



## BEGINNING PHOTOVOLTAIC

<b>Course Number</b>	RE 111
<b>Course Name</b>	BEGINNING PHOTOVOLTAIC
<b>Credit Value (Breakdown of theory and lab credits)</b>	3, 1T+2S
<b>Catalog Course Description</b>	Introduction to photovoltaic energy and photovoltaic (PV) system installation. Includes markets and applications, safety basics, electricity basics, energy efficient appliances, solar energy fundamentals, photovoltaic materials, module fundamentals, concentrators, system components, system sizing, electrical design, mechanical design, and performance analysis and troubleshooting. This course specifically provides preparation for the North American Board of Certified Energy Practitioners (NABCEP) Photovoltaic Installer Certification exam. (Fall, Summer, Spring) (3, 1T+2S)
<b>Student Learning Outcomes/Objectives /Competencies of the Course</b>	<ul style="list-style-type: none"> <li>• Overview of PV systems and basic electricity</li> <li>• Sunshine basics</li> <li>• How P.V. works</li> <li>• Components of PV systems, setup, configuration,</li> <li>• Sizing, wiring and controls, relevant sections of NEC</li> <li>• Zoning laws and building codes pertaining to PV systems,</li> <li>• Specific parameters of concern to utilities in grid connected systems, practical experiments and demonstrations of different aspects of PV</li> <li>• Site visit with detailed explanation of maintenance and trouble shooting</li> <li>• Actual hands on set up of a small grid connected system</li> <li>• In addition, basic electrical concepts and safety issues related to PV installation and maintenance work will be covered</li> </ul>
<b>College-Wide Student Learning Outcomes</b>	Critical Thought