Building Ecology

ARCH 575 (ET Elective)
Credit: 3 semester hours
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DESCRIPTION

This project-based course introduces ecological principles in building design, and explores strategies and methods for designing sustainable buildings. The concepts of building ecosystems and resource self-sustenance are introduced. The principles of the economy of resources, lifecycle design, and humane design are discussed, and the ecological factors associated with these principles are examined. Design strategies for increasing resource efficiency and self-sustenance of built environments are investigated. Zero energy design strategies, methods and processes are examined. Projects that analyze lifecycle of buildings and their environmental impacts, develop conceptual frameworks for self-sustainable built environments, analyze site climates and develop prioritized climate-responsive energy conservation strategies, assess the feasibility of zero energy buildings, and design ecological and self sustainable buildings will be conducted.