MODIFIED SYLLABUS

Course title: DBLD 5640/6640 Sustainability for Integrated Project Delivery

Credit hours: 3

Prerequisites: For DBLD 5640, student must have departmental approval (ARCH or BSCI)
For DBLD 6640, student must be DBLD major.


Course description:
Sustainability or Green Design/Construction is at the forefront of design and construction industry consciousness. It is a crucial element in providing impetus to the evolution of integrated project delivery strategies. This course will introduce the student to the basic principles, theories, terminology and methods of sustainable design and construction, as well as the role of interdisciplinary design collaboration in realizing these objectives.

Using the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) program as a model, this course will also prepare the student to take and pass the LEED Professional Accreditation Exam.

Course Objectives:

1. To have the student understand the constructional and architectural origins of green building.
2. To have the student understand Green Building principles and how they affect environmental and economic factors.
3. To have the student learn about the materials and methods in Green Building.
4. To prepare the student to take and pass the LEED Professional Accreditation exam.
5. To have the student learn green principles and vocabulary that will allow for more effective communication with other constructors and designers.
6. To have the student analyze a proposed building and apply green knowledge and principles as it pertains to LEED Certification (graduate Students only).
7. To have the student research New Green technologies, materials or methods (green current events).

Course Content:

Week 1 – 2  Introduction to sustainability and LEED (certification procedure and credits)
Independent reading assignment (graduate students)

Week 3 – 4  Principles of sustainable design and construction (theories, terminology, methods).
Test 1.

Week 5  Economics of sustainable design and construction (How much does it cost? How much does it save? Life cycle costs vs up front costs).
Building case study assignment (all students).
Week 6 – 7  
Sustainable sites
Independent reading analysis due (graduate students)

Week 8  
Water efficiency
Test 3.

Week 9  
Energy and atmosphere

Week 10  
Materials and resources
Test 4.

Week 11  
Indoor environmental quality
Case study analysis due

Week 12 – 13  
Innovation and design process

Week 14 – 15  
LEED exam preparation (overview, understanding the credit system and implementing the credits).
Final exam.

Course Requirements/ Evaluation:

Grades for the course will be calculated as follows:

1. 5%  
Attendance

2. 5%  
Class Participation

3. 75%  
Tests (4 tests + Final Exam weighted equally – 15% each)

4. 15%/7.5%  
Building case study (7.5% for graduate students)

5. 7.5%  
Approved independent reading, critique and analysis (graduate students)

Grading scale:

<table>
<thead>
<tr>
<th>Undergraduate students (10-point grading scale)</th>
<th>Graduate students (8 point grading scale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 90 – 100</td>
<td>A 92 – 100</td>
</tr>
<tr>
<td>B 80 – 89</td>
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<td>C 70 – 79</td>
<td>C 76 – 83</td>
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<tr>
<td>D 60 – 69</td>
<td>D 68 – 75</td>
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<tr>
<td>F 59 and below</td>
<td>F 67 and below</td>
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</tbody>
</table>

Course Policy Statement:

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for University classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from this class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request and render a decision.

When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Tiger Cub for more information on excused absences.
Make-Up Policy: Arrangement to make up missed major examination (e.g. hour exams, mid-term exams) due to properly authorized excused absences must be initiated by the student within one week from the end of the period of the excused absences. Except in unusual circumstances, such as continued absence of the student or the advent of University holidays, a make-up exam will take place within two weeks from the time that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.

Attendance/ Participation

Active engagement in class discussion promotes a more stimulating and productive learning environment. Student attention and participation is expected. Students may be asked to add to class discussions by offering pertinent information, opinion, or asking relevant questions. Failure to participate will result in points docked from class participation grade.

Academic Honesty:

The Student Academic Honesty Code will be enforced as delineated in the Tiger Cub (section 1 chapter 8) and the SGA Code of Laws, Title XII – Chapters 1200-1299.

Disability Accommodations:

Students who need special accommodations in class, as provided for by the American Disabilities Act, should arrange a confidential meeting with the instructor during office hours the first week of classes - or as soon as possible if accommodations are needed immediately. You must bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have these forms but need accommodations, make an appointment with The Program for Students with Disabilities, 1244 Halley Center, 844.2096 (V/TT) or email: scw0005@auburn.edu

Justification for Graduate Credit:

Graduate students will be held to higher academic standards through the use of an 8-point grading scale rather than the conventional 10-point scale for undergraduate students. Further, Graduate students will have independent reading assignments each with a book/literature approved by the instructor to which each student must present his/her critical and analytical report and lead the class in a discussion of the topic of the reading.

Existing syllabus follows (see p. 4)
EXISTING SYLLABUS

DBLD 5970/6970 Special Topics
Sustainability: Design and Construction for a Small Planet

Course Description:

Sustainability or Green Design/Construction is at the forefront of the construction industry consciousness. This course will introduce the student to the basic principles, theories, terminology and methods of sustainable design and construction. Using the United States Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED) program as a model, this course will also prepare the student to take and pass the LEED Professional Accreditation Exam.

Textbooks:

The LEED-NC v2.2 Reference Guide Third Edition
By: U.S Green Building Council
Available at: www.usgbc.org/store

Cities for a Small Planet
by: Richard Rogers
published by: Westview Press

Additional reading material that may be required will be assigned via email or in class.

Course Objectives:
1. To have the student understand the constructional and architectural origins of green building.
2. To have the student understand Green Building principles and how they effect environmental and economic factors.
3. To have the student learn about the materials and methods in Green Building
4. To prepare the student to take and pass the LEED Professional Accreditation exam.
5. To have the student learn green principles and vocabulary that will allow for more effective communication with other constructors and designers.
6. To have the student analyze a proposed building and apply green knowledge and principles as it pertains to LEED Certification. (Graduate Students only).
7. To have the student research New Green technologies, materials or methods (green current events).

Course Content:
See Schedule Attachment

Course Requirements:
1. 5% - Attendance
2. 5% - Class Participation
3. 75% - Tests (4 tests + Final Exam weighted equally – 15% each)
4. 15% - Project (*7.5% for graduate students)
5. *Approved independent reading, critique and analysis (graduate students only) 7.5%

Grading:

for undergraduate students
a 10-point grading scale will be used.

<table>
<thead>
<tr>
<th>Grade</th>
<th>90 – 100</th>
<th>80 – 89</th>
<th>70 – 79</th>
<th>60 – 69</th>
<th>59 and below</th>
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<tbody>
<tr>
<td>A</td>
<td></td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>F</td>
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</tbody>
</table>

for graduate students
an 8 point grading scale will be used

<table>
<thead>
<tr>
<th>Grade</th>
<th>92 – 100</th>
<th>84 – 91</th>
<th>76 – 83</th>
<th>68 – 75</th>
<th>67 and below</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>F</td>
</tr>
</tbody>
</table>
Attendance: Attendance is mandatory. You will be allowed 2 unexcused absences without any consequence to your grade. More than 5 unexcused absences will result in an automatic Failure. However, on days of special activities and test days, attendance is mandatory and cannot be counted as one of the 2 unexcused days. Absences on these days must be excused in order for your attendance grade to be unaffected.

Absences are only excused when in accordance with the procedures delineated in the “Rules” section of the current Tiger Cub (section 1, chapter 10). For excused absences, you are responsible for obtaining handouts, notes, and instructions from a classmate.

Class Participation: Active engagement in class discussion promotes a more stimulating and productive learning environment. Student attention and participation is expected. Students may be asked to add to class discussions by offering pertinent information, opinion, or asking relevant questions. Failure to participate will result in points docked from class participation grade.

Handouts: If there are any handouts to be given out for a class period, they will be located on the back counter as you come in to class.

Academic: The Student Academic Honesty Code will be enforced as delineated in the Tiger Cub (section 1 chapter 8) and the SGA Code of Laws. Title XII – Chapters 1200-1299.

Honesty: Special Accommodations: Students who need accommodations must have all necessary paperwork to me and have met with me, if necessary, by Thursday, May 29. If you do not have an Accommodation Memo but need accommodations, make an appointment with The Program for Students with Disabilities, 1244 Haley Center, 844-2096.

Email: Email is recognized as an official means of communication by the University. You are responsible for any class requirements and schedules that are altered in a timely manner using email. Your student email account must be activated. Check it daily.

Testing: Tests may only be made up with an excused absence.

Justification for Graduate Credit: Graduate students will be held to higher academic standards through the use of an 8-point grading scale rather than the conventional 10-point scale for undergraduate students. Further, Graduate students will have independent reading assignments each with a book/literature approved by the instructor to which each student must present his/her critical and analytical report and lead the class in a discussion of the topic of the reading.

Calendar DBLD 5970/6970 Special Topics Design/Build

Week 1 Introduction to Sustainability and LEED
• Introduction to course
• Introduction to LEED (LEED Certification procedure, LEED Credits)
• Introduction to sustainability

Assignments:
Grad/undergrad assignments
• Assign Independent reading
Week 2 Principles of Sustainable Design and Construction
- Exploring sustainable design and construction (Theories, Terminology, Methods)
- Assign Project
- Green current events

Week 3 Economics of Sustainability
- Exploring the Economics of Sustainable design and construction (How much does it cost? How much does it save? Life cycle costs vs up front costs)
- Assign building case study
- Green current events
Test #1

Week 4 Sustainable Sites (LEED)
- Sustainable Sites Overview
- Understanding the credits
- Credit implementation

Week 5 Water Efficiency (LEED)
- Water efficiency Overview
- Understanding the credits
- Credit implementation
- Present analysis of independent reading
- Application of green principles to case study
- Green current events
Test #2

Week 6 Energy and Atmosphere (LEED)
- Energy and Atmosphere Overview
- Understanding the credits
- Credit implementation

Week 7 Materials and Resources (LEED)
- Materials and Resource Overview
- Understanding the credits
- Credit implementation
- Present analysis of independent reading
- Application of green principles to case study
- Green current events
Test #3

Week 8 Indoor Environmental Quality (LEED)
- Indoor Environmental Quality Overview
- Understanding the credits
- Credit implementation

Week 9 Innovation and Design Process (LEED)
- Innovation and Design Process Overview
- Understanding the credits
- Credit implementation
- Present analysis of independent reading
- Application of green principles to case study
- Green current events
Test #4
Week 10 Exam Prep
• Understanding the LEED Exam
• Preparation for LEED Exam
• Preparation for Final Exam
• Present analysis of independent reading
• Analysis of case study
• Projects due

Final Exam