



Ministry Of Higher Education and Scientific Research
AL-Mustansiriyah University / Faculty of Engineering / Mechanical. Eng. Dept
(الخطة الدراسية)
Course Plan



Course No.: 506-04-3-06 Course Name: Refrigeration Equipment Design I
Academic Year: 2018-2019 Time Division: 3hr. Theoretical.

Course Description

(3credit hours)

This course will be cover the:

Study the fundamentals of air conditioning, refrigeration and the analysis of duct design and refrigeration systems and its parts.

Course Intended Outcomes:

At the end of the course, students are provided with a basic knowledge of:

- Study the student the principles of air conditioning, refrigeration systems design,
- Duct design
- Water systems design
- Fan design

Course Outline:

First semester:

week	Date	Topics Covered	Notes
1		Introduction.	
2		Duct Design , Fans and Air Distribution.	
3		Duct Design , Fans and Air Distribution.	
4		Air Handling Units.	
5		Air Handling Units.	
6		Heat Exchanger Design, Noise.	
7		Heat Exchanger Design, Noise.	
8		Heat Exchanger Design, Noise.	
9		Types of Filtrations.	
10		Piping system design.	
11		Piping system design.	

12		Valves and Fitting.	
13		Type of piping system.	
14		Water pumps.	
15		Application.	

Textbooks:

- 1- "ASHRAE fundamentals Handbook for air conditioning and Refrigeration", SI, 2013.

Suggested references:

- 1- "ASHRAE fundamentals Handbook for air conditioning and Refrigeration", SI, 2013.
- 2- Wilbert F., Stoecker and Lekold W. Jones, " Refrigeration and Air conditioning", McGraw-Hill, 1982.
- 3- Dr. Abdul Hadi N. Khalifa, Refrigeration and Air conditioning Engineering Dept. Engineering Technical College 3rd year – refrigeration and Air conditioning Course,2015.
- 4- Dr.Mushtaq I., Thiagar University, refrigeration and Air conditioning Course,2015.

Marking

First Semester				Second Semester				
1 st exam	Three Quiz	Practical	Activity	2nd exam	Three Quiz	Practical	Activity	Final Exam
15	2.5	-	5	15	2.5	-	5	60

Regulations

- There will be three term exams given during this semester. The best two out of three will be considered for the First & Second exam. This means there will NO makeup exams. Missing one of the two left exams means a ZERO grade will be given for that exam.
- There is no markup for quizzes.
- Attendance is mandatory and University regulations will be enforced.
- All Cheating incidents will be reported to the chair. The following activities are considered cheating:
 - Turning in assignment that includes parts of someone else work.
 - Turning in someone else assignment as your own.
 - Giving assignment to someone else to turn in as their own.
 - Copying answers in a test or quiz.
 - Taking a test or quiz for someone else.
 - Having someone else take a test or quiz for you.
- See student handbook for other regulations.

Assignments and/or Projects

Assignment/Project	Description	Due Date	Marking
H.W. 1	Report	Deadline 6 th Mar	2 Marks
H.W. 2	Report	Deadline 8 th Apr	2 Marks
Quizzes	Two or more quizzes	During the course	6 Marks

Instructor information:

Lecture Room: [R:07]

Time: Mon. :08:30-11:30

Instructor's Name:

Dr. Maathe A. Theeb

Office No.: 14

E-Mail: maathe@uomustansiriyah.edu.iq , maathe@yahoo.com

NOTES:

- Office Hours: Other office hours are available by appointment.*
- The content of this syllabus not be changed during the current semester.*

Lecturer Signature

Chairman Signature