FISHERIES ECOLOGY AND MANAGEMENT
(FAMA 5328)

Department of Life Sciences

FALL 2017

A. COURSE INFORMATION

Course number/section: FAMA 5328.001
Class meeting time: TR 08:00-09:15AM
Class location: ECDC-238
Course Website: https://bb9.tamucc.edu/ (Blackboard Sign In page)

B. INSTRUCTOR INFORMATION

Instructor: Simon Geist, Ph.D.
Office location: Science Lab 1, #101
Office hours: TWR 9:30-11:00
Telephone: 361 825 4164
e-mail: simon.geist@tamucc.edu
Appointments: Set up via phone or email at least 24 hrs in advance

C. COURSE DESCRIPTION

Catalog Course Description
3 sem. hrs. (3:0) Advanced study of theory and techniques in fisheries science including behavior of fisheries populations and applications to resource management with emphasis in tidal-influenced waters. Includes readings in the current literature and a research project. Offered every fall.

Extended Course Description

Major Areas of Study will include:

I. The World’s Fisheries
II. Stock Assessment
III. Fisheries Population Dynamics and Observing Fish Populations
IV. Environmental Governance of the Sea
V. Human Dimension of Fisheries Science
VI. Ecosystem-Based Management and Essential Fish Habitat
VII. Fisheries Models - Ricker, B/H, VPA, and Catch-at-Age

This class is a required course within the MS FAMA Fisheries track.
D. PREREQUISITES AND COREQUISITES

Prerequisites
None

Corequisites
None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)
None, but extensive reading will be required from journals, newspapers, magazines, and other library holdings.

Optional Textbook(s) or Other References
3. Students will be provided a list of further recommended readings at the beginning of the class.

Supplies
None

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

Goals for this Course include:

- Establish future leaders and professionals with an in-depth marine fisheries education
- Educate future leaders and professionals with specialized skills by teaching methods of collecting, interpreting, analyzing, and presenting scientific data both orally and written
- Enable future leaders and professionals to contribute to the profession
By the end of this course, students should be able to:

1. Promote and conduct scientific research in support of fishery conservation and management.
2. Collect and share complete and accurate fishery stock assessment data.
4. Determine appropriate Stock Assessment Models for different species complexes.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

This course will be lecture only, without an accompanying lab. Practical training will be taught in it’s sister course “Fisheries Techniques” offered in spring semesters.

Students will be assigned to two types of in-class activities to supplement lectures:

1. Fisheries Management Plan Amendment (written and presentation) – Using the guidelines presented in class prepare a Fisheries Management Plan or amend a current plan for a species or your choice. You will prepare an oral and written presentation of your Management Plan before the “Fisheries Management Council (FMC, classmates)” (15 minutes, 5 minutes for Q&A). Ability to explain and defend your plan to the Mock FMC will be the major focus of the presentation.
2. Topic Presentation - A major focus of this course will be a review of the current literature and relevant concepts. Students will be assigned to present on selected topics and lead the discussion throughout the semester. You are expected to thoroughly investigate the topic by compiling the most current research and review journal articles concerning the issue (preferably review papers). During class you will lead the discussion of the selected topic. Ideally, you give the general background of the topic area and then discuss major issues including differing viewpoints. Key articles must be provided to classmates one week prior to presentation.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Two exams will (midterm and final) will examine learning success of topics discussed in class.

A central part of the students assignments is the revision of a Fisheries Management Plan, which includes a written plan and an oral defense of the proposed amendments to the class.

Topic presentations include preparation of presentation on the selected topic, providing classmates with relevant literature to be read for the day of presentation, leading the discussion and preparing a one page fact sheet/handout.

Active oral participation in class during discussions is expected.
### ACTIVITY | % of FINAL GRADE
---|---
Exams (midterm and final) | 40% combined (20% each)
FMP (written plan) | 20%
FMP presentation (oral) | 10%
Topic presentations | 20%
Oral participation | 10%

**GRADING SCALE (%):**

- 90.0 - 100.0 = A
- 80.0 - 89.9 = B
- 70.0 - 79.9 = C
- 60.0 - 69.9 = D
- 0.0 - 59.9 = F

### I. COURSE CONTENT/SCHEDULE

**Note:**

Changes in this course schedule may be necessary and will be announced to the class by the Instructor.

The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

<table>
<thead>
<tr>
<th>DATE (BY DAY OR WEEK)</th>
<th>TOPIC</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1 (8/29 &amp; 8/31)</td>
<td>Introduction to Course</td>
<td>TBD</td>
</tr>
<tr>
<td>W2 (9/5 &amp; 9/7)</td>
<td>Fisheries Science 101</td>
<td>TBD</td>
</tr>
<tr>
<td>W3 (9/12 &amp;9/14)</td>
<td>World Fisheries</td>
<td>TBD</td>
</tr>
<tr>
<td>W4 (9/19 &amp; 9/21)</td>
<td>Fisheries Management</td>
<td>TBD</td>
</tr>
<tr>
<td>W5 (9/26 &amp; 9/28)</td>
<td>Stock Assessment</td>
<td>TBD</td>
</tr>
<tr>
<td>W6 (10/3 &amp; 10/5)</td>
<td>Age and Growth &amp; Sampling Methods</td>
<td>TBD</td>
</tr>
<tr>
<td>W7 (10/10 &amp; 10/12)</td>
<td>Midterm Exam (10/12)</td>
<td>TBD</td>
</tr>
<tr>
<td>W8 (10/17 &amp; 10/19)</td>
<td>Ecosystem-Based Management &amp; Climate and Fisheries</td>
<td>TBD</td>
</tr>
<tr>
<td>W9 (10/24 &amp; 10/26)</td>
<td>Trophic Dynamics and Food Webs</td>
<td>TBD</td>
</tr>
<tr>
<td>Week</td>
<td>Dates</td>
<td>Topic</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>W10</td>
<td>10/31 &amp; 11/2</td>
<td>Stock Enhancement</td>
</tr>
<tr>
<td>W11</td>
<td>11/7 &amp; 11/9</td>
<td>Tragedy of the Commons &amp; Human Dimension of Fisheries Science</td>
</tr>
<tr>
<td>W12</td>
<td>11/14 &amp; 11/16</td>
<td>Fisheries Models</td>
</tr>
<tr>
<td>W13</td>
<td>11/21 &amp; 11/23</td>
<td>THANKSGIVING</td>
</tr>
<tr>
<td>W14</td>
<td>11/28 &amp; 11/30</td>
<td>FMP Presentation</td>
</tr>
<tr>
<td>W15</td>
<td>12/5</td>
<td>FMP Presentation</td>
</tr>
<tr>
<td>W16</td>
<td>12/14</td>
<td>FINAL EXAM, 8:00 -10:30 a.m.</td>
</tr>
</tbody>
</table>

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

Deadline for Dropping a Course with a Grade of W (University)
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course. Last day to drop class is Nov 15th, 2017 and must be done by student.

J. **COURSE POLICIES**

**Attendance/Tardiness**
Students are expected to be in attendance for all lectures and presentations, but no formal role call will be taken.

**Late Work and Make-up Exams**
Late work will only be accepted with prior approval from the Instructor. Students are responsible for learning the content individually, if a class is missed after consultation with instructor.
Make-up Exams, with prior approval, must be completed within the same calendar week as the original Exam date.
Extra Credit
No Extra Credit will be given.

Cell Phone Use
Phone conversations not allowed, but texting allowed. For courtesy, please place phones on silent during class.

Laptop Use
Allowed.

Food in Class
Allowed, except if building/room indicates otherwise.

Missed Exam
A Grade of “0” will be assigned for any Missed Exam.

Participation
Students are expected to actively engage in discussions and other class work. In case of missing a class due to sickness or research duties, the instructor should be noticed via email.

K. COLLEGE AND UNIVERSITY POLICIES

- **Academic Integrity (University)**
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- **Classroom/Professional Behavior**
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.
• **Statement of Civility**
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

• **Deadline for Dropping a Course with a Grade of W (University)**
  I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. **Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course.** Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

• **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, 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 Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

• **Disability Services**
  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 call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.
If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. **OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering 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. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.