



## **Energy for Manufacturing Roundtable**

*Building U.S. Competitiveness: Advancing Industrial Energy Efficiency Through Workforce Development  
Case Study: Cape Cod Community College Renewable Energy Education and Training Program*

*Presenter: Candy M. Center, Dean of Academic and Student Affairs, Science, Technology, Math and Business*

*President: Dr. Kathleen Schatzberg*

*Vice President of Academic and Student Affairs: Philip J. Sisson*

### **Cape Cod Community College profile:**

- *Total students enrolled during FY 09 = 8581 (unduplicated head count)*
- *Total FTE (full time equivalent) in FY 09 = 2669.7*
- *Total course sections offered during FY 09 = 1679 (1368 credit offerings; 311 non credit offerings)*
- *Credit course completion rate = 75%*
  
- *60% of students attend part time (Fall 2009)*
- *61% of students female (Fall 2009)*
- *Median age = 22; Mean age = 26.6 (Fall 2009)*

| <b>Cape Cod Community College<br/>FY 2003 - FY 2009</b> |   |            |           |           |           |           |           |           |           |
|---|---|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Major   | Program Title   | Credential | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      |
| AAENV   | Environmental Studies concentration                     | AA         | 2         | 4         | 5         | 1         | 1         | 1         | 9         |
| AASMP   | Science/Math/Pre-Engineering concentration              | AA         | 10        | 4         | 13        | 14        | 13        | 19        | 11        |
| ASEVT   | Environmental Technology                                | AS         | 2         | 3         | 3         | 4         | 3         | 5         | 5         |
| CTCTH   | Construction Technology                                 | CT         | 0         | 3         | 1         | 1         | 4         | 2         | 2         |
| CTCZM   | Environmental Technology Coastal Zone Management        | CT         | 3         | 5         | 7         | 3         | 3         | 3         | 2         |
| CTENS   | Environmental Technology Site Assessment                | CT         | 1         | 0         | 0         | 0         | 2         | 0         | 6         |
| CTEPT   | Environmental Technology Photovoltaic                   | CT         | 0         | 0         | 0         | 0         | 0         | 0         | 7         |
| CTEST   | Environmental Technology Solar Thermal                  | CT         | 0         | 0         | 0         | 0         | 0         | 0         | 3         |
| CTGIS   | Environmental Technology Geographic Information Systems | CT         | 1         | 0         | 2         | 2         | 4         | 3         | 5         |
| CTWAS   | Environmental Technology Water Supply                   | CT         | 5         | 2         | 3         | 0         | 2         | 7         | 3         |
| CTWWM   | Environmental Technology Wastewater Management          | CT         | 0         | 0         | 1         | 0         | 0         | 1         | 2         |
| <b>Total Credentials Awarded</b>                        |   |            | <b>24</b> | <b>21</b> | <b>35</b> | <b>25</b> | <b>32</b> | <b>41</b> | <b>55</b> |

**Cape Cod Community College's Environmental Technology** program grew out of the need to train technicians to assist in the clean-up of the state's only Environmental Superfund site at the Massachusetts Military Reservation, where groundwater pollution continues to threaten the Cape's sole-source aquifer. Since 1994, the Installation and Restoration Project, managed by the Air Force Center for Environmental Excellence, the 102nd Fighter Wing Environmental Office, and the United States Coast Guard Environmental Office, has supervised nearly CCCC 100 interns there.

#### **Associate of Arts Degree in Environmental Studies:**

The undergraduate program in Environmental Studies allows students to choose from a variety of environmental electives to pursue specialized interests. The ES Associate of Arts concentration fulfills all of the requirements of the Commonwealth Transfer Compact. In addition, the College has established articulation agreements with the Massachusetts Maritime Academy Marine Safety and Environmental Protection Program and the Environmental Engineering Program at the University of Massachusetts- Dartmouth.

#### **Associate of Science Degree in Environmental Technology:**

This program emphasizes the cognitive and technical skills needed to enter and advance in environmental technology careers in both the private and public sectors. Students gain knowledge and skills in the principles of science, engineering, communication and economics to protect and enhance safety, health and natural resources.

#### **Academic Certificate Programs:**

The Environmental Technology certificates are a collaborative partnership among Cape Cod Community College, Massachusetts Maritime Academy and University of Massachusetts - Dartmouth, for persons seeking to acquire skills and knowledge in:

- Coastal Zone Management,
- Environmental Site Assessment,
- Geographic Information Systems,
- Wastewater Management,
- Photovoltaic Technology,
- Small Wind Technology,
- Solar Thermal Technology,
- and Water Supply.

Since 1994, the CCCC-led Environmental Technology Consortium with Mass Maritime Academy and University of Massachusetts at Dartmouth has placed over 360 students from the three institutions in over 76 internship sites in business, industry, and government agencies.

Since 1994, over 4,000 students have earned Environmental Technology academic credits and gained a greater awareness and appreciation for the environment and sustainability through EN118, "Introduction to Environmental Science."



#### **For more information:**

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