

# **EEB 111 – Biology of the Vertebrates**

## **Course Outline – Fall 2007**

A. Instructor: Dr. Vicente Cassano [vcassano@ucla.edu](mailto:vcassano@ucla.edu)  
Office hours: MW 11A-12 P LS 5217

Teaching As:

Josh Olson [jdolson@ucla.edu](mailto:jdolson@ucla.edu) OH: MW 2-3P LS1113

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Undergraduate Assistants: Asif Razee and Susan Sheng

### **B. Format**

1. Lectures: MWF 3 - 3:50AM Haines 118
2. Laboratory: LS 1113
  - a. Brief presentation by the assistant
  - b. Demonstrations and exercises
3. Field trips: sign up required, two field trips are mandatory
  - a. Guided observations
  - b. Demonstrations and exercises

### **C. Textbooks (required)**

Pough, F. H., C. M. Janis, and J. B. Heiser (2005) Vertebrate Life, 7<sup>th</sup> Edition,

### **D. Grading (1000 point course)**

In lecture

- |    |                        |            |
|----|------------------------|------------|
| 1. | Midterm Exam I         | 100 points |
| 2. | Midterm Exam II        | 200 points |
| 3. | Final Exam             | 250 points |
| 4. | Water to land exercise | 25 points  |
| 5. | Evolution of feathers  | 25 points  |

In lab

- |    |                            |            |
|----|----------------------------|------------|
| 6. | Lab quizzes (6) x 5 points | 30 points  |
| 7. | Owl pellet dissection      | 20 points  |
| 8. | First Lab Exam             | 100 points |
| 9. | Second Lab Exam            | 200 points |

Field trips:

- |     |              |           |
|-----|--------------|-----------|
| 10. | Field Trip 1 | 25 points |
| 11. | Field Trip 2 | 25 points |

### **E. Grading Policies:**

1. Exams taken on date and time (medical excuses only)
2. No “making up points” for poor performance
3. No “grading on improvement”
4. Grades: Limits 90% (A), 80% (B), 70%(C), 60%(D)

## LECTURE SCHEDULE AND READING ASSIGNMENTS

DATE	TOPIC	Pough et al., 7 <sup>th</sup> ed. CHAPTER*
9/28	Introduction to EEB 111; Vertebrates in the Phylogeny of Life	1
10/1	Domain Eukarya, Evolution and phylogeny of Animals	1
10/3	Chordates, Craniates, and Vertebrate Characteristics	1
10/5	Origin, Diversity, and Evolution of Vertebrates	2
10/8	Early Vertebrates: Jawless Vertebrates	3
10/10	The Evolution of Jaws and the Rise of Jawed Vertebrates	3
10/12	Living in Water	4
10/15	Radiation of the Chondrichthyes	5
10/17	Major Radiation of Bony Fishes	6
10/19	<b>EXAM I</b>	
10/22	Water to Land Transition	7, 8
10/24	Origin and Radiation of Early Tetrapods	8
10/26	The Evolution of Living Amphibians	9
10/29	Salamanders, Anurans, and Caecilians	10
10/31	Synapsids and Sauropsids: Two Approaches to Terrestrial Life	11
11/2	Turtles	12
11/5	The Lepidosaur: Tuatara, Lizards and Snakes	13
11/7	The Lepidosaur: Tuatara, Lizards and Snakes	13
11/9	<b>EXAM II</b>	
11/12	<b>Veteran's Day Holiday</b>	
11/14	Mesozoic Diapsids	15, 16
11/16	Mesozoic Diapsids	16
11/19	Ectotherms and Endotherms	14, 22
11/21	Ectotherms and Endotherms	14, 22
11/23	<b>Thanksgiving</b>	
11/26	The Origin and Evolution of Birds	17
11/28	Characteristics of Birds	17
11/30	The Origin and Evolution of Mammals	18, 19
12/3	Mammalian Characteristics and Diversity	20, 21
12/5	The Impact of Humans on Other Vertebrates	24
12/7	The Impact of Humans on Other Vertebrates	24
12/12	<b>FINAL EXAM</b>	<b>11:30 - 2:30 PM</b>
		<b>Room TBA</b>

# EEB 111 – Biology of the Vertebrates

## Tentative Laboratory Schedule – Fall 2007

All lab sections are held in room LS 1113

Biology of Vertebrates labs are designed to:

1. Present the diversity and characteristics of the major vertebrates taxa
2. Develop an understanding of their evolution and relationships
3. Present selected aspects of their morphology, ecology and natural history.

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Week 1	The origin of vertebrates / Vertebrate body plan / Jawless vertebrates			
Week 2	Lab Quiz 1 Sharks, skates, and rays / Ancestral bony fishes Field Trip: Belmont Shores, Long Beach (Saturday, October 13)			
Week 3	Lab Quiz 2 Advanced bony fishes			
Week 4	Lab Quiz 3 Amphibians			
Week 5	Review labs 1, 2, 3, & 4 <b>FIRST LAB EXAM</b> Field Trip: TBA	<b>FRIDAY</b>	<b>11/2</b>	<b>6 - 10 P</b>
Week 6	Lab Quiz 4 Turtles, Squamates and Crocodylians			
Week 7	Lab Quiz 5 Birds			
Week 8	Owl pellet dissection (MTW) - No labs Thursday or Friday			
Week 9	Lab Quiz 6 Mammals Field Trip: TBA			
Week 10	Review labs 6, 7, 8, & 9 <b>SECOND LAB EXAM</b>	<b>FRIDAY</b>	<b>12/7</b>	<b>6 - 10 P</b>

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