

## BIOL 376: Animal Biology Spring 2011

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**Instructor:** Dr. Vasyl Tkach  
**Office:** 215 Starcher  
**Office hours:** 11-12 a.m. MF, by appointment  
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**LECTURE:** 3 credits.

**Lecture schedule:** Starcher Hall 141. 10:00 AM - 10:50 AM **MWF**.

**COURSE OBJECTIVES:** Students will learn the fundamentals of classification, structure, function, development and evolution of major groups of invertebrate and vertebrate animals. An emphasis will be made on key evolutionary innovations that lead to morphological and taxonomic diversification among animals. Protozoans and insects are treated only briefly.

**Lecture textbook:** Hickman, Roberts, Keen, Larson, L'Anson and Eisenhour. Integrated Principles of Zoology, *14<sup>th</sup> edition*. (McGrawHill, 2008; ISBN 978-0-07-297004-3). *13<sup>th</sup>* or *15<sup>th</sup>* editions are acceptable.

**Attendance:** I will not take attendance and I will not repeat lectures or provide notes other than handouts on the Blackboard. Consistent attendance and note-taking will put you well on your way to learning the material and earning the grade you want.

**Cell phones** should be turned off for the duration of the lecture. Use of cell phones (including texting) in class is inappropriate and distracting. Technology is great, but please use it before/after the class.

**Lecture exams:** The approximate dates of the lecture exams are provided in the schedule below. I reserve the right to change exam dates if necessary; in this case the change will be announced in advance. Exams will be a combination of multiple choice, short answer and brief essay questions. **Make-up exams will be allowed only for valid excused absences and are entirely at the instructor's discretion.**

**Quizzes:** Quizzes will be completed in a set period of time (12-15 mins). All students will be required to hand in their quiz at the end of this period of time—do not be late to class! **Make-up quizzes will be allowed only for valid excused absences and are entirely at the instructor's discretion.**

**Grading:** final grades will be based on a total of approximately 400 points; the following breakdown is an estimate—the number of points may vary slightly

Point Source:	Possible Points:	Grading Scale:
Lecture Exams: 2 x 100 pts.	200	89.6 – 100 % A
Final Exam: 1 x 150 pts	140	79.6 – 89.5 % B
4 lecture Quizzes: 3 x 20 pts (the lowest of 4 quiz grades will be dropped)	60	69.6 – 79.5 % C 54.6 – 69.5 % D
<b>TOTAL</b>	<b>400 (Approximate)</b>	<b>&lt; 54.6 % F</b>

**Special Note:** If you need accommodations in this course because of a disability or other special needs, please make an appointment with Dr. Tkach as soon as possible.

**Lecture schedule (approximate)**

<b>Week</b>	<b>Lecture Dates</b>	<b>Lecture topic</b>	<b>Lecture Readings</b>
1	Wed Jan 12 Fri Jan 14	Syllabus. Introduction. What is an animal? Basic cell structure, mitosis and meiosis	Ch. 3 (partial) Ch.5 (partial)
2	Mon Jan 17 Wed Jan 19 Fri Jan 21	<b>Martin Luther King holiday - no classes</b> Principles of development. Animal body plans. Evolution.	Chapters 8 and 9 (partial) Chapter 6 (partial)
3	Mon Jan 24 Wed Jan 26 Fri Jan 28	<b>Quiz 1.</b> Fossils and Geological time Classification and Phylogeny. What are invertebrates? Protozoa. General characteristics, form and function.	Chapter 6 (partial) Chapter 10 Chapter 11
4	Mon Jan 31 Wed Feb 2 Fri Feb 4	Major groups of Protozoa. Medically important Protozoa. <b>Quiz 2.</b> Origin of Metazoa. Porifera	Chapter 11 Chapter 11 Chapter 12
5	Mon Feb 7 Wed Feb 9 Fri Feb 11	Cnidaria. Cnidaria Origin of bilaterians. Platyhelminthes.	Chapter 13 Chapter 13 Chapter 14
6	Mon Feb 14 Wed Feb 16 Fri Feb 18	Platyhelminthes. Parasitic forms. Nematoda. Nematoda. Nematomorpha.	Chapter 14 Chapter 18
7	Mon Feb 21 Wed Feb 23 Fri Feb 25	<b>President's Day holiday - no classes</b> <b>Exam 1</b> Mollusca. Gastropoda.	Chapter 18 Chapter 16
8	Mon Feb 28 Wed Mar 2 Fri Mar 4	Mollusca. Bivalvia and Cephalopoda. Annelida. Polychaeta. Annelida. Oligochaeta and Hirudinea.	Chapter 16 Chapter 17 Chapter 17
9	Mon Mar 7 Wed Mar 9 Fri Mar 11	Arthropoda. Intro and Chelicerata. <b>Quiz 3.</b> Arthropoda. Crustacea. Arthropoda. Insecta.	Chapter 19 Chapter 20 Chapter 21
10	Mar 14, 16, 18	<b>SPRING BREAK</b>	
11	Mon Mar 21 Wed Mar 23 Fri Mar 25	Arthropoda. Insecta. Echinodermata. Echinodermata.	Chapter 21 Chapter 22 Chapter 22
12	Mon Mar 28 Wed Mar 30 Fri Apr 1	Chordata. Intro and lower groups. Chordata. Main features and early origin Jawless and Cartilaginous fishes.	Chapter 23 Chapter 23

13	Mon Apr 4 Wed Apr 6 Fri Apr 8	<b>Exam 2.</b> Bony fishes. Origin of tetrapods. Amphibians.	Chapter 24
14	Mon Apr 11 Wed Apr 13 Fri Apr 15	Amphibians. Reptiles Reptiles	Chapter 24 Chapter 25 Chapter 25
15	Mon Apr 18 Wed Apr 20 Fri Apr 22	<b>Quiz 4.</b> Birds Birds <b>Good Friday - no classes</b>	Chapter 26 Chapter 26 Chapter 27
16	Mon Apr 25 Wed Apr 27 Fri May 29	<b>Easter Monday - no classes</b> Mammals Mammals	Chapter 27 Chapter 28 Chapter 28
17	Mon May 2 Wed May 4	Mammals Biosphere and Animal Distribution	Chapter 28 Chapter 37
18	Fri May 13	<b>Final Exam 10:15 AM</b>	<b>ALL</b>

### **Holidays and Spring Break (no classes)**

January 17      Martin Luther King Jr. Day (Mon)  
 February 21     Presidents Day (Mon)  
 March 14-18    Spring Break (Mon-Fri)  
 April 22-25     Easter (Fri-Mon)