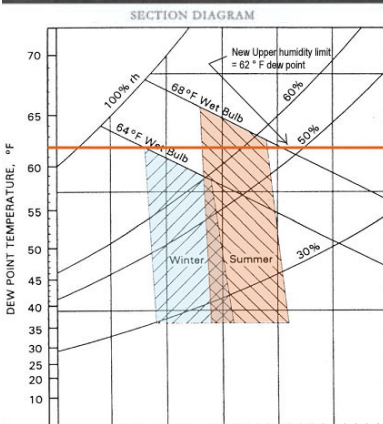


ARCH 6226RG - Green Construction

**Tuesday+Wednesday+Thursday, Time TBD, First Summer Mini-Semester
Russell Gentry**

Green Construction focuses on strategies and technologies to improve the energy efficiency and performance of buildings, and to reduce the environmental impact of buildings. The course emphasizes technical aspects of building design, materials selection, construction processes, and building operations. The use of objective criteria for assessing building “green-ness”, from meta issues such as building location and site – to operational details such as the selection of cleaning chemicals, is stressed throughout the course. The course will provide detailed information on and a critique of green rating systems and design methodologies.



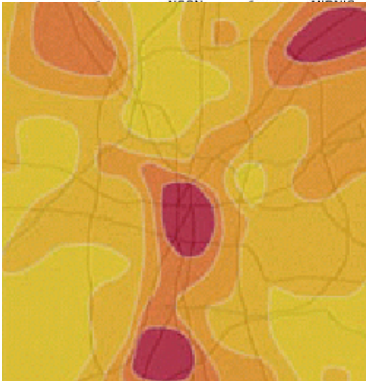
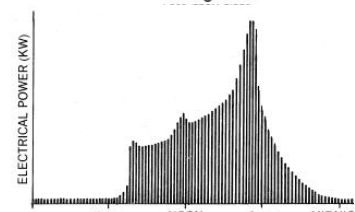
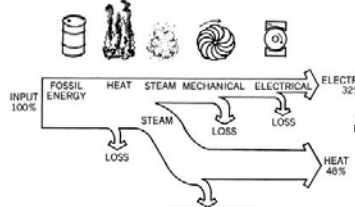
The course is taught jointly by Professor Russell Gentry along with staff from the Southface Energy Institute.

Course Structure

The course is primarily a lecture course. Many of the lectures will be given by outside subject-matter experts. Panel discussions by area architects, engineers, and contractors will explore the practical aspects of designing and building green. Site visits to green buildings, on the Georgia Tech campus, and to the Southface headquarters building are anticipated.

Grading

Grading will be based on short homework assignments, a mid-term exam, on one longer-term research project or group project and on class participation. Your participation in class discussions – in reaction to the assigned readings, homeworks, and lectures – along with class attendance, is expected.



Topics

The planned lectures for the course are listed below. The order of the lectures will be based on the availability of outside participants and our ability to schedule the anticipated field trips.

- Ecology/Environmental Movement/Social Justice/Green Planning
- Global Energy Picture
- Energy Use in Buildings
- Energy + Thermal Science Refresher
- Intro to Rating Systems / Green Design Roundtable
- LEED Rating System 1
- LEED Rating System 2
- LCA/LCC: Life Cycle Costing
- LCA: Life Cycle Analysis
- Residential Construction
- Building Site + Indoor Environmental Quality
- SouthFace Tour + Eco-Office Tour
- Building Commissioning, Operations + Maintenance, Post Occupancy Evaluation