



Course Name: Introduction to Solar/Photovoltaics

Lead Faculty: Jennifer Clemons

School: Delaware Technical Community College

Delivery Mode(s) for Intro to Solar Course (i.e. face-to-face, online, hybrid, etc): Face to Face

Course Duration (semester, trimester, quarter, short-course, etc.) The program is a 2 year AAS degree. The first Photovoltaics course is offered in the third semester.

of credits for the Intro to Solar course: This is a 4 credit class in a program that requires 66 credits. The course meets for 3 lecture hours and 2 lab hours a week, or 80 hours a semester.

Program Name: Renewable Energy Solar Associates in Applied Science

When did the program start? 2012

What geographic area do your students come from? Primarily Delaware, but some from MD and PA.

Number of Students in Program: Fall 2017 - 20 students (down since last Fall 2016, had 31 students)

Demographics: Percentage distribution using only Fall 2017 data

Gender

Male: 18/20 male- 90% Female: 2/20 - 10%

Ethnicity: Black 25% White 75%

What percentage if known - Veterans: 3/20: 15%

Post traditional listing- Over 25 years: 10/20: 50%

Degree(s)/ Diplomas(s) / Certificate(s) Offered: Associates Degree in Applied Science: Renewable Energy Solar

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How Many Faculty teach solar courses at your college (note if FT or PT)? I am the only Solar Faculty member. I teach all of the PV courses, and also oversee the other AAS programs in Energy Management and Building Automations.

Description of Your Facilities (be sure to note any special lab facilities used for hands-on training):

The energy programs are housed in the [Center for Energy Education and Training](#) (CEET) building. This facility was built in 2012 to host the energy programs and is LEED platinum certified. The facility is approximately 7500 square feet. It contains 2 classrooms (which seat 16 each). There is the potential for 3 lab spaces (large lab can be separated with collapsible doors; we usually leave them open.)

Video of lab facilities

<https://youtu.be/srL4TW4TKvQ>

Have you conducted a job market assessment? If yes, what were the findings?

Labor market study was completed to get the BAS degree program started. There was some research done back in 2010 (before I got here.) I am told all the research said to start one program at one campus, but the college decided to try it all three campuses. Currently we are restructuring back to a single campus offering all of the programs. Students can complete the bulk of the associate degree requirements at any campus, but the solar specific courses are only offered at that the Terry Campus in Dover DE (center of the state).

What do you think makes your program successful?

- 1) Alignment with jobs in the area (regionally in the Delaware/Maryland/Virginia region).
- 2) The Solar Program is also aligned to NABCEP Technical Sales Exam.
- 3) Advisory Board input. We have a very active advisory board, see below.
- 4) 100% Job Placement in all Energy Majors, Energy Management, Renewable Solar and Building Automation Systems.
- 5) Study abroad. Several students learned about the program due to interest in our study abroad program. We have traveled to Denmark and Switzerland to offer our NRG 154 (Alternative Energy Technologies) course. In 2018, students will travel to Italy for [Sustainability](#).

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What are your industry ties? (If you have an industry advisory board, please describe its size and composition).

We meet with our advisory board 3 times a year. The board is extensive and is made up with many different industries. We have the advisory board review courses and alignments to industry standards. Advisory board members are also invited to our Capstone Presentations in May. All the potential graduates in all three programs get together and present their final projects. We include lunch and networking for the students and industry partners.

Do you offer internships? What is your placement rate? We require all students to do a work experience. (This can be either internship or Co-Op.) Students are required to work in the field for 144 hours, to gain the 3 credits required. Every student who has completed the work experience has at least one job offer.

We also started our own job board email list serve. I auto-enroll all students at the beginning of the semester with their school and personal emails. All job opportunities are sent to all students enrolled in the energy technology programs.

<http://bit.ly/energytechjobs1516>

Program Link :

<https://www.dtcc.edu/academics/programs-study/renewable-energy-solar>

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