CENTRAL PIEDMONT COUMMUNITY COLLEGE • ENGINEERING TECHNOLOGIES

Associate in Applied Science

Sustainability Technologies

(A40370)

Engineering Technologies

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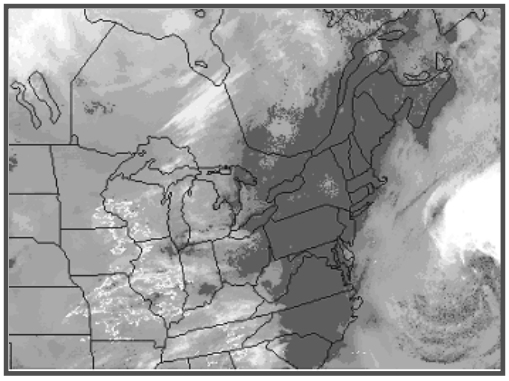
Get There.

Overview

The Sustainability Technologies curriculum is designed to prepare individuals for employment in environmental consulting, construction management, alternative energy, manufacturing, and related industries. Major emphasis is placed on minimizing the impact on our environment. Computer application will address the construction, modeling, and analysis of specific scenarios relating to creating a sustainable environment. Graduates should qualify for numerous positions within the construction management, mechanical engineering, civil engineering, environmental engineering, and alternative energy industry. Employment opportunities include, but are not limited to, the following: environmental engineering technicians, precision instrument & equipment repairers, construction management, and alternative energy specialists.



Admissions

- High School Diploma or equivalent is required. High school students preparing for an Engineering Technology program should complete courses in algebra, geometry, and advanced math. Skills and proficiencies should be developed in writing, computer literacy, and science.
- Placement tests in English and mathematics determine the entry-level courses that match individual needs. Advancement Studies mathematics and English courses are available for students to build basic skills and knowledge.

Engineering Technologies Change your direction!

FIRST STEP TO ENROLL:

Apply for admission; details at:

http://www1.cpcc.edu/admissions/admissions

Consult a faculty advisor or College counselor prior to registration.

CPCC is an Equal Opportunity Institution.

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CURRICULUM SCHEDULE

			Class	Lab	Credits
Fall Semester (Year 1)					
CIS	110	Introduction to Computers	2	2	3
GEO	110	Introduction to Geography	3	0	3
GIS	111	Introduction to GIS	2	2	3
GIS	125	CAD for GIS	2	2	3
MAT	121	Algebra/Trigonometry I	2	2	3
Spring Semester (Year 1)					
GIS	221	Advanced Topics in GIS	1	2	2
GIS	121	Georeferencing & Mapping	2	2	3
GIS	240	Air Photo Interpretation	2	2	3
GIS	120	Introduction to Geodesy	2	2	3
DBA	110	Database Concepts	2	2	3
Summer Semester (Year 1)					
ENG	111	Expository Writing	3	0	3
COM	110	Introduction to Communication	3	0	3
Fall Semester (Year 2)					
ENG	114	Professional Research & Reporting	3	0	3
GIS	225	Advanced Methods in GIS	2	2	3
GIS	161	Intro to Comp/BASIC & C++	1	4	3
GIS	215	GIS Data Models	2	2	3
		Technical Elective*	3	0	3
Spring Semester (Year 2)					
GIS	241	Cartographic Production	2	2	3
GIS	230	GIS Data Creation	2	2	3
GIS	235	Raster GIS	2	2	3
		Social/Behavioral Sciences Elective	3	0	3
		Humanities/Fine Arts Elective	3	0	3
		Technical Elective*	2	0	2
TOTAL PROGRAM CREDIT HOURS					**67**

*5.0 Semester Hours of Technical Electives selected from the following list of courses:

Technical Electives:					
CIV	125	Civil/Surveying CAD	2	6	3
COE	112E	Co-operative Work Experience I	(20 hrs/wk)		2
COE	122E	Co-operative Work			
CSC	134	C++ Programming	2	3	3
CSC	139	Visual BASIC Programming	2	3	3
CSC	151	JAVA Programming	2	3	3
CSC	234	Advanced C++ Programming	2	3	3
CSC	239	Advanced Visual BASIC Programming	2	3	3
DBA	112	Database Utilization	1	2	2
DBA	115	Database Applications	2	2	3
GIS	112	Introduction to GPS	2	2	3
GIS	211	GIS/GPS Project	2	2	2
GIS	222	Internet Mapping	2	2	3
GIS	231	Geo Positioning Systems Methods	1	4	3
OR					
SRV	250	Advanced Surveying	2	6	4
GIS	112	GIS/GPS Applications	4	4	6
GIS	232	Spatial Databases	2	2	3
GIS	245	Introduction to Spatial Analysis	2	2	3
GIS	246	Principles of Property Mapping	2	2	3
GIS	249	Remote Sensing	2	2	3
GIS	251	Computer Graphics/Mapping	1	2	2
GIS	252	Utilities in GIS	2	2	3
GIS	255	Advanced Spatial Analysis	2	2	3
GIS	259	Photogrammetry	2	2	3
GIS	261	Advanced GIS Programming	2	2	3
GIS	262	GIS Programming Trends	2	2	3
SRV	110	Surveying I	2	6	4
SRV	111	Surveying II	2	6	4
SRV	210	Surveying III	2	6	4
SRV	220	Surveying Law	2	2	3