



Instructor: Lori Brown
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Office Hours: Monday & Wednesday 1:00 PM – 3:00 PM (Online in Personal ZOOM ROOM)

Prerequisites: CMGT 210

Course Description

This course covers the fundamentals of mechanical and electrical contracting including terminology, components, and basic design features of HVAC systems; plumbing systems; and electrical circuits and service equipment. Current mechanical and electrical drawings, specifications and building codes are presented.

Course Goals and Objectives:

Goal 1: Gain a working knowledge of mechanical systems used on building projects.

Learning Objectives:

- Describe fundamental properties of HVAC (heating, ventilating, and air conditioning) systems
- Solve problems using the psychrometric chart
- Calculate the heating and cooling design loads for simple building structures
- Design simple HVAC distribution systems
- Describe HVAC components using correct terminology and nomenclature
- Evaluate the advantages and disadvantages of different HVAC systems available for building structures

Goal 2: Gain a working knowledge of plumbing systems used on building projects.

Learning Objectives:

- Describe fundamental properties of plumbing systems, such as pressure, velocity, and flow rate
- Describe plumbing components using correct terminology and nomenclature
- Design simple plumbing distribution, sanitary drainage, and storm water drainage systems
- Describe common types of fire suppression systems

Goal 3: Gain a working knowledge of electrical systems used on building projects.

Learning Objectives:

- Describe the fundamental units of electricity, such as resistance, current, voltage, power, and energy, and solve problems using them
- Evaluate the advantages and disadvantages of different types of electrical systems, such as AC versus DC, and single-phase versus three-phase power
- Describe electrical, lighting, and communication components using correct terminology and nomenclature

Goal 4: Gain experience reading and interpreting information found on construction drawings and specifications.

Learning Objectives:

- Locate and interpret specific information commonly presented in mechanical, electrical, and plumbing plans and specifications

Required Material

Course Notes: Handed out and available on instructor's Web site at <http://lorisweb.com>

Final Course Grades are computed as follows:

Attendance	30	@ 10 pts E	= 300 points
Activities	6	@ 50 pts E	= 300 points
Homework	30	@ 20 pts E	= 600 points
Exams	2	@ 100 pts E	= 200 points
Final	1	@ 100 pts E	= <u>100 points</u>
Total			= 1500 points

Evaluation

A	93 – 100%	B	81 – 84%	C	71 – 74%
A-	88 – 92%	B-	78- 80%	C-	67 – 70%
B+	85 – 87%	C+	75 – 77%	D	60 – 66%

Final Examination Schedule:

TBA

Conduct:

Discipline problems are not tolerated. You are an adult, and you will be treated and respected as an adult. Respect for other's opinions and attitudes will be the "law of the land." Discipline problems will result in you being removed from the class with no questions asked. They may also result in disciplinary action being taken at the university level.

Honesty in the Classroom:

Ethical standards as established by the university will be strictly upheld (see THE UNIVERSITY CATALOG).

Electronic Devices:

The use of phones for conversation is not permitted in class.

Withdrawal from Class:

After **September 16, 2022** a "serious and compelling reason" as defined in THE UNIVERSITY CATALOG (see the examples below) is required to drop a class.

ILLUSTRATIVE SAMPLES OF "SERIOUS & COMPELLING REASONS"

The following situations are of the type that might reasonably be defined as "Serious & Compelling" for justifying a "W" after the deadline.

1. An extended absence due to a verifiable accident, illness, or personal problem serious enough to cause withdrawal from the University; for example, a one to two-week absence with a Doctor's written excuse.
2. An extended absence due to a death in the immediate family. This applies to absences exceeding a week due to family affairs that must be attended to by the student.
3. A necessary change in employment status which interferes with the student's ability to attend class. This change in employment status must be verified in writing by the student's employer.
4. There may be other very unusual reasons for dropping a class, but these would be very special cases and are not listed here

EACH CASE SHOULD BE CONSIDERED ON ITS OWN MERITS.