NORTHERN NEW MEXICO COLLEGE

ADVANCED PHOTOVOLTAIC INSTALLATION

Course Number **Course Name**	RE 212 ADVANCED PHOTOVOLTAIC INSTALLATION
Credit Value (Breakdown of theory and lab credits)	3 credits 1 Theory 2 Studio
Catalog Course Description	Continuation of RE111. Includes advanced photovoltaic (PV) energy and system installation training, safety basics, stand- alone PV system sizing, grid-tied system sizing, National Electric Code (NEC), compliant wire sizing, grounding of PV systems, site analysis and array mounting, and PV system commissioning, troubleshooting, maintenance and performance evaluation. This course specifically provides preparation for the North American Board of Certified Energy Practitioners (NABCEP) Photovoltaic Installer Advanced Certification exam. (Fall, Spring, Summer) (3, 1T+2S)
Student Learning Outcomes/Objectives /Competencies of the Course	1. Describe the purpose and operation of PV balance-of-system (BOS) components 2. Calculate photovoltaic array and BOS component sizing 3. Conduct PV systems electrical design/integration per National Electrical Code (NEC) requirements 4. Conduct photovoltaic system mechanical design/integration 5. Calculate and analyze photovoltaic system performance 6. Understand proper installation and troubleshooting procedures 7. Understand and use the tools and online calculators for PV system design and installation
College-Wide Student Learning Outcomes	Communication