

**The Hashemite University**  
**Electrical Engineering Dept.**  
**Course Syllabus**  
**Second Semester 2020/2021**

<b>Course Title:</b>	Electrical Machines II	<b>Course Number:</b>	409464
<b>Department:</b>	Electrical Engineering	<b>Designation:</b>	Elective
<b>Prerequisite(s):</b>	Electrical Machines I		
<b>Instructor:</b>	Prof. Mohammad Widyan	<b>Instructor's Office:</b>	E 3092
<b>Instructor's e-mail:</b>	mohammadwidyan@hu.edu.jo mohammadwidyan@yahoo.com		
<b>Office Hours:</b>	12:00-13:00 Sun., Tue. and Thu. 10:00-11:00 Mon. and Wed. via MS Teams		
<b>Time:</b>	11:00-12:00 Sun., Tues., Thu.	<b>Class Room:</b>	Online via MS Teams
<b>Course description:</b>	This course is an extension for the first course of Electrical Machines. It provides the students with some additional detailed knowledge for three-phase transformers, synchronous generators, synchronous motors, induction motors and permanent-magnet materials and their application in electrical machines (permanent-magnet machines).		
<b>Textbook:</b>	Electrical Machinery Fundamentals by Stephen J. Chapman, 4 <sup>th</sup> Edition, 2005.		
<b>Other Required Material:</b>	Lecture Notes		
<b>Course Objectives:</b>	Successful completion of this course should lead to knowledge and understanding of: <ol style="list-style-type: none"><li>1) Three-phase transformers.</li><li>2) Fundamentals of AC machines.</li><li>3) Synchronous generator (operating alone and paralleled with power system).</li><li>4) Synchronous motor.</li><li>5) Permanent-magnet materials and their applications in electrical machines.</li></ol>		
<b>Class Schedule:</b>	3 class sessions each week; 50 minutes each.		
<b>Grading Plan:</b>	<b>Course:</b>		
	First Exam	(30 Points)	
	Second Exam	(30 Points)	
	Final Exam	(40 Points)	
<b>General Notes:</b>	<ol style="list-style-type: none"><li>1) Attendance is mandatory. No more than 15% no-excuse absents is permitted.</li><li>2) <b>Excuses for absents in First and Second Exams are NOT acceptable!</b></li></ol>		
<b>Prepared By:</b>	<b>Prof. Mohammad Widyan</b>	<b>Date:</b>	21.02.2021