



جامعة المجمعة  
Majmaah University

# Course Report

**College:** Engineering  
**Programme:** Electrical engineering  
**Course :** EE472 section 1

May 2017



This form compatible with NCAAA Edition

## Course Report

Institution :	Majmaah University	Date of CR	14/05/2016.
College/ Department	Engineering / Electrical Engineering		

### A Course Identification and General Information

1. Course title:	<b>ELECTRICAL DISTRIBUTION SYSTEMS PLANNING</b>	Code	<b>EE 472</b>	Section	<b>1615- 590</b>	
2. Name of course instructor	<b>Dr. Youcef Beroruche</b>	Location :	<b>College of engineering</b>			
3. Year and semester to which this report applies:	<b>2015-2016 : II</b>					
4. Number of students starting the course?	<b>36</b>	Students completing the course?	<b>34</b>			
5. Course components:						
	Lecture	Tutorial	Laboratory/ Studio	Practical	Other	<b>Total</b>
<b>Contact Hours</b>	<b>32</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48</b>
<b>Credit</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

### B- Course Delivery :

#### 1. Coverage of Planned Program

Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
Electric loads types and characteristics	6	6	N/A
Electric energy consumer categories	3	3	N/A
Basic load forecast methodologies	15	15	N/A
Distribution system reliability evaluation	9	6	According to the ministry of high education. The number of weeks has been reduced to 13 weeks
Distribution system cost assessment	6	3	According to the ministry of high education. The number of weeks has been reduced to 13 weeks
Distribution system planning: feeder	9	6	According to the ministry of



expansion, distribution		high education. The number of weeks has been reduced to 13 weeks
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( \* ) 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
NA	NA	NA

## 3. Course learning outcome assessment.

List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
<b>1.0</b>	<b>Knowledge</b>		
<b>1.1</b>	.....	.....	.....
<b>1.2</b>	.....	.....	.....
<b>2.0</b>	<b>Cognitive Skills</b>		
<b>2.1</b>	.....	.....	.....
<b>2.2</b>	The student will be able to design distribution system planning	Q5 of the Final	Section 1: 72% Section 2: 70% <b>Average: 71%</b>
<b>2.3</b>	The student will be able to identify, formulate and solve engineering problems related to the distribution system reliability, cost assessment and planning	Q6 of the Final	Section 1: 82% Section 2: 64% <b>Average: 73%</b>
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
<b>3.1</b>	.....	.....	.....
<b>3.2</b>	.....	.....	.....
<b>3.3</b>	.....	.....	.....
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
<b>4.1</b>	The student will be able to apply knowledge of , mathematics science and engineering to identify and describe the basic load types, their characteristics and forecasts, electric energy consumer categories, distribution system reliability, cost assessment and planning	Q1 of the Final	Section 1: 92% Section 2: 72% <b>Average: 82%</b>
<b>4.2</b>	.....	.....	.....



List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
4.3			
5.0	Psychomotor		
5.1	.....	.....	.....
5.2	.....	.....	.....

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

The 1<sup>st</sup> section has got the better outcomes than the other one. The students of section 2 are from the old plan.

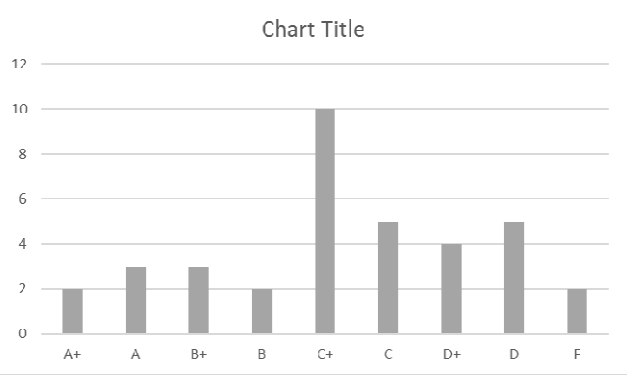
#### **4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification**

List Teaching Methods set out in Course Specification	Were They Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
Lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, memorization and individual presentation.		X	
Lecture, small group work, research activities, lab demonstrations, projects and individual presentation		X	
Practical knowledge has given to the students by reviewing the concepts of power system operation.		X	
Lecture, research activities, lab demonstrations, projects, case studies.			
Lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, memorization and individual presentation.		X	



## C. Results

### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A+	2	6%	 <p>The total section has a perfect normal distruntion with no failed students</p>
A	3	8%	
B+	3	8%	
B	2	6%	
C+	10	28%	
C	5	14%	
D+	4	11%	
D	5	14%	
F	2	6%	
Denied Entry	0	0%	
In Progress	0	0%	.....
Incomplete	0	0%	.....
Pass	34	95%	.....
Fail	2	5%	.....
Withdrawn	0	0%	.....

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

- NA

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

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



Variation	Reason
13/16 weeks are delivered	Based on the instructions of ministry of higher education the semester was cut shorted
NA	NA
NA	NA

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

Variation	Reason
NA	NA
NA	NA
NA	NA

**4. Student Grade Achievement Verification :**

Method(s) of Verification	Conclusion
Internal grades verification reviewer	Reviewed by Dr. Manna Elbarhoumi
Grades approved by Head of department and the dean of the EC.	Approved
D2L is used for verifications of sum.	verified

**D. Resources and Facilities**

Difficulties in access to resources or facilities (if any)	Consequences of any difficulties experienced for student learning in the course
NA	NA
NA	NA
NA	NA

**E. Administrative Issues**

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

**F Course Evaluation**

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

a. List the most important recommendations for improvement and strengths <ul style="list-style-type: none"> <li>71% of the students are very satisfied with the course. No actions are needed</li> </ul>
b. Response of instructor or course team to this evaluation <ul style="list-style-type: none"> <li>NA</li> </ul>



## 2. Other Evaluation :

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

## 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
a) More focus on logarithm equations solving and polynomial integration	Done	Outcome c and e has been improved	NA
b) Increase the number of quizzes	Not done	Not done	This term has less time as usual.
c) Buying one of the missing text books	Not done	Not done	Not done

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

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### 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) Buying one of the missing text books	The text book : ``Reliability Evaluation of Power Systems`` (Billinton, Allan) is missing	01/09/2017	30/12/2017	UPC
b) Use new teaching strategies methods	One case study and one groups discussion	01/09/2017	30/12/2017	The instructor
c) Use D2L with more efficient way. d)	Use one rubrics of the given case study	01/09/2017	30/12/2017	The instructor
e) Increase the number of quizzes	2 more quizzes	01/09/2017	30/12/2017	The instructor
f)				
g)				
h)				

**Course Instructor:**

Name: Dr. Youcef Berrouche

Signature: ..... Date Report Completed: 25/05/2017

**Program Coordinator:**

Name: Dr. Abdullah Alnuhaisen

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





## **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

## **Appendix : Course evaluation survey**



## **Appendix : Course report for each section**

### **Section 1**

**College:**            **Engineering**  
**Programme**       **Electrical engineering**



**Course :**        **EE472 section 1**

May 2017



## Course Report

Institution :	Majmaah University	Date of CR	14/05/2016.
College/ Department	Engineering / Electrical Engineering		

### A Course Identification and General Information

1. Course title:	ELECTRICAL DISTRIBUTION SYSTEMS PLANNING	Code	EE 472	Section	1615	
2. Name of course instructor	Dr. Youcef Beroruche		Location :	College of engineering		
3. Year and semester to which this report applies:	2015-2016 : II					
4. Number of students starting the course?	17	Students completing the course?	17			
5. Course components:						
	Lecture	Tutorial	Laboratory/ Studio	Practical	Other	<b>Total</b>
<b>Contact Hours</b>	32	16	0	0	0	48
<b>Credit</b>	2	0	0	0	0	2

### B- Course Delivery :

#### 1. Coverage of Planned Program

Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
Electric loads types and characteristics	6	6	N/A
Electric energy consumer categories	3	3	N/A
Basic load forecast methodologies	15	15	N/A
Distribution system reliability evaluation	9	6	According to the ministry of high education. The number of weeks has been reduced to 13 weeks
Distribution system cost assessment	6	3	According to the ministry of high education. The number of weeks has been reduced to 13 weeks
Distribution system planning: feeder	9	6	According to the ministry of



expansion, distribution		high education. The number of weeks has been reduced to 13 weeks
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( \* ) 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
NA	NA	NA

## 3. Course learning outcome assessment.

List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
<b>1.0</b>	<b>Knowledge</b>		
<b>1.1</b>	.....	.....	.....
<b>1.2</b>	.....	.....	.....
<b>2.0</b>	<b>Cognitive Skills</b>		
<b>2.1</b>	.....	.....	.....
<b>2.2</b>	The student will be able to design distribution system planning	Q5 of the Final	72%
<b>2.3</b>	The student will be able to identify, formulate and solve engineering problems related to the distribution system reliability, cost assessment and planning	Q6 of the Final	82%
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
<b>3.1</b>	.....	.....	.....
<b>3.2</b>	.....	.....	.....
<b>3.3</b>	.....	.....	.....
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
<b>4.1</b>	The student will be able to apply knowledge of , mathematics science and engineering to identify and describe the basic load types, their characteristics and forecasts, electric energy consumer categories, distribution system reliability, cost assessment and planning	Q1 of the Final	92%
<b>4.2</b>	.....	.....	.....



List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
4.3			
5.0	Psychomotor		
5.1	.....	.....	.....
5.2	.....	.....	.....

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

This section has got the better outcomes than the other one

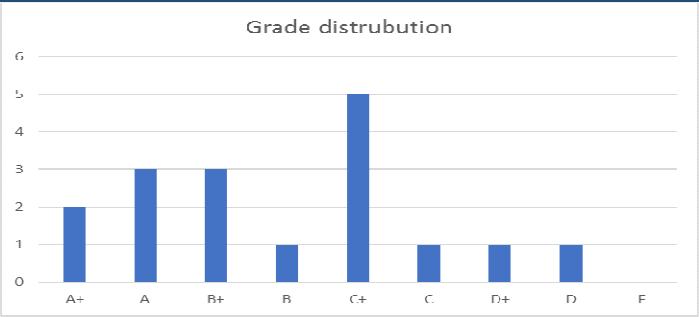
#### **4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification**

List Teaching Methods set out in Course Specification	Were They Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
Lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, memorization and individual presentation.		X	
Lecture, small group work, research activities, lab demonstrations, projects and individual presentation		X	
Practical knowledge has given to the students by reviewing the concepts of power system operation.		X	
Lecture, research activities, lab demonstrations, projects, case studies.			
Lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, memorization and individual presentation.		X	



## C. Results

### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A+	2	11%	 <p>This section has a normal distribution with no failed students</p>
A	3	16%	
B+	3	16%	
B	1	5%	
C+	5	26%	
C	1	5%	
D+	1	5%	
D	1	5%	
F	0	0%	
Denied Entry	0	0%	
In Progress	0	0%	.....
Incomplete	0	0%	.....
Pass	17	100%	.....
Fail	0	0%	.....
Withdrawn	0	0%	.....

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

- NA

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

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



Variation	Reason
13/16 weeks are delivered	Based on the instructions of ministry of higher education the semester was cut shorted
NA	NA
NA	NA

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

Variation	Reason
NA	NA
NA	NA
NA	NA

**4. Student Grade Achievement Verification :**

Method(s) of Verification	Conclusion
Internal grades verification reviewer	Reviewed by Dr. Manna Elbarhoumi
Grades approved by Head of department and the dean of the EC.	Approved
D2L is used for verifications of sum.	verified

**D. Resources and Facilities**

Difficulties in access to resources or facilities (if any)	Consequences of any difficulties experienced for student learning in the course
NA	NA
NA	NA
NA	NA

**E. Administrative Issues**

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

**F Course Evaluation**

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

a. List the most important recommendations for improvement and strengths <ul style="list-style-type: none"> <li>71% of the students are very satisfied with the course. No actions are needed</li> </ul>
b. Response of instructor or course team to this evaluation <ul style="list-style-type: none"> <li>NA</li> </ul>





## 2. Other Evaluation :

a. List the most important recommendations for improvement and strengths

- NA

b. Response of instructor or course team to this evaluation :

- NA

## 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
d) More focus on logarithm equations solving and polynomial integration	Done	Outcome c and e has been improved	NA
e) Increase the number of quizzes	Not done	Not done	This term has less time as usual.
f) Buying one of the missing text books	Not done	Not done	Not done

### 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



i) Buying one of the missing text books	The text book : ``Reliability Evaluation of Power Systems`` (Billinton, Allan) is missing	01/09/2017	30/12/2017	UPC
j) Use new teaching strategies methods	One case study and one groups discussion	01/09/2017	30/12/2017	The instructor
k) Use D2L with more efficient way.	Use one rubrics of the given case study	01/09/2017	30/12/2017	The instructor
l)				
m) Increase the number of quizzes	2 more quizzes	01/09/2017	30/12/2017	The instructor
n)				
o)				
p)				

**Course Instructor:**

Name: Dr. Youcef Berrouche

Signature: ..... Date Report Completed: 25/05/2017

**Program Coordinator:**

Name: Dr. Abdullah Alnuhaisen

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



## Section 2

**College:** Engineering  
**Programme** Electrical engineering  
**Course :** EE472 Section 2

May 2017



## Course Report

Institution : **Majmaah University** Date of CR **14/05/2016.**  
 College/ Department **Engineering / Electrical Engineering**

### A Course Identification and General Information

1. Course title:	<b>ELECTRICAL DISTRIBUTION SYSTEMS PLANNING</b>	Code	<b>EE 472</b>	Section	<b>559</b>	
2. Name of course instructor	<b>Dr. Youcef Beroruche</b>	Location :	<b>College of engineering</b>			
3. Year and semester to which this report applies:	<b>2015-2016 : II</b>					
4. Number of students starting the course?	<b>17</b>	Students completing the course?	<b>17</b>			
5. Course components:						
	Lecture	Tutorial	Laboratory/ Studio	Practical	Other	<b>Total</b>
<b>Contact Hours</b>	<b>32</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48</b>
<b>Credit</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

### B- Course Delivery :

#### 1. Coverage of Planned Program

Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations (*)
Electric loads types and characteristics	6	6	N/A
Electric energy consumer categories	3	3	N/A
Basic load forecast methodologies	15	15	N/A
Distribution system reliability evaluation	9	6	According to the ministry of high education. The number of weeks has been reduced to 13 weeks
Distribution system cost assessment	6	3	According to the ministry of high education. The number of weeks has been reduced to 13 weeks
Distribution system planning: feeder	9	6	According to the ministry of



expansion, distribution		high education. The number of weeks has been reduced to 13 weeks
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( \* ) 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
NA	NA	NA

## 3. Course learning outcome assessment.

List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
<b>1.0</b>	<b>Knowledge</b>		
<b>1.1</b>	.....	.....	.....
<b>1.2</b>	.....	.....	.....
<b>2.0</b>	<b>Cognitive Skills</b>		
<b>2.1</b>	.....	.....	.....
<b>2.2</b>	The student will be able to design distribution system planning	Q5 of the Final	70%
<b>2.3</b>	The student will be able to identify, formulate and solve engineering problems related to the distribution system reliability, cost assessment and planning	Q6 of the Final	64%
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
<b>3.1</b>	.....	.....	.....
<b>3.2</b>	.....	.....	.....
<b>3.3</b>	.....	.....	.....
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
<b>4.1</b>	The student will be able to apply knowledge of , mathematics science and engineering to identify and describe the basic load types, their characteristics and forecasts, electric energy consumer categories, distribution system reliability, cost assessment and planning	Q1 of the Final	72%
<b>4.2</b>	.....	.....	.....



List course learning outcomes		List methods of assessment for each LO	Summary analysis of assessment results for each LO
4.3			
5.0	Psychomotor		
5.1	.....	.....	.....
5.2	.....	.....	.....

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

This section has got the better outcomes than the other one

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

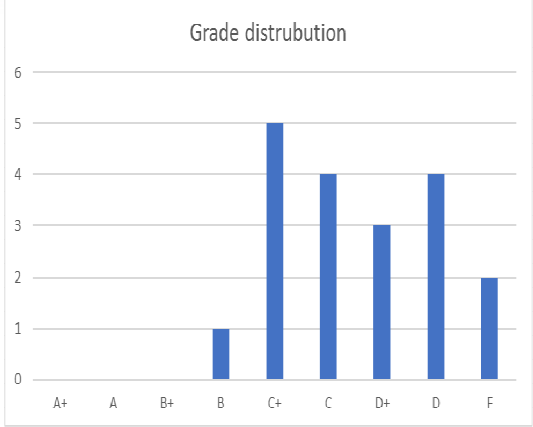
List Teaching Methods set out in Course Specification	Were They Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
Lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, memorization and individual presentation.		X	
Lecture, small group work, research activities, lab demonstrations, projects and individual presentation		X	
Practical knowledge has given to the students by reviewing the concepts of power system operation.		X	
Lecture, research activities, lab demonstrations, projects, case studies.			
Lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, memorization and individual presentation.		X	

### C. Results

#### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A+	0	0%	



<b>A</b>	0	0%	 <p>The two failed students are from the old plan This section is less performant than the other one</p>	
<b>B+</b>	0	0%		
<b>B</b>	1	5%		
<b>C+</b>	5	26%		
<b>C</b>	4	21%		
<b>D+</b>	3	16%		
<b>D</b>	4	21%		
<b>F</b>	2	11%		
Denied Entry	0	0%		.....
In Progress	0	0%		.....
Incomplete	0	0%	.....	
Pass	15	88%	.....	
Fail	2	12%	.....	
Withdrawn	0	0%	.....	

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

- NA

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

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

Variation	Reason
NA	NA
NA	NA
NA	NA

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



Variation	Reason
NA	NA
NA	NA
NA	NA

#### 4. Student Grade Achievement Verification :

Method(s) of Verification	Conclusion
Internal grades verification reviewer	Reviewed by Dr. Manna Elbarhoumi
Grades approved by Head of department and the dean of the EC.	Approved
D2L is used for verifications of sum.	verified

#### D. Resources and Facilities

Difficulties in access to resources or facilities (if any)	Consequences of any difficulties experienced for student learning in the course
NA	NA
NA	NA
NA	NA

#### E. Administrative Issues

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

#### F Course Evaluation

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

a. List the most important recommendations for improvement and strengths The majority of the students are very satisfied with the course. No actions are needed
b. Response of instructor or course team to this evaluation • NA

##### 2. Other Evaluation :

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





## 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
g) More focus on logarithm equations solving and polynomial integration	Done	Outcome c and e has been improved	NA
h) Increase the number of quizzes	Not done	Not done	This term has less time as usual.
i) Buying one of the missing text books	Not done	Not done	Not done

### 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
q) Buying one of the missing text books	The text book : ``Reliability Evaluation of Power Systems`` (Billinton, Allan) is missing	01/09/2017	30/12/2017	UPC
r) Use new teaching strategies methods	One case study and one groups discussion	01/09/2017	30/12/2017	The instructor
s) Use D2L with more efficient way.	Use one rubrics of the given case study	01/09/2017	30/12/2017	The instructor
t)				
u) Increase the number of quizzes	2 more quizzes	01/09/2017	30/12/2017	The instructor



v)				
w)				
x)				

**Course Instructor:**

Name: Dr. Youcef Berrouche  
 Signature: ..... Date Report Completed: 25/05/2017

**Program Coordinator:**

Name: Dr. Abdullah Alnuhaisen  
 Signature: ..... Date Received : ...../...../.....



