INSTRUCTOR: Robert Colombo, Ph.D. **OFFICE:** LS 2027 **PHONE:** 581-3011 **OFFICE HOURS:** 9:00-10:00 MWF or by appointment **E-MAIL:** recolombo@eiu.edu

Meetings: LS 1071, Lecture: Tue-Thur: 9:00 – 9:50, Lab: Wed: 9:00 – 11:50 **TEACHING ASST**: John West **OFFICE:** Fisheries Lab **PHONE:** TBA

Description:

Most of the world's fisheries are fully or overexploited. It becomes apparent that these resources need effective management. This course is designed to introduce students to the field of fisheries management. In this course, we will investigate how to sample fish populations, assess them, and develop management strategies for both sport and commercial populations. Learning will take place through a combination of lectures, laboratories and case studies.

Goals of the Course:

- 1. Familiarize students with ecological principles of aquatic resource management
- 2. Prepare students for advanced fisheries study

Objectives:

At the conclusion of this course students will have been introduced to:

- The pertinent primary literature
- Lentic (lake) and lotic (river) fish sampling techniques
- Basic limnological assessments
- Assessment of length, weight, and structural indices for fish populations
- Fish aging techniques
- Assessment of dynamic rate functions in fish populations (growth, recruitment, and mortality)
- Assessment of differing management strategies
- Commercial and sportfish management options
- Simple population modeling
- Development of management plans for both lentic and lotic populations

Readings:

Several required readings will be made available to the students during the course of this semester. They will be a combination of peer reviewed literature and book chapters. Book chapters will come from one of the following texts.

- 1. C.S. Brown and M.L. Brown. 2007. *Analysis and Interpretation of Freshwater Fisheries Data*. American Fisheries Society, Bethesda, Maryland.
- 2. B.R. Murphy and D.W. Willis. 1996. *Fisheries Techniques: Second Edition*. American Fisheries Society, Bethesda, Maryland.
- 3. M. King. 1995. *Fisheries Biology, Assessment, and Management*. Fishing News Books, Iowa State University Press, Ames, Iowa.
- 4. C.C. Kohler and W.A. Hubert. 1999. *Inland Fisheries Management in North America:* 2nd *edition.* American Fisheries Society, Bethesda, Maryland.

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: $A \ge 90\%$; B = 80-89%; C = 70-79%; D = 60-69%; F < 60%. There will be three in class exams during this class two hour midterms and a synthetic final. During the course of the semester 5 home work assignments will be assigned.

Assingments	Points
Homework Assignments	50
Midterm I	100
Midterm II	100
Lab	400
Final	200
Lab Presentation	50
Total	900

Exams: Lecture exams will be comprised of short answer, matching, multiple choice and essay. Material for the exams will be derived **EXCLUSIVELY** from the **LECTURES**. THE FINAL **EXAM WILL BE COMPREHENSIVE**. 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.

<u>Laboratory</u>: The lab is setup for you to learn the methods of Fisheries Management (more on this tomorrow in lab

- 1. **Attendance** Lab attendance is mandatory!
- 2. Since we have such a large group you will be split into two lab sections meeting on opposite weeks
- 3. More on the lab in the first lab meeting

<u>Disabilities</u>: 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

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

Week	Day	Date	Topic*
1	Tue	Aug. 24	Overview
1	Wed	Aug. 25	LAB
1	Thu	Aug. 26	History of Fisheries Management
2	Tue	Aug. 31	Legislation
2	Wed	Sept. 1	LAB Group A
2	Thu	Sept. 2	The Aquatic Environment
3	Tue	Sept. 7	Fish Biology
3	Wed	Sept. 8	LAB Group B
3	Thu	Sept. 9	L/W and Condition
4	Tue	Sept. 14	RSD, PSD and Swingle Ratios
4	Wed	Sept. 15	LAB Group A
4	Thu	Sept. 16	Fish Aging
5	Tue	Sept. 21	Somatic Growth
5	Wed	Sept. 22	LAB Group B
5	Thu	Sept. 23	Mortality
6	Tue	Sept. 28	Midterm I
6	Wed	Sept. 29	LAB Group A
6	Thu	Sept. 30	Recruitment
7	Tue	Oct. 5	Population Growth
7	Wed	Oct. 6	LAB Group B
7	Thu	Oct. 7	Population Growth
8	Tue	Oct. 12	Yield
8	Wed	Oct. 13	LAB Group A
8	Thu	Oct. 14	Community ecology
9	Tue	Oct. 19	Ecosystem Ecology
9	Wed	Oct. 20	LAB Group B
9	Thu	Oct. 21	Ecosystem Ecology
10	Tue	Oct. 26	Management tools
10	Wed	Oct. 27	LAB Group A
10	Thu	Oct. 28	Midterm II
11	Tue	Nov. 2	Management tools
11	Wed	Nov. 3	LAB Group B
11	Thu	Nov. 4	Sport Fisheries and Tournaments
12	Tue	Nov. 9	Commercial Fisheries
12	Wed	Nov. 10	LAB Group A
12	Thu	Nov. 11	Stocking
13	Tue	Nov. 16	Habitat Restoration
13	Wed	Nov. 17	LAB Group B
13	Thu	Nov. 18	Ponds and Reservoirs
14			Thanksgiving Break
15	Tue	Nov. 30	Rivers and Streams
15	Wed	Dec. 1	Lab Group A
15	Thu	Dec. 2	Coldwater Fisheries
16	Tue	Dec. 7	Endangered and Exotics
16	Wed	Dec. 8	Lab Group B
16	Thu	Dec. 9	Course Wrap Up
_17	Wed	Dec. 15	Final (comprehensive)

^{*}Subject to change at the discretion of the instructor.