



College: Engineering

**Programme Electrical** 

**Course:** Principles of Electric

machines

Muharram 1437 H





# **Course Report**

Institution: Majmaah University Date of CR 1/8/1437 H.
College/ Department Engineering / Electrical Engineering......

# **A Course Identification and General Information**

1. Course ti	tle: Princip		ric Code	EE288	Section	
2. Name of course instructor Dr. Ahmed Galal Location: Alyahia Building						
3. Year and	semester to	which this re	port appli	es: First Sem	nester 2016-2	2017
4. Number of	students startir	ng the course?	10 5	Students complet	ing the course	? 10
5. Course c	omponents:					
	Lecture	Tutorial	Laboratory Studio	Practical	Other	Total
Contact Hours	45	15	0	0	0	60
Credit	3	0	0	0	0	3

# **B- Course Delivery:**

## 1. Coverage of Planned Program

1. Coverage of Francisca Frogram			
Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
The construction, connections,	8	8	
principle of operation of single-phase, three-phase and autotransformers			
The performance characteristics (voltage regulation and efficiency) of	8	8	
the transformers			
The fundamentals of the ac machines	8	8	
such as the concept of the rotating flux, the induced voltage and torque.			
The construction, connections,	8	8	
principle of operation of single-phase, three-phase and autotransformers			
The construction, principle of	8	8	
operation, modeling of the synchronous generator.			
Calculation the voltage regulation of	8	8	

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the alternator using the phasor			
diagram or the complex numbers.			
The construction and principle of	8	4	
operation of the induction motor.			
Induction motor starting and speed	4	8	
control.			

<sup>(\*)</sup> if there is a difference of more than 25% of the hours planned

# 2. Consequences of Non-Coverage of Topics

Topics not Fully Covered (if any)	Effected Learning Outcomes	Possible Compensating Action

# 3. Course learning outcome assessment.

	List course learning outcomes	List methods of assessment for each LO	Summary analysis of assessment results for each LO
1.0	Knowledge		
2.0	Cognitive Skills		
2.1			
2.2			•••••
۲,۳	An ability to identify, formulate, and solve engineering	Standardized	
	problems	exams, Oral	
		exams, Micro	
		projects	
۲,٤	The ability to analyze, design, and implement systems.	Standardized	
		exams, Oral	
		exams, Micro	
		projects	
۲,٥			•••••
۲,٦	•••••		
3.0	Interpersonal Skills & Responsibility		
4.0	Communication, Information Technology, Numerical	-	
4.1	An ability to apply knowledge of mathematics, science, and	Standardized	
1	engineering	exams, Oral	
		exams, Micro	
		projects	



	List course learning outcomes	List methods of assessment for each LO	Summary analysis of assessment results for each LO
4.2		•••••	
٤,٣			
٤,٤	••••••		
٤,٥			
٤,٦	•••••		
5.0	Psychomotor	<u> </u>	

Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.				

# **4.** Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification

List Teaching Methods set out in Course Specification		They etive?	Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal
		Yes	with Those Difficulties.

# C. Results

## 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
<b>A</b> +	0	0 %	
A	2	20 %	

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В+	0	0 %	
В	1	10 %	
C+	0	0%	
C	1	10 %	
D+	2	20 %	
D	4	40 %	
F	0	0 %	
Denied Entry	0	0 %	
In Progress	0	0%	
Incomplete	0	0. %	
Pass	10	100%	
Fail	0	0 %	
Withdrawn	0	0 %	

## 2. Analyze special factors (if any) affecting the results

•	
•	
•	
•	
•	

## ${\bf 3.\ Variations\ from\ planned\ student\ assessment\ processes\ (if\ any)\ .}$

a. Variations (if any) from planned assessment schedule (see Course Specifications)

Variation	Reason
None	

b. Variations (if any) from planned assessment processes in Domains of Learning





Variation	Reason
Three outstanding students with A+ and A grades	They study and work hard and solve all the tutorial problems and they make connections between this course and the previous courses.

#### 4. Student Grade Achievement Verification:

Method(s) of Verification	Conclusion
Level of fairness in correction is fairly high	All final papers are revised and checked several times.

#### D. Resources and Facilities

Difficulties in access to resources or facilities (if any)	Consequences of any difficulties experienced for student learning in the course
None	

# E. Administrative Issues

Organizational or administrative difficulties encountered (if any)	Consequences of any difficulties experienced for student learning in the course
None	

#### **F** Course Evaluation

#### 1 Student evaluation of the course (Attach summary of survey results)

- a. List the most important recommendations for improvement and strengths
  - ١- كان تنفيذ المقرر والأشياء التي طُّلب منى أداؤها متسقة مع الْخطوط الأساسية للمقرر
    - ٢- كان عضو هيئة التدريس موجودا للمساعدة خلال الساعات المكتبية.
    - ٣- كان كل ما يقدم في المقرر حديثًا ومفيدا، (النصوص المقروءة، التلخيصات،
  - المراجع، وما شابهها). ٤- كانت كمية العمل في هذا المقرر متناسبة مع عدد الساعات المعتمدة المخصصة للمقرر.
- b. Response of instructor or course team to this evaluation
  - 1- The students don't want to do microprojects and frequent quizzes.
  - 2- I'm always available in my office unless I have lecture, meeting or workshop.
  - 3- I give the students hard copy from the text book and I always use the D2L to share the ppt materials with them.
  - 4- The course material and contents are distributed equally through the semester.

#### 2. Other Evaluation:

- a. List the most important recommendations for improvement and strengths
  - Sufficient practical sessions during tutorial.
- b. Response of instructor or course team to this evaluation:
  - Results of the final exam were satisfactory

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# **G Planning for Improvement**

1. Progress on actions proposed for improving the course in previous course reports (if any).

Actions recommended from the most recent course report(s)	Actions Taken	Action Results	Action Analysis
None			I have taught this course for 4 years.

#### 2. List what other actions have been taken to improve the course

- Force the students to use textbooks in solving problems and in analysing the electric machines theories.
- More practical problems must be given to the students

## 3. Action Plan for Next Semester/Year

Actions Recommended for Further Improvement	Intended Action Points (should be measurable)	Start Date	Completion Date	Person Responsible
a) More exercises	More time for exercises in using field measurements to solve real problems	3 <sup>rd</sup> week of the semester	12 <sup>th</sup> week of the semester	Instructor
b) Field work	Organize some field trips and allow students to recognize the different types of electric machines.	10 <sup>th</sup> week of the semester	13 <sup>th</sup> week of the semester	Instructor

Course Instructors	Course 1	Inst	truct	tor:
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Name:	Ahmed Galal	•••••	
Signature:	Ahmed Galal	Date Report Completed:	20/2/2017
Program Co	ordinator:		
Name:			
Name: Signature:		Date Received:/.	/2016

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# **Important Notes:**

- A separate Course Report (CR) should be submitted for every course and for each ( section " Male & Female" or Academic Programme or campus location where the course is taught ) even if the course is taught by the same person
- Each CR is to be completed by the course instructor (Separate reports attached ) and given to the program coordinator At the end of each course
- Course Reports are to discuss by the academic ( Programme ) Department Council

