Syllabus

General course information and course lecture schedule.

Course Information

Classroom

Scaife Hall Lecture Room 3 (map)

Class Meetings

Lectures: Monday, Wednesday-- 5:30-6:45 PM

PBLs and Exams: Friday-- 3:00-5:00 PM

Grading

Your grade will be calculated as follows

20% from each of 4 exams
15% from group learning exercises
5% from course participation (Tophat)

General Info

Exams will cover material presented in lectures and handouts. Although textbook readings will not explicitly be covered on examinations, students are highly encouraged to at least skim this material to provide a better understanding of information from lectures. Furthermore, the textbook should be used as a reference while studying lecture notes and handouts and preparing for problem based learning exercises.

> **It is expected that students will be fully-knowledgeable** concerning basic principles of control of cell function and membrane transport, which are covered in the prerequisites for this course. Although this material will not be explicitly examined, students must fully understand this information in order to comprehend the principles covered in this course. It is **highly recommended** that all students review basic cell biology by studying Chapters 1-5 (pp. 3-74) in the *Textbook of Medical Physiology*.

If a legitimate reason (illness, death in family, medical school interview, etc.) prevents a student from taking an exam on the scheduled date, he or she **must**notify Dr. Yates in advance and pre-arrange an alternate time to take the exam. If arrangements are not made **BEFOREHAND**, the student will receive a failing grade for the exam.

Academic Integrity Statement

Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity, from the February 1974 Senate Committee on Tenure and Academic Freedom reported to the Senate Council, will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz or exam will be imposed.

Disability Resource Statement

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 140 William Pitt Union, 412-648-7890/412-624-3346 *(Fax)*, as early as possible in the term. Disability Resources and Services will verify your disability and determine reasonable accommodations for this course.

Course Schedule

Readings are from Guyton and Hall text unless indicated

Date	Topic	Lecturer	Reading
	Block 1 - Cardiovascular/Muscle		
29-Aug Monday	Course Overview and Logistics; Cardiovascular 1	Yates	pp. 169-178
31-Aug Wednesday	Cardiovascular 2 *Hemodynamics*	Yates	pp. 179-188
2-Sep Friday	Muscle Contraction 1 *Skeletal Muscle*	Yates	pp. 75-96
5-Sep Monday	Labor Day Holiday *No Class*		
7-Sep Wednesday	Muscle Contraction 2 *Smooth and Cardiac Muscle*	Yates	pp. 97-105; 109-112
9-Sep Friday	Control Mechanisms 1 *Neural Mechanisms and Prep for PBL 1*	Yates	pp. 773-785

Date	Topic	Lecturer	Reading
12-Sep Monday	Control Mechanisms 2 *Endocrine Signaling*	Yates	pp. 925-937
14-Sep Wednesday	Control Mechanisms 3 and Return to Cardio System *Integration / Electrical Events and ECG / Cardiac Cycle*	Yates	pp. 330-331; 113-122; 283-291
16-Sep Friday	Problem Based Learning Activity 1	TAs	Activity 1
19-Sep Monday	Cardiovascular 3 *Determinants of Cardiac Output 1*	Yates	pp. 245-258
21-Sep Wednesday	Cardiovascular 4 *Determinants of Cardiac Output 2*	Yates	pp. 245-258
23-Sep Friday	Problem Based Learning Activity 2	TAs	Activity 2
26-Sep Monday	Cardiovascular 5 *Neural and Local Control of Blood Flow*	Yates	pp. 203-225; 227-243
28-Sep Wednesday	Cardiovascular 6 *Capillary Dynamics*	Yates	pp. 189-201; 305-321
30-Sep Friday	**EXAM #1: 8/29 - 9/21 Lectures (Cardio 1-4/Muscle Contraction/Control Mechanisms)**		
3-Oct Monday	Cardiovascular 7 *Exercise Cardiovascular Responses; Integrated Responses; Clinical Issues*	Yates	pp. 259-281; 293-302
	Block 2 - Respiration		

Date	Topic	Lecturer	Reading
5-Oct Wednesday	Respiration 1 *Blood Composition, Clotting, Respiratory Mechanics*	Yates	pp. 445-454; 483-494; 497-507
7-Oct Friday	Problem Based Learning Activity 3	TAs	Activity 3
10-Oct Monday	Respiration 2 *Respiratory Mechanics*	Yates	pp. 497-507; 509-526
12-Oct Wednesday	Respiratory 3 *Pulmonary Circulation*	Yates	pp. 527-537 Class in LR4; 3rd floor
14-Oct Friday	Problem Based Learning Activity 4	TAs	Activity 4
17-Oct Monday	FALL BREAK *No Classes*		
18-Oct *Tuesday*	Respiratory 4 *Control of Respiration*	Yates	pp. 539-548
19-Oct Wednesday	Respiration 5 *Clinical Aspects & Review*	Yates	pp. 549-557; 561-565; 569-574; 409-426
21-Oct Friday	Problem Based Learning Activity 5	TAs	Activity 5
	Block 3 - Renal		
24-Oct Monday	Renal 1 *Functional Anatomy of the Kidney*	Sved	pp. 323-346
26-Oct Wednesday	Renal 2 *Tubular Processing 1*	Sved	pp. 347-369
28-Oct Friday	**Exam #2: 9/26 - 10/19 Lectures (Cardio 5-7/Respiratory)** Scaife LR1		

Date	Topic	Lecturer	Reading
31-Oct Monday	Renal 3 *Tubular Processing 2*	Sved	pp. 371-407
2-Nov Wednesday	Renal 4 *Regulation of Fluid Osmolarity / Control Mechanisms*	Sved	pp. 409-426; 427-442
4-Nov Friday	Problem Based Learning Activity 6	TAs	Activity 6
Block 4 - Immunology			
7-Nov Monday	Immunology 1 *Innate Immune System*	Turnquist	Lippincott pp. 3-9;11-20;25-54
9-Nov Wednesday	Immunology 2 *Adaptive Immune System, Pt. 1*	Turnquist	Lippincott pp. 59-76;79-88;91-110;113-121
11-Nov Friday	Problem Based Learning Activity 7	TAs	Activity 7
14-Nov Monday	Immunology 3 *Adaptive Immune System, Pt. 2*	Turnquist	Lippincott pp. 123-138;141-155;158-164
16-Nov Wednesday	Immunology 4 *Clinical Relevance of the Immune System*	Turnquist	Lippincott pp. 169-196;243-256;260-281;298-310
Block 5 - Gastrointestinal, Thermoregulation, and Growth Regulation			
18-Nov Friday	Gastrointestinal 1 *Motility, Secretion and Absorption*	Yates	pp. 797-842
21-Nov Monday	Gastrointestinal 2 *Clinical Issues / Regulation of Appetite*	Yates	pp. 843-849; 881-902; 983-999

Date	Topic	Lecturer	Reading
28-Nov Monday	Gastrointestinal 3 *Metabolism*	Yates	pp. 853-880; 951-963; 965-982
30-Nov Wednesday	Temperature and Growth Regulation	Yates	pp. 911-922; 1001-1019
2-Dec Friday	**Exam #3: 10/24 - 11/16 Lectures (Renal/Immunology)**		
Block 6 - Reproductive and Developmental Physiology			
5-Dec Monday	Reproduction 1 *Male and Female Reproductive Physiology*	Yates	pp. 1021-1054
7-Dec Wednesday	Reproduction 2 *Female Reproductive System; Pregnancy and Contraception*	Yates	pp. 1055-1069
9-Dec Friday	Developmental Physiology *Fetal and Neonatal Physiology; Physiology of Aging*	Yates	pp. 1071-1081
12-Dec *Monday*	**Exam #4: 11/18 - 12/09 Lectures (Gastrointestinal/Growth & Temperature Regulation/Reproduction)** 2:00-3:50 PM; G31 Benedum Hall		