

COURSE PLAN

FIRST: BASIC INFORMATION

College					
College	: Karak University College				
Department	: Mechanical Engineering				
Course					
Course Title	: Plumbing 2				
Course Code	: 020209214				
Credit Hours	: 2 (1 Theoretical, 1 Practical)				
Prerequisite	: 020209113				
Instructor					
Name	: Eng. Qutaibah Ahmad Tarawneh				
Office No.	:				
Tel (Ext)	:				
E-mail	: Q.tarawneh@bau.edu.jo				
Office Hours	:				
Class Times	The building	today	Start time	End time	Hall number
Text Book					
Title	: Modern Plumbing (Seventh Edition). ISBN 9781605252360				

References

1. Adobe Photoshop Classroom in a Book 1st Edition, 2021, Conrad Chavez & Andrew Faulkne, Adobe

SECOND: PROFESSIONAL INFORMATION

COURSE DESCRIPTION

This course deals with introduction to copper pipes machining, copper pipe bending and cross over bend pipe, principles underlining basic machining of copper pipe, branch-joints for copper pipe, copper pipe for processing and assembly, brazing and soldering of copper pipe, flare connections, crimp joint for stainless steel pipe, machining and assembly of stainless steel pipe and copper pipe, pressure and leak testing procedures on plumbing system of copper pipe and stainless steel pipe.

COURSE OBJECTIVES

The objectives of this course are to enable the student to do the following:

- Understand pipe material and plumbing fixtures, joining and cutting of stainless steel pipe and copper pipes.
- Understand bending process on stainless steel pipe and copper pipes.
- Explain the assembly methods of pipes for plumbing system, how to design the plumbing system using both copper pipe and stainless steel pipe.
- Explain how to test the pressure and leakage on the copper and stainless steel piping system.

COURSE LEARNING OUTCOMES

On successful completion of this course, students are expected to be able to:

- CLO1. Understand the plumbing system, types of pipes for plumbing system, materials of pipes, plumbing fixtures
- CLO2. **Develop working competence** of joining and cutting using copper pipes and stainless-steel pipes
- CLO3. **Perform** bending machine and bending works of copper and stainless-steel pipes
- CLO4. Assemble the pipe system using copper and stainless-steel pipes
- CLO5. Design and fabricate a simple plumbing system
- CLO6. **Perform** the pressure and leak test on plumbing system composed of copper and stainless-steel pipes

COURSE SYLLABUS

Week	Topic	Topic details	Related L.O. and Reference (chapter)	Proposed assignments
1	Intro & Course Orientation	• Overview & Water Sources	CLO1	
2	Pipe Materials	• Supply Pipes, Materials, Joining, Waste pipes, Inspecting	CLO1	
3	Plumbing Fixtures	• Fixtures, Typical Problems	CLO1	
4	Pipe joining and cutting	• Mechanical joints methods of copper pipes • Joining practices using copper pipes • Tee fitting using copper pipes	CLO2	
5	Pipe joining and cutting	• Introduce the cutting devices for copper pipes • Cutting practice of copper pipes	CLO2	
6	Pipe joining and cutting	• Mechanical joint methods for stainless steel pipes • Joining practices of stainless steel pipes using coupling	CLO2	



Week	Topic	Topic details	Related L.O. and Reference (chapter)	Proposed assignments
		<ul style="list-style-type: none"> • Making up threaded pipe 		
7	Pipe joining and cutting	<ul style="list-style-type: none"> • Introduce the cutting machine for stainless steel pipes • Thread cutting practice. • Cutting practice of stainless steel pipes 	CLO2	
8	Midterm Exam			
9	Bending works	<ul style="list-style-type: none"> • Bending machines and their operating for copper and stainless steel pipes • Hot bending and cold bending for copper and stainless steel pipes 	CLO3	
10	Assemble of piping system	<ul style="list-style-type: none"> • Copper pipes inserted to joints. • Copper pipes processing and assembly 	CLO4	
11	Assemble of piping system	<ul style="list-style-type: none"> • Stainless steel pipes processing and assembly 	CLO4	
12	Fabrication and installation of piping system	<ul style="list-style-type: none"> • Design simple piping system • Fabricate the piping system using copper pipes 	CLO5	
13	Fabrication and installation of piping system	<ul style="list-style-type: none"> • Design and fabricate the piping system using stainless steel pipes 	CLO5	
14	Fabrication and installation of piping system	<ul style="list-style-type: none"> • Design simple drainage system combined with copper and stainless steel • Fabricate the drainage system 	CLO5	
15	Pressure and leak testing	<ul style="list-style-type: none"> • Pressure and leak testing procedures on plumbing system of copper and stainless steel pipes • Hydrostatic leak testing • Pneumatic leak testing 	CLO6	
16	Final Exam			

COURSE LEARNING RESOURCES

Required Background

To successfully complete this course, you must have a completed ISS100 – Intro to Home Inspection - Discussion and explanation sessions

- How to use a computer
- How to use a web browser to connect to the course site
- How to send and respond to email messages
- How to use Skype

Additional Resources (Optional)

- A Guide and Code to Plumbing Installation



- Part 7 Plumbing Code

ONLINE RESOURCES

- 1) Online course notes
- 2) Referenced technical papers specified in the course

ASSESSMENT TOOLS

Assessment Tools	%
Quizzes and Homework	25%
MID Exam	20%
Project	15%
Final Exam	40%
Total Marks	100%

THIRD: COURSE RULES

ATTENDANCE RULES

Attendance and participation are extremely important, and the usual University rules will apply. Attendance will be recorded for each class. Absence of 10% will result in a first written warning. Absence of 15% of the course will result in a second warning. Absence of 20% or more will result in forfeiting the course and the student will not be permitted to attend the final examination. Should a student encounter any special circumstances (i.e. medical or personal), he/she is encouraged to discuss this with the instructor and written proof will be required to delete any absences from his/her attendance records.

GRADING SYSTEM

Example:

Average	Grade	points
Excellent	100%	90%
Very Good	89%	80%
Good	79%	70%
Satisfactory	69%	60%
Weak	59%	50%
Failed	49%	35%

REMARKS

General Rules:

It is expected that the individual student must perform all work. Any student having an academic concern or questioning an academic decision should first discuss the matter directly with their course instructor, if the issue is not resolved then with the ISS Program Coordinator. The ISS Program Coordinator's decision is final. Further information may be found on the Inspection Support Services webpage link to ISS Education Policy.

COURSE COORDINATOR



Course Coordinator

Signature:

Date:

Department Head:

Signature:

Date: