

RENEWABLE ENERGY
PHOTOVOLTAIC SYSTEM DESIGN AND INSTALLATION
 Associate of Applied Science Degree and Certificate
 Catalog 2009-2010

SCHOOL OF ENERGY • 800 South Hutton • Farmington, NM 87401 • 505.327.5705

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 source. 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: Renewable Energy is a selective program. Specific requirements must be met in order to enter the Renewable Energy Program. This program requires the student to have their own tools. To obtain a list of required tools, contact the School of Energy or the program coordinator at 566-3003. A student must earn a grade of "C" or higher in all courses to obtain a degree. For the last program changes and selection process which supersedes the printed catalog, see the program's web page at <http://www.sanjuancollege.edu/reng>. If you do not have internet access contact the program coordinator or the School of Energy.

CERTIFICATE

				Credit Hours	Grade
Prerequisites:					
_____	COSC	116	Spreadsheets	3	_____
_____	MATH	115	Intermediate Algebra and Applications	4	_____
Summer Session					
_____	INST	140	Applied Basic DC Circuits	3	_____
_____	PHYS	111	Introduction to Physics	<u>4</u>	_____
			Total	7	
1st Semester					
_____	INST	144	National Electrical Code	3	_____
_____	INST	145	Applied Basic AC Circuits	3	_____
_____	INST	175	Renewable Energy Instrumentation	3	_____
_____	RENG	242	Photovoltaic Installation and the NEC I	3	_____
_____	RENG	242L	Photovoltaic Installation and the NEC I Lab	2	_____
_____	RENG	250	Passive Solar Design and Analysis	<u>3</u>	_____
			Total	17	
2nd Semester					
_____	INST	215	Renewable Energy AC and DC Machines	3	_____
_____	RENG	220	Photovoltaic Theory and System Design	4	_____
_____	RENG	243	Photovoltaic Installation and NEC II	3	_____
_____	RENG	243L	Photovoltaic Installation and NEC II Lab	2	_____
_____	RENG	260	Solar Thermal Design and Application	3	_____
_____	_____	_____	Renewable Energy Elective*	<u>3</u>	_____
			Total	18	
			Total Credits	42	

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

ADDITIONAL COURSES LEADING TOWARDS AN ASSOCIATE OF APPLIED SCIENCE DEGREE

The Photovoltaic System Design and Installation degree is appropriate for students who are looking for a degree and for those wanting to pursue further education.

RENEWABLE ENERGY
PHOTOVOLTAIC SYSTEM DESIGN AND INSTALLATION
Catalog 2009-2010
(Continued)

Students must complete the course requirements for the One-Year Certificate. In addition the following courses listed below must be taken. Students may enroll in general education courses prior to admission to the program. **Taking the general education courses that apply to the Renewable Energy curriculum does not guarantee acceptance into the program.** Enrollment in RENG courses is limited to those who have been accepted into the Renewable Energy Program. A student must earn a grade of "C" or better in all courses to obtain the degree including those in the One-Year Certificate.

_____	CHEM	110	Introductory Chemistry	4	_____
_____	COSC	116	Spreadsheets	3	_____
_____	ENGL	118	Technical Composition	3	_____
_____	ENGL	218	Advanced Technical Composition	3	_____
_____	_____	_____	Humanities/Social Science Elective**	3	_____
_____	MATH	115	Intermediate Algebra and Applications	4	_____
_____	SPCH	110	Public Speaking OR		_____
_____	SPCH	111	Interpersonal Communication	<u>3</u>	_____
			Total	23	

Total credit hours required for this degree is 65

** See page 45, Humanities and Social Science Elective, 2009-2010 San Juan College catalog.

PROGRAM SELECTION REQUIREMENTS

To be eligible for the Renewable Energy Program selection process, students must have:

1. Achieved a minimum high school or college cumulative GPA of 2.50 or comparable GED scores. The GPA requirement must be fulfilled before being admitted into the program. (College GPA is based on a minimum of 12 **non-remedial credits**, those numbered 110 or higher.)
2. Met the admission requirements as found at the program's web pages at <http://www.sanjuancollege.edu/reng>. If you do not have internet access contact the School of Energy or the program coordinator.