



*Understanding sun, wind, water and energy flows is fundamental to sustainable design.*

## 48-315/48-635: Environment 1: Climate and Energy in Architecture

Units: 9

Instructor: Vivian Loftness

This course introduces architectural design responses for energy conservation and natural conditioning, human comfort, and the site-specific dynamics of climate. To explore the significance of architectural design on energy consumption and comfort, students will compile a professional energy consultants report for a client's residential home, designing the most viable energy conservation retrofit measures for their client from siting, massing, organization, enclosure detailing, opening control, to passive system integration and management. An overview of world energy consumption in buildings and energy design standards will be illustrated by lectures on building energy conservation successes, and emerging demands for a broader definition of sustainability.