Mariculture – BIOL 4370
Department of Biology
Fall 2015

A. COURSE INFORMATION
   Course number/section: BIOL 4370.001
   Class meeting time: Wednesdays 7:00-9:25 p.m.
   Class location: CI-122
   Course Website:

B. INSTRUCTOR INFORMATION
   Instructor: Dr. Anthony Siccardi
   Office location: CI-122
   Office hours: 6:30-7:00 p.m. and by appointment
   Telephone: 361-244-3727
   e-mail: Asiccardi@ag.tamu.edu
   Appointments: Appointments can be made after class, by email or phone

C. COURSE DESCRIPTION
   Catalog Course Description
   Survey of the physiological, behavioral, environmental, and economic parameters governing
   the culture of selected aquatic species. Included are the techniques employed worldwide to
   produce aquatic products.

   Extended Course Description
   This course will introduce students to the history, principles and practices in the culture of
   marine and freshwater species. Topics include site and species selection, aquatic system
   design, aquaculture nutrition, diseases and parasites, marketing and economics, and
   sustainability issues.

D. PREREQUISITES AND COREQUISITES
   Prerequisites
   BIOL 1407

   Corequisites
   None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES
   None Required
Optional Textbook(s) or Other References


Supplies
None

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

By the end of this course, students should be able to:

1. Understand the principles and practices governing the successful culture of aquatic species as related to water quality, diseases, economics and marketing, sustainability, nutrition and permitting.
2. Identify the bottlenecks limiting the expansion of mariculture in the United States.
3. Appreciate the role mariculture serves providing seafood to millions around the World.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

Class lectures will be delivered through PowerPoint presentations. Presentations will contain embedded videos and pictures (where appropriate) to enhance learning opportunities. Students are expected to participate in class discussions.
H. MAJOR COURSE REQUIREMENTS AND GRADING

Your final grade is based on the accumulation of points according to the weights (%) listed in the table below. Exams will be noncumulative.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>33</td>
</tr>
<tr>
<td>Exam 2</td>
<td>33</td>
</tr>
<tr>
<td>Final Exam</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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Grading Scale: A = 100-90 points, B = 89-80 points, C = 79-70 points, D = 69-60, F < 60 points

I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
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<tbody>
<tr>
<td>Aug. 26</td>
<td>History of Aquaculture</td>
</tr>
<tr>
<td>Sep. 3</td>
<td>Sustainable Aquaculture</td>
</tr>
<tr>
<td>Sep. 9</td>
<td>Species Selection</td>
</tr>
<tr>
<td>Sep 16</td>
<td>Site Selection and Permitting</td>
</tr>
<tr>
<td>Sep. 23</td>
<td>Economics and Marketing</td>
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<tr>
<td>Sep. 30</td>
<td><strong>Exam 1</strong></td>
</tr>
<tr>
<td>Oct. 7</td>
<td>System Design</td>
</tr>
<tr>
<td>Oct. 14</td>
<td>Aquatic Nutrition of Finfish and Shrimp</td>
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<td>Oct. 21</td>
<td>Water Quality</td>
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<tr>
<td>Oct. 28</td>
<td><strong>Exam 2</strong></td>
</tr>
<tr>
<td>Nov. 4</td>
<td>Disease and Parasites Affecting Aquatic Culture</td>
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<tr>
<td>Nov. 11</td>
<td>Finfish Aquaculture</td>
</tr>
<tr>
<td>Nov. 18</td>
<td>Marine Shrimp Aquaculture</td>
</tr>
<tr>
<td>Nov. 25</td>
<td>Aquaculture of Alternative Species: Zebrafish and Sea Urchin Aquaculture</td>
</tr>
<tr>
<td>Dec. 9</td>
<td><strong>Final Exam</strong></td>
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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.
J. **COURSE POLICIES**

**Attendance/Tardiness**
Attendance is mandatory. Students are expected to attend all classes. Should you miss a lecture, it is your responsibility to find out what you missed, get notes, learn about changes in the syllabus, etc. Failure to attend more than two class lectures without the instructor’s prior consent will constitute a loss of 10 points from the student’s final grade. It is the student’s responsibility to check their own personal schedules to insure class attendance.

**Late Work and Make-up Exams**
There are no excused absences. A missed grade will result in a score of ‘0’ for that assignment. Students with a university approved scheduled absence (athletics, military duty, etc.) must contact the lecture instructor well in advance of a scheduled absence. Exams may be taken early in those specific cases. Students who do not arrange to take exams ahead of time will not be eligible for this special consideration. A written excuse from the university department involved is required.

**Extra Credit**
None

**Cell Phone Use**
No cell phone use is permitted in class. Please silence your phones prior to the start of class.

**Laptop Use**
Laptop and tablets may be used to take notes and follow provided PowerPoint presentations.

**Food in Class**
No food and drinks are permitted in class.

**Missed Exam**
A missed grade will result in a score of ‘0’ for that assignment. Students with a university approved scheduled absence (athletics, military duty, etc.) must contact the lecture instructor well in advance of a scheduled absence. Exams may be taken early in those specific cases. Students who do not arrange to take exams ahead of time will not be eligible for this special consideration. A written excuse from the university department involved is required.

**Participation**
Class participation is expected during lectures and students presentations.

**Others**
None
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)**
  The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must submitted. No student is eligible to receive a W without completing the official drop process by this deadline. 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/](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.