



College of Engineering

Programme: Power And Machines Track

Course: High Voltage Engineering Systems

(EE 477)

Muharram 1437 H





Course Report

Institution: Majmaah University Date of CR 25/05/2017. College/ Department College of Engineering / Electrical Engineering

A Course Identification and General Information

1. Course ti	title: High Voltage		Code	EE 477	Section	393
	Engineering Systems					
2. Name of	course instru	ctor Dr. A	hmed Bilal	Awan Loca	tion: Coll	ege of
					Engi	neering
3. Year and	semester to	which this re	eport applie	s: Year 4 / S	Semester 7 (le	evel 9)
4. Number of	students startir	ng the course?	19 S	tudents complet	ing the course	2 19
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

Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
Generation and measurements of high DC, AC and impulse voltages	20	20	
Conduction and breakdown processes in gaseous, liquid, and solid insulating media	20	16	This semester was curtail to 13 weeks
High voltage test techniques	20	16	This semester was curtail to 13 weeks

^(*) if there is a difference of more than 25% of the hours planned

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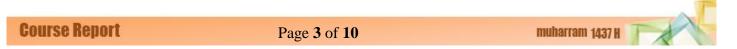


2. Consequences of Non-Coverage of Topics

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		
1.1			
1.2			
١,٣			
١,٤			
١,٥			
١,٦			• • • • • • • • • • • • • • • • • • • •
2.0	Cognitive Skills		
2.1	Solving engineering problems by carrying out high voltage	Standardized	57%
	testing of electrical components.	exams, quizzes	
		and assignments.	
2.2	Analyzing, and finding the reasons of insulator breakdown.	Standardized	58%
		exams, quizzes	
		and assignments.	
۲,۳			•••••
۲,٤			•••••
۲,٥			•••••
۲,٦			••••
3.0	Interpersonal Skills & Responsibility		
3.1			
3.2			
٣,٣			•••••
٣, ٤		•••••	•••••
۳,٥		•••••	•••••
٣,٦			•••••
4.0	Communication, Information Technology, Numerical		
4.1	Describe different methods of generation of high voltage.	Standardized	75.5%
		exams, quizzes	
		and assignments.	
4.2	Compare methods of generations of HVDC and HVAC.	Standardized	75.5%
		exams, quizzes	





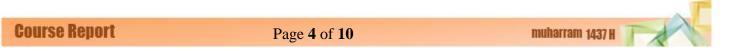
	List course learning outcomes	List methods of assessment for each LO	Summary analysis of assessment results for each LO
		and assignments.	
٤,٣	Demonstrate breakdown mechanism of gaseous, liquid and	Standardized	75.5%
	solid insulators.	exams, quizzes and assignments	
٤,٤	Perform high voltage testing of various insulators.	Standardized exams, quizzes and assignments	75.5%
٤,٥	••••••	•••••	
٤,٦		•••••	
5.0	Psychomotor		
5.1			•••••
5.2			
٥,٣			
٥,٤			
٥,٥			
٥,٦			

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

Group problem solving sessions are recommended to boost the interest of students in the
course

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

List Teaching Methods set out in Course		They etive?	Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal
Specification	No	Yes	with Those Difficulties.
Class room lectures		X	Class room and white board size is very small.
Semester project		X	Student complained that they are already overloaded. Some students did not submitted the reports on time. In next semester, micro project will be given in week 7 rather than week 9 in current semester.





C. Results

1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A +	2	10.5 %	
A	0	0 %	
B+	2	10.5 %	
В	0	0 %	
C+	1	5.3 %	
С	3	15.8 %	
D+	1	5.3 %	Level of basic concepts was very low which lead to low grades
D	6	31.6%	Level of basic concepts was very low which lead to low grades
F	4	21 %	Level of basic concepts was very low which lead to failure of the course
A +		%	
Denied Entry		0 %	
In Progress		0%	
Incomplete		0 %	
Pass	20	79 %	
Fail	5	21 %	Level of basic concepts was very low which lead to failure of the course
Withdrawn	0	0 %	

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





- Students are weak in mathematics. The College and Department should check the level of students in mathematics before admission.
- Some students have English comprehension and communication problems
- IQ level of students is low and they have problems to grasp complicated

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

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

Variation	Reason
Midterm-2 exam was not taken	Semester was curtail to 13 weeks. Time shortage did not permit to take the Mid-2 exam. That was utilized for classes

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

Variation	Reason

4. Student Grade Achievement Verification:

Method(s) of Verification	Conclusion
Cross-check of grade validity	Validated

D. Resources and Facilities

Difficulties in access to resources or facilities (if any)	Consequences of any difficulties experienced for student learning in the course	
Size of the white board is too small for engineering classes	Lot of time was wasted due to very small white boards	
Class rooms structure	Class rooms are rectangular and white boards are installed on the length side of the rectangle rather than width side. The students sitting at the corners cannot even see the white board.	

E. Administrative Issues

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Organizational or administrative difficulties encountered (if any)	Consequences of any difficulties experienced for student learning in the course

F Course Evaluation

1 Student evaluation of the course	(Attach summary of	survey results
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a. List the most important recommendations for improvement and strengths		
• Result of the survey is above the bench mark of 75%. No further action plan is recommended		
•		
•		
•		
b. Response of instructor or course team to this evaluation		
•		
•		
•		
•		

2. Other Evaluation:

a. List the most important recommendations for improvement and strengths				
•				
•				
•				
•				
b. Response of instructor or course team to this evaluation:				
•				
•				
•				
•				

G Planning for Improvement



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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
a) Improvement in SLO assessment	Class activities	Student has shown good interest.	Because of shortage of time in this semester no visible improvement in students learning outcomes is achieved. (Semester was squeezed to 13 weeks)
b) Text book is not available	Issue was raised	Still waiting	
c)			
d)			

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

•	
•	

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) Improvement in SLO assessment	Including group problem solving sessions in the teaching strategy	1/09/2017	01/01/2018	Instructor
b) Update for SLOs	Improving the link between CLOs and SLOs	1/09/2017	01/01/2018	Department and College
c)		//1438 H	//1438 H	
d)		//1438 H	//1438 H	
e)		//1438 H	//1438 H	

Course Instructor:

Name: Dr. Ahmed Bilal Awan

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Signature:	Date Report Completed:	25/05/2017	
Program Coordinator:			
Name:			
Signature:	Date Received:/.	/1438 H	



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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

