Hypertension 271-273, 287-293

L38 – Digestion and Absorption 438, 468-571

L39 – GI Intro – Mouth – Esophagus 437-447, 474

L40 – Stomach – Pancreas – Liver 447-463

L41 – Small Intestine – Large Intestine 463-474

New Lectures for Test #5

L42 – Energy Balance 479-492

L43 – Principles of Endocrinology – Circadian Rhythms – Calcium Control 495-498, 510-512, 536-541

L44 – Hypothalamus – Pituitary – Growth 499-510

L45 – Thyroid 513-517

L46 – Adrenal Gland 517-525

L47 – Fuel Metabolism – Insulin – Diabetes 525-536

L48 – Cancer, No Readings

L49 – Sex Differentiation; Male Reproductive System 545-547, 551-562, 575-577

L50 – Female Reproductive System 563-575

L51 – Pregnancy/Lactation 576-588

There is no limit as to how many students may get a particular grade. If the entire class gets a 4.0, there is no downward curving. What grade you get is only dependent on your effort, not on how everyone else in the class does. Good Luck.

Lecture Outline for PSL 250. The numbers after the title are the reading pages in the book.

Lecture Outline for PSL 250

Lectures for Test #1

L1 - Introduction to Physiology-Levels of Organization-Homeostasis 1-15

L2 – Cell Structure 19-26, 60-62

L3 – Energy Production – Cytoskeleton 26-39

L4 – Membrane Structure 43-50

L5 – Membrane Transport 50-60

L6 – Membrane Potential 62-67, 71-74

L7 – Neurons – Action Potential 75-85

L8 – Synapses 85-91

L9 – Intercellular Communication 91-102

L10 – Central Nervous System 107-122

New Lectures for Test #2

L11 – Subcortical Structures – Memory 123-128

L12 – Cerebellum – Sleep – Spinal Cord 128-136

L13 – Afferent Nervous System – Pain – Taste – Smell 141-146, 171-175

L14 – Vision 146-161

L15 – Hearing and Equilibrium 161-171

L16 – Efferent Nervous System 179-192

L17 – Muscle Structure and E-C coupling 195-207

L18 – Skeletal Mechanics 207-210

L19 – Muscle Metabolism and Control 210-217

L20 – Smooth Muscle 217-225

New Lectures for Test #3

L21 – Cardiac Structure and Activation 225-226, 229-243

L22 – Cardiac Pumping 243-252

L23 – Arteries – Arterioles 252-255, 261-271, 273-274

L24 – Capillaries – Lymph – Veins 274-287

L25 – Red Blood Cells – Platelets 297-309

L26 – White Blood Cells – Innate Immunity 309-318

L27 – Adaptive Immunity – B Lymphocytes 319-325

L28 – Adaptive Immunity – T Lymphocytes – Self 325-340

L29 – Lung Structure – Breathing 345-362

L30 – Gas Exchange 362-372