Sustainable Neighborhood Development
SYLLABUS

Spring 2012

ARC5931.002   Ref# 20310  3 credit hours
Blackboard Name: ARC5931.002S12: Sustainable Neighborhood Dev.

Friday 9:30 am - 12:15 pm – Location: HMS 333

Instructors:
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Urban and Community Design Program
School of Architecture & Community Design, College of The Arts

COURSE DESCRIPTION

Urban designers, architects, landscape architects, planners, real estate developers, environmental engineers, public officials and community advocates are all involved in the integrated decision-making processes often referred to as urban and community design, or more specifically that of city building. Increasingly they are being asked to create healthy, sustainable, adaptive and resilient urban neighborhoods. This course will focus on understanding and evaluating sustainable neighborhood development strategies, using multiple concepts, practices and approaches. In doing so, the course will utilize a number of criteria used at the national level to establish benchmarks and rating metrics for sustainable neighborhood design and development (including LEED for Neighborhood Development).

Students will assess and critique neighborhood development projects and design proposals that reflect a number of qualities related to sustainable urbanism in general or seek to promote specific aspects of sustainable and resilient communities. The scope of this course will include a survey of sustainable conditions related to the built urban landscape, within the broader context of the city as an integrated dynamic urban social-ecological system.

The course will include guest lecturers who will discuss sustainable design approaches and the relevance of lessons learned from specific projects. To make the course more relevant to all students, regardless of disciplinary background, guest lecturers will be chosen from diverse disciplines to further emphasize the necessary involvement of experts from multiple disciplines in realizing sustainable conditions at the scale of the neighborhood, the community or district, and the city or town as whole.
STUDENT-CENTERED COURSE OBJECTIVES

- To understand the range of integrated concepts and approaches that are critical in achieving sustainability at the larger scale of communities and urbanism.
- To understand how diverse physical, ecological and social characteristics of urban neighborhoods interact and ultimately influence or determine the form of sustainable and resilient urban social-ecological contexts.
- To understand local, national and global trends and trajectories that affect the overall sustainability of urban neighborhoods.
- To understand and utilize some of the core components of national/international rating systems such as LEED - ND (Neighborhood Development).
- To assess and evaluate specific urban and community design techniques, strategies and approaches used by urban designers, architects, landscape architects, planners, environmental engineers and other professionals that contribute to sustainability at a larger scale.
- To gain experience in researching relevant scholarly articles from multidisciplinary literature to understand diverse perspectives on the subject of sustainable community development and to further assist in developing individual knowledge and points of view.
- To assist students with developing critical thinking and communication skills through analysis, written assessments, and in-class oral presentations.
- To impress upon students the importance of teamwork across multiple disciplines.

COURSE GOALS

- The overarching goal of this course is to introduce the student to the idea of sustainability at different scales as an integral component of the design, planning and engineering decision-making process that defines physical contexts. In addition to this, the course will provide students with a practical yardstick by which to evaluate urban district and neighborhood design within the context of interrelated built, physical, bio-ecological, and social systems — all considered with an understanding of the importance of the local, regional, national and global scalar dimensions.
- Another goal of this course is to cultivate a practical understanding and appreciation of public and private sector roles and responsibilities in creating healthy, sustainable, adaptive and resilient urban neighborhoods, and to learn how this has been attempted by projects that have been recently implemented.
- This course is intended to give the student the opportunity to use recent scientific literature to critically evaluate a national rating system for sustainable neighborhood design, thus promoting a more dynamic and adaptive understanding what it means to be sustainable.

COURSE ORGANIZATION

This course will include: 1) introduction to sustainable concepts and practices at the larger scale of regions, cities, urban districts and neighborhoods; 2) review of both design and scientific literature related to select dimensions of sustainability, including the prerequisite criteria identified in the LEED – ND program; 3) critiques of certain sustainable neighborhood design concepts and case studies; and 4) presentations from guest lecturers.

The course will consist of lectures, seminar-type discussions, debates, presentations/critiques of neighborhoods and published design case studies, and a final conceptual redesign of an existing neighborhood into a more sustainable one.

Four of the fifteen classes in this course will be offered online on Blackboard. Online instruction will include videos of lectures and presentations, films, readings and short questionnaires and quizzes. Participation in Discussion Board on Blackboard is mandatory.
ASSIGMENTS AND GRADING

1. Participation (35%: 5% for each online class plus 15% for general participation). Students are expected to read all assignments and participate in classroom discussions and debates. A willingness to engage in courteous and respectful, open and honest discussions and debates related to the subject of sustainability is expected. Each online class has brief assignments that are part of the grading for participation. Participating in Discussion Boards on Blackboard is also part of this grading.

   Critique of readings: You are expected to develop a brief (150-250 word) summary of each reading/video assignment. Each summary should include the following components: 1) summary of key take-home points; 2) statement about the neighborhood scale implications of the topic(s); and 3) one intelligent questions designed to encourage class discussion.
   - For in-class discussions, you need not submit the summary. However, one student will be selected at random to lead the discussion of each reading/video.
   - For online classes, you will submit each summary as an assignment. You will then participate in an online critical discussion with fellow classmates about the topics of the week. You can use statements from your own summary as part of these discussions.

2. Neighborhood Audit (10%). Select a neighborhood for rudimentary audit and analysis. This may be the neighborhood you live in or one you visit frequently. You should know the neighborhood well. Conduct a rudimentary sustainability audit and analysis of the neighborhood and propose 5 design/development/re-development ideas for making the neighborhood more sustainable. Present your audit and analysis and the 5 ideas in class.

3. LEED ND Scorecard Revision (15%). In this hypothetical scenario, LEED ND is undergoing revisions and you have the task to revise the LEED ND Project Scorecard. You may revise the scorecard by adding, deleting or editing any of the items. For this assignment, you need to present at least 3 revisions to the scorecard. Present your revisions in class and justify why you edited them. Provide a brief report of your revisions (200-500 words).

4. Design Case Study Critique Class Presentation (20%). Select a case study neighborhood from the list provided. Demonstrate your understanding of at least 6 most prominent aspects of neighborhood design that make it a sustainable neighborhood. Present the analysis and lead a class discussion focused on the case study.

5. Design Case Study Critique Paper (20%). Select a case study neighborhood from the list provided (same as the one you select for Assignment 4). Demonstrate your understanding of at least 6 most prominent aspects of neighborhood design that make it a sustainable neighborhood. Submit a written term paper of approximately 1,500 – 2,500 words. Due before 9:30 AM on May 2nd.

All assignments must be uploaded on Blackboard before the beginning of the class when the assignment is due.

REQUIRED READINGS

Required readings for this course include chapters from books, a number of other articles, scholarly papers and documented case studies. The instructors will provide all readings on Blackboard to coincide with class lectures and discussions. All reading assignments are to be completed outside of class, prior to the date when reading topic will be discussed in class.

- “LEED 2009 for Neighborhood Development Rating System” (free online guide). The LEED for Neighborhood Development Rating System integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design.
ATTENDANCE POLICY

All students are expected to attend each class. Students who anticipate the necessity of being absent due to some important circumstances must provide advance notice to the instructors. Absence without prior notice and permission will result in a 3% grade reduction per absence.

GRADING SCALE

Grades will be determined using the following scale (Grade cutoffs are final):

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SCHEDULE

Week 1  1/13/2012  INTRODUCTION

Topics:
- Introductions
- Course objectives and syllabus
- Defining sustainability at the neighborhood level
- Brief history and background on sustainability
- Ecological, social and economic components of sustainability
- Resilience, adaptive management and the city as a social-ecological system
- Sustainability and scale

Class format and assignments:
- Overview of course objectives and syllabus
- Lecture and discussion
- Introduction to Neighborhood Audit Assignment

Readings (summary not required):

Supplemental Readings:

Week 2  1/20/2012  EVALUATING AND PROMOTING SUSTAINABILITY

Topics:
- Viewpoints: prescribing sustainability
- Tools for evaluating sustainability
- Ecological Footprint
- LEED Neighborhood Development

Class format and assignments:
- **Assignment 1:**
  - Post 5 ideas for Neighborhood Audit Assignment on Blackboard before class
  - Present Neighborhood Audit Assignment in class (5 minute max)
- Lecture and discussion
Readings:

Supplemental Reading:

Week 3  1/27/2012  SOCIAL DIMENSIONS OF SUSTAINABILITY

Topics:
- Social aspects of sustainability
- Preferences, behavior and sustainability
- Political economy and sustainability
- Environmental justice and environmental equity

Class format and assignments:
- ONLINE CLASS
- **Assignment A due before 1/27 at 9:30am:** On Blackboard, submit a separate summary/critique of each of the four readings cited below. You do not need to submit a critique of the Majora Carter talk, but you should consider her story before critiquing the Boone article.
  - Each summary should be a maximum of 250 words, and include the following components: 1) summary of key take-home points; 2) statement about the neighborhood scale implications of the topic(s); and 3) one intelligent question designed to encourage class discussion.
- **Assignment B online discussions 1/27 – 1/31:** During the five days after the normal class time, you are required to participate in online discussions related to each of the topic areas. One student will be chosen at random to initiate a discussion for each topic. You need to submit at least one thoughtful response within each topic area that contributes to the discussion.

Readings:
Week 4  2/3/2012  CITIES-NATURE

Topics:
- City and "Nature"
- Urban ecological principles
- Ecosystem services
- Urban forests and urban vegetation
- Case Study: Tampa's Urban Forest

Class format and assignments:
- Lecture and discussion

Readings:

Supplemental Resources:
Green Cities: Good Health (http://depts.washington.edu/hhwb/);

Week 5  2/10/2012  NEIGHBORHOOD TYPES, FORM AND USE

Topics:
- Neighborhood types

Class format and assignments:
- Lecture and discussion

Readings (summarize each chapter separately):

Supplemental Readings:

Week 6  2/17/2012  WATER

Topics:
- Water supply and vulnerability
Class format and assignments:

- Guest Lecture: "Water Use and Conservation" by B. Terry Johnson PhD, AICP, Florida Center for Community Design and Research
- Lecture and discussion

Readings:


Readings (summary not required):


Supplemental Readings:


Week 7 2/24/2012  SUSTAINABLE WATER RESOURCE MANAGEMENT

Topics:

- Integrated water resource management: water quality, stormwater management, natural drainage systems and green infrastructure
- Planning and design for sustainable water resource management
- Low Impact Development

Class format and assignments:

- ONLINE CLASS
- **Assignment A due before 2/24 at 9:30am**: On Blackboard, submit a separate summary/critique of Tom Singleton’s talk from the online video of the Winter Haven lecture, and each of the readings. Follow the same instructions as the 1/27 class.
- **Assignment B online discussions 2/24 – 2/29**: During the five days after the normal class time, you are required to participate in online discussions related to each of the topic areas. One student will be chosen at random to initiate a discussion for each topic. You need to submit at least one thoughtful response within each topic area that contributes to the discussion.

Readings:
Online Video of Guest Lecture: “Sustainable Water Resource Management and the City of Winter Haven"
Required Viewing: Thomas L. Singleton, PBS&J
Optional Viewing: Mike Britt, P.E., City of Winter Haven
http://www.stormh2o.com/SW/Articles/Sustainable_Water_Resource_Management_8604.aspx (note: be sure to view the links to figures from the article)

http://www.stormh2o.com/SW/Articles/CostEffective_LID_in_Commercial_and_Residential_De_13839.aspx

EPA. 2010. "Green Infrastructure Case Studies: Municipal Policies for Managing Stormwater with Green Infrastructure." Read Chapter 1 Common Drivers and Regulatory Framework and scan the case studies section (Pp 35-68) for innovative approaches. Online: 
http://www.epa.gov/owo

Supplemental Resources:

Catherine de Lange. 2011. "Philadelphia Takes a Revolutionary Approach to Stormwater". This Big City. Online: 
http://thisbigcity.net/philadelphia-revolutionary-approach-stormwater/

EPA. Green Infrastructure: Managing Wet Weather with Green Infrastructure. 
http://cfpub.epa.gov/npdes/home.cfm?program_id=298

http://www.mywinterhaven.com/natural_resources.htm

Week 8  3/2/2012  ENERGY

Topics:
- Energy use and supply
- Energy conservation

Class format and assignments:
- Assignment 2:
  - Post LEED ND SCORECARD ASSIGNMENT on Blackboard before class
  - Present LEED ND Scorecard Assignment in class (5 minutes max)
- Lecture and Discussion

Readings:

Readings (summary not required):

Supplemental Readings:
Upton, p. 238; Kronsberg, p. 242
BedZED, Pp. 142-159.
Week 9  3/9/2012  FOOD SYSTEMS

Topics:
- Food, agriculture and cities
- Local food production

Class format and assignments:
- ONLINE CLASS
- Assignment A due before 3/9 at 9:30am: On Blackboard, submit a separate summary/critique of each speaker from the online video of the Urban agriculture lecture (one for Jim Kovaleski, one for Rick Martinez, and one for Pamely Jo Hatley), and the Boone reading. You do not need to submit a critique of the Carolyn Steel video or the Leschin blog, but you do need to discuss these as part of the online discussion. Follow the same instructions as the 1/27 class.
- Assignment B online discussions due Wed. 3/21: You will have until the Wednesday when you return from spring break to participate in online discussions related to each of the topic areas. Two students will be chosen at random to initiate and seed a discussion for each topic. You need to submit at least 3 thoughtful comments within each topic area that contributes to the discussion. In other words, you must submit at least 6 comments in total in order to receive maximum credit.

Readings:
Readings (summary not required):

SPRING BREAK  March 12 – 17

Week 10  3/23/2012  FOOD SYSTEMS

Topics:
- Food deserts
- Food Security
- Urban agriculture and local food production

Class format and assignments:
- Lecture and Discussion

Readings:

Readings (summary not required):

Supplemental Resources:

Week 11 3/30/2012 NEIGHBORHOOD TYPES, FORM AND USE

Topics:
- Optimal Neighborhood Density, Intensity and Amenities

Class format and assignments:
- ONLINE CLASS
- **Assignment A due before 3/30 at 9:30am**: On Blackboard, submit a separate summary/critique of each assigned reading.
- **Assignment B online discussions due Wed. 4/4**: You will have until the Wednesday to participate in online discussions related to each of the topic areas. One student will be chosen at random to initiate a discussion for each topic. You need to submit at least one thoughtful response within each topic area that contributes to the discussion.

Readings:

Week 12 4/6/2012 NEIGHBORHOOD TYPES, FORM AND USE

Topics:
- Neighborhood Public Space
- Neighborhood Walkability

Class format and assignments:
- Lecture and Discussion

Readings

Supplemental Resources:
Week 13  4/13/2012  VISIONS AND MODELS OF SUSTAINABILITY

Topics:
- Is there an Ideal Sustainable Neighborhood?

Class format and assignments:
- Lecture and Discussion:

Readings:

Week 15  4/20/2012  STUDENT CASE STUDY PRESENTATIONS

Class format and assignments:
- Class presentations of Final Project
  - Assignment 4: Presentation and discussion of Case Study Critique

Week 15  4/27/2012  STUDENT CASE STUDY PRESENTATIONS

Class format and assignments:
- Class presentations of Final Project
  - Assignment 4: Presentation and discussion of Case Study Critique

Week 16  5/2/2012  FINAL PAPERS/PROJECTS DUE 9:30 AM

Class format and assignments:
- No Class
  - Assignment 5: Submit Final Paper/Project on Blackboard before 9:30 AM, Wednesday, May 2nd
myUSF: We will use Blackboard (myUSF, https://my.usf.edu/) for submitting assignments; posting messages and lecture slides; posting grades; and other vital information. Students must activate their NetID’s in order to use Blackboard. For more information about getting your NetID activated, please visit myUSF at https://my.usf.edu.

E-mail: You have a USF e-mail address that you can check via myUSF. It is vital that you maintain an active USF e-mail account and that you check it often. Your USF e-mail is the only way we have to communicate with you! We cannot add your personal e-mail to Blackboard; however, you can forward your USF e-mail to your personal account. Follow the instructions on myUSF. This syllabus is subject to change, and any changes will be transmitted to you via your USF e-mail account.

Make-up Policy

The instructors do not allow make-up assignments in this course except for students in special circumstances and at the discretion of the faculty member teaching the course. These circumstances include: (1) death or illness in the student’s family or of a friend; (2) illness of the student; (3) participation in a university sponsored activity at the time of a regularly scheduled presentation. Make-ups on assignments will not be granted for personal convenience or travel.

Make-ups on assignments will be granted only if the circumstances are documented. Advanced arrangements must be made with the faculty member teaching the course for the situations described in (3) above.

Documentation and make-ups for a missed assignment must be completed within two weeks of its deadline. Examples of appropriate documentation include doctor’s notes, hospital admissions papers, published obituaries, etc. with dates that indicate a student’s inability to complete an assignment on or near its deadline. It is the student’s responsibility to contact the instructors and to provide documentation promptly if an assignment is missed for one of the reasons in the policy above. No assignment make-ups will be allowed beyond two weeks past a published deadline.

Religious Preference Absences

Students who anticipate the necessity of being absent due to a major religious observance must provide notice of the date(s) to the instructors, in writing, at least two weeks in advance of any work that will be missed as a result of the observance.

Emergency Situations

In the event of an emergency, it may be necessary for USF to suspend normal operations. During this time, USF may opt to continue delivery of instruction through methods that include but are not limited to: Blackboard, Elluminate, Skype, and email messaging and/or an alternate schedule. It's the responsibility of the student to monitor the Blackboard site for each class for course specific communication, and the main USF, College, and department websites, emails, and MoBull messages for important general information.

Student Disability Services Statement

“Students in need of academic accommodations for a disability may consult with the office of Students with Disabilities Services to arrange appropriate accommodations. Students are required to give reasonable notice prior to requesting an accommodation.” More information can be found at http://usfweb2.usf.edu/SDS/.

Academic Honesty

All work in this course must be completed by the individual student. No credit will be given for any duplicated or plagiarized work, or on quizzes on which a student has violated quiz-taking policies. Students who turn in work that is in violation of these requirements will be subject to review by the University's Policies on Academic Dishonesty and Plagiarism and may result in failure of this course. See ACADEMIC INTEGRITY OF STUDENTS section of 2009/2010 Undergraduate Catalog (http://www.ugs.usf.edu/pdf/cat0910/08acapol.pdf).