



ACTIVE SOLAR HEATING

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| Course Number | RE 108 |
| Course Name | ACTIVE SOLAR HEATING |
| Credit Value (Breakdown of theory and lab credits) | 3 credits 3 Theory |
| Catalog Course Description | Solar energy can supply heat for buildings, domestic hot water, and industrial processes. Active systems acquire heat with collectors; distribute the heat with fluids driven by pumps or blowers; store the heat in liquids, solids, or change-of-state materials; and control the process with electrical or electronic sensors and controls. In this course you will analyze requirements and match needs with appropriate systems. Recommended Co-requisite: RE 108L. (3, 3T+0S) |
| Student Learning Outcomes/Objectives /Competencies of the Course | <ul style="list-style-type: none"> • 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 | Critical Thought |