BIOL 461/561: Fisheries Ecology and Management

Lecture: Mon-Thurs 2:30-3:50— synchronous (attendance preferred)
Tutorial: Thurs 4:00-4:50— synchronous (attendance required)
Grad student tutorial: Mon 4:00-4:50— tba
FALL 2020 (CRN: 10441, 10451)

Objectives: To examine the principles of fisheries science from the basic biology of individuals to

Course Outline

Part 1. Introduction

Basic definitions

Marine Fisheries Management:

Current Issues

Objectives and goals	Chapter 1, 17
Marine ecology and production	Chapter 2
Fishery Resources	Chapter 3
Fishing Gear and Methods	Chapter 5

History of Fisheries

Aquaculture production

Fisheries today: wild vs aquaculture

Global

Canada

EXAM 1--OCTOBER 8

Species choice and references due **OCTOBER 15**

Part 2. Population dynamics Chapters 4, 9

Age and Growth

Density-independent mortality

Density-dependent mortality

Reproduction

Recruitment

Stock-recruitment models

Age-structured models

EXAM 2--NOVEMBER 5

Part 3. Fishery processes Chapters 7, 8

Surplus production models

Dynamic Pool models

Cohort models (Virtual Population analysis)

Management tactics and strategies

Socio- and Bio-economic models Chapters 6, 11

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