BIO 4950: Ichthyology

Spring 2010

Course Information: BIO 4950 Section 001

Lecture: MW 03:00 -03:50 p.m. **Location:** Life Sciences 1140

Lab: Th 01:00 – 03:50 a.m. **Location:** Life Sciences 1140

Instructor: Robert Colombo, Ph. D. **Office:** LS 2027 **Phone:** 581-3011

Office Hours: MWF: 10:00-11:00 a.m., *or by appointment*. **E-Mail**: recolombo@eiu.edu

Teaching Assistant: Candice Miller **Office**: LS 1081 **E-Mail**: cmmiller5@eiu.edu

Texts: **Lecture: 1 Required**

(1) Moyle, P.B. and J.J. Cech. 2003. Fishes: An Introduction to Ichthyology, *5th edition*. Benjamin Cummings.

Laboratory: 1 Required, 1 Recommended

(1) Pflieger, W.L. 1997. The Fishes of Missouri. Missouri Department of Conservation. *Required*

(2) Paige, L.M. and B.M. Burr. 1991. A Field Guide to the Freshwater Fishes: North America North of Mexico. Peterson's Field Guide. *Recommended*

Rationale: Biology 4950 is an introduction to the science of Ichthyology, the study of Fishes. This course is designed to provide students with an introduction into fish biology. Specifically we will address anatomy and physiology, behavior, systematics, genetics and conservation of fishes. This class will provide students with the necessary tools for further study in aquatic biology/ecology.

Objectives: (1) To provide students with an understanding of the principles of fish biology

(2) To provide students with an understanding of the anatomy of fishes

(3) To provide students with an understanding of the physiology of fishes

(4) To provide students with an understanding of the taxonomy of fishes

(5) To provide students with an understanding of the zoogeography in fishes

(6) To provide students with an understanding of the basic themes of fish ecology

(7) To provide students with an understanding of basic fish conservation

Grading: The course grade will consist of both lecture (50%) and laboratory (50%) components. Your grade will be based on the accumulated score of 100 percentage points, where: A ≥ 90%;B = 80-89%; C = 70-79%; D = 60-69%; F < 60%.
At the discretion of the instructor, grades may be standardized (curved) to fit a normal distribution; however, this will only be done to enhance your letter grades.

Points may be earned in the following categories:

Category	Points	Total Points*
	Lecture (50%)	
Midterm	100	
Final	200	
Lecture total		300
	Lab (50%)	
Participation	50	
Practical Exam I	100	
Practical Exam II	100	
Unknowns	50	
Lab total		300
Grand Total		600

* Subject to change at the discretion of the instructor

Exams: Lecture exams will be comprised of short answer, matching, and multiple choice and essay questions. Material for the exams will be derived **EXCLUSIVELY** from the **LECTURES**. THE FINAL EXAM WILL BE CUMULATIVE. Missing an exam without prior consent from the instructor will result in a grade of ZERO for the exam.

Lecture Attendance: There is no attendance requirement for the lecture portion of this course.

Laboratory: (more on this in lab Thursday)

1. **Attendance** – Lab attendance is mandatory! Two unexcused absences from the laboratory will result in a grade of zero for the lab portion of the course.

2. **Participation** – You are expected to come prepared to participate in every lab. Each student will receive a participation grade for the lab.

Disabilities: Any student with a disability is asked to contact me so that we can discuss any accommodations. Also, the university has services available should you need them:

Disability Services: 581-6583	Career Services: 581-2412
Learning Assistance: 581-6696	Counseling Center: 581-3413

Academic integrity**: "It is assumed that students will honor the tradition of academic honesty. Should incidents of suspected classroom cheating or plagiarism occur, however, the following steps will be taken:

1. The instructor who has witnessed academic dishonesty or who has other evidence that academic dishonesty has occurred will confront the student to inform him/her of the allegation. Time permitting; the instructor will contact the Office of Student Standards prior to talking with the student. If the student admits the violation, the instructor will assess an appropriate academic penalty and will inform the Office of Student Services using a Notation of Academic Misconduct form.
2. If the student disputes the allegation, or if a sanction greater than a failing grade for the course is warranted, a hearing will be provided by the Office of Student Standards in accordance with provisions of the Student Conduct Code. If as a result of the hearing the student is found responsible for the violation, the instructor will assess an appropriate academic penalty. Other sanctions such as disciplinary probationary status or separation from the institution can be imposed by the University's disciplinary system. Full conditions and explanations are cited in the Student Conduct Code. A student accused of academic dishonesty in a course may not drop the course until such time as disciplinary action, if any, is concluded. A grade (A, B, C, D, F, CR, NC, AU, I, W, X) may be changed to reflect the disciplinary sanction, if any, imposed as a result of academic dishonesty. In the event that the alleged violation occurs at the end of a term, no grade shall be assigned pending conclusion of the disciplinary process. All students are subject to the provisions of the University's Student Conduct Code, available online at www.eiu.edu/~judicial."**

** from http://catalog.eiu.edu/content.php?catoid=17&navoid=435#acad_inte

Cell Phones: Please refrain from using cell phones during both lecture and lab. Make sure that your cell phone is set to all sounds off during the class periods.

BIO4950 Section 001: Ichthyology				
Spring 2010	MW	03:00-03:50 p.m.	Dr. Colombo	
Month	Date	Day	Subject***	Chapt
January	11	Mon	Introduction	
	13	Wed	The Science of Ichthyology	1
	18	**Mon**	**MLK Day No Class**	
	20	Wed	Form and Movement	2
	25	Mon	Respiration	3
	27	Wed	Cardiovascular system	4
February	1	Mon	Buoyancy	5
	3	Wed	Osmoregulation	6
	8	Mon	Bioenergetics	7
	10	Wed	Growth	8
	15	Mon	Reproduction	9
	17	Wed	Sensory systems	10
	22	Mon	Behavior	11
	24	Wed	Systematics	12
March	1	Mon	Evolution	13
	3	**Wed**	**Midterm Exam**	
	8	Mon	Jawless Fishes and Condrichthyes	14-15
	10	Wed	Primitive Bony Fishes	16
	15-19		**Spring Break**	
	22	Mon	Teleosts	17-24
	24	Wed	Teleosts	17-24
	29	Mon	Zoogeography of Marine Fishes	25
	31	Wed	Zoogeography of Freshwater Fishes	26
April	5	Mon	Ecology	27
	7	Wed	Ecosystems	28-36
	12	Mon	Ecosystems	28-36
	14	Wed	Population Ecology	
	19	Mon	Genetics	
	21	Wed	Conservation	37
	26	Mon	Superlative Fishes	
	28	Wed	Review For Final	
Final	**15**	**Tue**	**Cumulative Final 10:15 am**	

*** Dates and topics subject to change at the discretion of the instructor.

Important dates

Event	Month	Day
Deadline to add a course	January	15
Deadline to drop with no grade	January	25
Spring Break	March	15
Deadline to withdraw with a W	April	2
Last day of classes	April	30
Final Exam	May	6