



# New Course SPRING 2009

**SCHOOL OF CIVIL ENGINEERING**



**CE 49700 Section 2**

## **Introduction to Architectural Engineering**

**Prerequisites: Sophomore standing in Engineering**  
**Course Credit: 3 hours, MWF 10:30–11:20**



This course is an introduction to the discipline of Architectural Engineering, and will introduce students to the building industry and the role of the architectural engineer. Students will become familiar with various topics surrounding the planning, design, construction, and operation of engineered systems for residential, commercial, industrial, and institutional facilities. Architectural engineering is a multi-disciplinary profession, which requires mechanical, civil, construction, and electrical engineers. Students in this class will explore basic concepts in diverse engineering topics and their application to the building industry. These include structural engineering, water resources and fluid mechanics, building materials, construction engineering management, geotechnical engineering, and building systems such as heating, ventilation, and air conditioning (HVAC); lighting; electrical; plumbing; and acoustics. Basic architectural design concepts will be introduced. The overriding goal of this course is to help students gain an appreciation for the various disciplines that are integrated into building design and operation.

### **For Additional Information**

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

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# New Course SPRING 2009

**SCHOOL OF CIVIL ENGINEERING**



**CE 49700 Section 3**

## **Architecture and Technology**

**Prerequisites: Sophomore standing**

**Course Credit: 3 hours, MWF 11:30–12:20**



This course will focus on the architectural and technological issues related to the development of the built environment. Green building and sustainable design will be covered in depth. The design of notable buildings from different periods will be explored; considering both the primary architectural and technological features along with discussion of the social background.

Architectural form and functionality will be reviewed. With the increasing complexity of buildings, new technologies are needed to meet the contingent requirement of indoor comfort and human health. Recent technological developments in this area will be presented. Of note, buildings consume almost 2/3 of the world's energy and result in half of today's global greenhouse gas emissions. The issues of environmental sustainability are becoming an essential component of the architecture profession. The course will explore current interpretations of sustainability in and around architecture; in the broadest sense—resource use, ecological balance, and minimizing environmental impacts in design.



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