Chaminade University
Environmental + Interior Design Program
EID 220 Building Systems – Fall 2018
Instructor: Liza Lockard, M.Arch, PhD

EID 220 SYLLABUS

Class hours: Tu/Th 2:30-3:50
Office hours: MWF 12:30-1:30

Office: Eiben 211
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COURSE DESCRIPTION:

EID 220 Building Systems & Components (3cr) This course focuses on understanding the different systems and components that comprise a building, how they relate to and affect one another, and how to design within the context of those systems. Students will be introduced to building infrastructure and performance design mandates—as well as relevant building codes—with emphasis on coordination and integration of the various systems within the building interior. Content includes building codes and life safety; site analysis; fire safety; structural/mechanical/electrical/plumbing systems; wall, floor, ceiling, and stair assemblies; and various interior building components. Prerequisites: EID 200 and EID 202.

CLASS FORMAT:

This course provides an overview of building systems, components, and codes which comprise the context in which the designer operates. Over the duration of the semester, we will examine various facets of a building that are typical to interior design projects. Each class will consist of a lecture on a specific topic, followed by an in-class exercise that applies the principles from the lecture. Keep these exercises in a course binder, so that you can refer back to them for use in your studio courses. Much of what we will cover in this class will also help to prepare you for the Comprehensive Exam at the end of this semester, which will test your knowledge of, and ability to apply, concepts, design theories and principles, and building systems. The final grade for this course will be based on your participation, completion, and accuracy of the in-class exercises and assignments, in addition to other materials to be included in the course binder; there will be no formal exams.

Should you have to miss a class, please inform me in advance when possible; you will be responsible for getting any missed materials or assignments from one of your classmates and to make up the work in a timely manner. All homework must be complete and submitted on time, unless otherwise arranged. Any unexcused late submissions will be marked down by one letter grade.

REQUIRED TEXT:

Building Systems for Interior Designers (Second Edition), Corky Binggeli [PDF format]
Interior Graphic Standards: Student Edition, Corky Binggeli

REFERENCE TEXTS:

Interior Design Reference Manual (Sixth Edition), David Kent Ballast

COURSE LEARNING OUTCOMES:

- **Building Systems and Integration** – Students should have a basic knowledge of the components and functions of various building systems, and understand how they are integrated.
  [CIDA 14 / PO 4] – EMERGING
- **Building Codes and Regulations** – Students should have basic knowledge of the building codes and regulations, and an awareness of how building codes inform design.
  [CIDA 16 / PO 4] – EMERGING
- **Occupant Safety and Comfort** – Students should be able to correlate how the design of building systems, and their compliance with building codes, impact occupant safety and comfort.
  [CIDA 14, 16 / PO 4] – EMERGING
- **Architectural Components and Construction** – Students should be able to identify the various types of interior architectural elements, have a basic understanding of their construction details, and know their appropriate applications.
  [CIDA 15 / PO 3] – EMERGING
- **Schedules and Specifications** – Students should understand the function of schedules and specifications, and be able to execute a basic schedule and specifications.
  [CIDA 15 / PO 2] – EMERGING

EID PROGRAM OUTCOMES:

1) Professionalism – understand, apply and participate in ethical design practices on a personal, project, peer and industry-wide level.

2) Process – ability to identify problems/challenges and demonstrate an understanding of the complete design process from inception to installation, execute documentation supporting design decisions and effect comprehensive, creative, focused and functional design solutions.

3) Principles & Priorities – integration of pedagogy, research, historic contexts, theory, and interdisciplinary collaboration to effectively and creatively analyze, evaluate and execute best design practices resulting in functional and aesthetically inspiring design.

4) Public & Environmental Protection – demonstrate an understanding of the concepts, resources and implications of design decisions relative to the human interaction, technological impact and ecological balance of the built environment.

5) Presentation – demonstrate ability to communicate design concepts and problem-solving justifications through written, oral and a variety of visual media.

Refer to CUH Student Handbook for mandatory adherence to the following policies:

- **Academic Honesty**
- **ADA Accommodation**
- **Title IX Compliance**
- **E+ID Professional Code of Conduct**

EID 220 COURSE SCHEDULE

		Reading Assignment:
Week #01:	Tu 8/21 - Building Systems Integration	
	Th 8/23 - Performance Mandates; Site Analysis	
Week #02:	Tu 8/28 - Structural Systems	
	Th 8/30 - Electrical Systems	pp. 213-217, 222-228, 230-236
Week #03:	Tu 9/04 - Mechanical Systems	pp. 101-107, 194-209
	Th 9/06 - Plumbing Systems	pp. 41-54, 66-75
Week #04:	Tu 9/11 - Building Codes	pp. 25-28, 336-337
	Th 9/13 - Construction Types/Occupancy Groups	pp. 12-16
Week #05:	Tu 9/18 - Fire Protection Systems	pp. 338-343, 345-348
	Th 9/20 - Fire-Rated Construction	
Week #06:	Tu 9/25 - Means of Egress	pp. 349-353
	Th 9/27 - Life Safety Equipment	pp. 360-373
Week #07:	Tu 10/02 - Thermal Principles	pp. 83-100
	Th 10/04 - Acoustics	pp. 395-428, 433-434
Week #08:	Tu 10/09 - Wall Assemblies	
	Th 10/11 - Wall Sections/Types	
Week #09:	Tu 10/16 - Reflected Ceiling Plans	
	Th 10/18 - ATC Systems & Troffer Layout	
Week #10:	Tu 10/23 - Switching Diagrams; Legends	
	Th 10/25 - Ceiling Systems Integration	pp. 18-19
Week #11:	Tu 10/30 - Stair Types, Construction & Codes	pp. 345
	Th 11/01 - Stair Calculations & Layout	
Week #12:	Tu 11/06 - Door Types/Details	
	Th 11/08 - Window Types/Details	
Week #13:	Tu 11/13 - Kitchen Layout	
	Th 11/15 - Bathroom Layout	pp. 76-79
Week #14:	Tu 11/20 - Schedules	
	Th 11/22 - Thanksgiving [holiday]	
Week #15:	Tu 11/27 - Specifications	
	Th 11/29 - Comp Exam Review	
Week #16:	W 12/05 - Comprehensive Exam (1:15 – 3:15) TBC	