ARCH 6510: Green Design Concepts and Rating Systems

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Office Hours: MWF (appointments preferred – times will be posted at office door typically 10AM-11AM)

Class Room: N173
Class Periods: MON / WED / FRI 11:00 – 11:50AM

Course Description:
"Known or unknown, every world exists because the others do."
- Wendell Berry, A Timbered Choir: The Sabbath Poems, pg. 194 ‘The Old Man Climbs a Tree.’

This course seeks to outline the common “Green Strategies” that are found within rating systems for sustainable architectural design. Using these common strategies, students will be introduced to LEED, Green Globes, Earth-craft, Living Building Challenge, and other rating systems with case studies and experts providing insight to the administration and process to adherence to each. Primarily the course will highlight the LEED rating system as a method of instruction.

The primary areas of focus in these strategies are topics of; SITE, WATER, WASTE, ENERGY*, ATMOSPHERE/ AIR QUALITY, MATERIAL/ RESOURCES and INNOVATION.

*Within this list, overall clarification of benchmarking strategies and energy code (ASHRAE) developments in the US will be provided as an underpinning of the rating systems strategies.

Although areas of focus have been isolated for clarity in all rating systems, this course seeks to highlight integration of systems to achieve ecologically responsive design goals. Seeking a clear understanding of the inter-relationships between elements at both the macro and micro scale, of the man-made and natural, this course highlights symbiotic or reparative relationships within the built environment and offers guidance using a singular rating system / checklist method for assessment (LEED Green Associate_V4).
Course Description:
Lectures and discussions will take place during classes to provide an overview of topics and will be given to present technical data or instructions. Following the lectures, students will conduct self-guided tutorial research within the LEED GA study manual, paralleling course topics. Research methods will be explored to demonstrate awareness of course topics and to document the critical or binding characteristics of measures and methods that contribute to sustainable architectural practice and to expand upon the study guide material.

Learning Objectives:
1) To be aware of primary categories of design through which ecological literacy may be evaluated.
2) To understand and research methods of evaluation (within and without rating systems) that are used in the classification of sustainable design and;
3) To demonstrate awareness of various evaluation methods and the core principles of sustainable concepts through testing (ideally, sitting for the LEED GA exam at the end of the course).

Course Structure:
The course is organized in the following six (6) sections:

Section #1: Foundational
Architecture processes and ratings overlay

Section #2: Process
Project teams and coordination / oversight

Section #3: Scope
Rating systems and measurements

Section #4: Site
Infrastructure and systems of the environment

Section #5: Resources
Energy and water

Section #6: Detail / Application
Materials and innovation

Evaluation
Your grade will be based on five short quizzes / assignments and one final + course attendance:

Attendance / Participation 5%
Quizzes / Assignments 10% each
Midterm 15%
Final 15%

One letter grade will be deducted from assignments if the assignment is submitted after a deadline. An additional letter grade deduction will be made for each calendar day after deadline.

Class Progress is an evaluation based on student’s work improvement, class exercises, work habits, motivation and maturity. A semester-end Digital Record (on USB, DVD, or D2L) of your Project work is required.

Letter grades and accompanying point values are determined according to KSU grading scales (see page 5).
Course Reading – Required / Recommended Texts:

Required Text:

*Selections provided from the following provided by faculty:*

**Building Green selected articles** _Various PDF or online sources provided_


Recommended Texts (to be updated throughout the semester):


Course Schedule (distributed separately):
The syllabus and class outline represent a tentative outline and schedule for this class. The instructor reserves the right to make changes, deletions, corrections, or additions during the course. You will be given notice in advance of any course changes. It is the student’s responsibility to be in class when changes are given. Please see the attached schedule and continue to check D2L throughout the semester for announcements and updates to any course files. See course structure for general outline.

Class Behavior:
1) **ALL CELL PHONES MUST BE TURNED OFF FOR THE DURATION OF THE CLASS.**
2) If the format of the course is lecture delivery, please do not talk during class. Raise hand to speak / address the class. Listen attentively to others and please do not interrupt.
3) No food is allowed in the classroom.
4) Attendance is not only required but also necessary for doing well in this class. Attendance will be taken at every class. Missing more than three classes will result in a grade penalty. Leaving early, or arriving late, will be counted as an absence.
5) All excused absences need to be cleared in advance with the instructor.
6) Missing class for health reasons requires a note from a medical practitioner.
7) Students will be required to log into the D2L service for some class tests and should confirm that they can gain access to the system within the first week of classes.
8) Each exercise and/or project will include detailed project presentation requirements, deadlines and review criteria.
9) Projects will be evaluated by the professor and, in some cases, with other faculty.
NAAB Requirements:

The National Architectural Accrediting Board (NAAB) has established that a curriculum must meet the performance standard for thirty-seven performance outcomes to adequately prepare a student for a career as an architect. This course specifically addresses the following outcomes, which at the conclusion of this course a student will acquire. Although not held to NAAB standards, the course is to address the following subject areas:

A.9 Historical Traditions and Cultures (05%)
A.11 Applied Research (05%)
B.3 Sustainability (40%)
B.8 Environmental Systems (35%)
C.2 Human Behavior (15%)

Supplies:

Materials and Tools
Exercises and projects may have their own lists of required and/or recommended materials in addition to those required below.

Potential needs include:
Architect's scale, engineer's scale, scientific calculator, computer with Microsoft compatible word processing program (Microsoft WORD suggested), CADD program (MicroStation V8, AutoCad, version 2004 or later, or Autodesk Architectural Desktop, version 2004 or later, suggested) and internet software (Microsoft Excel and PowerPoint software is suggested). Computer required for all tests and D2L participation.

Sources for Supplies:
Contact WILEY online to order your required textbook after the first day of class.

KSU Campus Bookstore, located at the KSU Student Center
The Kennesaw State University Bookstore is located on the lower level of the Student Center.
The bookstore is open from 8:00 am to 5:00pm Monday and Thursday and until 4:00pm on Friday
Phone (678) 915-7355
Sam Flax Atlanta, Peachtree St, Atlanta, GA 30318
Website: http://samflaxsouth.com

Vendors for Supplies and Tools
KSU Campus Bookstore, Located in the KSU Marietta Campus Student Center (see above)
Southern Engineer's Bookstore, 1011 S Marietta Pkwy Se Ste 2 Marietta, GA 30060-2822
Phone: (770) 499-8434
Barnes & Noble Bookstore, 2952 Cobb Pkwy SE, Atlanta, GA (770) 953-0966

Disruptive Behavior and Academic Dishonesty:

A faculty member reserves the right to remove any student from his or her course if the student’s behavior is of a disruptive nature or where there is evidence of academic dishonesty. In instances of disruptive behavior and/or academic dishonesty, the faculty member will discuss the circumstances with the student(s) before taking final action.

In the event the student cannot be reached, he/she will be given the grade of "Incomplete" until such time as he/she can be reached. The student shall have the right of appeal of the faculty member's decision first to the faculty member's department head and then to the appropriate college or school dean and, if necessary, to the Vice President for Academic Affairs.

Removal of a student from a course under this provision will result in the faculty member's issuing a grade of "F". A grade of "F" issued under these circumstances shall not be superseded by a voluntary withdrawal and will be included in the student's cumulative grade point average calculated for graduation purposes.
Grades:
The following are used to specify the level of performance in academic courses:

Letter grades and accompanying point values are determined according to the following criteria:

- **A** (95+)
  - This represents exceptional work, exceeding the requirements and exhibiting advancement beyond level in design theory, technical understanding, and or work process.

- **A-** (90+)
- **B+** (88+)
- **B** (85)
  - This grade represents good work, exceeding the requirements and exhibiting creative solutions that respond to the important issues, communicated clearly.

- **B-** (80+)
- **C+** (78+)
- **C** (75)
  - This grade represents competent work, meeting all of the requirements and exhibiting a consistent effort in research, and design process, communicated clearly.

- **C-** (70+)
- **D+** (68+)
- **D** (65)
  - This grade represents marginal work, meeting some or all of the requirements but exhibiting inconsistency in design research and process; lacking in clarity or poorly communicated and generally understood as below level in sophistication and competency.

- **F** (0)
  - This represents failing work, meeting less than minimum requirements, work done below level in sophistication and competency, failure to turn in work on time, or fulfill the obligations of the course as set out in the syllabus.

Students will receive the evaluation and grade for each assigned component within two weeks after the assessment. Student work will be graded according to the following criteria:

1. Accuracy and completeness
2. Clarity of thought and/or procedure
3. Quality of craft - if applicable
4. Regular work habits
5. Participation in studio discussions

Class and laboratory work are considered essential and the grades on each will be combined at the end of the semester and reported as one. Failure in either class or lab may result in failure of the entire course.

A grade of "F" is assigned also if a student is removed from class under the provisions of the section on Academic Dishonesty above.

**WF** Withdrawal After Deadline:
A WF occurs when a student has withdrawn officially after the midpoint of the semester. A grade of "WF" in a course is counted in the student’s scholastic average as a failing grade

Other:

It is the student’s responsibility to disclose to the instructor any special needs and/or learning disabilities he/she may have before the first week of class is over. Students who feel they made need an accommodation based on the impact of a disability should make an appointment with the ATTIC 678-915-7361.

Disruptive behavior and academic dishonesty will not be tolerated.

For reference you may refer to these policies in the SPSU / KSU student handbook at https://web.kennesaw.edu/scai/content/ksu-student-code-conduct

In case of emergency, all students should input the following campus police emergency number in their cell phones:
(678) 915-5555

All student work becomes the property of the Department of Architecture and will be returned at the discretion of the faculty. The faculty also reserves the right to refuse credit for any work that was executed outside the precincts of the School or otherwise executed without coordination with the faculty.

[KSU Academic Catalog, Department of Architecture Policies]

END OF SYLLABUS DOCUMENT