Date: Fall 2005

I. Course Name: Fisheries Techniques
Course Prefix and Number: CON 116
Credit Hours and Contact Hours: 3 credit hours – 3 contact hours
Catalog Description:

This hands-on course provides students with field experiences utilizing various types of fisheries equipment. Emphasis is placed on sampling techniques for both fish and aquatic habitats. Topics include small boat operation, fish identification, fish capture and handling techniques, data collection, tagging and marking, aging, electrofishing, netting, radio telemetry, hydro acoustics, habitat assessment, and equipment maintenance.

II. Course Outcomes and Objectives

Learning Outcomes:

This course is designed to provide practical experience in fish capture and handling techniques. Emphasis is placed on the actual mechanics of setting and tending fish capture devices. The students will:

-Demonstrate the use of active and passive fish capture equipment
-Determine the proper sampling method for target species
-Mark and age fish species
-Demonstrate safe handling of small motor boats
-Conduct assessment surveys for small water bodies
-Collection and entry of data into spreadsheet format
-Maintain fisheries equipment

This is a hands-on course that will prepare students for employment in the field of fisheries.

Relationship to Academic programs and curriculum:

Fisheries Techniques is required of students matriculated in the A.A.S. Fisheries Science degree program. It is a first semester course, introducing students to principles and practices of fisheries techniques.

College competencies addressed by the course:

Students will be required to complete reading assignments, collect, record, and enter numerical data. Assessing aquatic environments to recommend the correct sampling procedure for the target species will develop student problem solving skills. Field trips will require the students to handle specimens ethically and act in a professional manner when interacting with the public.

III. Methods of Instruction

Types of Course materials:

Text Book: Murphy and Willis (2nd edition)- Fisheries Techniques.

Various fisheries sampling equipment will be used to provide students with hands-on experience. Class handouts will be provided.

Methods of instruction:

A combination of lecture and demonstrational activities. Emphasis will be placed on field experiences and hands-on utilization of the equipment.

Assessment measures:

Upon completion of the course students will be able to demonstrate proficiency in the use of active and passive fish capture equipment. Students will also be able to perform basic physical and biological surveys of aquatic habitats.

Methods of Evaluation:

Students will be evaluated by:
Class participation
Written exams
Lab practical exams

IV. General Outline of Topics covered

1) Introduction- Goals, expectations
2) Proper boat handling and trailering- Boating rules of the road and safety
3) Fish handling, measuring and identification
4) Seine netting pond environments
5) Electrofishing backpack small stream environments
6) Electrofishing SR16 vessel lake environments
7) Trawl utilization in lake environments
8) Hydro acoustics- Forage assessment
9) Trap net- utilization
10) Gill net- utilization
11) Stream inventory- Physical and biological assessment of trout streams
12) Bathymetry- Habitat mapping
13) Aquatic biotelemetry
14) Pesticides in the aquatic environment- Case study
15) Aging , tagging, and marking techniques