Instructors: Brandon Kaysen
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Office Hours upon request
Wednesdays, 6:00-7:50pm @ Bren 4016
Grading: letter grade

Course Description:
LEED Lab is a multidisciplinary immersion course that utilizes the built environment to educate and prepare students to become green building leaders and sustainability-focused citizens. Through the course spanning three quarters, students will facilitate the LEED for Existing Buildings: Operations & Maintenance (LEED EB: O&M) process with the goal of certifying the select facility. LEED Lab will equip students with the skills, knowledge and expertise needed to be effective communicators, project managers, critical thinkers, problem solvers, engaged leaders, and team players in the field of sustainability.

Covered Topics Include:

General Course Overview
Classes will be highly interactive and require significant individual and team level participation. Using the LEED for Existing Buildings Operations & Maintenance Reference Guide as a primary resource, students will be expected to apply new information, concepts and interpersonal skills to a final team-based project dependent on which quarter the course is operating in and how far along the LEED project has progressed during the concurrent quarter. Student teams will form to complete a LEED certification project of an actual building on campus at UCSB, the Student Resource Building (SRB). Feasibility assessments, team generation, project management, implementation, audits and documentation will all be reviewed as this course is a holistic view of an actual LEED project and building sustainability as a whole. Students will be given the opportunity to associate themselves, improve upon, certify, and eventually communicate achievements of a facility that they occupy on a regular basis.

Course Objectives:
1. To equip students with knowledge about green building and the LEED certification system.
2. To equip students with real-world project management, communication and documentation skills.
3. Provide a mechanism to engage students and drive campus sustainability efforts that focus on the existing built environment.
4. Provide students with sufficient experience to prepare them for the LEED Green Associate and/or LEED Accredited Professional exams.
Recommended Reading
LEED v4 Existing Buildings Operations & Maintenance Reference Guide

Year Overview
Fall Quarter will focus on LEED certification feasibility and preparation for the Performance Period of the project building. Milestones during the quarter will include the LEED charette, site visit, and stakeholder feasibility presentation. The main project will be a Feasibility Report and PowerPoint presentation to building stakeholders.

Winter Quarter will focus on the Performance Period (minimum 90 consecutive days) of the building, during which all data will be collected and metrics tracked, audits and surveys performed, and any recommendations presented during the stakeholder feasibility presentation that were chosen to pursue will be incorporated. Milestones during the quarter will include the mid-performance charette with stakeholders. The main project will be documentation of audits and associated credits.

Spring Quarter will focus on collecting final data for documentation as the Performance Period comes to a close. All documentation will be completed and submitted for review, and will be revised once LEED reviewers return with review comments. Milestones will include the closing charette, documentation submittal, review comment responses, project certification, and project communication to the public. The main project will be review comment responses, as well as an individual case study or public announcement.

Grading (Spring)
- 40% Weekly attendance and participation
  - 30% attendance
  - 10% participation
- 20% LEED documentation completion
  - 10% individual assessment
  - 10% partner review
- 30% Team project
  - 10% publicity assignment
  - 10% final stakeholder meeting
  - 5% study game
  - 5% peer grade
- 10% Final Exam

The team assignments will receive one grade. Each student will also be reviewed by his or her team members. Such peer reviews will be considered in the calculation of each student’s performance.

Late work will have 20% deducted from the assignment’s final grade.

Assignments, Attendance & Team Project
Students are expected to arrive for class prepared and on time, ready to discuss the assignments and its application to the LEED certification process based on progress made. In-class assignments and exercises will be completed individually and in teams during class with minimal work to be completed outside of the lecture. Assignments on Gauchospace will assess students’ understanding of the LEED Reference Guide and related topics. As attendance is extremely important, 2% of the
total grade is subtracted for each absence where n is the number of missed classes, where one absence corresponds to -2%, two is -4%, three is -8%, and so on.

**Spring Team Project: LEED Project Publicity**

One of this quarter’s main goals in addition to completing project LEED certification is to communicate the efforts of our class to the public. Your team will choose a medium for communication (case study, article, video, tour, etc.), compile it, and organize its publication. Your group’s progress will be assessed by quality of writing and information, and successful publication. The goal of this project is to bring the public eye to the unique efforts of our LEED Lab course and our efforts on the certification of the SRB.

**Final Exam**

The Final Exam will be a practice exam for the LEED Green Associate accreditation. It will be non-graded, acting as an indicator of student knowledge and as practice for the real accreditation exam.

**Spring Quarter Weekly Agenda**

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<th>Week</th>
<th>Topics</th>
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| 1 (April 3) | Introduction, timeline overview (Spring quarter, LEED timeline)  
|         | End of Performance Period review  
|         | Test review (most missed questions)  |
| 2 (April 10) | Introduce assignment: Home Sustainability Audit  
|         | Credit submittal work  
|         | Peer credit review  |
| 3 (Apr 17) | Prepare for Stakeholder meeting  
|         | Introduce publicity assignment, new team generation  |
| 4 (April 24) | **Guest: David McHale**  
|         | Create Study Games  |
| 5 (May 1) | Stakeholder Meeting  
|         | Publicity assignment work  
|         | Design-build activity  
|         | Study game 1  |
| 6 (May 8) | **Guest: Michelle Zimney**  
|         | Publicity assignment presentation  
|         | Study game 2  
|         | Class reflection or review comment completion (depending on documentation return date)  |
| 7 (May 15) | Class reflection or review comment completion (depending on documentation return date)  
|         | Study game 3  |
| 8 (May 22) | **Guest: Candice Wong**  
|         | Intense GA prep (review other exams)  
|         | Study game 4  |
| 9 (May 29) | Green Dragon or Tomorrow Video  
|         | LEED GA Study Session  |
| 10 (June 5) | Final Exam  
|         | Individual and peer review  
|         | Course Evaluations  |