ATTACHMENT 2 (g)

Course Report

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

COURSE REPORT
(CR)

A separate Course Report (CR) should be submitted for every course and for each section 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 at the end of each course and given to the program coordinator A combined, comprehensive CR should be prepared by the course coordinator and the separate location reports are to be attached.

Course Report

For guidance on the completion of this template refer to the NCAAA handbooks or the NCAAA Accreditation System help buttons.

Institution: Umm AL-Qurra University	**Date of Course Report:** 6/1/1437
College/ Department: Faculty of Applied Science / Physics Department	

A. Course Identification and General Information

1. Course title: Electromagnetism (I)			**Code #** 403201		**Section #** Three	
2. Name of course instructor: Prof. Roshdi Seoudi Mohamed				**Location:** El-Zaher Branch		
3. Year and semester to which this report applies. 1346-1437 H, First Semester						
4. Number of students starting the course?			**Students completing the course?**			
5. Course components (actual total contact hours and credits per semester):						
	Lecture	**Tutorial**	**Laboratory**	**Practical**	**Other:**	**Total**
Contact Hours	45					45
Credit	3					3

B. - Course Delivery

1. Coverage of Planned Program			
Topics Covered	**Planned Contact Hours**	**Actual Contact Hours**	**Reason for Variations if there is a difference of more than 25% of the hours planned**
Introduction of Vector: $(div\ grad\ \phi)$, $(curl\ grad\ \varphi)$, $\left(\vec{\nabla}\times\vec{\nabla}\times\vec{A}\right)$, $\vec{\nabla}\cdot\left(\vec{\nabla}\times\vec{A}\right)$, vector integration, gauss's, green's, vector analysis in the three coordinates (Cartesian, spherical, and cylindrical)	2	3	
Electrostatics: electric charge , coulomb low, the electric field, electrostatic potential	6	6	

, conductors & insulators , gauss's law, the electric dipole , and multipole expansion			
Solution of the Electrostatic Problem: Poisson's equation , Laplace's equation, Laplaces's equation in one independent variable, Laplace's equation in spherical coordinates, conducting sphere in uniform, cylindrical harmonics , electrostatic images, point charge & conducting sphere , line charges & line images , system of conductors, and Poisson's equation	9	8	
The Electrostatic Field in Dielectric Media Polarization: field outside of a dielectric medium, the electric field inside a dielectric, the electric displacement, electric susceptibility and dielectric constant , point charge in a dielectric field, boundary conditions on the field, vector boundary value problem involving dielectrics, dielectric sphere in a uniform electric field	9	9	
Microscopic Theory Of Dielectrics: molecular field in dielectric induced dipoles, a simple model, polar molecules, the Langevin-Debye formula, permanent, polarization, ferroelectricity	6	6	
Electrostatic Energy: potential energy of a group of point, charges energy density of an electrostatic field , energy of a system of charged, conductors and capacitors	4.5	4.5	
Electric Current: current density & equation of continuity, ohm's law, steady currents in continuous media, microscopic theory of conduction	4.5	4.5	

2. Consequences of Non Coverage of Topics

For any topics where the topic was not taught or practically delivered, comment on how significant you believe the lack of coverage is for the course learning outcomes or for later courses in the program. Suggest possible compensating action.

Topics (if any) not Fully Covered	Effected Learning Outcomes	Possible Compensating Action
Calculation of the capacitance equivalent in series and parallel case for capacitors	Only for the specified experiment	Theory was given in detail
Calculation of the dielectric constant of materials	Only for the specified experiment	Theory was given in detail

3. Course learning outcome assessment.

	List course learning outcomes	List methods of assessment	Summary analysis of assessment results
1	Demonstrate the vector and scalar fields, Cartesian, spherical polar, cylindrical coordinates, integral vector calculus , div, grad, and curl operations with geometric interpretations, stokes and gauss theorems, Dirac delta function	Small Project, Homework. Group Discussion Presentation, Homework	
2	Describe the force between the charges by Coulomb's Law, Electric Field and potentials of fixed charge points, linear charge, surface and volume charge density, dipole and multipole expansion. Gauss' Law in integral and differential form.		
3	Recognize the Electrostatic Problems by Laplace's Equation and Uniqueness by Separation of variables in Cartesian, Spherical and cylindrical coordinates, Image Charge Methods for grounded planes and spheres in external fields.		
4	Define the Dielectric materials , Polarization and its Realization in Matter, The displacement field D, free charge, and modified Gauss Law, Boundary conditions and symmetric problems with displacement field, molecular fields and ferroelectricity.		
5	Determine the electrostatic energy and capacitance of Capacitors		

6	Explain the Currents and the Continuity Equation		
7	Use the mathematical modelling, experimental work in understanding physics phenomena.	Exams. Homework.	
8	Apply the gained mathematical and experimental knowledge in any physical related topic.		
9	Work in a group and learn time management.		
10	Learn how to search for information through library and internet.	Helping other students to understand tasks in the class. Giving clear and logical arguments Respecting deadlines. Showing active class participation	
11	Present a short report in a written form and orally using appropriate scientific methods.		
12	Communicate with teacher, ask questions, solve problems, and use computers.	Write reports, Exercises related to specific topics	
13	Illustrate and deal with confidence with differential equations and integrations.		
14	Raise questions in class, work in groups, and communicate with each other and with the instructor electronically, and periodically visit the sites he recommends.		
15	Communicate with teacher, ask questions, solve problems, and use computers.		

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

1. The methodology of teaching that includes a curriculum design.
2. Feedback and evaluation.
3. Creating productive online electromagnetic for learning and teaching, transition and participation into education.
4. Seminar presentation and on-line learning process with (images and movies)
5. Teaching for employability

4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification. (Refer to planned teaching strategies in Course Specification and description of Domains of Learning Outcomes in the National Qualifications Framework)

List Teaching Methods set out in Course Specification	Were these Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
Periodical quizzes, assignments and homework		√	

First and second mid- term exam and final exam		√	
Emphasis of the students in the presence of the lecture continuously		√	
Making the students are working small projects and report for electromagnetically and its applications around us.		√	
Ask the student to clear the miss understanding of the course		√	
Preparing main outlines for teaching in the starting of the lecture		√	
Define tasks for each chapter		√	
Open discussions during the lectures		√	
Brain storming, group work, homework assignments and small project		√	
Encourage the student to look for the information in different sources		√	

Note: In order to analyze the assessment of student achievement for each course learning outcome, student performance results can be measured and assessed using a KPI, a rubric, or some grading system that aligns student work, exam scores, or other demonstration of successful learning.

C. Results

1. Distribution of Grades (Group 3)

Letter Grade	Number of Students	Student Percentage	Explanation of Distribution of Grades
A	3	11	The distribution of grades and number of students is nearly normal
B	2	7	
C	6	22	
D	14	52	
F	1	4	
Denied Entry	0	0	
In Progress	27	93	
Incomplete	2	7	
Pass	26	96	
Fail	1	4	
Withdrawn	0	0	

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

In general the strengths of the students and the normal number of students are the reasons behind the marks obtained.

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

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

Variation	Reason

b. Variations (if any) from planned assessment processes in Domains of Learning (see Course Specification)	
Variation	**Reason**

4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator).	
Method(s) of Verification	**Conclusion**
Rechecking the final experimental exam by independent evaluators.	Checking was approved without any change

D. Resources and Facilities

1. Difficulties in access to resources or facilities (if any)	2. Consequences of any difficulties experienced for student learning in the course.
None	**None**

E. Administrative Issues

1 Organizational or administrative difficulties encountered (if any)	2. Consequences of any difficulties experienced for student learning in the course.

F Course Evaluation

1 Student evaluation of the course (Attach survey results report)
a. List the most important recommendations for improvement and strengths

b. Response of instructor or course team to this evaluation
2. Other Evaluation (e.g. by head of department, peer observations, accreditation review, other stakeholders)
a. List the most important recommendations for improvement and strengths
b. Response of instructor or course team to this evaluation

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**	**Results**	**Analysis**
a.			
b.			
c.			
d.			

2. List what actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).
An experiment laboratory can be setup.

3. Action Plan for Improvement for Next Semester/Year

Actions Recommended	Intended Action Points and Process	Start Date	Completion Date	Person Responsible
a.				
b.				
c.				
d.				
e.				

Name of Course Instructor: Prof. Roshdi Seoudi
Signature: **Date Report Completed:** 6/1/2016
Program Coordinator:
Signature: **Date Received:**