



جامعة المجمعة
Majmaah University

Course Report

College: Engineering
Programme: Electrical
Course : Principles of Electric machines

Muharram 1437 H



This form compatible with NCAAA Edition

Course Report

Institution :	Majmaah University	Date of CR	25/ 5 / 2017.
College/ Department	Engineering / Electrical Engineering.....		

A Course Identification and General Information

1. Course title: Principles of Electric Machines		Code	...EE288.....	Section	.....
2. Name of course instructor		Dr. Ahmed Galal	Location :		Alyahia Building	
3. Year and semester to which this report applies: First Semester 2016-2017						
4. Number of students starting the course?		27	Students completing the course?		25	
5. Course components:						
	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

Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
The construction, connections, principle of operation of single-phase, three-phase and autotransformers	8	8	.....
The performance characteristics (voltage regulation and efficiency) of the transformers	8	8	.....
The fundamentals of the ac machines such as the concept of the rotating flux, the induced voltage and torque.	8	8	.....
The construction, connections, principle of operation of single-phase, three-phase and autotransformers	8	8	.....
The construction, principle of operation, modeling of the synchronous generator.	8	8	.....
Calculation the voltage regulation of	8	6	Due to instructions by the



the alternator using the phasor diagram or the complex numbers.			ministry of education to shorten the semester by three weeks
The construction and principle of operation of the induction motor.	8	4	
Induction motor starting and speed control.	4	2	

(*) 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)	Effectuated Learning Outcomes	Possible Compensating Action
The power-delta relation and how to determine the steady state stability of the alternator.	This will affect the students knowledge about the stability issues in synchronous generators.	This topic can be compensated in EE 389.
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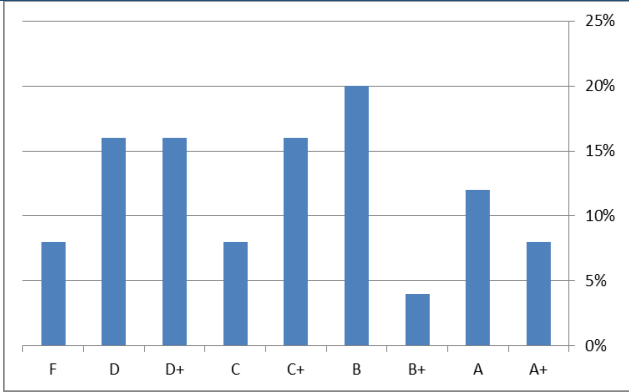
3. Course learning outcome assessment.

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	To illustrate the construction, connections, principle of operation of single-phase, three-phase and autotransformers.	Standardized exams	85.6%
2.2	To Analyze the Equivalent circuits representing the transformers		
٢,٣	To illustrate how to calculate the performance characteristics (voltage regulation and efficiency) of the transformers.		
٢,٤	To recognize the fundamentals of the ac machines such as the concept of the rotating flux, the induced voltage and torque.		
٢,٥	.....	.....	.....
٢,٦	.....	.....	.....
3.0	Interpersonal Skills & Responsibility		

4.0	Communication, Information Technology, Numerical		
4.1	To illustrate the construction, principle of operation, modeling of the synchronous generator	Standardized	



B	5	20 %	
C+	4	16%	
C	2	8 %	
D+	4	16 %	
D	4	16 %	
F	2	8 %	
Denied Entry	0	0 %	.....
In Progress	0	0%	.....
Incomplete	0	0 %	.....
Pass	25	89%	.....
Fail	2	7 %
Withdrawn	1	4 %

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

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3. Variations from planned student assessment processes (if any) .

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

Variation	Reason
The second midterm was not given.	Due to instructions by the ministry of education to shorten the semester by three weeks

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

Variation	Reason
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Two outstanding students with A+ grade	They study and work hard and solve all the tutorial problems and they make connections between this course and the previous courses.
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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 More visits for power and sub-stations are needed.
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



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 5 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 rd week of the semester	11 th week of the semester	Instructor
b) Field work	Organize some field trips and allow students to recognize the different types of electric machines.	10 th week of the semester	11 th week of the semester	Instructor

Course Instructor:

Name:Ahmed Galal.....

Signature: Date Report Completed: 20/5/2017

Program Coordinator:

Name:

Signature: Date Received :/...../2017



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

