ARCH 661 Teaching Technical Subjects in Architecture
CRN: 20590
Credits: 1 or 2 variable; select by
Time: January 11, (18), 25, February 1, 8 8:00–10:00 am
Instructor: Professor Alison G. Kwok, PhD, FAIA, LEED AP, CPHC
Office hours: awkok@uoregon.edu; by appointment
Prerequisites: ECS, Structures, Building Construction or Enclosures or concurrent enrollment
Course website: https://blogs.uoregon.edu/arch661/

Waterline, 2019–2020 COTE Top Ten winner, CCA team: Cera Yeo & Jingyi Luo, Evan Jones & Margaret Ikeda faculty advisor

[Jury: Waterline is a powerful sustainable design solution with cultural foundation. The project details provide a level of excitement and thoughtfulness, which is stunning at first glance that never loses that level of interest throughout the details. The well-executed renderings and details present a realistic design that creates a fantastical sense of place and compelling construction technology.]

Remote Teaching Statement
During this extraordinary time, I am deeply committed to having all of you become the best, greenest, and most collaborative designers through our course materials by learning together, questioning, and growing as a class community, even given our physical distance. We cannot proceed as originally planned, but we can:

• Be inspired and challenged by the science of design and investigations of resilient building design;
• Practice the art of specifying materials and drawing construction details as skills that you will use in your conceptual, schematic, design development, and construction documents
• Engage in ethical dialogue that widens our perspectives and deepens our knowledge;
• Affirm our hopefulness about the future by continuing to learn and answer questions/practice skills/examine operational and material carbon; health and well-being via superior air quality and comfort; and zero-net energy design for buildings that are perhaps more relevant now than ever.
• Provide context to understand our present moment/that help us appreciate the beautiful even in the time of great challenge

1. Course Description
This course provides a forum for those interested in integrated design (seamless design and technology), the Technical Teaching Certificate, a teaching career, preparing for Graduate Employee (GE) positions, or simply engaging in a critical discussion of design and technology. We will discuss pedagogical issues related to teaching technical subjects and career objectives. Students will develop brief “teaching moments” that will be peer-critiqued; discuss learning styles as related to assignments, learn to develop the “design crit” in the context of the UO and beyond. Those taking the course for 2 credits will develop a teaching module of their choice from a list of recommended topics.

Satisfies a requirement for the Technical Teaching Certificate Program or teaching credits for PhD program
may be repeated for credits under same course number
2. **Learning Goals & Outcomes**
   - Provide a forum for discussion about teaching technical subjects and general handling of teaching issues related to teaching and learning.
   - Develop innovative experiential exercises and activities for design integration with technical subjects, in ECS, structures, building construction, building enclosures.
   - Gain practice teaching and providing peer-critique for collaborative teaching to peers and future colleagues in seminars, studios, and eventually practice.

3. **Textbooks and Reading** *(these required books with optional readings)*
   - Ed Allen, *Notes to Myself*, self-published, 2002. provided to class
   - Recommendations:
     - Esquith, Rafe, *Teach Like Your Hair is on Fire*, Penguin, 2007

4. **Schedule:**
   - **January 11 (week 2)**
     - 8:00 – 8:10 Welcome and Introduction, Tech Teaching Certificate Program
     - 8:10 – 8:30 Teaching Moment#1 Self Introductions: Best Teachers
     - 8:30 – 8:45 Activities: Kolb Learning Style Inventory, Myers Briggs, and Teaching Resources
     - 8:45 – 9:00 Introduce Tech Teaching Topics: AIA COTE Competition and other
     - 9:00 – 9:15 Breakout Groups: Select topics, discuss, report back

   - **January 25 (week 4)**
     - 8:00 – 8:05 Announcements
     - 8:10 – 8:45 Teaching Moment#2: Design Tech Teaching
     - 8:45 – 9:05 Activity: Breakout Group: GE situational discussion
     - 9:05 – 9:20 Reflections and Feedback

   - **February 1 (week 5)**
     - 8:00 – 8:05 Announcements
     - 8:10 – 8:45 Teaching Moment#3: Design Tech Teaching
     - 8:45 – 9:05 Activity: Breakout Group: Resume
     - 9:05 – 9:20 Reflections and Feedback

   - **February 8 (week 6)**
     - 8:00 – 8:05 Announcements
     - 8:10 – 9:10 Office Hours, Second Credit due
     - 9:10 – 9:20 Reflections and Feedback

5. **Grading Components and Criteria: Graded/Pass No Pass**
   Grading will be based on successful completion of all assignments. The assignments will help students to understand the role of you as a designer in an integrated design. Being able to teach to peers, communicate effectively with future colleagues in practice and/or academia is in part, this training. In-class discussions, individual assignments and discussions with the instructor and guests are the principal means used to provide progress checks to students. The following are all necessary to receive a passing grade:
In-class Activities (LSI, Myers Briggs, discussion, participation, etc) 50%
Teaching Moments: 40%
Reading Response: 10%
2nd credit: all of the above + development of one of the items from the list

Students are expected this one-day class, participate in discussions and activities, complete the readings, and assignments prior to and during class.

Attendance, Activity, & Participation 40%
- Activity: Learning Style Inventory (LSI)
- Activity: Myers Briggs
- Activity: Resume critique and revision

Assignments 50%
- Teaching Moment #1 Self Introduction: Best Teachers
  - Introduce: your name, degree, where you grew up, your most memorable teacher and why, and a hobby/factoid. (in class and include in Discussion thread)
- Teaching Moment #2 COTE TopTen Student Competition
  - With a partner in the class, prepare and teach a concept/principle/technical lecture or workshop on a topic from Building construction, ECS, Structures, or Enclosures. Your choice of one measure in the Framework for Design Excellence. (upload 5 slides, ppt/pdf, 5 mins; and Panopto) https://www.acsa-arch.org/competitions/2021-cote-competition/
- Teaching Moment #3 COTE TopTen Student Competition
  - Prepare and teach a design strategy that includes a topic from Building construction, ECS, Structures, or Enclosures. Your choice of one measure in the Framework for Design Excellence. (upload 5 slides, ppt/pdf, 5 mins; and Panopto) https://www.acsa-arch.org/competitions/2021-cote-competition/

Reading Response 10%
This assignment asks you to read Ed Allen’s Notes to Myself or a recent book/essay on teaching and provide a response relating it to your passion for teaching on the course blog. Written response 350-500 words. This is a short and thoughtful piece of writing intended to spark and inspire your potential as a teacher. Post to: http://blogs.uoregon.edu/ARCH661 go to ASSIGNMENTS >> pick Notes to Myself or Teaching Resource.

Discussion Topics for GE situations: Good design crits, Learning Style Inventory, Myers Briggs how they relate to assignments. Lead informal discussion on a suggested discussion topic above or one of your choice. Outline several directions to lead the discussion and summarize with a list of outcomes. Report back to the group. Creating meaningful online sections, Grading Fairly and Consistently, setting boundaries, The First Day, Teaching Yours Peers, Reducing workload, maintaining standards, Handholding or Inspiring, Plagiarism, Persuasive Presence.

Team Teaching Concept lecture/Workshop: Research and create a presentation to describe a concept, principle, or phenomenon, using a demonstration, slides, or some teaching technique that will increase understanding of the material and connection to design. Concept examples may be from ECS, Materials and Methods, or Structural Technology and must be related to the design process.

Second Credit Educational Material: all of the above + development of one of the items from the list. This effort asks you to develop a teaching module, case study, workshop and so on for architecture students. The goal will be for you to articulate a clear sub-interest within the larger seminar topic. It is expected that this effort will be approximately 40 hours effort.

1. Lab Section Activity: for ECS, Building Construction, Structures, or Enclosures. Write a lesson plan for a lab section activity: preparation, title, outcomes, activity, supplies needed, and resources (remote most needed!).
2. **Homework assignment**: for ECS, Building Construction, Structures, or Enclosures. Develop a new assignment for preparation, execution, learning outcomes, and rubric. Use LSI to help frame some of the content.

3. **Technology and Design slide set**: Select a principle/concept/activity from ECS, building construction, structures, or enclosures and create a set of 15 ppt slides and notes that convey the topic in the most compelling way. Be sure to cite all sources of images (try to use your own). Consider embedding videos, animations, drawing, sketching, and relate it to building and environmental design. Max 10 mb

   Examples: how to construct a shading mask for a new shading device; how to calculate Heading Degree Days; wall section "sandwich" – materials and construction

4. **Architecture in Schools**: Create a 30-minute architectural activity that uses the classroom or school environment. Plan an activity, experience, and lesson plan exercise for middle school (5 – 8 grade). Relate architecture to STEAM principles (science, technology, engineering, art, math). These activities may be selected for a Spring or Summer workshop. See example provided: Eco-Roof Game. Include: Introduction/Purpose, Learning Objectives, Time, Materials, Preparation; and related work sheets (see example provide)

5. **Case Study**: (in the style/format of the Green Studio Handbook); Sidebar information; Background and Context, Design Intent and Validation, Strategies, How Is It Working? Further Information. Include images (and sources). Word Templates. Submit as Word files, max 10 mb

6. **Guide to a Successful Studio Crit**: develop strategies for receiving and getting the most out of design advice; develop talking points (actual sentences) to further engage studio instructors; list tips and advice, dos and don’ts.

7. **Guide to Keeping Teaching Alive starting In Practice** (after graduation): develop a guide/PDF book to share with future alums about how to keep these activities and tools alive while you begin in practice.

8. **Your Choice?** Please discuss with instructor! Develop a guest lecture for a class?

**Policies**

1. **Attendance and Absence**
   On time attendance is expected in this class. Late attendance will be marked in Canvas. Absences for medical appointments may be requested in writing. Make up work will not be allowed, unless approved by the instructor.

2. **Late or Missed Work**
   No late assignments are accepted (reasonable exceptions will be made for emergencies and specific prior arrangement with the instructor). Students must successfully complete all assignments. Incompletes will be given ONLY for medical emergencies and requires written pre-approval from the instructor. The instructor reserves the right to withhold a final course grade if any equipment on loan is not returned in working order by the last week of classes. Requests for extra-credit or compensatory work to make up for missing assignments or quizzes will not be considered. There will be no final exam.

3. **Academic Misconduct**
   "The University Student Conduct Code (available at conduct.uoregon.edu) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at https://researchguides.uoregon.edu/citing-plagiarism."
4. **Accessible Education Statement**
The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center in 360 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu

5. **Diversity**
It is the policy of the University of Oregon to support and value diversity. To do so requires that we:
• Respect the dignity and essential worth of all individuals
• Promote a culture of respect throughout the University community
• Respect the privacy, property, and freedom of others
• Reject bigotry, discrimination, violence, or intimidation of any kind
• Practice personal and academic integrity and expect it from others
• Promote the diversity of opinions, ideas, and backgrounds which is the lifeblood of the University

The College of Design promotes the strengths of our multicultural community through the Equity & Inclusion Committee. For more information about the Equity & Inclusion Committee and other student resources, please see: https://blogs.uoregon.edu/design/deansoffice/committees/equity-inclusion-committee/

6. **Course Incomplete Policy**
Students are expected to be familiar with University policy regarding grades of "incomplete" and the timeline for completion. A grade of Incomplete will be given only for medical emergencies and requires written pre-approval from the instructor. The instructor may withhold a final course grade if equipment on loan is not returned in working order by the last day of classes. If an incomplete is determined, faculty and students will develop a contract outlining the requirements and specific deadlines for making up the incomplete. Contracts should be filed in the departmental office through which the course is taught. Requests for extra-credit or compensatory work to make up for missing assignments or quizzes will not be considered.

7. **Expectations**
This is not an undergraduate-level course nor is it a survey course. In this course, students will take a deep dive into the issue of sustainability in all its incarnations – social, cultural, and environmental. Expectations for in-class engagement, professional-quality work, and self-directed learning are high. At the conclusion of the course, students should have a working knowledge of sustainability in theory and practice and be able to rigorously incorporate sustainability concepts into their studio work at the University of Oregon.

**Course Engagement and Educational Activity**
The course has a broad series of activities and assignments that will introduce students to resources, references, and analytical approaches. Labeling convention for Canvas: e.g.: 2021_01_18_Assignment XX_LASTNAME; max 5 mb

Graduate students are expected to perform work of higher quality and quantity, typically with forty hours of student engagement for each student credit hour. Therefore, a 1-credit graduate course would typically engage students approximately 40 hours; a 2-credit graduate course may be expected to entail approximately 80 hours for the average student for whom the course is designed.

<table>
<thead>
<tr>
<th>Educational Activity</th>
<th>G Hours</th>
<th>Explanation/Justification</th>
</tr>
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<tbody>
<tr>
<td>Attendance, Discussion, Participation, In-class Activities and preparation(50%)</td>
<td>12</td>
<td>In class work; out-of-class reading and preparation for discussion</td>
</tr>
<tr>
<td>Teaching Moment (30%)</td>
<td>5</td>
<td>research, reading, preparation of presentation and deliverables</td>
</tr>
<tr>
<td>Reading Response (20%)</td>
<td>13</td>
<td>out-of-class reading, writing, and preparation of response</td>
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Grading Rubrics for Assignments and Participation

A  Excellent: exceeds expectations; clear group leader; respectful listener, professional thought leader, gives evidence of reflection, critique, and insight; grammar, spelling, and narratives are high quality.
B  Good: meets expectations; clear evidence of completing readings and prep work; regular participant in discussions. Writing is of good quality.
C  Satisfactory: mostly meets expectations; occasional preparation, some weak participation. Writing needs editing.
D  Inferior: notably lacking participation; comments may be irrelevant or dispersive, or nonparticipant.
F  Unsatisfactory: frequently and significantly fails to contribute to discussions and group work

2020 Accreditation Criteria

PC.1 Career Paths
PC.2 Design
**PC.3 Ecological Knowledge & Responsibility**
PC.4 History & Theory
PC.5 Research and Innovation
PC.6 Leadership & Collaboration
PC.7 Learning & Teaching Culture
PC.8 Social Equity & Inclusive Environments

SC.1 Health Safety & Welfare in the Built Environment
SC.2 Professional Practice
SC.3 Regulatory Context
**SC.4 Technical Knowledge**
SC.5 Design Synthesis
SC.6 Building Integration