UCONN COURSE SYLLABUS

UConn Course MARN 1002: Introduction to Oceanography

Name of Instructor: Laura Francis

Name of High School: Coginchaug Regional High School

Semester & Year: Fall and Spring Semester 2015-2016

**UConn Course Description**: A background in secondary school physics, chemistry or biology is recommended. Processes governing the geology, circulation, chemistry and biological productivity of the world's interrelationships between physical, chemical, biological and geological processes that contribute to both the stability and the variability of the marine environment.

**Required Text:**

Garrison, Tom. *Essentials of Oceanography.* 7th ed. Cengage Learning, 2015.

**Course Objectives**

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

* Describe the physical and chemical characteristics of seawater.
* Describe how the oceans and seafloor have changed over geological time.
* Explain how oceans modify climate and heat distribution on Earth.
* Explain the processes driving currents, tides, and waves.
* Describe the environmental issues concerning marine resources and ecosystems.
* Describe characteristics of marine life and controls on the marine trophic web.
* Describe how modern technologies such as computers, satellites, drifters, buoys, ROVs, GPS and mathematical modeling systems have revolutionized ocean exploration

**Course Policies:**

* **Required Supplies:**
  + 3-ring binder to insert handouts
  + Composition notebook (cheap) for lab journal
  + Pen/pencil/highlighter
  + 5 page protectors
* **Meeting Times:** This class meets every Monday, Wednesday, and Friday during B3
* **Website:** I have developed a website on which I will post assignments, internet links, handouts, PowerPoint Presentations, and other class materials: [**http://justfrancis.weebly.com/**](http://justfrancis.weebly.com/)
* **Cheating:** Copying (or letting someone copy) work are considered cheating. All individuals involved will receive zeros for the assignment and a referral to the office.
* **Absences:** If you are absent it is your responsibility for making up assignments and handing in work that was due when you were out. See me during X-block, before or after school, or check the website for missed work. If you are absent on the day of a test or quiz you are required to see me the day you get back to school to schedule a time to make it up. Labs must be made up within one week of absence.
* **Expected Behavior: We are all expected to follow the classroom rules which are:**

1. Be respectful
2. Be responsible
3. Be honest
4. Be kind
5. Be courageous

A series of consequences have been established for any students that breaks the social contract:

1. Verbal warning 2. X-block detention 3. After school detention

Further violations will result in administrative referral.

* **Extra Help**: If are having trouble with any of the material, do not hesitate to ask for help. I will be available in person to help you before, after school and during my prep period (B2). You can also email me with questions. You can find me in the science office on Monday, Wednesday or Friday.
* **Grading:** 
  + Labs🡪25%
  + Projects/Tests/Quizzes🡪 50%
  + Homework/Classwork🡪 25%
    - **Homework discussion**🡪 Homework discussion: Throughout the course I will post a series of videos or websites to read/view. Part of your homework will be to have an online discussion with your classmates about what you viewed (there will be general questions to guide your discussion). You will be graded according to the written and oral communication.
  + The final grade in the course will not be curved based on the highest grade in the class. The final letter grade will be assigned based on each student’s final score:

A 93-100

A-90- 92

B+ 97-89

B 83-86

B-80-82

C+ 77-79

C 73-76

C-70-72

D+ 67-69

D 63-66

D-60-62

F 0-59

**Course Summary:**

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| Month | Topic | Highlighted Activities |
| September | Life in the Ocean (Ch. 12), Pelagic Communities (Ch. 13), | Design aquarium experiment, Block Island Field Trip (9/11) and journal, photosynthesis lab, Microscope plankton comparison lab |
| October | Benthic Communities (Ch. 14), Coasts, Beaches, and Estuaries (Ch. 11), | Set up aquarium experiment, **Test 1 (Chapters 11-14)** |
| November | Earth structure and Plate tectonics (Ch. 3), Ocean Exploration (Ch. 2), | Continue to run aquarium experiment, design and test ROVs |
| December | Ocean Basins (Ch. 4), Ocean Sediments (Ch. 5), | Seafloor mapping activities, Microscope sand identification and comparison lab, sand settling rate lab, **Test 2 (Chapters 2-5)** |
| January | Water and Ocean Structure (Ch. 6), | Biological Oxygen Demand lab, cumulative midterm |
| February | Atmospheric Circulation (Ch. 7) | Deep Water Wind Farm (Block Island) analysis paper, SCUBA field trip (NE dive center) and guest speaker |
| March | Ocean circulation (Ch. 8) | **Test 3** **(Chapters 6-8)** |
| April | Waves (Ch. 9)and Tides (Ch. 10) | Tsunami Webquest, |
| May | Uses and Abuses of the Ocean (Ch. 15) | Long Island Sound in a jar lab, Lobster Fisherman guest speaker, Ocean Acidification lab **Test 4 (Chapters 9, 10, 15)** |
| June | Wrap up content from May as needed, | Fisher’s Island Field Trip, Aquarium lab report due (cumulative from year), Final (cumulative) |

Disclaimer: The order and duration of these topics may change due to CRHS schedule changes, inclement weather, and assemblies.