BRUNSWICK COMMUNITY COLLEGE

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COURSE SYLLABUS

COURSE: AQU 251 HATCHERY MANAGEMENT I

HOURS: Lecture: 3 Lab: 0 Shop/Clinical: 0 Credits: 3

COURSE DESCRIPTION:

This course introduces the basic principles of fish and shellfish hatchery management. Topics include the basic chemical, physical, and biological requirements for the propagation of a variety of commonly cultured fish, crustaceans, and mollusks. Upon completion, students should be able to describe the environmental tolerances and preferences for reproduction of a variety of cultured species.

PREREQUISITE(S): BIO111, CHM 151

COREQUISITE(S): None

TEXTBOOK(S) & OTHER SPECIAL REQUIREMENTS:

None

STUDENT LEARNING OUTCOMES:

Upon successful completion of this course, the student will be able to:

1. Describe the types of hatchery facilities currently operating in the United States and throughout the world.
2. Select appropriate sites for fish and shellfish hatcheries, based on the environmental requirements of a variety of freshwater and marine species.
3. Discuss the design and basic operation and maintenance of hatchery systems.
4. Discuss methods used for the treatment of incoming water in fish hatcheries.
5. Describe methods used for the management of broodstock in fish hatcheries, for spawning various species of fish and for the production of fish fry and fingerlings.
6. Discuss pond liming, including types of liming materials and recommended application rates for ponds.
7. Describe pond fertilization, including types of fertilizers, fertilization rates and practical considerations.
8. Discuss water quality management in ponds, including:
   a. Predicting dissolved oxygen concentrations
   b. Determining dissolved ammonia and nitrite concentrations
   c. Aerating, circulating, and water exchanging in ponds
   d. Managing pond effluents.

9. Describe pond treatments and other methods used for phytoplankton control and management of aquatic weeds.

SYLLABUS INFORMATION:

The Student Learning Outcomes listed in this syllabus are those required actions that a student who successfully completes the course must be able to perform. The educational experience, however, is a two-way, interactive process involving both the student and the instructor. The student must play an active role in the learning process in order to be successful. Instructors will provide an Instructor's Syllabus at the first class meeting explaining how they measure each of the Student Learning Outcomes. A student who is unable to accomplish the outcomes will not receive a passing grade in the course.

The information in this BCC Syllabus may not be accurate beyond the current semester. Textbooks and other course materials are subject to change. Students should verify the textbooks at the first class meeting with their instructor prior to purchasing.

GRADING SYSTEM:

Brunswick Community College employs a system of letter grades and corresponding quality points per grade to evaluate a student's performance in meeting the stated goals and objectives for each course. The grading system is published in the BCC Catalog and Student Handbook.

ATTENDANCE POLICY:

Each student has individual responsibility for attending class regularly and for meeting course objectives. A student is expected to attend all class meetings in a course. Rules on tardiness and leaving class early are addressed in each instructor's syllabus. Instructors are required to record absences and report excessive absenteeism to the Registrar.

If a student is absent for any reason in excess of 20 percent of the class hours, he or she is in violation of the Brunswick Community College attendance policy. Unless the student officially withdraws from the course prior to the 65 percent point of the 16 week semester (or equivalent days for courses of other duration), he or she may receive a grade of "F."

Students who receive an "EXCESSIVE ABSENTEEISM NOTICE" are advised to contact their instructors immediately to review the conditions for withdrawing from the course or for continuing the course.

STUDENTS WITH DISABILITIES:

Brunswick Community College complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, which require that no qualified student with a disability be excluded from participation in or be denied the benefits of any services, programs or activities on the basis of his or her disability. If a student has a disability that is covered by the Americans with Disabilities Act and requires accommodations in the classroom and/or in extracurricular activities, the student must request the accommodations in writing and submit the request to the Disability Services Coordinator. Instructors will not provide accommodations without notification from the Disability Services Coordinator. Brunswick Community College will make every effort to provide reasonable accommodations.