



New Course FALL 2009

SCHOOL OF CIVIL ENGINEERING

CE 49700 Section 6



Architectural Engineering Design I

Prerequisites: Junior standing in engineering

Course Credit: 3 hours, T-Th 1:30–2:45

This course will introduce students to the design of energy-efficient buildings. Students will become familiar with the basic physical processes in buildings and the main sources of energy consumption. These include heat and moisture transfer through the different building envelope components for several types of construction, solar radiation and solar gains, internal gains, daylighting and lighting. The students will then learn to calculate energy flows in buildings and to estimate thermal loads and energy demand in order to achieve a comfortable indoor environment. They will also have the opportunity to work with basic building energy software. The last part of the course will provide a general description of heating, ventilation and air-conditioning (HVAC) systems. The goal of course is to teach the students how to design buildings for energy efficiency and to explore innovative building technologies in order to reduce energy use in buildings, which accounts for more than 30% of the total energy consumption in the US.

For additional information

Please contact the Civil Engineering Main Office at (765) 494-2166.



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