



**DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING
MECHANICAL ENGINEERING PROGRAM, BSC.**

Course Syllabus

- 1. Course number and name**
ME 466 Plumbing Systems
- 2. Credits and contact hours**
(3+0) 3 credit hours, 3 contact hours
- 3. Course type**
Face to face Learning Course (3+0)
- 4. Instructor's or course coordinator's name**
Eng. Dia' A. Afaneh
- 5. Textbook information**
Mechanical and Electrical Systems in Buildings 5th edition, Janis & Tao,
Pearson Prentice Hall Publishers.
ISBN 0-13-801562- 7
 - a. Other supplemental materials**
-Building Services Handbook Fifth edition F. Hall and R. Greeno,
Routledge; 9th edition.
-Instructor's Notes
- 6. Specific course information**
 - a. Catalog description**
Learn the fundamentals of pressurized water distribution, sanitary, and storm systems for commercial and residential low-rise buildings. Topics include a general overview of fluids, construction design, plumbing code, pressure flow equations, friction, mechanical pumping, cold and hot water distribution, water heater selection, backflow prevention, and application and system selection.
 - b. Prerequisites or co-requisites**
Prerequisite: ME341 Fluid Mechanics.
 - c. The course is:**
Required in Mechanical Engineering Department.



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7. Specific goals for the course

a. Course outcomes:

After completion of the course, students are expected to be able to:

1. Locate appropriate discipline in design documents and Identify applicable code or standard.
2. Identify sources of potable water, explain the use of regulatory codes for system installations, differentiate between various piping materials and compute the size of piping.
3. Identify the elements and the purpose of a separate drainage piping system within a building and define the purpose of venting to the atmosphere and fresh air ventilation on human comfort.
4. Identify the components and equipment used in firefighting systems.

b. The following student outcomes are addressed by the course:

8. Learning Outcomes and their Alignment with Program Educational Objective (PEO's), Methods of Delivery, and Assessment Methods:

Learning Outcomes	Program PEOs	Method of Delivery	Assessment Method
Course Outcomes			
Locate appropriate discipline in design documents and Identify applicable code or standard.	-	Lectures (Example and Problems)	Question in exam
Identify sources of potable water, explain the use of regulatory codes for system installations, differentiate between various piping materials and compute the size of piping.	-	Lectures (Example and Problems)	Question in exam
Identify the elements and the purpose of a separate drainage piping system within a building and define the purpose of venting to the atmosphere and fresh air ventilation on human comfort.		Lectures (Example and Problems)	Question in exam
Identify the components and equipment used in firefighting systems.	-	Lectures (Example and Problems)	Question in exam



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Student Outcomes			

9. Weekly Teaching Plan

Week No.	Lecture	Topic	Method of Delivery
1	Sun (9-10)	Basic definitions and terms	Lecture
	Tue (9-10)	Basic definitions and terms	Lecture
	Thu (9-10)	Basic definitions and terms	Lecture
2	Sun (9-10)	Introduction to in buildings and their mechanical systems economics.	Lecture
	Tue (9-10)	Introduction to in buildings and their mechanical systems economics.	Lecture
	Thu (9-10)	Introduction to in buildings and their mechanical systems economics.	Lecture
3	Sun (9-10)	Cold water supply, plumping materials and fittings	Lecture
	Tue (9-10)	Cold water supply, plumping materials and fittings	Lecture
	Thu (9-10)	Cold water supply, plumping materials and fittings	Lecture
4	Sun (9-10)	Hot water supply	Lecture
	Tue (9-10)	Hot water supply	Lecture
	Thu (9-10)	Hot water supply	Lecture
5	Sun (9-10)	Hot water supply	Lecture
	Tue (9-10)	Hot water supply	Lecture
	Thu (9-10)	First Exam	Exam
6	Sun	Heating and Cooling System	Lecture



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	(9-10)		
	Tue (9-10)	Heating and Cooling System	Lecture
	Thu (9-10)	Heating and Cooling System	Lecture
7	Sun (9-10)	Heating and Cooling System	Lecture
	Tue (9-10)	Heating and Cooling System	Lecture
	Thu (9-10)	Heating and Cooling System	Lecture
8	Sun (9-10)	Heating and Cooling System	Lecture
	Tue (9-10)	Heating and Cooling System	Lecture
	Thu (9-10)	Heating and Cooling System	Lecture
9	Sun (9-10)	Drainage systems design	Lecture
	Tue (9-10)	Drainage systems design	Lecture
	Thu (9-10)	Drainage systems design	Lecture
10	Sun (9-10)	Drainage systems design	Lecture
	Tue (9-10)	Drainage systems design	Lecture
	Thu (9-10)	Drainage systems design	Lecture
11	Sun (9-10)	Pipe sizing	Lecture
	Tue (9-10)	Pipe sizing	Lecture
	Thu (9-10)	Second Exam	Exam
12	Sun (9-10)	Pipe sizing	Lecture
	Tue (9-10)	Pipe sizing	Lecture
	Thu (9-10)	Pipe sizing	Lecture
13	Sun (9-10)	Firefighting networks and systems.	Lecture



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	Tue (9-10)	Firefighting networks and systems.	Lecture
	Thu (9-10)	Firefighting networks and systems.	Lecture
14	Sun (9-10)	Firefighting networks and systems.	Lecture
	Tue (9-10)	Firefighting networks and systems.	Lecture
	Thu (9-10)	Firefighting networks and systems.	Lecture
15	Sun (9-10)	Ventilation	Lecture
	Tue (9-10)	Ventilation	Lecture
	Thu (9-10)	Ventilation	Lecture

10. Grade Distribution:

Assessment	Grade	Date
- First Exam	20%	Fifth Week
- Second Exam	20%	10 th Week
- Assignments	10%	
- Final Examination	50%	16 th Week

* Make-up exams will be offered for valid reasons. It may be different from regular exams in content and format.