Schedule for Marine Biology and Oceanography Pre-College Summer Program

Monday July 23: Storrs Campus: Meet in Beach Hall, room 127, teaching lab.
   Activities with Dr. Claudia Koerting and Dr. John Hamilton:
   Introduction to oceanography and instrumentation
   Morning
   • Hands-on introduction to basic concepts in oceanography and coastal systems
   • Skype with UConn Oceanography professors about their fields
Break for lunch
   Afternoon
   • Learn about some basic instruments we use to make measurements in the ocean.
   • Use smaller versions of these instruments at Mirror Lake on the Storrs campus.
   • Begin construction of a hydrophone sensor with Dr. Hamilton
   Evening
   • Homework: some brief reading of handouts and on-line resources

Tuesday July 24: Leave at 8 a.m. for the Avery Point Campus, approx. a one hour trip. Meet in the marine sciences building teaching laboratory.
   Oceanography theme:
   Activities:
   Morning:
   • Finish construction of the hydrophones with Dr. Hamilton.
   • Take boats out around Eastern Point Bay to Pine Island, (just across the marina about 1000 feet off of Avery Point) and continue toward Bakers Cove to make measurements for oxygen, current, temperature and salinity in several key locations. Students will record the data as well as make observations about the animal and plant life encountered.
   • Water samples will be collected for study in the afternoon
   Break for lunch
   Afternoon:
   • We will set up experiments in the water table laboratory (Rankin laboratory) to test hypotheses on the effect of temperature and salinity on the marine plants and animals we have collected.
   • Oxygen consumption and production will be the main parameters measured.
   • Research taking place in the Rankin lab mesocosms on the effect of ocean acidification and warming on fish will be demonstrated and discussed by Marine Sciences faculty.
   • Time permitting we will prepare settling plates to hang off the dock.
Return to Storrs at 4:30 p.m.
   Evening:
   • Plot data from the days experiments
   • Suggest hypotheses to explain the data trends and relationships

Wednesday July 25: Leave at 8 a.m. for the Avery Point Campus, meet in the marine sciences building teaching laboratory.
   Marine ecology, conservation and biology theme:
   Activities:
   Morning:
Exam settling plates from different stages of succession after hanging off the docks for extended period of times.
Discussion on marine ecology
Bivalve filtration rate experiments

Break for lunch

Afternoon:
- Leave for the Mystic Marinelife Aquarium for behind the scenes tour and to meet with researchers.
- Test the hydrophones in aquaria with different animals as permitted.

Return to Storrs at 4:30 p.m.
Evening: complete short assignment: discussion of the day’s observations.

Thursday July 26: Leave at 8 a.m. for the Avery Point Campus, meet in the marine sciences building teaching laboratory.
Marine ecology and marine chemistry theme:
Activities:
Morning:
- Boat ride to exam the eel grass beds between Pine Island and Jupiter Point
- GoPro camera to examine the condition of the eel grass beds mounted on a Sea Perch mini ROV
- Water samples obtained for analysis

Break for lunch

Afternoon:
- Review footage of the eelgrass beds
- Chemical analysis of water samples
- Tour of the marine science building research labs

Return to Storrs at 4:30 p.m.
Evening: Short assignment TBD

Friday July 27: Meet in Beach Hall, room 127, teaching lab.
Activity: Prepare a report of the health of Eastern Long Island Sound based on the data we have collected as well as data supplied from the Marine Sciences department’s researchers.

Break for lunch

Everyone will receive the final report to add to a portfolio they can use toward college and scholarship applications.