BIOL 5432 – Biology of Fishes
Lecture - 11-12:15 TR (CI 109)

Dr. David McKee
CS 250, 825-2676
david.mckee@tamucc.edu

COURSE DESCRIPTION:
Systematics, evolution, biology, and ecology of fishes. Laboratory identification of marine and freshwater fishes collected during field excursions. Prerequisite: BIOL 3414 or consent of instructor. 4 sem. hrs. (3:3)

LEARNING OUTCOMES:
1) Students will become familiar with the marine and freshwater fishes in both lecture and lab.

2) Students will demonstrate their ability to identify common species in our area along with taxonomic classification, specific life history, behavioral, and ecological considerations.

3) Students will exhibit knowledge in the field of ichthyology including an understanding of the biotic and abiotic principles governing them.

4) Students will be exposed to scientific literature in the subject area chosen as a research topic, which will be presented orally.

COURSE OUTLINE:  - Any week

Aug. 27  -  Syllabus; history of ichthyology
Sept. 1   -  Continued ...
           8   -  Continued; classification of fishes
           15  -  Continued ...
           22  -  Evolution of fishes
           29  -  Exam I; Organ Systems: Integument and Skeleton

Oct.  6   -  Continued; Muscle and Respiration
         13  -  Continued…
         20  -  Continued ...
         27  -  Digestion and Circulation

Nov.  3   -  EXAM II; Excretion and Reproduction
         10  -  Continued; Endocrine and Nervous Systems
         17  -  Continued ...
         24  -  Ecological distribution of fishes… (Thanksgiving Holidays! – 11/27-28)

Dec.  1   -  Zoogeography
         10  -  Final Exam (III) - 11:00 - 1:30 PM (Thurs.)
Texts: **Required:**


**Suggested:**


**Note:** Supplemental texts, keys and assorted materials will be made available in the lab.

Grading:

Lecture Exams: 3 exams, 20% each (60%)
Lab Practicals: 2 practicals, 20% each (40%)

Students taking the class for graduate credit will be assigned additional readings and will submit a scientific paper on a contemporary ichthyological/fisheries topic and will summarize this via an in-class presentation.

**Note:** It will be necessary that some lecturing occur during scheduled laboratory periods due to the "EXCESSIVE" amount of material I have developed for you!! To complete all lab work in this class you will need to devote time outside of the regularly scheduled lab period to complete all necessary work.

**Dr. McKee’s Office Hours:**

- Monday: 10:00-12:00, 3:00-4:00
- Tuesday: 10:00-11:00
- Wednesday: 10:00-12:00, 1:00-2:00
- Thursday: 10:00-11:00, 1:00-3:00
- Friday: 10:00-12:00

*Additional times are available by appointment.*
Important Fall 2009 Dates:

- Last day to register – 9/2
- Last day to withdraw – 12/7
- Last day to drop a class without record – 9/11
- Last day of classes – 12/8
- Last day to drop a class with a “W” – 11/6
- Final Exams – 12/10-11, 14-16

Notice to Students with Disabilities: Texas A&M University-Corpus Christi complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. If you suspect that you may have a disability (physical impairment, learning disability, psychiatric disability, etc.), please contact the Services for Students with Disabilities Office, located in Driftwood 101, at 825-5816. If you need disability accommodations in this class, please see me as soon as possible.

Academic Advising: The College of Science and Technology requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. The College's Academic Advising Center is located in Faculty Center Room 178, and can be reached at 825-6094.

Grade Appeal Process: As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.
### LAB AND FIELD TRIP SCHEDULE
(CS 235, 2-5 and 5-8 T)

**BIOL 5432 - Ichthyology**
Fall 2009

Dr. David McKee (CS 250)
Mike Barrett (TA, CS 249)

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tr>
<td>Sept. 1</td>
<td>Lab: Introduction to primary characteristics and use of a taxonomic fish key</td>
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<td>8</td>
<td>Continued…</td>
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<td>15</td>
<td>Lab: Identification</td>
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<td>22</td>
<td>Lab: Identification</td>
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<td>29</td>
<td>Lab: Identification</td>
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<td>Oct. 6</td>
<td>Lab: Identification</td>
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<td>13</td>
<td>Lab: Identification</td>
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<tr>
<td>20</td>
<td><strong>Marine Key Test</strong></td>
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<td>27</td>
<td><strong>Lab Exam I: Marine Practical Exam</strong></td>
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<td>10/30-11/1</td>
<td><strong>Field Trip:</strong> Aransas River - Welder Wildlife Refuge and Welder and Edwards Ranches (Sinton area) (freshwater collections)</td>
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<td>Nov. 3</td>
<td>Lab: Identification</td>
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<td>Lab: Identification</td>
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<td>Dec. 1</td>
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<td>8</td>
<td><strong>Lab Exam II: Freshwater Practical Exam</strong></td>
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You can expect (and will be expected!) to spend the necessary extra time in lab to identify and develop life history and taxonomic information on all fishes from our ichthyological collection. I will attempt to make arrangements for you to get into the lab (CS 235) on certain nights during the week. A building (CS) proctor may be available on the weekends (selected hours) to let you into CS and the lab. There will be one weekend field trip to Sinton. All students participating in field trips must process and sign a waiver of liability.

**LAB SAFETY BRIEFINGS:** Mandatory Laboratory safety Briefings are scheduled outside of the regular scheduled lab time. You must attend and complete one of the Lab Safety Briefings.