

CM 281: PRINCIPLES OF MECHANICAL, ELECTRICAL AND PIPING SYSTEMS

Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2021
Credits:	2
Total Contact Hours:	36
Lecture Hours :	36
Lab Hours:	0
Hours Arranged:	0
Outside of Class Hours:	72
Prerequisite:	CM 121 and CM 270.
Transferable to CSU:	Yes
Transferable to UC:	No
Grading Method:	Standard Letter

Catalog Course Description

This course provides a basic understanding of the principles and current practices in the application of mechanical, electrical, and piping systems in construction. 36 lecture hours.

Course Objectives

- Understand the basics of phasing of building MEP systems.
- Explain the principles and applications of all basic mechanical equipment and electrical systems.
- Explain the important codes and standards in HVAC, plumbing, fire protection and energy.
- Explain the concepts related to sustainable design of a mechanical, electrical and plumbing systems
- Understand basic safety protocols associated with MEP

Major Course Content

1. Introduction to mechanical, Electrical, and piping systems for buildings
2. HVAC fundamentals load estimation
3. HVAC delivery systems
4. Cooling equipment and systems
5. Heating equipment and systems
6. Air-handling equipment and distribution systems
7. Piping equipment and systems
8. Plumbing equipment and systems
9. Fire Protection equipment and systems
10. Fire sprinkler systems and smoke evacuation systems
11. Ethical Issues pertinent to structure design and the profession at large.

Suggested Reading Other Than Required Textbook

Read instructor-assigned articles about Green Construction and Green Building Codes.

Examples of Required Writing Assignments

Write a report that addresses phasing of MEP systems using BIM technologies .

Examples of Outside Assignments

Examine key safety protocols associated with MEP systems including seismic supports.

Instruction Type(s)

Lecture, Online Education Lecture