

Faculty of Engineering & Technology

Mechanisms Computer Aided Design

Information :

Course Code : MAN 570

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Specialization of Mechatronics Engineering

Instructor Information :

Title	Name	Office hours
Associate Professor	Hussein Mohamed Abdelmoneam Hussein	3

Course outcomes :

a. Knowledge and Understanding: :

1 -	Identify basic applied and engineering science.
2 -	Identify principles in the of design of mechanical components, different materials, and manufacturing technologies in the field of mechanical power engineering and some other engineering disciplines.
3 -	Identify principles in the field of design of fluid flow, thermodynamics, gas dynamics, turbo-machinery, heat transfer engineering and fundamentals of thermal and fluid processes
4 -	Develop conceptual and detailed design of construction projects and fluid power systems..

b. Intellectual Skills: :

1 -	Define the mechanical power engineering problems and evaluate designs, processes, and performance and propose improvements.
2 -	Derive different solution alternatives for the engineering problems, analyze, interpret data and design experiments to obtain new data, and evaluate the power losses in the fluid transmission lines and networks
3 -	Analyze the performance of the basic types of internal combustion engines, hydraulic machines, fluid power systems, subsystems and various control valves and actuators.

c. Professional and Practical Skills: :

1 -	Use laboratory, workshop equipment and field devices competently and safely.
2 -	Analyze the record data in the laboratory.
3 -	Prepare engineering drawings, computer graphics, and write specialized technical reports.

d. General and Transferable Skills: :

1 -	Collaborate effectively within multidisciplinary team.
2 -	Share ideas, communicate effectively and work in stressful environment and within constraints.
3 -	Lead and motivate individuals and work with others according to the rules of the professional Ethics.

Teaching And Learning Methodologies :

Lectures

Tutorial

Class discussions and activities

Homework and self-study

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
1st Midterm	25.00	6	
2nd Midterm	25.00	11	
Assignments	10.00	15	
Final Exam	40.00	16	