

RENEWABLE ENERGY
PHOTOVOLTAIC SYSTEM DESIGN AND INSTALLATION
ONE-YEAR CERTIFICATE
Catalog 2008-2009

The Photovoltaic System Design and Installation certificate is a concentration of San Juan College's Renewable Energy Program. It is appropriate for students who already have a college degree, or who currently work in a related industry. Students will gain the knowledge and skills necessary to design and safely install electrical energy systems based on current photovoltaic and power conditioning equipment.

NOTE: A student must earn a grade of "C" or higher in all RENG, INST, and PHYS courses in order to receive a degree or certificate.

NOTE: The courses below require prior mathematical and computer software experience. **Instructor permission and/or transfer credits are acceptable for substitution.**

Pre-requisite courses:				Credit Hours	Grade
___	COSC	116	Spreadsheets (preferred) OR		
___	COSC	125	Business Microcomputer Applications	3	___
___	MATH	115	Intermediate Algebra and Applications OR	4	
___	MATH	116	Math for High Tech Careers	<u>(3)</u>	___
				Total	6-7
Summer Session					
___	INST	140	Applied Basic DC Circuits	3	___
___	PHYS	111	Introduction to Physics	<u>4</u>	___
				Total	7
1st Semester					
___	INST	141	National Electrical Code I	3	___
___	INST	145	Applied Basic AC Circuits	3	___
___	INST	175	Renewable Energy Instrumentation	3	___
___	RENG	210	Renewable Energy Applications	4	___
___	RENG	240	PV Installation and the NEC I	<u>5</u>	___
				Total	18
2nd Semester					
___	INST	142	National Electrical Code II	3	___
___	INST	215	Renewable Energy AC and DC Machines	3	___
___	RENG	220	PV Theory and System Design	4	___
___	RENG	241	PV Installation and the NEC II	5	___
___	___	___	Renewable Energy Elective *	<u>3-4</u>	___
				Total	18-19

Total credit hours required for this certificate is 43-44

* Choose from: RENG 270 – Sustainable Development (3), RENG 299 – Special Topics (1-4), **OR** BIOL 230 – Environmental Conservation (4).