

## LANEY COLLEGE COURSE OUTLINE

<b>COLLEGE:</b>		<b>STATE APPROVAL DATE:</b>	01/28/2018
<b>ORIGINATOR:</b>	Kelle Lynch- McMahon	<b>STATE CONTROL NUMBER:</b>	CCC00058 9606
		<b>BOARD OF TRUSTEES APPROVAL DATE:</b>	01/23/2018
		<b>CURRICULUM COMMITTEE APPROVAL DATE:</b>	11/17/2017
		<b>CURRENT EFFECTIVE DATE:</b>	06/18/2018

### DIVISION/DEPARTMENT:

#### 1. REQUESTED CREDIT CLASSIFICATION:

Credit - Degree Applicable  
Course is not a basic skills course.  
Stand-alone

#### 2. DEPT/COURSE NO:

CONMT 002

#### 3. COURSE TITLE:

LEED CM-Sustainable Building and Management Practices

#### 4. COURSE: Laney New Course

**TOP NO.** 0957.20

#### 5. UNITS: 3.000

**HRS/WK LEC:** 2.00 Total: 35.00

**HRS/WK LAB:** 3.00 Total: 52.50

**HRS/WK TBA:**

#### 6. NO. OF TIMES OFFERED AS SELETED TOPIC: AVERAGE ENROLLMENT:

#### 7. JUSTIFICATION FOR COURSE:

This course will support the expansion and update of the program requirements of the CCSU and ABET for transfer credit coursework in the are of construction management . The department will benefit from the course in that other disciplines can take this course and benefit from the information presented (architecture, carpentry, wood technology, inspection). Course supports the college and district sustainable initiatives. Program work provides a course that is not offered Laney and will provide framework for innovative CM coursework.

#### 8. COURSE/CATALOG DESCRIPTION

Construction and management practices for sustainable building: sustainable principles, strategies, concepts, and best practices of LEED certified projects.

a. Not open for credit to students who have completed or are currently enrolled in ARCH 010, CONMT 032, ARCH 111

#### 9. OTHER CATALOG INFORMATION

a. Modular: No If yes, how many modules:

b. Open entry/open exit: No

c. Grading Policy: Letter Grade Only

d. Eligible for credit by Exam: Yes

e. Repeatable according to state guidelines: No

f. Required for degree/certificate (specify):

Construction Management, Building Codes And Inspections

g. Meets GE/Transfer requirements (specify):

CSU Transferasble

h. C-ID Number: Expiration Date:

i. Are there prerequisites/corequisites/recommended preparation for this course? Yes

Date of last prereq/coreq validation: 11/17/2017

j. Acceptable for Credit: CSU/UC

- 10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS):** (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Create a strong Foundation for understanding green building principles.
2. Develop a deep appreciation and understanding of how environmental issues impact construction projects or program.
3. Understand and know how to implement the Green Rating System for construction projects
4. Apply green building techniques through each phase of construction.

- 11A. COURSE CONTENT:** List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

**LECTURE CONTENT:**

1. Sustainable Design	20%
a. What is it and why do we do it?	
2. Sustainable Management	10%
a. What is it and why do we need it?	
3. Sustainable materials and how they are used?	10%
a. what is a green product?	
b. Where are they coming from?	
4. Best practices for Residential Construction	15%
a. Northeast US	
b. North West US	
c. South	
d. International Projects	
5. Best Practices for Commercial Construction	15%
a. The new standards	
b. Why are codes changing?	
6. Public Works Projects	5%
7. Infrastructure and Transportation Projects	
8. Healthcare Facilities and Community based Projects	5%
a. The new models	
b. How they affect the industry and the community they are built in	
c. Boomers why they mean so much	
9. Urban Planning and how it affects construction sequencing	10%
10. Case Studies of success and failure	10%
a. Building a 21st century facility in a 19th century city	

**11B. LAB CONTENT:**

Sustainable Design lab practicals integrating design	20%
Sustainable Management lab practicals	10%
Sustainable materials lab practical - experimenting with different materials	10%
Best practices for Residential Construction	15%
Best Practices for Commercial Construction lab practicals integrating standards in design	20%

Healthcare Facilities and Community based Projects lab practicals integrating new model concepts with Boomer clientele 5%

Urban Planning sequencing lab practicals 10%

Case Studies of success and failure of 21st century building in 19th century city lab practical 10%

**12. METHODS OF INSTRUCTION** (List methods used to present course content.)

1. Activity
2. Lecture
3. Observation and Demonstration
4. Projects
5. Field Trips
6. Visiting Lecturers
7. Critique
8. Discussion

**13. ASSIGNMENTS:** 80.00 hours/week (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments:

Students will be required to do research and investigate the sources of case studies presented. They will be required to demonstrate to instructor that they have interviewed and collected data in real time on projects assigned for review. Some 1. Prepare research on how graduates will be successful engineering professionals and problem solver: a. Create projects that require students to research a green building and determine how is it designed, constructed, and operated. b. Students will develop a research idea or proposal, conduct a literature review, develop a methodology, communicate results, and develop conclusions and recommendations. 2. Examples of real-world projects and problems are presented. 3. Because green design is a relatively new field, the students are regularly reminded that new research and technologies are developing. 4. Develop skills that support the student's proficiency in preparing a research reports to resemble professional engineering reports as much as possible

ASSIGNMENTS ARE: (See definition of college level):  
Primarily College Level

**14. STUDENT ASSESSMENT:** (Grades are based on):

ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

COMPUTATION SKILLS

NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)

SKILL DEMONSTRATION

MULTIPLE CHOICE

**15. TEXTS, READINGS, AND MATERIALS**

A. Textbooks:

Construction Specification Institute (CSI). *Sustainable Design and Construction Practice Guide*. 2nd Construction Specifications Institute, 2015.

Schriener & Kephart. *Building for Boomers*. 2nd McGraw Hill, 2013.

Rationale: This book has not been updated since first published

\*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes

Are nonprint materials adequate? Yes

Are electronic/online resources available? Yes

Are services adequate? Yes

Specific materials and/or services needed have been identified and discussed. Librarian comments: Library will provide reserve copies for these texts and Folette has verified books are available in e-book format if student chooses to utilize e-book format. Please provide a list of recent, recommended supplementary (non-textbook) titles to the acquisitions librarian.

C. Readings listed in A and B above are: (See definition of college level):

Primarily college level

**16. DESIGNATE OCCUPATIONAL CODE:**

B - Advance Occupational

**17. LEVEL BELOW TRANSFER:**

Y = Not Applicable

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**SUPPLEMENTAL PAGE**

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Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

**COREQUISITE(S):**

CONMT 019: Construction Project Management II

**RECOMMENDED PREPARATION:**

Relevant knowledge of subject matter and work experience is suggested

CONMT 018: Construction Project Management I

or

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**STUDENT LEARNING OUTCOMES**

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1. **Outcome:** 1. Students will communicate clearly the basic principles of construction management and sustainability.  
**Assessment:** The students will be evaluated on their knowledge of the materials through 1. Oral, Written presentations and classroom project based research 2. Student to student engagement with preparation of reports of research completed
2. **Outcome:** Students will develop and execute green construction practices in presentation of projects completed in class.  
**Assessment:** Instructor will assess students ability through written review of work.
3. **Outcome:** Students will demonstrate technical skills applied to use of principles related to construction and environmental social responsibility.  
**Assessment:** Instructor will create a project that will require students to use the technical skills developed for a written and visual presentation of social impact issues related to construction.
4. **Outcome:** Students will be able to communicate in written, oral and visual forms to express the principles of sustainable management .  
**Assessment:** Instructor will evaluate student knowledge through the use of exams and written essay assignments.