ARCH 4/591 Winter 2020
ENVIRONMENTAL CONTROL SYSTEMS 1
CRN 491 20676/ 591 20765- Tuesday/Thursday 12:00-1:20pm in 177 Lawrence Hall

Instructor: Alison G. Kwok, Ph.D., FAIA, CPHC akwok@uoregon.edu
Tom Hahn, RA tomh@uoregon.edu

ABOUT: This course focuses on design strategies that will give foundational information and tools to apply at schematic design level. Passive (architectural) solutions will also be emphasized, yet active (mechanical/electrical) solutions will also be covered. Major topics surrounding the environmental design of buildings and communities with regard to energy use, codes/standards, climate-responsive design, thermal comfort, cognizant codes and standards, HVAC systems, renewable energy, indoor air quality, measurement and verification, vertical transportation, and the tools needed to understand an ecological approach to design. The instructors of this course are enthusiastic, committed, and critical about the pedagogy of this course and have carefully choreographed your participation and learning that will prepare you to be the future stewards of the built environment. Students will actively learn concepts and principles in section meetings. Four individual assignments + a building performance case study, weekly quizzes.

Lectures: T Th: 12:00 – 1:20 pm, 177 LA
Sections: Undergraduate and graduate discussion sections will be held separately but during concurrent time periods on various days
GEs: Elliot Hogan, Lorine Moellentine, Aubrey Moore, Andy Newbold, Summer Putman, Danielle Valdez
TA: Mechanical and Electrical Equipment for Buildings, 13th edition, 2019
Pilkington Sun Angle Calculator
Thermal Delight in Architecture (Heschong)
The Green Studio Handbook, 3rd edition, 2018
iClicker (from the UO Bookstore)
Prerequisites: None; course is open to non-majors, contact instructor for registration

Suggested: HOBO Datalogger (Onset Computer: http://www.onsetcomp.com) just to geek out!

Final Exam Period: Wednesday, March 18, 2020, 8–10 am