

Introduction to Fisheries Science - Spring 2020

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Class Meets: Grice 202 (MRRI 145), Tuesday and Thursday, 5:00 - 6:15 PM - Spring 2020.

Office Hours: By appointment: e-mail (preferred) or call.

Texts (available on-line at no cost):

A Guide to Fisheries Stock Assessment (Cooper): http://sedarweb.org/docs/page/stockassessmentguide_NHSeaGrant.pdf

NOAA fisheries glossary: <http://www.st.nmfs.noaa.gov/st4/documents/FishGlossary.pdf>

NOAA fisheries statistics: <https://www.fisheries.noaa.gov/about/office-science-and-technology>

Guide to Fisheries Science and Stock Assessments (Kilduff et al. 2009):

http://sedarweb.org/docs/page/GuideToFisheriesScienceAndStockAssessments_ASMFC.pdf

FAO Fisheries: <http://www.fao.org/fishery/statistics> and <http://www.fao.org/fishery/technology/capture/en>

Other important references will be handed out or e-mailed to the class.

The following reference is useful:

Hart, P.J.B. & J.D. Reynolds. 2002. Handbook of fish biology-y and fisheries. Vol.1 & 2. Blackwell. Malden, MA.

Description:

A general introduction to the principals of (marine) fisheries science, including fishing methods, fisheries management, stock assessment, and aspects of fish biology relevant to exploitation. Students will participate in discussion and debates of fisheries issues.

Goals:

Provide an introduction to fishery science, including ecology and biology of target species, fishing methods, stock assessments, and governance and management principles, strategies, and history. Although the material presented in class is broadly applicable, emphasis will on marine fisheries.

Student Learning Outcomes:

Upon completion of this course the students will have obtained basic knowledge of key components of fisheries science such as fisheries ecology, life history, technical aspects such as gear types and attributes, fisheries governance, stock assessments, etc. The knowledge should enable the students to understand and evaluate the basics of important fisheries related processes such as data collection, analysis and interpretation, stock assessments, fisheries management process and actions, and gear, socio-economic, and environmental aspects.

Requirements:

Prepare for and attend class, and complete assignments. Actively participate in discussions and debates.

Attend a public hearing or meeting related to fisheries (appropriate meetings will be discussed in class).

Evaluation:

Tests	(25% each)	50%
Class participation and other assignments		50%

Disabilities accommodations

If there is a student in the class who has a documented disability and has been approved to receive accommodations through the Center for Disability Services / SNAP, arrangements will be made to accommodate that student. The student should contact the instructors prior to the start of the first class to discuss these accommodations.

Electronic devices

Allowable electronic devices such as computers to take notes will be discussed in class. Note that lectures cannot be recorded or broadcasted in any form.

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Honor Code

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved. Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. Students are encouraged to read the complete Honor Code and all related processes in the *Student Handbook* at: <http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php>

Class schedule and case study topics are subject to change.

Student input in determining discussion topics and guest speakers is strongly encouraged.

Tentative Class Schedule - 2020:

Lecture	Date	Topic
1.	Jan 9	Introduction: What is fisheries science?
2.	Jan 14	Fisheries ecology I - Basic principles
3.	Jan 16	Fisheries ecology II – Feeding / Production
4.	Jan 21	Fish reproduction I - Principles
5.	Jan 23	Fish reproduction II – Methods David Wyanski
6.	Jan 28	Stock Identification
7.	Jan 30	Age determination
8.	Feb 4	Growth models
9.	Feb 6	Fishing gear I
10.	Feb 11	Fishing gear II
11.	Feb 13	Gathering fisheries data
12.	Feb 18	US fisheries governance
13.	Feb 20	Mortality I
14.	Feb 25/26	George Sedberry (MPAs')
15.	Feb 27	Mortality II
16.	Mar 3	Mid-Term EXAM (materials through lecture 13)
17.	Mar 5	Public Fisheries Meeting
18.	Mar 10	Stock assessment I (Intro)
19.	Mar 12	Stock assessment II – Surpl.Prod. & YPR
	March 15-21	Spring Break – No classes
20.	Mar 24	Stock assessment III – Age structured models
21.	Mar 26	John Carmichael (SAFMC and SEDAR)
22.	Mar 31	Management options
23.	Apr 1/2	Guest Speaker
24.	Apr 7	Stock assessment IV – Other assessment techniques
25.	Apr 9	Public trust doctrine – Intern. Fisheries Governance
26.	Apr 14	Class discussion on fisheries management
27.	Apr 16	Emerging issues (Public meeting paper due)
28.	Apr 21	Student Presentations
	TBD	Final EXAM

NOTE: No late assignments accepted - No exceptions!

Details for the **Public Meeting** will be discussed in class.

Potential **guest speaker topics**: US Coast Guard, Marine protected Areas, the SEDAR stock assessment process.