TEXAS A&M UNIVERSITY

SYLLABUS

Course title and number:	WFSC 314/614 Down River: Biology of Gulf Coast Fishes
Term (e.g., Fall 200X):	May mini-mester 2018
Meeting times and location:	13th-19th May – off campus/20th-23rd May – USB 128

Course Description and Prerequisites

Description: This two-week, 3 credit course covers aspects of ecology and zoogeography of riverine and estuarine fishes while exposing students to field sampling techniques and museum preparation of specimens. Seven days will be spent sampling the Guadalupe and San Antonio river drainages from their headwaters all the way down to San Antonio Bay. A second week will be spent at the Biodiversity Research and Teaching Collections (BRTC) at Texas A&M University, College Station where students will participate in lectures and discussion as well as museum preparation and archiving of specimens. This will be a unique opportunity for students to gain an in depth understanding of the biological complexity of Gulf coast river systems while gaining hands-on experience in field and museum ichthyological techniques employed by state, federal and academic researchers alike. In addition, this learning experience will contribute directly to the Collection of Fishes at the Biodiversity Research and Teaching Collections, the largest collection of vertebrates in Texas. This is an intensive course and students should expect 8 to 12 hour/days in the field and museum. Students need to be prepared to camp during the first week of the course (which will take place in the field) and be prepared for an intense week of museum-based activities (at the BRTC) during the second week of the course.

Prerequisites: A grade of B or higher in WFSC 311 Ichthyology (for undergraduate students) and instructor approval (for both undergraduate and graduate students).

Mode of Instruction and Course Access

This course will be offered through individual and group in person meetings off campus (at field sites along the Guadalupe River) and on campus (Biodiversity Research and Teaching Collections; USB 128).

Instructor Information

Name:	Dr. Kevin W. Conway
Telephone number:	979-862-5381
Email address:	kevin.conway@tamu.edu
Office hours:	n/a
Office location:	WFES/rm 232

Student-Instructor Interaction

This is a short but intense field/laboratory course. Student-instructor interaction will occur in person on each day of the course. Students requiring extra assistance or those with questions may request extra time with instructor.

Textbook and/or Resource Material

Required: All required resource materials will be provided

Learning Outcomes

Upon completion of this course, students will be able to:

- Successfully operate common items of ichthyological sampling equipment (e.g., seines, dip nets and backpack electroshocker) to collect fishes as evidenced through fieldwork
- Name and identify the major external anatomical features of fishes
- List the major characteristics of different groups (genera, families and orders) of fishes found in Texas
- Use external anatomical features to identify different species of fishes inhabiting Texas to the level of genus in the field (without the aid of a microscope).
- Use a key successfully to identify the different species of fishes inhabiting Texas to the level of species in the laboratory (with the aid of a microscope).
- Explain the terms endemism, vagility, diadromy, euryhaline and stenohaline using examples from the Texas ichthyofauna
- Explain current anthropogenic threats to both marine and freshwater fishes using examples from the Texas ichthyofauna.

Grading Policies

Undergraduate Students:

- 100 points total. Grading scale: 0-59% F; 60-69% D; 70-79% C; 80-89% B; 90-100% A
- Field participation (25%)
- Museum laboratory participation (25%)
- Written synthesis document (25%)
- Practical Exam (25%)

Graduate Students:

- 100 points total. Grading scale: 0-59% F; 60-69% D; 70-79% C; 80-89% B; 90-100% A
- Field participation (25%)
- Museum laboratory participation (25%)
- Written synthesis document (15%)
- Presentation (10%)
- Practical Exam (25%)

Attendance and Make-up Policies

This is a short but intense field/laboratory course. Students that are not prepared for basic field conditions and physical exercise are unlikely to enjoy the first part of the course and should consider this before enrolling. Students will be allowed to miss no more than two laboratory sessions for University approved absences (see below). Students that miss more than two laboratory sessions will automatically receive an incomplete grade and will be encouraged to re-enroll at the next available offering of the course to complete the work required to obtain a letter grade. In the event that a student has a University approved excuse (http://student-rules.tamu.edu/rule07) for missing the final exam a make-up exam must be completed within two days of the final exam.

Course Topics, Calendar of Activities, Major Assignment Dates

Day	Activity	Required Reading
13th May	Meet at BRTC (1pm). Pack equipment. Travel to Mo Ranch, near Hunt. Set up camp.	n/a
14th May	Sample Edwards Plateau streams and rivers in vicinity of Hunt (~4 sites).	n/a
15th May	Pack up camp at Mo Ranch (early morning). Travel from Hunt to Gonzales. Sample streams and rivers along route (~3 sites). Set up camp at	n/a

	Gonzales	
16th May	Sample streams and rivers in vicinity of Gonzales (~4 sites)	n/a
17th May	Pack up camp at Gonzales (early morning). Travel from Gonzales to Coleto Creek. Sample streams and rivers along route (~3 sites). Set up camp at Coleto Creek.	n/a
18th May	Sample streams, rivers and estuaries in vicinity of Victoria (~4 sites)	n/a
19th May	Pack up camp at Coleto Creek (early morning). Travel from Coleto Creek to College Station. Sample streams and rivers along route (~2 sites). Return equipment to BRTC.	n/a
20th May	Laboratory at BRTC. Sorting and identification of fishes 1:00-5:00pm. Morning free	Hubbs et al. (2008); McEachran & Fechhelm (1998)
21st May	Laboratory at BRTC. Sorting and identification of fishes 9:00-12:00pm, 1:00-5:00pm.	Hubbs et al. (2008); McEachran & Fechhelm (1998)
22nd May	Laboratory at BRTC. Sorting and identification of fishes 9:00am-12:00pm; Grad student presentations 2:00pm-5:00pm.	Hubbs et al. (2008); McEachran & Fechhelm (1998)
23rd May	**Final Class exam**: **9:00am-12:00pm**. **Synthesis document to be turned in by 5pm.**	n/a

Technology Requirements

Students should have access to reliable computers with word-processing software and internet access.

Technology Support

For technological or computer issues, students should contact Instructional Technology Services (ITS):
(979) 862-3977, Main Office Phone
(979) 458-3417, Support Line

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

Academic Integrity

"An Aggie does not lie, cheat, or steal, or tolerate those who do."

For additional information please visit: http://aggiehonor.tamu.edu