

Spring 2005

Sustainability and the Built Environment

CVEN 4838/5838
(3 credit hours)

ECCR 150, Tu. & Th: 5:00 – 6:15 p.m.

Instructors:

- Bernard Amadei, Professor, CEAE Department, Boulder
- Dan Chiras, PhD, Sustainable System Design, Inc (Author of The New Ecological Home, The Solar House, The Natural House, Superbia! 31 Ways to Create Sustainable Neighborhoods, and The Natural Plaster Book)
- Mark Schueneman, Colorado Straw Bale Association
- Johnny Weiss and Laurie Stone, Solar Energy International
- And other speakers involved in appropriate and sustainable technologies

Course Description: The objective of this course is to introduce students to the fundamental concepts of sustainability and sustainable development. Emphasis will be placed on understanding the interaction of the built environment with natural systems and the role of technical and non-technical issues in shaping engineering decisions. Case studies taken from industry will be used as illustrative examples to show students how sustainability has been and can be introduced in engineering practice. Special emphasis will be placed on methods to identify and select sustainable solutions to design problems; methods of making trade-offs between alternative solutions; methods of improving existing solutions; and methods of reasoning.

New in 2005: Several hands-on modules will be offered on natural building technologies and alternative building systems. Topics to be covered include: eco-materials, sustainable water and waste water systems, renewable energy, waste and waste products, green building construction, strawbale construction, natural plasters, and building with earth and straw. All hands-on modules will take place in the Appropriate and Sustainable Technology Lab (ASTL) on the East campus.

This course can be taken as a Technical Elective or Socio-Humanistic Elective.

For more information, contact Amadei@colorado.edu (303-492-7734).