

COURSE SYLLABUS

CIV_ENV395

Date	Topic(s)
Wednesday, September 20, 2017	Hour 1 - Intro to course: What / why / who Distribute materials Assign into working groups Hour 2 - Walk the site
Monday, September 25, 2017	Hour 1 - Site Elements of the site: sun, wind, rain, earth Passive systems "let nature do the work" Hour 2 - Site Tools Rhino + Ladybug, EPW Klimaat, Climate Consultant
Wednesday, September 27, 2017	Hour 1 - Site Design Sustainable landscaping Working from the site inward Rainwater collection, greywater Hour 2 - Programming Space layout per function
Monday, October 2, 2017	Student - individuals - present climate / site analysis / precedents
Wednesday, October 4, 2017	Students - groups - present programming layout (bubble diagrams)
Monday, October 9, 2017	Hour 1 - Heat Transfer / Comfort Intro to thermal comfort and psychrometric chart Principles of heat transfer Hour 2 - Heat Transfer in Buildings Case study examples of conduction, convection, radiation as passive strategies Walls, windows, roofs
Wednesday, October 11, 2017	Working session - explain how to use Ladybug to do shading calculations, and to do U-value calculations by hand
Monday, October 16, 2017	Hour 1 - BIM Hour 2 - desk crits
Wednesday, October 18, 2017	Intro: what is energy? Hour 1 - Mechanical Systems, generally. Active mechanical systems Water vs air loops Condenser cycle Hour 2 - Mechanical Systems for different building types Appropriate systems for different buildings
Monday, October 23, 2017	Hour 2 - Structural Analysis Tools / IBC Program tutorials, basic ideas
Wednesday, October 25, 2017	Students present structural schemes
Monday, October 30, 2017	Project Goals (Mid-Review) 1 Each group discusses their site, climate, and programming concept as it relates to their major goal Steps to accomplish goal
Wednesday, November 1, 2017	Project Goals (Mid-Review) 2
Monday, November 6, 2017	<i>Joe's Lecture</i> <i>desk crits</i>
Wednesday, November 8, 2017	Hour 1 - Materials Embodied energy / carbon Renewable materials Regional materials Hour 2 - Building Materials Applicability to materials used in building
Monday, November 13, 2017	Focused work (structural, thermal, etc) Detailed study of chosen topic
Wednesday, November 15, 2017	Students present materiality plans, concepts for interior
Monday, November 20, 2017	Focused work (structural, thermal, etc) Detailed study of chosen topic
Wednesday, November 22, 2017	Working session
Monday, November 27, 2017	Working session
Wednesday, November 29, 2017	Final Presentations! Last class
Monday, December 4, 2017	<i>no class - exam period</i>