Bemidji State University

BIOL 4545: Fisheries Management

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Theory and methods of fisheries management with an emphasis on quantitative methods and ecosystem management. Lecture and extensive field and laboratory work. Prerequisites: BIOL 1211, BIOL 1212, BIOL 3362, and STAT 2610. BIOL 4534 strongly recommended.

B. COURSE EFFECTIVE DATES: 08/26/1997 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Introduction, Statistics SPSS & R- t-tests, ANOVA's, Regressions, Chi-square
2. Collect fish, otolith extraction, aging (scales, otoliths, cleithra)
3. Growth, food habits
4. Collect fish
5. Mortality
6. Population estimates
7. Fish health assessment
8. Creel survey methods
9. Fecundity, Recruitment, Production
10. Spawner-recruit models, MSY, OSY, MEY, mortality caps
11. Stock assessments
12. Types of fisheries
13. Culture techniques
14. Management paradigms, Managing people
15. Managing habitat and fish

D. LEARNING OUTCOMES (General)

1. develop understanding and skills for assessing fish populations and stocks.
2. develop understanding and skills for analyzing fisheries statistics, e.g., growth, mortality, fecundity, recruitment.
3. develop general understanding and skills in managing fisheries.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted