

**RENEWABLE ENERGY  
PHOTOVOLTAIC SYSTEM DESIGN AND INSTALLATION  
ASSOCIATE OF APPLIED SCIENCE DEGREE  
Catalog 2005-2007**

The Photovoltaic System Design and Installation degree is a concentration of San Juan College's Renewable Energy program. Students will gain the knowledge and skills necessary to design and safely install electrical energy systems based on current photovoltaic and power conditioning equipment. Utilities and remote power users already recognize this fast-growing sector of the electrical power industry as a viable and established energy alternative. Employment opportunities exist in small renewable energy businesses, energy companies, equipment supply companies, oil and gas field service companies, utilities, and in international agencies assisting the development of Third World countries.

**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.

					<b>Credit Hours</b>	<b>Grade</b>
<b>1st Semester</b>						
___	PHYS	111	Introduction to Physics		4	___
___	MATH	116	Mathematics for High Tech Careers		3	___
___	COSC	125	Business Microcomputer Applications		3	___
___	INST	140	Applied Basic DC Circuits		3	___
___	___	___	Humanities/Social Science Elective		3	___
						Total 16 credits
<b>2<sup>nd</sup> Semester</b>						
___	INST	145	Applied Basic AC Circuits		3	___
___	CHEM	110	Introductory Chemistry		4	___
___	SPCH	111	Interpersonal Communication		3	___
___	ENGL	118	Technical Composition		3	___
						Total 13 credits
<b>3<sup>rd</sup> Semester</b>						
___	ENGL	218	Advanced Technical Composition		3	___
___	INST	141	National Electrical Code I		3	___
___	RENG	210	Renewable Energy Applications		4	___
___	RENG	240	PV Installation and the NEC I		3	___
___	RENG	170	Instrumentation and Control		3	___
						Total 16 credits
<b>4<sup>th</sup> Semester</b>						
___	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 degree is 61**

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