AMBROSE UNIVERSITY COLLEGE | FACULTY OF ARTS & SCIENCE

BIOLOGY 133 Organismal Biology of Plants and Animals
Winter 2010

Course Outline and Schedule for Winter semester, 2009.

Note : Credit for both Biology 133 and 105 will not be allowed.

Time: Lectures – T/R, 1:00-2:15
Labs - T – 4:00

Instructor : Dr. Carol Kroeker
Office : A2156
Phone: 410-2000, ext 5910
Email: ckroeker@ambrose.edu

Text : Biology, Seventh or Eight Edition
Campbell, NA and JB Reece,
Prentice- Hall

Learning Objectives:

1. Students will gain a greater understanding of fundamental biological principles
2. Students will be able to discuss the anatomy and physiology of many animal systems including circulation, digestion, reproduction, and the nervous system, as well as understanding the anatomy and physiology of plants
3. Students will learn laboratory techniques essential to research in biology-related fields.
4. Students will collaborate with peers to design and carry out a research project and be able to present this in written and oral formats

Mark Distribution :		
	2 Midterm Exams	40%
	Laboratory Reports	20%
	Final Exam	40%

This course consists of 3 hours of lectures per week, plus a 3-hour lab.
The midterm and final exam will be a combination of multiple choice questions, as well as short and long answer questions. While most questions will be based on lecture material, the textbook reading will absolutely help in the understanding of this material. Attendance at lectures will help ensure success on course exams and assignments.

Dates	**Topic**	**Text Chapters**
Week of		
Jan. 5	Evolution / systematics	22, 23, 24
Jan. 12	Animal diversity and phylogeny / systematics	32-34
Jan. 19	Locomotion and Support	40
Jan. 26	Nervous System / Sensory System	48, 49
Feb. 2	/Homeostasis / Endocrine System	44, 45
Feb. 9	Exam I / Cardiovascular system	42
Feb. 16	Reading Week	
Feb. 23	Respiratory System / Urinary	42
Mar 2	Digestive System / Reproduction	41, 46, 47
Mar 9	Exam II / Algae / Fungi	28, 31
Mar 16	Terrestrial Adaptations – non-vascular plants Non-seed plants, gymnosperms, angiosperms	29, 30, 38
Mar 23	Seedling Growth and Development Plant Structure and Growth- Secondary growth	38, 35 35
Mar 30	Transport of water and nutrients, transpiration	35, 36
Apr. 6	Mineral Nutrition, Hormonal Control of growth	39
Apr 13	Ecology – populations and communities	53, 55

Laboratory Schedule

Lab topics will include: Anatomy and Physiology of specific body systems, comparative classification of animals, comparative function, and botany.
Labs will begin the week of January12th.

Attendance at the laboratory sessions is COMPULSORY. Any lab missed without a valid excuse cannot be made up. Lab coats are not required.

The lab portion of this course will consist of 3 lab assignments and 2 lab reports worth 4% each.

Tentative Laboratory Schedule:

Jan. 6 – no Lab
Jan. 13 – Phylogeny – systematics and evolution of the invertebrates
Jan. 20 – Phylogeny – evolution and systematics of the vertebrates
Jan. 27 – Ectotherms and Endotherms
Feb.2 – Sensory systems
Feb. 9 - Circulatory systems
Feb. 15 – no Labs – reading week
Feb. 24 – animal oxygen consumption and metabolism
Mar. 2 - animal reproduction
Mar. 9 – Evolution
Mar. 16 – Reproduction in plants
Mar. 23 – Vascular systems in plants
Mar. 30 – Animal Behaviour
Apr. 7 - Lab exam

Grading Scheme

A	90-100%	C	63-65%
A-	85-89%	C-	60-62%
B+	80-84%	D+	54-59%
B	76-79%	D	50-53%
B-	70-75%	F	Below 50%
C+	67-69%		