

CE499: MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS

Syllabus - Fall 2012

University of Southern California, Sonny Astani Dept. of Civil and Environmental Engineering

Time: KAP 138, Thursdays, 6:30 to 9:10pm

Instructor: David Kang, LEED AP, CEM
david.kang@csielectric.com
(562) 319-5809

Office Hours: KAP 203, Thursdays, 5:00 to 6:15pm

Text: Mechanical and Electrical Systems in Architecture, Engineering and Construction (5th Edition), Frank R. Dagostino, Joseph B. Wujek

Course Outline and Objectives:

The objective of the course is to give students a basic understanding of mechanical, electrical and plumbing systems as they relate to the building construction industry. Students will learn various topics through class lectures, discussions, guest lectures, site visits, and class projects. Each system will be explored in terms of the basic engineering principals, design strategy, distribution and equipment, applicable codes, and construction drawings. Topics such as fire protection, fire alarm, telecommunications, building controls, MEP coordination, renewable energy, energy efficiency and commissioning will also be discussed.

Course Schedule:

Week	Topic of Discussion	Homework	
1	8/30/2012	Course Introduction	
2	9/6/2012	Mechanical Systems: Fundamentals	Chapters 1, 2 and 3
3	9/13/2012	Mechanical Systems: Design	Chapters 4, 5, 6, 7, 8 and 9
4	9/20/2012	Mechanical Systems: Construction	
5	9/27/2012	Plumbing Systems: Fundamentals & Design	Chapters 12, 13, 14, 15 and 16
6	10/4/2012	Plumbing Systems: Construction	
7	10/11/2012	Electrical Systems: Fundamentals	Chapter 17
8	10/18/2012	Electrical Systems: Design	Chapters 18, 19 and 20
9	10/25/2012	Electrical Systems: Construction	
10	11/1/2012	Midterm, Final Project Introduction	
11	11/8/2012	Fire Protection and Fire Alarm	Chapter 21
12	11/15/2012	Controls and Commissioning	Chapter 22
13	11/22/2012	<i>No Class: Thanksgiving Break</i>	
14	11/29/2012	MEP Coordination and BIM	
15	12/6/2012	Sustainability and Renewable Energy	Chapter 25
16	12/13/2012	Final	

CE499: MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS

Syllabus - *Fall 2012*

University of Southern California, *Sonny Astani Dept. of Civil and Environmental Engineering*

Course Grading:

- 20% Homework
- 30% Take-Home Quizzes
- 40% Final Project
- 10% Participation and Attendance

Statement on Academic Integrity:

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: <http://www.usc.edu/dept/publications/SCAMPUS/gov/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.

Statement for Students with Disabilities:

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.