Aquaculture 317 Syllabus
January 7 – 18, 2008
A 3 credit, Spring Semester Interim Course at the Haskin Shellfish Research Laboratory

Instructors
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Course Objectives
1) Introduce principles of aquaculture;
2) Examine major aquaculture species and culture practice worldwide;
3) Learn basic aquaculture practices and related techniques through laboratory exercises
4) Understand environmental impacts of aquaculture

Topics and Tentative Schedule
1/7  Introduction to Aquaculture/Basic Requirements
1/8  Asian Aquaculture/Seaweeds
1/9  Shellfish Culture
1/10 Nutrition and Growth/Crustacean Aquaculture
1/11 Disease/Genetics
1/14 Major Finfish/Striped Bass
1/15 Intensive culture of Tilapia
1/16 Koi Aquaculture/Aquarium Trade
1/17 Sanitation/Aquaculture Economics
1/18 Review/Prep Lab Reports/Final Exam

Field Trips
1/9  Cape Shore Oyster Hatchery and Oyster Farm/Rutgers MADF
1/15 Tilapia farm at Cumberland County Community College
1/16 Koi farm in Salem, NJ – Quality Koi
1/17 Clam Processing Plant and Oyster Packing House

Readings and Discussion Topics
• Worldwide Aquaculture as an Industry
• GMOs and Biotechnology in Aquaculture
• Aquaculture and the Environment
• Non-native Species

Laboratory Projects
1. Finfish culture: rear tilapia under different conditions, monitor water chemistry
2. Shellfish culture: spawn and rearing bivalve and phytoplankton as food
3. Disease diagnostics: gross pathology, histology, RFTM assay, condition index

Textbook
None. Reading material and reference books are provided.

Fees
$175 per student to cover dorm ($150) and other expenses ($25).

Evaluation
Participation and Discussion 10%
Lab Reports, quizzes, worksheets 25%
Final Exam 40%
Term-paper, due 3/14/08 25%