NORTHERN NEW MEXICO COLLEGE

INTRO TO SOLAR ELECTRICITY LAB

Course Number **Course Name**	ELEC 110L INTRO TO SOLAR ELECTRICITY LAB
Credit Value (Breakdown of theory and lab credits)	2, 0T+2S
Catalog Course Description	In this course, you will have laboratory experiences which apply to the theoretical material covered in ELEC 110. You will work with AC and DC components, methods, tools, and materials needed to connect photovoltaic systems from collector module wiring to panels to batteries to inverters to grid-tie equipment. Safety in the electrical environment is stressed. (2, 0T+2S)
Student Learning Outcomes/Objectives /Competencies of the Course	Lab Experiences related to: • Overview of PV systems and basic electricity • Sunshine basics • How P.V. works • Components of PV systems, setup, configuration, • Sizing, wiring and controls, relevant sections of NEC • Zoning laws and building codes pertaining to PV systems, • Specific parameters of concern to utilities in grid connected systems, practical experiments and demonstrations of different aspects of PV • Site visit with detailed explanation of maintenance and trouble shooting • Actual hands on set up of a small grid connected system • In addition, basic electrical concepts and safety issues related to PV installation and maintenance work will be covered
College-Wide Student Learning Outcomes	Communication