

Construction System & Standard

CMGT - 2820 001

Course Description

An introduction to energy systems for commercial and residential construction. Systems include electrical, plumbing, heating, ventilation, air conditioning, air distribution, lighting, solar and alternative energy systems and the application and effect on the building envelop and air quality. Current Green Building Standards will be studied including LEED and Energy Star.

Semester(s): Fall & Spring

Course Student Learning Outcomes

- Identify various mechanical and electrical systems used in commercial and residential buildings.
- Describe the differences in electrical systems, HVAC systems and controls, and plumbing distribution systems.
- Identify and describe alternative energy systems.
- Compare Green Building and LEED rating systems and evaluate their benefit to the sustainable building process.
- Research and identify Emerging Systems.
- Calculate Return on Investment for the various rating systems.

Engagement Plan

Example language:

- I will respond to email within [insert your timeline]. I will offer feedback on major assignments within [insert your timeline]. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.
- In this course I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.
- Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.
- Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

Keys for Success (how to succeed in the course)

Watch lectures and do the assignments in Canvas.

Brief Description of Assignments/Exams

All content for the course is in canvas. It is organized into modules to match the weeks in the semester.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Post questions here and I'll respond	Discussion	0
	Roll Call Attendance	Assignment	100

Due Date	Assignment Name	Assignment Type	Points
8/31/25	Week 1 - MEP Coordination & Construction Sequence	Quiz	170
9/8/25	Week 2 - Basic MEP Construction Documents	Quiz	60
9/8/25	Week 2 - Schematic of Your Sink	Assignment	100
9/15/25	Week 3 - Basic Plumbing Materials and Systems	Quiz	70
9/20/25	Plumbing Fixture U-1	Quiz	80
9/30/25	ADA - Plumbing Fixtures	Quiz	100
10/7/25	Air Flow Direction	Assignment	50
10/7/25	HVAC Comfort and Forced Air	Quiz	150
10/14/25	Refrigeration	Quiz	150
10/28/25	Basic Forced Air System Coordination	Quiz	150
10/28/25	HVAC Zones, VAV, FCU, Economizer	Quiz	100
11/4/25	HVAC Recap	Quiz	100
11/11/25	Electrical Basics	Quiz	40
11/11/25	Electrical Wiring	Assignment	100
11/18/25	LEED	Quiz	40

Due Date	Assignment Name	Assignment Type	Points
11/18/25	Watch Fire Suppression Videos	Quiz	40
11/25/25	Commissioning	Quiz	60
11/25/25	Data/Com	Quiz	50
12/3/25	Industrial Equipment Quiz	Quiz	140
12/8/25	Dewatering Systems	Quiz	80
12/8/25	Smoke Evac / Control System	Quiz	60
12/16/25	Final Research Report	Assignment	500

Grading Scale

Typical

Academic Integrity

Do you own work.

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements.

By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)