

COURSE SYLLABUS
COURSE NUMBER/DESIGNATION/SECTION: Biology 433
COURSE TITLE: Aquatic Biology
CREDIT HOURS: Three
SEMESTER, YEAR: Spring, 2008

Location of Class Meeting

M-W 8:00 - 9:00 – Lee Drain Building, Room 130

Location of Laboratory

M 4:00 - 6:00 - Lee Drain Building, Room 130

Class Meeting Times: See Above

Instructor: Dr. James R. DeShaw, Professor

Office Location: Lee Drain Building, Room 122

Instructor Contact Information

Office Phone: 936-294-1020
Fax Number: 936-294-3940
Email Address: bio_jrd@shsu.edu

Office Hours

Monday	09:00 - 10:00 a.m.
Tuesday	02:00 - 03:00 p.m.
Wednesday	None
Thursday	02:00 - 04:00 p.m.
Friday	By appointment

Course Description: See SHSU Catalogue

Course Objectives: The course objectives include:

1. To teach students the basic functioning of aquatic ecosystems.
2. To provide instruction relative to biological organisms that exist in freshwater with particular emphasis on East Texas fauna and flora.
3. To teach students the use of a dichotomous key for the identification of aquatic plants, insects, fish and other organisms.
4. To conduct laboratory experiments that allow students to learn collecting methods, techniques in analyzing water, methods of preserving and storing aquatic organisms.
5. To provide students an opportunity to make a collection of one hundred aquatic organisms.

Required Textbook(s) and/or Reference(s): A Guide To Freshwater Ecology, July, 1993., Texas Natural Resource Conservation Commission.

Supplemental Reading (*not required): Introduction to Limnology, by Stanley Dodson, McGraw Hill, 2005 Edition.

Additional literature assignments will be made.

Visitors in the Classroom: Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

Laboratories, Studios, and Individual Instruction: A parallel laboratory is scheduled to meet on Monday from 4:00 P.M. to 6:00 P.M. It will meet for approximately the first eight weeks. Field trips, aquatic collections and reports will be scheduled for the last six weeks of the semester.

Laboratory and Studio Sections: Not applicable.

Individual Instruction: Tutors may be used by students. In the event a tutor is needed, the instructor will assist in finding a suitable advanced student or graduate student. Any cost of the tutor will be the responsibility of the student requesting the tutor.

Study Tips: It is generally recommended that a student spend from two to three hours studying for each hour spent in lecture.

Instructor Evaluations: Students may be asked to complete a course/instructor evaluation form toward the end of the semester.

Attendance Policy: Regular and punctual class attendance is expected of each student. To do well, you must be an equal and active participant in your education, therefore, it is your responsibility to attend class. Testing material will be based on class lecture and from the textbook. To do well on tests, you must attend lecture. A seating chart will be made out and attendance will be taken regularly (see the University Catalogue for details).

If you are unable to come to class due to illness or unexpected circumstances, it is your responsibility to obtain the class notes and any assignments. You may contact me in my office if you have specific questions about a lecture; however, I will not re-lecture to students who have missed class.

Excessive absences (3) may influence the student's final grade for the course. This may amount to one letter grade for students on the border line.

Exams: Four lecture exams (three during the semester, plus the final exam) will cover each section of the lecture material presented and will not be comprehensive. Each exam will be announced in CLASS 7 days in advance and will consist of discussion questions, definitions, short answer questions, and some problems

No make up exams will be given without notification prior to the exam by the student and approval from the instructor. The final exam will be similar to the first three exams. The final exam will be as scheduled by the University.

Grading Plan: Four lecture exams will be averaged to determine your final lecture grade. Your final letter grade will be determined using averaging lecture exams plus a grade for laboratory work. The laboratory is one third of the final grade, thus the lecture is two-thirds of the final grade. Details of grading for the laboratory work will be presented during the lab portion of the course. The final letter grade will be determined using the following grading scheme:

A	90 - 100.00%
B	80 - 89.00%
C	70 - 79.90%
D	60 - 69.90%
F	below 60.00%

Academic Dishonesty: Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. See *Student Syllabus Guidelines*.

Classroom Rules of Conduct: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students are to treat faculty and students with respect. Students are to turn off all cell phones while in the classroom. Under no circumstances are cell phones or any electronic devices to be used or seen during times of examination. Students may tape record lectures provided they do not disturb other students in the process.

Student Absences on Religious Holy Days: Students are allowed to miss class and other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Students remain responsible for all work. See *Student Syllabus Guidelines*.

Student with Disabilities Policy: It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should visit with the Office of Services for Students with Disabilities located in the Counseling Center. See *Student Syllabus Guidelines*.

Course Outline:

- Physical Properties of Water
- Morphology of Impoundments
- Chemical Nature of Surface Water
- Diversity of Aquatic Organisms
 - Single-Celled and Colonial Organisms
 - Rotifers, Annelids, and Arthropods
 - Larger Organisms
- Population Dynamics in Water; Population Size Changing with Time
- Community Ecology
 - Species Interactions and Community Structure
 - Freshwater Communities Changing Through Time
- Aquatic Ecosystems and Physiology
 - Energy Flow
 - Chemical Cycles
- The Edwards Aquifer and its aquatic significance
- Fish Hatchery Operations in Texas
- Surface Water Treatment
- Domestic Wastewater Treatment

Materials and Instruction: To be discussed in the laboratory section of Biology 433.