FISH 103 THE HARVEST OF THE SEA
SPRING 2015

Instructors
Dr. Trent M. Sutton, Professor
1W02 AHRB; Phone: 474-7285
E-mail: tmsutton@alaska.edu

Office Hours
Tu, Th: 9:30 a.m. – 11:30 a.m., or by appt

Meeting Times
3:00 – 5:00 p.m., W, 214 O’Neill Building

Course Description
This course will explore the scientific and popular literature related to the exploitation of global marine fisheries resources. Specific topics of the course will be based on three core themes: (1) early exploitation of marine resources, leading to the need for fisheries management; (2) overexploitation of fish and marine mammal stocks driven largely by technological advancements culminating from the Industrial Revolution; and (3) the current status and future sustainability of marine fisheries resources. This course is largely discussion based; as a result, weekly attendance and preparation is a critical component of the course. Prerequisites: FISH 101, FISH 102, and placement in ENGL 111. 2 credits (2 + 0).

Course Objectives
1. To sharpen critical thinking, written and oral communication, and professional skills, using harvest of marine fisheries resources as the theme of the course.
2. To develop knowledge of the basic principles associated with the management of global marine fisheries resources, the development of the field of fisheries science, and whether fish stocks can be managed in a sustainable fashion.

Learning Outcomes
By the end of the semester, students that have enrolled in this class will have the following:
1. Familiarity with historical and contemporary conservation and management issues in marine fisheries at a global perspective.
2. Understand the anthropogenic impacts on marine fish and mammal stocks within the context of current and future sustainability of these stocks.
3. Knowledge of the biological, ecological, political, cultural, and socioeconomic dimensions and stakeholder perspectives that shape fisheries management decisions within the context of exploitation of marine fish and mammal stocks.
4. Appreciation for the popular and technical literature as related to the exploitation of global marine resources.
5. Fluency to communicate the results of problem-solving efforts in language that is understandable to a range of technical and lay audiences.

Support and Disability Services
At UAF, the Office of Disability Services (203 WHIT; 474-5655; TTY 474-1827; fydso@uaf.edu) ensures that students with physical or learning disabilities have equal access to campus and course materials. If you have specialized needs, please contact this office or the instructors to make arrangements as soon as possible.
Reading Assignments
The required course text is The Unnatural History of the Sea by Callum Roberts (2009; Reed Elsevier Inc.; ISBN-10: 1597265772). Additional readings and handouts will be provided for this course and will be required readings for class discussions. With the exception of the course text, all additional materials will provided in class or on Blackboard.

Attendance
Class attendance is mandatory for this course. A total of 70 points (5 points per day, weeks 2-15) are available for attendance during the class meeting periods, which will be assigned on an all or none basis. To receive the full allotment of 5 attendance points for each meeting period, students are expected to be present at the start of the class. Failure to attend the class without an excused absence will result in a zero for attendance for that particular meeting period.

Assignments and Class Participation
This course is dependent on weekly class discussions that will require critical thinking and active engagement during each meeting period. Because active class participation by all students is essential for these activities, each student enrolled for this course will need to prepare for each meeting period by completing all necessary readings and corresponding assignments before each scheduled period. Assignments will be given out at the end of each class period and will be due at the start of the following class period. Failure to attend the class without an excused absence will result in a zero for assignment for that meeting period. These assignments may include answering thought questions related to the readings, conducting literature or Internet searches related to the discussion topic, analyses of topic-related data, or some combination. In all cases, the assignments will form the basis for each class discussion and will provide the mechanism by which students preparation for the class discussion is evaluated. As a result, each of the 14 assignments will be valued at 10 points (140 points total). It is essential that students complete the assigned readings and associated assignments prior to the class discussion period in order to have meaningful class discussions.

Class participation is an essential component of this course; as a result, 20 points will be available for each of the 14 class periods for participation (280 points total). To receive participation points for each meeting period, students are expected to actively participate in the discussion/activity for that class period. Failure to attend the class without an excused absence will result in a zero for participation points that meeting period. Participation points will be assigned to students for each class period in 5-point increments. For example, 0 participation points will be assigned to students that attend class but do not participate in the class discussion or activity. In contrast, students that are actively engaged and participate for at least 75% of the class period will receive all 20 points for that day. Students will receive 5, 10, or 15 of the available 20 participation points each meeting period, respectively, if they are involved up to 25%, 50%, or 75% of the class discussion. To track student participation, the instructor will use a spreadsheet to actively tally student participation events and to note the level of engagement of each student throughout each class period. The instructor has used this approach in other classes with class discussion periods to objectively assign participation points. Students not willing to be prepared for and participate in class discussions should not enroll for this course.

Professionalism
An additional 70 points (5 points per day, weeks 2-15) are also available for professionalism during the class meeting periods. These points will be assigned on an all or none basis; to receive all 5 points for a given meeting period, students are expected to be respectful of their instructors and fellow students. Failure to be respectful of the class learning environment may include the following examples: cell phone ringing, texting or IMing in class, making personal attacks during class discussions, sleeping, and working on unrelated courses assignments. Engagement of students in any of these activities will result in a 0 out of 5 points for that meeting period.
Written Assignments
Four short writing exercises (essays) will be assigned to help you develop and sharpen your critical thinking and writing skills. For each written assignment, you can receive up to 60 points (240 total points). These assignments may take one of several forms: answer a question, take a position on an issue, or support/refute a thesis statement. As stated above, these written assignments will be short: each essay will be limited to between 750 and 1,000 words, requiring you to address the statement, question, or position in a clear and concise manner using language that a reader unfamiliar with the subject topic could understand. Each written assignment will be evaluated following the stipulated criteria and returned to students within one week of submission with appropriate content- and writing-based feedback.

Grading
Students will be evaluated primarily on attendance, preparation/participation, and attitude; however, there will also be four short written assignments for this class that will be completed for a grade as well. Grades will be based on a 90-80-70-60 scale. If the class average falls below 75%, this scale will be adjusted accordingly. Missed class discussion periods will be assigned a zero score. If you cannot attend a class discussion period for a legitimate reason, it is your responsibility to contact the instructor prior to the date in question in order not to receive a penalty. With the exception of emergencies, missed class discussion requests will only be honored if a legitimate reason is provided in writing at least one week prior to that date. Point and percentage values for each evaluation component are as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points Available</th>
<th>Percentage of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>70</td>
<td>10%</td>
</tr>
<tr>
<td>Assignments</td>
<td>140</td>
<td>25%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>280</td>
<td>25%</td>
</tr>
<tr>
<td>Professionalism</td>
<td>70</td>
<td>10%</td>
</tr>
<tr>
<td>Written Assignments</td>
<td>240</td>
<td>30%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>800</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Honor System
All assignments submitted are to be entirely your own work, unless you receive specific instructions to the contrary. All aspects of your course work are covered by the Honor system. Any suspected violations (e.g. cheating, plagiarism) will be promptly reported and appropriate action(s) will be taken. Additionally, you will receive a zero for that assignment or exam; two such violations and you will automatically fail this course. Honesty in your academic work will develop into professional integrity. The faculty and students of the University of Alaska Fairbanks will not tolerate any form of academic dishonesty.
<table>
<thead>
<tr>
<th>Discussion Topic</th>
<th>Week</th>
<th>Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Overview</td>
<td>1</td>
<td>No Readings</td>
</tr>
<tr>
<td>The Need for Fisheries Management</td>
<td>2</td>
<td>Ch 1&amp;2; Hardin 1968</td>
</tr>
<tr>
<td>Belief in Inexhaustability</td>
<td>3</td>
<td>Ch 3&amp;4; Larkin 1977</td>
</tr>
<tr>
<td>Overexploitation of Fish Stocks</td>
<td>4</td>
<td>Ch 5&amp;6; Hilborn et al. 2006</td>
</tr>
<tr>
<td>Overharvest of Marine Mammals</td>
<td>5</td>
<td>Ch 7&amp;8; Worm et al. 2007</td>
</tr>
<tr>
<td>Impacts of the Industrial Revolution</td>
<td>6</td>
<td>Ch 9-11; Pauly 1990</td>
</tr>
<tr>
<td>The Sea is Exhaustible</td>
<td>7</td>
<td>Ch 12-13; Hutchings and Reynolds 2004</td>
</tr>
<tr>
<td>Collapse of Major Fisheries – Europe/Atlantic Ocean</td>
<td>8</td>
<td>Ch 14&amp;15; Hutchings and Myers 1994; Hutchings 1996</td>
</tr>
<tr>
<td>Collapse of Major Fisheries – North America</td>
<td>9</td>
<td>Ch 16&amp;17; Hilborn and Stokes 2010</td>
</tr>
<tr>
<td>Shifting Baselines and Empty Seas</td>
<td>10</td>
<td>Ch 18; Pauly 1995; Pinnegar and Engelhard 2007</td>
</tr>
<tr>
<td>Decimation of Marine Resources</td>
<td>11</td>
<td>Ch 19-21; Smith and Link 2005</td>
</tr>
<tr>
<td>The Demand for Marine Resources</td>
<td>12</td>
<td>Ch 22&amp;23; Hall and Mainprize 2004</td>
</tr>
<tr>
<td>Rehabilitation of Marine Fish Stocks</td>
<td>13</td>
<td>Ch 24&amp;25; Worm et al. 2009</td>
</tr>
<tr>
<td>The Future of Marine Resources</td>
<td>14</td>
<td>Ch 26; Worm and Branch 2012; Pauly et al. 2003</td>
</tr>
<tr>
<td>Marine Fisheries Sustainability</td>
<td>15</td>
<td>Hilborn 2007; Polacheck 2006; Myers and Worm 2003</td>
</tr>
</tbody>
</table>
Peer-Reviewed Literature Reading List


Polacheck, T. Tuna longline catch rates in the Indian Ocean: did industrial fishing result in a 90% decline in the abundance of large predatory species? Marine Policy 30:470-482.

