

Course Syllabus

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 **Edit**

FISH 437: Fisheries Oceanography

Fisheries Oceanography investigates how the environment influences distributions and abundances of marine ichthyoplankton (i.e. invertebrates and early life stages of fish). Traditional efforts have focused on commercially important stocks, but implementation of ecosystem-based resource management is expanding the number of species, life stages, and trophic levels included in research and resource management. Results of fisheries oceanographic studies are used to increase understanding of fish and zooplankton life histories, predict recruitment to commercially harvested populations, reduce uncertainty in resource management decisions, and to decouple anthropogenic from natural effects on abundance fluctuations in aquatic populations.

This course will introduce the fundamentals of fisheries oceanography and demonstrate the multidisciplinary nature of fisheries oceanographic research. This course will enable students to understand fish and zooplankton life histories, identify physical factors influencing survival and recruitment, critically evaluate scientific literature, and improve scientific writing skills. After investigating the history and approaches used in fisheries oceanography (week 1), the class will examine aquatic population responses to physical forcing (weeks 2-6), and then design a research program to investigate recruitment variability in one section of the NE Pacific (Aleutian Islands, Arctic, Bering Sea, Gulf of Alaska) (weeks 7-10).

Course requirements include written assignments, a midterm exam, and an oral and written presentation of a research pre-proposal. All students are expected to attend lectures, to participate in discussion sections, to write exams, and to present and submit a research pre-proposal to the class.

Course Grading:

Component	Percentage
Assignments	25
Midterm Exam	25
Pre-proposal Presentation	25
Pre-proposal Paper	25

Assignments will include critical reviews of selected papers, choosing and supporting one side in debates of






current topics, and predicting biological responses to environmental conditions. The midterm will focus on principles of fisheries oceanography. Research proposals will examine environmental factors that potentially influence the distribution and abundance of a fish or invertebrate species.

Reference Material:

There is no required text book for the course. Required and supplementary readings will include book chapters and journal publications. Resource book chapters and journal papers will be available on the class Canvas site.

Course Summary:

Date	Details	
Wed Jan 10, 2018	 Assignment 1: Scale (https://canvas.uw.edu/courses/1128975/assignments/4029128)	due by 1:59pm
Wed Jan 17, 2018	 Assignment 2: Recruitment Variability (https://canvas.uw.edu/courses/1128975/assignments/4077066)	due by 11:59pm
Wed Jan 24, 2018	 Assignment 3: Early Life History Research (https://canvas.uw.edu/courses/1128975/assignments/4077068)	due by 11:59pm
Wed Jan 31, 2018	 Assignment 4: Stock-Recruitment Indices (https://canvas.uw.edu/courses/1128975/assignments/4077077)	due by 11:59pm
Fri Feb 2, 2018	 OCH Evolution (https://canvas.uw.edu/courses/1128975/assignments/4078785)	due by 11:59pm
Fri Feb 9, 2018	 Midterm (https://canvas.uw.edu/courses/1128975/assignments/4091885)	due by 4:30pm
Mon Feb 12, 2018	 Sampling Technology (https://canvas.uw.edu/courses/1128975/assignments/4097016)	due by 11:59pm
Fri Feb 23, 2018	 NAO/PDO (https://canvas.uw.edu/courses/1128975/assignments)	due by 11:59pm

Date	Details	
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Mon Feb 26, 2018	 Regime Shift (https://canvas.uw.edu/courses/1128975/assignments/4123213)	due by 11:59pm
Fri Mar 2, 2018	 Climate Change (https://canvas.uw.edu/courses/1128975/assignments/4123227)	due by 11:59pm
Mon Mar 5, 2018	 Management Response (https://canvas.uw.edu/courses/1128975/assignments/4123226)	due by 11:59pm
Fri Mar 9, 2018	 Presentation (https://canvas.uw.edu/courses/1128975/assignments/4127007)	due by 11:59pm
Wed Mar 14, 2018	 Pre-Proposal (https://canvas.uw.edu/courses/1128975/assignments/4138989)	due by 9am

