Introduction to Sustainable Architecture and Design
SRED 6200_Summer 2014  | rm 204 | Richardson Memorial Hall
Andrew Liles AIA LEED AP BD+C

Overview
The intent of this course is to introduce a vocabulary of sustainable principles, design and building. This course will introduce an array of sustainable design concepts and demonstrate their efficacy through lectures, discussions, readings and case studies. Students will learn a variety of green building strategies by analyzing successful projects. Various scales, contexts, cultures, methods and approaches will be explored to encourage a comprehensive and holistic understanding of sustainable design.

Schedule
Class will meet in Room 204 of Richardson Memorial Hall from 9:30am to 1pm on weekdays from 07-18 July. Please refer to the attached schedule for readings, lectures, and discussion topics.

Daily Schedule
All times are flexible and subject to change.
09:30-09:45am Quiz
09:45-11:00am Course Lecture
11:00-11:15am Break
11:15-12:00pm Discussion
12:00-01:00pm Tour | Guest | Film

Requirements
Quizzes will occur daily at the beginning of class, and will any material covered the previous day; lectures, films, tours, etc. Students will prepare written responses to readings and will actively participate in class discussions. Responses will be submitted digitally through MyTulane.Blackboard.com. Each student will maintain a sketchbook, including notes and sketches from site visits, lectures and reviews. Please note that a reading and the companion summary are due for the first day of class.

Final Presentation
Students will an award-winning sustainable project and its strategies or systems in detail, and will demonstrate their application in two (2) different locations, iterations or project types. These strategies will be described, analyzed and depicted in the digital presentation including plans, sections, and, most importantly, the student’s own drawings and diagrams. Project data, details and basic information (sf, cost, location, etc) should be included, along with a bibliography of sources.

Grading
30% Class Participation
30% Quizzes
30% Final Presentation
10% Sketchbook
Grading Clarification

A  Superior Work  4.0
Exceptional performance, strongly exceeding requirements of assignments; initiative proving independent resourcefulness; strong positive attitude toward
the work; a growing level of improvement

B  Good, Above Average  3.0
Adequate performance above the norm, accurate and complete, beyond the requirements of assignments; good initiative when stimulated by some
desirable achievement; positive attitude towards the work; improvement showing marks of progress

C  Average  2.0
Mediocre or conservative performance, satisfying all requirements of assignments with a neutral or ordinary level of initiative, attitude and performance

D  Below Average  1.0
Inadequate performance not satisfying the requirements of the assignment; projects with an indifferent and unnoticeable level of initiative, attitude and improvement

F  Failing  0.0
Ineffective performance not satisfying the requirements of the assignment to an extreme degree; level of initiative, attitude and improvement non-existent

I  Incomplete  0.0
The work presented did not address the assignment or was incomplete

NR  Not Received  0.0
The work was not handed in on the required date

Students are expected to attend every class and remain for the duration of the class period. Students are expected to arrive on time and to be prepared for
each class with all required materials to participate fully in class activities. According to school policy, three unexcused absences will result in the failing of
the course.

Websites [compiled by the Pratt Institute Libraries]

ADPSR - Architects Designers Planners for Social Responsibility
Established in 1981, Architects / Designers / Planners for Social Responsibility (ADPSR) works for peace, environmental protection, ecological building, social
justice, and the development of healthy communities.
http://www.adpsr.org/

American Solar Energy Society (ASES)
Nonprofit organization dedicated to increasing the use of solar energy, energy efficiency, and other sustainable technologies in the U.S ASES is the United
States Section of the International Solar Energy Society.
http://www.ases.org/

BuildingGreen
Research, thinking, and writing, including Environmental Building News, the GreenSpec directory of green products, and the BuildingGreen Suite of online
tools.
http://www.buildinggreen.com/index.cfm

Center for Livable Communities
National initiative of the Local Government Commission (LGC) a nonprofit, nonpartisan, membership organization. The LGC developed the Ahwahnee
Principles for resource-efficient local and regional land use planning.
http://www.lgc.org/center/

Consortium on Green Design and Manufacturing
A Research and Educational Partnership Between Academia, Industry and Government based at UC Berkeley.
http://cgdm.berkeley.edu/
Global Green USA
http://www.globalgreen.org/

GreenerBuildings
The resource center for environmentally responsible building development.
http://www.greenerbuildings.com/

The Hannover Principles, by William McDonough
Introduces the Hannover Principles of sustainable design.
http://www.mcdonough.com/principles.pdf

iGreenBuild.com
Resource for the latest eco-friendly news, articles, reports, products.
http://www.igreenbuild.com/

O2
Global, informal network for anyone interested in sustainable design.
http://www.o2.org/

OIKOS
Green building source guide, includes links. Promotes sustainable design and construction.
http://www.oikos.com/

Resource Renewal Institute
Funds and facilitates projects in sustainability. Site has links to other sources.
http://www.rri.org/

Rocky Mountain Institute
RMI is a not-for-profit “think and do tank” that works with individuals and organizations of every imaginable kind to help them use energy and resources efficiently while being ever-better stewards of the environment.
http://www.rmi.org/

SmartGrowth
Smart growth invests time, attention, and resources in restoring community and vitality to center cities and older suburbs. Part of the Sustainable Communities Network.
http://www.smartgrowth.org/

Solar Living Center / The Solar Living Institute
Promotes sustainable living through inspirational environmental education. The Institute provides practical, education by example and hands-on workshops on renewable energy, green building, sustainable living, permaculture, organic gardening and alternative, environmental, construction methods. Has a 12-acre demonstration center located in Hopland, California, powered entirely by working renewable energy systems.
http://www.solarliving.org/overview.cfm

Sustainable Buildings Industry Council
SBIC is an independent, nonprofit organization. Focus on energy efficiency, renewable technologies, daylighting, healthy indoor environments, sustainable building materials and products, and resource conservation.
http://www.sbicouncil.org/

Sustainable Sources (available through Greenbuilder.com)
http://www.greenbuilder.com/general/buildingsources.html

United States Green Building Council
http://www.usgbc.org/

Urban Ecology
http://www.urbanecology.org/
<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Session</th>
<th>Description</th>
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<tbody>
<tr>
<td>07.07</td>
<td>Monday</td>
<td>lecture.</td>
<td>Course structure; outline. History of Sustainability; USGBC; LEED;</td>
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<tr>
<td></td>
<td></td>
<td>guest.</td>
<td>Tiffany Lin., SunShower House, New Orleans, LA.</td>
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<tr>
<td>07.08</td>
<td>Tuesday</td>
<td>site strategies, extensive</td>
<td>Prof. Michael Crosby, Passive Design [Natural Systems]; Vernacular Precedents; Regional Priority; Solar Orientation; Seasonal Strategies</td>
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<td>tour.</td>
<td>Dinwiddie Hall, Tulane University.</td>
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<tr>
<td>07.09</td>
<td>Wednesday</td>
<td>site strategies, intensive</td>
<td>Site Selection; Urban Density; Green Space; Transportation; Heat Island; Brownfields</td>
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<tr>
<td>07.10</td>
<td>Thursday</td>
<td>water strategies, external</td>
<td>Natural Drainage Patterns; Watershed; Stormwater Management; Xeriscapes; Percolation; Porous Surfaces; Erosion + Sediment Control</td>
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<tr>
<td>07.11</td>
<td>Friday</td>
<td>water strategies, internal</td>
<td>Greywater; Wastewater treatment; Low Flow</td>
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<tr>
<td></td>
<td></td>
<td>reading.</td>
<td><em>NY Times.</em> The New Green Building. 20 May 2007. ch. 4-6</td>
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<td></td>
<td></td>
<td>work.</td>
<td>Final Project work session.</td>
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<tr>
<td>07.14</td>
<td>Monday</td>
<td>energy strategies, external</td>
<td>Renewables; Biomass; Wind; Geothermal; Cogeneration; Green Roofing; High Albedo Roofing;</td>
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<td>Tour.</td>
<td>Lavern Bernick Center for University Life.</td>
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<td>07.15</td>
<td>Tuesday</td>
<td>energy strategies, internal</td>
<td>Sustainable Lighting Strategies; Daylighting; CFS, LEDs, waste to energy; Long Life</td>
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<td>Reading.</td>
<td>Moe. <em>Compelling Yet Unreliable Theories of Sustainability.</em></td>
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<td>07.16</td>
<td>Wednesday</td>
<td>interior environment.</td>
<td>Air Quality; Individual Occupant Control; Low VOC Content; Recycled Content;</td>
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<td>Tour.</td>
<td>Hertz Practice Facility. Tulane University. Amber Beezley</td>
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<td>07.17</td>
<td>Thursday</td>
<td>synthesis, part I</td>
<td>n/a; travel to Holy Cross &amp; Make It Right Foundation [9th Ward]</td>
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<td>Reading.</td>
<td>n/a</td>
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<td>Tour [10am]</td>
<td>Holy Cross Neighborhood. Michelle Pyne</td>
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<td>07.18</td>
<td>Friday</td>
<td>synthesis, part II</td>
<td>Final project presentations.</td>
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<td>Reading.</td>
<td>n/a</td>
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<td>Tour.</td>
<td>n/a</td>
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