Education to dispel the misconception that Cape Cod is a big homogenous sandbox

Cape Cod Community College offers an A.A. with matriculation agreements for a seamless transfer to 4 year institutions, a technical A.S. in Environmental Technology, and a selection of environmental certificates. Our educational packages support a diverse group of learners from adult students (15 years and up) with no science background to professional scientists/engineers with years of education and work experience. Our students start with foundation classes that introduce the basics such as groundwater interaction, rock identification, particle size distribution, surface elevation determination, GPS usage, and mapping techniques. Students can complete a series of classes to prepare them for working with geologists, engineers, surveyors, and scientists. Students may elect to participate in honors projects, independent research, and internships. One of the program's objectives is to provide students with an opportunity to acquire the necessary skill set to be successful in a dynamic environmental workforce. A career support office assists with resumes and job opportunities while the transfer officer helps with continuing education.

A program goal is to provide the skill set specifically required by the local employers for these geoscience students. In order to achieve this goal, our program tries to meet with a diverse selection of employers annually at which time a collection of the comments regarding the type of training our students receive is conducted. Unfortunately, this process has not been done in years. Also our enrollment in the geoscience classes is currently low causing some classes to be canceled. Our program needs a review and revitalization to attract and retain new students.

The Cape provides diverse geological stratifications and due to construction plenty of disturbed sites. The campus sits high (100 feet above sea level) on the moraine but the area quickly transitions to sea level. Going South it is mostly a sandbox albeit offering unique challenges for septic, building, and drainage while in the other direction many different layers are found including dense silt and clay. The West Barnstable Brick Company used to procure their clay from this area. Cape Cod's unique and diverse local geology provides the students hands-on labs on the campus. This experiential learning helps dispel the typical misconception that the Cape is a big homogenous sandbox and hopefully prevents a common mistake made by a few contractors. The naive contractor has been surprised when a boulder interferes with the digging of a foundation or a newly installed septic system fails, due to a glacial deposited bolder or clay. The Cape's geological diversity also causes differences in the groundwater interactions that support the cranberry bogs yet challenge hazardous waste remediations.

In conclusion our program's goal is to update the current curriculum with industry standard technology, recruit more students, and provide these students with as many opportunities to meet their career goals as possible. Yet some of the challenges our program faces includes a high rate of staff/faculty turnover, old equipment, staff/faculty without commercial field experience, and student employment opportunities that require travel/relocation. In addition our program aspires to keeping staff/faculty trained in the best available technology so they can teach the future geoscience students.

Professor Catherine Sughrue Etter, Ph.D.
Environmental Technology Program
Science Building (office @ Sc215)
Cape Cod Community College
(508) 362-2131 x 4598
fax (508) 375-4061
cetter@capecod.edu