

**RENEWABLE ENERGY
PHOTOVOLTAIC SYSTEM DESIGN AND INSTALLATION
ONE-YEAR CERTIFICATE
Catalog 2005-2007**

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. MATH 116 and COSC 125 are listed as prerequisites. Instructor permission and/or transfer credits are acceptable for substitution.

				Credit Hours	Grade
Summer Session					
___	INST	140	Applied Basic DC Circuits	3	_____
___	PHYS	111	Introduction to Physics	4	_____
				Total 7 credits	
1st Semester					
___	INST	145	Applied Basic AC Circuits	3	_____
___	INST	141	National Electrical Code I	3	_____
___	RENG	210	Renewable Energy Applications	4	_____
___	RENG	170	Instrumentation and Control	3	_____
___	RENG	240	PV Installation and the NEC I	3	_____
				Total 16 credits	
2nd Semester					
___	INST	142	National Electrical Code II	3	_____
___	RENG	171	AC and DC Machines	3	_____
___	RENG	220	Photovoltaic Theory and System Design	4	_____
___	RENG	241	PV Installation and the NEC II	3	_____
___	_____	___	Renewable Energy Elective *	3	_____
				Total 16 credits	

Total credit hours required for this certificate is 39

* Choose from: RENG 270, RENG 299, BIOL 230

Prerequisite requirements:

MATH 116 Math for High Tech Careers 3 credits, COSC 125 Business Microcomputer Applications 3 credits.