

Course No.	Course Title	Credits	Pre-requisite	Learning Type
0706472	Solar Thermal Energy Systems	1	0706334	Face-to-face
<p>In this course we will start with consideration of solar energy itself, including radiation fundamentals, measurement, and data processing required to predict solar irradiance with respect to time, location and orientation. Then we will examine the characteristics of various components in solar thermal systems (with particular emphasis on flat plate and concentrating collectors, heat exchangers and thermal storage) to understand how they work and how their performance is influenced by their design. This will lead us to an examination of systems and system performance, including system design, predicted energy savings and economics. The focus will be on low temperature applications for solar hot water, space heating and water distillation. Concentrating solar energy, including solar thermo-chemical processes will be introduced. A solar design project will be assigned.</p>				