UNIVERSITY OF GEORGIA
COLLEGE OF VETERINARY MEDICINE
FALL SEMESTER

COURSE NUMBER: VPH 6090

COURSE TITLE: Comparative Mammalian Physiology

CREDITS: 3

MEETING TIME/PLACE: 11:00am to 12:15pm in Room 311 Vet Med 1.

INSTRUCTORS: John Wagner, Ph.D.,
Office: 2222A, Phone: 542-6428 e-mail: jwagner@vet.uga.edu

Gaylen Edwards, DVM, Ph.D.,
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Stephen Lewis, Ph.D.,
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COURSE DESCRIPTION:

The physiology of nervous, cardiovascular, and respiratory tissues will be covered in this course. Aspects of the physiology, anatomy, and biochemistry related to understanding the organization and function of these physiological systems will be discussed.

COURSE OBJECTIVES:

At the conclusion of this course the student will be familiar with the fundamental basis for the function of excitable cells and tissues, from the molecular to the systems level. An understanding of common techniques and experimental approaches to current physiological research in these tissues will also be introduced. The student will be prepared for future self-learning capability in these areas of physiological research.

TEXTBOOK: Medical Physiology; Second Edition. Rhoades & Tanner, Eds

EVALUATION:

Grades for the course will be assigned based on four equally weighted exams (25% each). The guidelines for the assignment of final letter grades for the course are:

A	90-100%
B	80-89%
C	70-79%
D	60-69%

SPECIAL NEEDS:

Any students with disabilities who need accommodation in this course are encouraged to speak with the instructor as soon as possible in order that appropriate arrangements can be made.

ACADEMIC HONESTY:

All work in this course must be completed in a manner consistent with UGA policy concerning academic honesty (http://www.uga.edu/ovpi/honesty/acadhon.htm).

SEMESTER SCHEDULE:

			Ch.
	Excitable Cell Physiology-*Wagner*		
Aug 18th		introduction/syllabus	
Aug 23rd		membrane physiology & pumps/exchangers	2
Aug 25th		ion channels	2
Aug 30th		membrane potential	2
Sep 1st		second messengers & intracellular signaling	1
Sept 6th		metabotropic receptors	1
Sept 8th		hormone & growth factor receptors	1
Sep 13th		**Exam I**	
Sep 15th	Neurophysiology-*Wagner*	synaptic physiology	3
Sep 20th		active potentials	3
Sep 22nd		passive potentials	3
Sep 27th		somatic nervous system	5
Sep 29th		autonomic nervous system	6
Oct 4th		central nervous system I	7
Oct 6th		central nervous system II	7
Oct 11th		**Exam II**	
Oct 13th	Cardiovascular Physiology-*Edwards*	skeletal & smooth muscle physiology	8&9
Oct 18th		cardiac muscle & circulation	10&12
Oct 20th		electrical activity of the heart	13
Oct 25th		cardiac cycle	14
Oct 27th		no class (Fall break)	
Nov 1st		arterial pressure	15
Nov 3rd		microcirculation/lymphatic systems	16
Nov 8th		cardiovascular control systems	18
Nov 10th		**Exam III**	
Nov 15th	Respiratory Physiology-*Lewis*	Pulmonary Ventilation	19
Nov 17th		Gas exchange	20
Nov 22nd		Gas transport I	21
Nov 24th		no class (Thanksgiving holiday)	
Nov 29th		Gas transport II	
Dec 1st		Mechanics of Respiration I	19
Dec 6th		Mechanics of Respiration II	
Dec 8th		Regulation of respiration	22
Dec 13th		**Exam IV (scheduled at 12:00 pm)**	

Alternative exam dates & make-up policy are at the discretion of the individual faculty.

Disclaimer: The course syllabus is a general plan for the course; deviations announced to the class by the instructors may be necessary.