New Seminar for Fall 2001!

SUSTAINABILITY AND THE BUILT ENVIRONMENT

Description
In the United States, 1/3 of end-use energy and 2/3 of electricity are consumed in 80+ million buildings. Huge direct and indirect environmental consequences are associated with the ways we design, build, operate, maintain and ultimately dispose of buildings. Progress toward a sustainable future cannot ignore the importance of the built environment. This seminar aims to foster a wide-ranging and intellectually substantial exploration of sustainability as it relates to the built environment. "Sustainability" implies a concern for social justice in the present, for generational equity, and for the value of environmental services. The "built environment" is intended to span a range of scales from functional units within buildings to entire urban areas.

Format
The seminar will meet once per week for 80 minutes. Each meeting will feature presentations from one or two participants on selected topics, plus associated discussion.

Prerequisites
Graduate standing or consent of instructor.

Possible Topics
(1) What is meant by sustainability? Can it be measured? What are the metrics?
(2) Energy and resource use in the building sector. What are the current levels? What future improvements are possible?
(3) What are the important environmental impacts of buildings? How can these be quantified?
(4) Economics of sustainability in the built environment
(5) Environmental and resource impacts of building construction
(6) Assessing land use and ecosystem impacts of the urban and suburban landscape (e.g., footprint assessment), including transportation implications
(7) Social justice and the built environment
(8) Effects of the internet on sustainability in the built environment
(9) International perspectives on sustainability in the built environment
(10) Retrofitting the built environment: how can we improve the existing stock?
(11) Case studies of green buildings, a critical evaluation
(12) Sustainability targets: what level of impacts would be acceptable?

Conveners
Bill Nazaroff, Professor, Civil and Environmental Engineering
Arpad Horvath, Assistant Professor, Civil and Environmental Engineering
Ashok Gadgil, Senior Scientist, Lawrence Berkeley National Laboratory

Logistics
Course designation and control number: CE 298-009 CCN 14411
Meeting locations: Tu 3:30-5 PM, 212 O'Brien
Credit: 1 unit, S/U

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