CM 6620 – Sustainable Operations & Maintenance
College of Architecture & Construction Management
Term: Spring 2018

Prerequisite: CM 3180
Class Meeting time: M & W 8:00 – 9:50
Course Website: http://d2l.kennesaw.edu
Class Location: H-324 (Academic Building)
Class instruction methodology: Lecture (4-0-4)
Instructor: Professor Brandi Williams
Office Location: H 331
Office Hours: M by appointment, T 6:30 – 8:30PM, W 6:30 – 7:30 PM, TH 6:30 – 8:30PM, F by appointment
Email /Phone: bwill276@kennesaw.edu / 470-578-7289
Course Communications: D2L email within the KSU D2L Brightspace Access

Required Text/ISBN Number: None required.
  *Additional reading material for selected topics may be assigned.

COURSE SYLLABUS
The intent of the syllabus is to provide the students with information on the course content, required learning outcomes, grading policy, course policies, and Kennesaw State University student policies and resources. This syllabus also includes the tentative topical outline and schedule. Each student is expected to abide by the stated policies.

Course Catalog Description:
This course will emphasize the techniques and methods used in sustainable operations and maintenance. Importance of a collaborative team effort from owner, occupant, facility management, and maintenance providers will be integrated into the course. Influences on the Environment, society, maintenance and energy needs will be analyzed. Topics will include LEED green building operations and maintenance (Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation in Operations). MEP systems such as ventilation, air conditioning, heating, electrical lighting and building control systems will be discussed from a sustainable operations and maintenance perspective.

Student Learning Outcomes covered in this course:

SLO 1 – Critical thinking and creativity
SLO 5 – Principles of leadership in business and management
SLO 9 – Advanced construction management practices
Course Learning Outcomes

Upon completion of the course the student will have the ability to:

CLO 1 – Examine sustainability options for existing buildings.
CLO 2 – Apply rating systems and/or sustainability strategies for existing buildings.
CLO 3 – Analyze sustainability projects using financial tools.
CLO 4 – Develop an implementation plan for a sustainability project.

Purpose of this course:
Each course in the Construction Management program provides the student with an opportunity to attain knowledge, skills, and abilities in one or more of the 10 Student Learning Outcomes (SLO) set forth by the American Council for Construction Education (ACCE). The student’s level of achievement of SLO is measured through one or more Course Learning Outcomes (CLO). The mapping of CLOs with SLOs for the course is shown in the table below followed by the table that presents the mapping of CLO with assessment tools.

Mapping of CLO with SLO

<table>
<thead>
<tr>
<th>Assessment</th>
<th>CLO 1</th>
<th>CLO 2</th>
<th>CLO 3</th>
<th>CLO 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO 1</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLO 5</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>SLO 9</td>
<td></td>
<td></td>
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<td>X</td>
</tr>
</tbody>
</table>

Mapping of Assessment with CLO

<table>
<thead>
<tr>
<th>Assessment</th>
<th>CLO 1</th>
<th>CLO 2</th>
<th>CLO 3</th>
<th>CLO 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Project</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
COURSE POLICIES

Attendance Policy: Attendance is required. Excused absences are given with proper notice and/or documentation. The Class Participation grade is based on your attendance to the class and other approved functions.

Quiz / Exam Policy: There are 3 quizzes for this course. All quizzes are available in D2L.

Make-up Policy: There are no make-up exams.

Assignment Policy: Assignments are posted on D2L. Each assignment has either a Drop Box or is identified as a graded component of the course. Due dates and times are given for all assignments. It is your responsibility to submit the work in the appropriate Drop Box in D2L before the time expires. If the Drop Box has an End Date, then that is the last possible date to submit late work. All student work will be graded within one week of submission.

Course Technology: This course requires access to a computer. The Construction Management Department has 105 computer stations available for student use. At a minimum, students should be able to use a word processing application, a spreadsheet application and a presentation application (i.e., Microsoft Word, Excel and PowerPoint). Bluebeam software is available for estimating, plan review and document management.

Evaluation & Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>30%</td>
</tr>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Ethics Essay</td>
<td>5%</td>
</tr>
<tr>
<td>LEED Lab</td>
<td>35%</td>
</tr>
<tr>
<td>Class participation</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

A = 90-100        B = 80-89        C = 70-79        D = 60-69        F = Below 60

This course is a LEED Lab in partnership with the USGBC ad Agnes Scott College. The LEED Lab portion of the course will focus on the implementation and documentation of LEED O&M credits for an existing building on the Agnes Scott campus.

The LEED Lab coursework is designed to give students hands-on experience with the LEED Rating System, as well as practical application skills in sustainability.

Please be advised that the course structure and topics may change as needed.
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and Syllabus, LEED Lab</td>
<td></td>
<td>Homework 1</td>
</tr>
<tr>
<td>2</td>
<td>IFMA, USGBC, Finance</td>
<td></td>
<td>Homework 2</td>
</tr>
<tr>
<td>3</td>
<td>Triple Bottom Line, Ethics</td>
<td></td>
<td>Project Presentation 1</td>
</tr>
<tr>
<td>4</td>
<td>Green Buildings</td>
<td></td>
<td>Homework 3</td>
</tr>
<tr>
<td>5</td>
<td>Location and Transportation</td>
<td></td>
<td>Homework 4, Quiz 1</td>
</tr>
<tr>
<td>6</td>
<td>Sustainable Sites</td>
<td></td>
<td>Homework 5</td>
</tr>
<tr>
<td>7</td>
<td>Water Efficiency</td>
<td></td>
<td>Homework 6</td>
</tr>
<tr>
<td>8</td>
<td>Energy and Atmosphere</td>
<td></td>
<td>Ethics Paper</td>
</tr>
<tr>
<td>9</td>
<td>Materials and Resources</td>
<td></td>
<td>Homework 7</td>
</tr>
<tr>
<td>10</td>
<td>Indoor Environmental Quality</td>
<td></td>
<td>Homework 8</td>
</tr>
<tr>
<td>11</td>
<td>Innovation, Regional Priority</td>
<td></td>
<td>Quiz 2</td>
</tr>
<tr>
<td>12</td>
<td>LEED Green Associate</td>
<td></td>
<td>Homework 9</td>
</tr>
<tr>
<td>13</td>
<td>IFMA SFP</td>
<td></td>
<td>Homework 10</td>
</tr>
<tr>
<td>14</td>
<td>Facility Management</td>
<td></td>
<td>Project paper</td>
</tr>
<tr>
<td>15</td>
<td>Project Presentations</td>
<td></td>
<td>Project Presentation 2</td>
</tr>
<tr>
<td></td>
<td>Finals</td>
<td></td>
<td>Quiz 3</td>
</tr>
</tbody>
</table>

Note: The topical outline and schedule are tentative and subject to change per the progress of the course.
UNIVERSITY POLICIES: Statement of Student Rights and Responsibilities
KSU Student Code of Conduct

Plagiarism and Cheating:
No student shall receive, attempt to receive, knowingly give or attempt to give unauthorized assistance in the preparation of any work required to be submitted for credit (including examinations, laboratory reports, essays, themes, term papers, etc.). Unless specifically authorized, the presence and/or use of electronic devices during an examination, quiz, or other class assignment is considered cheating. Engaging in any behavior which a professor prohibits as academic misconduct in the syllabus or in class discussion is cheating. When direct quotations are used, they should be indicated, and when the ideas, theories, data, figures, graphs, programs, electronic based information or illustrations of someone other than the student are incorporated into a paper or used in a project, they should be duly acknowledged. No student may submit the same, or substantially the same, paper or other assignment for credit in more than one class without the prior permission of the current professor(s).

University Policy on Academic Misconduct: Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the KSU Student Academic Integrity Policy at http://kennesaw.edu/handbooks/faculty/section2_13.php

University Policy on Accommodating Students with Disabilities:
Students requesting accommodation for disabilities must first register with the Office of Disabled Student Support Services at http://www.kennesaw.edu/stu_dev/dsss/dsss.html. The Office of Disabled Student Support Services will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

**Netiquette:** Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf

Electronic Recording & Social Media Policy
Electronic recording performed without the consent of the people being recorded chills the free exchange of ideas. Academic freedom, free inquiry, and freedom of expression should not be limited by the fear that one’s brainstorming, polemic discourse, speculative inquiry, or any other kind of expressed curiosity made within the space of a university classroom will be made public without one’s consent. This fear is unacceptable regardless of whether one is in an online, hybrid, or face-to-face classroom setting. Accordingly, no person shall electronically record any class discussion without the written permission of the instructor. No person shall publish online or elsewhere any electronic recording of a class discussion without the written permission of the instructor and any other persons who were recorded. This policy is not intended to discourage electronic recording in the classroom or the use of social media when such actions are performed with the written consent of the instructor and any other persons who were/will be recorded. Faculty accommodate all reasonable requests to electronically record a class discussion; these requests must be documented by the DisAbled Student Support Services available at: http://www.kennesaw.edu/stu_dev/dsss/prospect.shtml
GETTING HELP

For issues with technical difficulties, please contact the Student Helpdesk:

1. Fill out a service form  http://uits.kennesaw.edu/support/formselect.php?s=tech
2. Email: studenthelpdesk@kennesaw.edu
3. Call: 770-499-3555

Getting Started With Technology Services  http://uits.kennesaw.edu/

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from ITS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Additional Technology Resources

1. Student Service Desk and Help Center  studenthelpdesk@kennesaw.edu
3. USG Desire2Learn Help Center  https://d2lhelp.view.usg.edu/
4. D2L Training Options & Resources for Students  https://web.kennesaw.edu/acs/pages/desire2learn/student-resources-d2l
5. Computertrain Online Courses  http://www.kennesaw.edu/dlc/FacultyResources/
6. ITS Documentation Center  http://uits.kennesaw.edu/docs/netaccess/guides/windows7_wifi_instructions.pdf
7. Check Service Outages  http://status.usg.edu/
8. Maintenance Schedule  https://usg.desire2learn.com

Academic Resources

1. Academic Tutoring Services  http://www.kennesaw.edu/stu_dev/alp/academic.shtml
2. Disability Resources  http://www.kennesaw.edu/stu_dev/dss/dss.html
4. Library  http://www.kennesaw.edu/library/
7. Math Lab  http://mathlab.kennesaw.edu/

Student Support and Wellness Resources

1. Career Services Center  https://careerctr.kennesaw.edu/
2. Counseling and Psychological Services  http://sss.kennesaw.edu/cps/
3. Center for Health, Promotion and Wellness  http://www.kennesaw.edu/col_hhs/wellness/
4. Student Health Clinic  http://studenthealth.kennesawstateauxiliary.com/

KSU desires to resolve student grievances, complaints and concerns in an expeditious, fair and amicable manner. The Complaints and Appeals Page was developed to assist current and prospective students in submitting complaints and appeals and to direct them to the most effective venue for accurate information and resolution. The resources on the page will direct students to the specific venue to appropriately address related student complaint.  http://www.kennesaw.edu/complaints_appeals.shtml

Complaints for online students are resolved following the same general procedures for students who attend classes on campus. However, for any process that requires that a student appear in person, the university may make other arrangements. For processes that cannot be completed via telephone, e-mail, or written correspondence, the university may set up a two way Video conference site in place of a meeting on the KSU campus.