NORTHERN NEW MEXICO COLLEGE

SOLAR ENERGY LAB

Course Number **Course Name**	RE 108L SOLAR ENERGY LAB
Credit Value (Breakdown of theory and lab credits)	2, 0T+2S
Catalog Course Description	Working with components of both active and passive solar heating systems: flat plate and concentrating collectors; heat transfer gasses, liquids, and solids; monitoring, control, and distribution systems; glazing, selective surfaces; and low emissivity materials. You will cover heat storage in liquids, solid, and change-of-state mate- rials, with an emphasis on mounting components, pipe and duct connections, and safety. Classes will take place on- and off-campus. Recommended Co-requisite: RE 108 or ADOB 107. (2, 0T+2S)
Student Learning Outcomes/Objectives /Competencies of the Course	• Explain the technical and physical principles of solar collectors. • Measure and evaluate different solar energy technologies through knowledge of the physical function of the devices. • Calculate the required size of solar collector system from need of power and energy by using computerized tools. • Make critical comparisons of different solar energy systems, e.g. zero energy or plus energy houses or hybrid systems. • Present technological and socio-economical issues on solar energy in a concise and comprehensible way.
College-Wide Student Learning Outcomes	Communication