Course: CRN: 10238  BIO K175  SEC: M01 - INTRODUCTION TO MARINE SCIENCE
3 credit hours
Wednesday evenings: 6:30 PM – 9:30 PM

Location: Room 205, Mohegan Campus, Mahan Drive, Norwich, CT 06360


Instructor: Daryl M. Simmons 715-2065 (work)  daryl.m.simmons@pfizer.com

Office Hours: By appointment. Call the instructor for extra help if needed.

Special Notice: If you have a visible or hidden disability, or a physical condition that may require classroom or test taking modifications, please see me as soon as possible. If you have not registered with the learning specialist at (860) 823-2985 or seen the Counselor at the Student Services Development Center, you must do so early in the semester. This syllabus may be revised at the instructor's discretion at any time.

I. Course Description:
BIO K175 (from the 2006-2007 catalog): An introductory course in marine science. Topics to be explored include: general marine biology, intertidal ecology, plankton biology, marine communities, and the geomorphology of the New England coast. Some field work will be included. Transfer: UCONN-MARN 135

II. General Course Objectives:
Students will learn the basic principles of marine biology, some of the chemical and physical events in the marine systems, along with the cyclic nature of matter and energy, organization, and marine adaptations to seawater.

III. Class Attendance Policy:
Students are required to attend each class and to be on time in accordance with the college attendance policy. If a class is missed due to circumstances beyond your control, notify the instructor to make arrangements for obtaining lecture notes either by email or at the next class. You are responsible for obtaining and learning the material.

Students with 4 consecutive or 6 non-consecutive absences will receive an “F” grade in this course. An explanation of the cause of all absences should be given to your instructor.

IV. Grade Evaluation:
Your course grade is based on an accumulation of up to a possible 500 points by the end of the semester. There is no grade curve. (See below V. Tests and Assignments and attached Course Outline)

Perfect Attendance will earn you 10 bonus points added on to your course total. This means being on time (6:30 PM) from beginning to end (9:30 PM) and not leaving early. There are no exceptions for bonus points.
The table below shows the corresponding letter grade for the accumulated points and the equivalent percentages that the final course letter grade is based on.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Total Accumulated Points (Possible Total of 500 Points)</th>
<th>Approximated Percentages for each Letter Grade</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>500</td>
<td>100%</td>
</tr>
<tr>
<td>A-</td>
<td>459.9999999999…</td>
<td>91.9999999999…%</td>
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<tr>
<td>B+</td>
<td>449.9999999999…</td>
<td>89.9999999999…%</td>
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<tr>
<td>B</td>
<td>434.9999999999…</td>
<td>86.99999999999%</td>
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<tr>
<td>B-</td>
<td>409.9999999999…</td>
<td>81.99999999999%</td>
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<tr>
<td>C+</td>
<td>399.9999999999…</td>
<td>79.99999999999%</td>
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<tr>
<td>C</td>
<td>384.9999999999…</td>
<td>76.99999999999%</td>
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<tr>
<td>D</td>
<td>324.9999999999…</td>
<td>64.99999999999%</td>
</tr>
<tr>
<td>F</td>
<td>299.9999999999…</td>
<td>59.99999999999%</td>
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</tbody>
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V. Tests and Assignments:

A. Students are expected to read the text chapters prior to class lecture. Test questions will include assigned readings in the detailed course outline as well as handouts from class.

B. There will be 4 tests, worth 100 points each. All test dates are shown on the Course Outline. Every test must be taken on the dates scheduled in the course outline. A missed test will be made up on the last day with the last test. The test grades count for 80% of your final grade.

There will be a 10 weekly quizzes worth 10 points each. The lowest two quiz grades will be dropped and the best 8 quiz grades will be counted. The total points for 8 quizzes will count as 20% of your final grade (equivalent to one test grade).

Course points are calculated as follows:

\[
\text{test 1 + test 2 + test 3 + test 4 + (best 8 quizzes/0.8)} = \text{course points}
\]

If you are having any problems with the course, please see the instructor as soon as possible.

C. Test questions are based on the lectures, assigned readings, and various news articles. There are some take home assignments that will be included as part of the test grade for that section.

D. Test Schedule

<table>
<thead>
<tr>
<th>Test 1</th>
<th>Test 2</th>
<th>Test 3</th>
<th>Test 4</th>
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<tbody>
<tr>
<td>Feb 21</td>
<td>Mar 14</td>
<td>April 11</td>
<td>May 9</td>
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</table>

E. A Saturday Field Trip Report is worth 50 points of Test 4: The field trip is to UCONN's Avery Point Campus in Groton, CT. The date will be announced by the third class. The purpose of the trip is to experience a scientific research facility, meet with researchers, and perform some laboratory experiments to be reported. The experiments will be explained in the class preceding the Saturday of the trip.

Any student who is unable to participate in the field trip will be given an alternate assignment of two research papers on topics selected by the instructor. The two papers will be worth 50% of the grade of test #4.
VI. Procedures for Dropping the Course (College Withdrawal Policy)

See the College Catalog or the Registrar’s office for the withdrawal policy and calendar. Any student who finds it necessary to withdraw from this course MUST complete a withdrawal form in the Registrar’s Office. There is no verbal withdrawal. Students who do not withdraw, but who stop attending, will be assigned an “F” grade for this course.

VII. Special Notices

A. For Weather-Related Closing Information, Please Call 886-0177.

B. “Cellular phones and beepers are only allowed in class or lab if they are turned off or in silent mode. Under no circumstances are phones to be answered in class. When there are extenuating circumstances that requires a student to be available by phone or beeper, that student must speak to the instructor prior to class, so that together they can arrive at an agreement."

C. Military personnel who are ordered to mobilize or whose units are activated should mention this to the instructor, their adviser, and the Registrar’s Office, and bring orders or other verification.

VII. Academic and Classroom Misconduct

A. The instructor has primary responsibility for control over classroom and/or laboratory behavior and maintenance of academic integrity, and can request temporary removal or exclusion from the classroom or laboratory, of any student engaged in conduct that violates the general rules and regulations of the institution or any student engaged in conduct deemed hazardous in the laboratory. Extended or permanent exclusion from lecture or laboratory activities or further disciplinary action can only be effected through appropriate procedures of the institution.

B. Plagiarism, cheating on quizzes or tests, or any form of academic dishonesty is strictly prohibited. Students guilty of academic dishonesty directly or indirectly will receive a zero for the exercise or quiz or test, and will receive an “F” grade for the course in addition to other possible disciplinary sanctions which may be imposed through regular institutional procedures. Any student that believes that he or she has been erroneously accused may appeal the case through the appropriate institutional procedures if their grade was affected. (We will work through an HONORS CODE).

VIII. Revisions to the Syllabus

Students are responsible for learning all of the objectives and all of the items in the course outline whether they are discussed in lecture or not. The instructor reserves the right to revise the objectives, course outline, or academic schedule contained in this syllabus without notice. However, if revisions affect the scheduled unit tests, a 48-hour notice will be given for the new test date.
Detailed Course Outline

I. Introduction to the World's Oceans and Marine Science
   A. Disciplines within oceanography
      1) Biology and ecology
      2) Physical oceanography
      3) Chemical oceanography
      4) Geological oceanography
      5) Biological oceanography
   B. Historical timeline of marine science milestones
   C. Distribution of the World's Oceans
   D. Physical and chemical properties of seawater
   E. The ocean in motion
      1) Tides
      2) Currents
      3) Circulation

II. Ecological and Biological concepts
    A. General nature of marine life
    B. Adaptations of marine life
    C. Basis ecological concepts
       1) Laws of thermodynamics and energy laws
       2) Food Webs
       3) Energy transfer

III. Overview of Marine Organisms
    A. Systematic and taxonomic classification
    B. Plants: Primary Producers
       1) Phytoplankton
       2) Macroalgae
       3) Vascular plants
    C. Animals: Secondary producers + primary consumers
       1) Protozoans
       2) Porifera
       3) Cnidaria and Ctenophores
       4) Annelids and other wormlike phyla
       5) Mollusks
       6) Arthropods
       7) Echinoderms
       8) Chordates

IV. Oceanic Habitats
    A. Benthic Communities
       1) Seafloor characteristics
       2) Deep-sea vents
    B. Coral Reefs
C. Pelagic Communities
D. Estuaries

V Coastal Habitats
   A. Salt Marshes
   B. Mangroves
   C. The intertidal Zone
      1) Sandy shores
      2) Rocky shores
      3) Mudflats

VI Humans and the sea
   A. Oceanic Resources
      1) Food from the sea: fisheries + fish farming
      2) Mining from the sea
   B. Coastal Management
   C. Oceanic Pollution
      1) Sewage
      2) Toxins
      3) Oil spills
      4) Floatables

VII Special topics TBA

<table>
<thead>
<tr>
<th>Textbook Reading Assignments in addition to Handouts</th>
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<tbody>
<tr>
<td>pp. 4-14 The Changing Marine Environment</td>
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<tr>
<td>pp. 54-55 Research In Progress</td>
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<tr>
<td>pp. 83-84 Research In Progress</td>
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<tr>
<td>pp. 104-105 Research In Progress</td>
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<td>p. 149 Research In Progress</td>
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<td>pp. 184-185 Research In Progress</td>
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<td>pp. 284-285 Research In Progress</td>
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<td>pp. 310-311 Research In Progress</td>
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<td>pp. 348-349 Research In Progress</td>
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<tr>
<td>pp. 376-377 Research In Progress</td>
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<tr>
<td>pp. 398-399 Research In Progress</td>
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From the College Catalog

**SPRING 2007 – Key dates**

Jan. 19   Classes Begin/Late Registration Begins
Jan. 26   Instructor Signature Required to Add Classes
Feb. 2    Last Day of Add/Drop and Partial Tuition Refund
Feb. 16   Last Day to Select Audit Option
Feb. 19   President's Day Observed - **Classes Not In Session**
Mar. 18 – 25   Spring Break - **Classes Not in Session**

Mar. 30   Last Day to Withdraw from Classes without Instructor's signature
          Last Day to Select Pass/Fail Option
          Last Day to Submit Incomplete Work from Fall '07 Semester

Apr. 6-8   Spring Recess - **College Closed / Classes Not in Session**
Apr. 23   Last Day to Withdraw from Classes with Instructor or Advisor signature
May 7     Last Day of Classes
          Second 7-Week Mods End
May 8-16   Class/lab, makeup/supplemental sessions or Final Exam week
May 18    Final Grades Due
May 20    Commencement
May 25    Student grades available on Web