

Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
GEM227	Heat Transfer	3	2	1	0	2.5	4

Prerequisites	
Admission Requirements	

Language of Instruction	
Course Type	
Course Level	Associate Degree
Objective	
Content	
References	

Theory Topics

Week	Weekly Contents
1	Introduction and Basic Concepts
2	Heat Transfer Mechanisms, Conduction, Convection, Radiation
3	General Heat Conduction Equation
4	Boundary and Initial Conditions
5	Solution of Steady One-Dimensional Heat Conduction Problems
6	Midterm Exam 1
7	Heat Generation in a solid, Variable Thermal Conductivity
8	Heat Conduction in Cylinders and Spheres
9	Lumped System Analysis
10	Transient Conduction in Semi-Infinite Solids
11	Fundamentals of Convection
12	External Forced Convection
13	Sample Problems and Solutions
14	Sample Problems and Solutions