Big Changes and New Directions for a Small Program

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Middlesex Community College is one of the smallest of the twelve community colleges in Connecticut, with about 3000 credit students per semester (1700 FTE). The Science, Allied Health & Engineering Division offers many 3- and 4-credit science courses in support of the General Studies and Liberal Arts A.S. degrees. One of the few A.S. degrees specifically in science offered at Middlesex is the Environmental Science degree. This program dates back to the 1980s, with a focus on pollution control and cleanup. Many of the courses required for the degree (such as Industrial Toxicology, Organic Chemistry, and OSHA HAZWOPER training) are no longer offered at Middlesex due to lack of demand. The occasional student graduating in the program in recent years has done so with many "substitutions" for required courses. I joined the faculty in Fall of 2010 as the new program coordinator, with a mandate to revise and revive the program to meet the requirements of new job and career opportunities.

Existing geoscience courses include Introduction to Environmental Science, Natural Disasters, Earth Science, Astronomy, and Introduction to Physical Geology. Most of the students who enroll in these courses do so to meet the science requirement for a non-science degree. Students enrolled in the Environmental Science program complete the Introduction to Environmental Science (non-lab) course, as well courses in Chemistry and Biology, and an internship. Geology is not a required course, and none of the existing courses have a field component or technology integration. My overarching goal in revising the program is to create a much more hands-on, field-oriented, place-based curriculum. We are located on a beautiful 38 acre campus with many potential study areas, and we are well situated within a geologically diverse landscape. However, changes to the program will require significant investments, and I am currently seeking grant funding in order to obtain some of the needed equipment and resources for field-based investigations.

Complicating the effort to implement changes to the existing program is the fact that Middlesex is in the midst of tremendous changes, both at an institutional level and within the state system of colleges and universities. In the past year, the state of Connecticut created a new Board of Regents for Higher Education to govern the 4 state universities and 12 community colleges in Connecticut, which were once governed separately. One goal of the reorganization was to create seamless articulation between the community colleges and the state universities. This process is expected to bring changes to all degree requirements, and has put individual program changes on hold, but ultimately will create better opportunities for transfer students. On an institutional level, Middlesex has also welcomed a new president and a new academic dean in the past year. Both of these hires bode well for the future of the environmental science degree program because they have embraced the concept of sustainability for the campus and are supportive of new curricula in these areas.

The new program will aim to meet the needs of students who desire immediate technician positions, as well as the students who wish to transfer and pursue higher degrees and careers in the geosciences. However, transfer pathways for the Environmental Science A.S. degree are complicated by the fact that the possible 4YC programs are so diverse. We will also face the challenge of successfully recruiting students for the program because we are in a densely populated region where many students have chosen to pursue degrees at larger community colleges nearby. We will need to start creating excitement among high school students in the region through new partnerships and programs, exposing students early to diverse geoscience career options. We will also need to establish stronger ties to potential employers to better understand how our program can meet their needs. There are many challenges ahead, but it is exciting to be a part of creating a program that can uniquely address the needs of the future.