Jordan University of Science and Technology

Faculty of Engineering

Electrical Engineering Department

EE432 Electric Machines Lab

First Semester 2022-2023

Course Catalog
1 Credit Hours. (Pre-requisite: EE 213, EE 332) Transformers. Three-phase transformer methods of connection. DC motors. DC generators. Three-phase induction motors. Single-phase induction motors. Three-phase synchronous generator and motor.Stepper motor..

Text Book	
Title	Laboratory notes and manual
Author(s)	Adel S.
Edition	1st Edition
Short Name	Text Book
Other Information	

Instructor	
Name	**Mr. Adel Shawagfeh**
Office Location	E1 L-1
Office Hours	Sun : 09:30 - 11:00 Mon : 11:30 - 13:00 Tue : 09:30 - 11:00 Thu : 09:30 - 11:00
Email	adelsh@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Wed : 14:30 - 17:30
Room: LAB

Section 2:
Lecture Time: Thu : 14:30 - 17:30
Room: LAB

Section 4:
Lecture Time: Tue : 14:30 - 17:30
Room: LAB

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
242130	EE213 Electrical Circuits Lab	Prerequisite / Study
243321	EE332 Electric Machines	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 2	Single-phase transformer	From **Text Book**
Week 3	DC Motors	From **Text Book**
Week 4	Three-phase synchronous generator	From **Text Book**
Week 5	Three-phase induction motors	From **Text Book**
Week 6	Single-phase induction motor	From **Text Book**
Week 8	Three-phase transformer connections	From **Text Book**
Week 9	Transformer connection and operation	From **Text Book**
Week 10	DC Generators	From **Text Book**
Week 11	Three-phase synchronous motor	From **Text Book**
Week 12	Special purpose motors	From **Text Book**

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Ability to understand the operation and characteristics of transformers	30%	reports, mid term exam, quizzes, final exam
Ability to understand the operation and characteristics of rotating machines	60%	reports, mid term exam, quizzes, final exam
The ability to measure torque, power and electrical parameters	10%	reports, mid term exam, quizzes, final exam

Relationship to Program Student Outcomes (Out of 100%)						
ABET1	ABET2	ABET3	ABET4	ABET5	ABET6	ABET7

Evaluation	
Assessment Tool	**Weight**
reports	30%
mid term exam	20%
quizzes	10%
final exam	40%

Date Printed: 2023-02-03