

ATTACHMENT 5.

Kingdom of Saudi Arabia

**The National Commission for Academic Accreditation &
Assessment**

**T6. Course Specifications
(CS)**

Course Specifications

Institution	Najran University	Date
College/Department		

A. Course Identification and General Information

1. Course title and code: 212EE-3			
2. Credit hours 3 (3 , 0 , 1)			
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)			
4. Name of faculty member responsible for the course Dr. Abdulkarem Hussein Mohammed Alkawgani			
5. Level/year at which this course is offered 5 th Semester/2 nd year			
6. Pre-requisites for this course (if any) Advance physic 105Phy Advance calculus 203Math3			
7. Co-requisites for this course (if any) None			
8. Location if not on main campus			
9. Mode of Instruction (mark all that apply)			
a. Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	85%
b. Blended (traditional and online)	<input type="checkbox"/>	What percentage?	
c. e-learning	<input checked="" type="checkbox"/>	What percentage?	10%
d. Correspondence	<input checked="" type="checkbox"/>	What percentage?	5%
f. Other	<input type="checkbox"/>	What percentage?	
Comments:			

B Objectives

1. What is the main purpose for this course?
1. Grasp Electromagnetics principles and laws
2. Apply Electromagnetics principles and laws
3. Analyze simple electromagnetic systems
2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description: Review to vector calculus; Electrostatic fields; Gauss's law and divergence; Electric potential; Dielectrics and capacitance; Poisson's and Laplace's equations; Charge images; Current density and conductors; Magnetostatic fields; Biot–Savart and Ampere's laws; Curl and Stokes's theorem; Magnetic materials and circuits; Self and mutual inductances; Energy in static Fields.

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Review to vector calculus, divergence theorem, curl, and Stokes's theorem	2.5	10
Electrostatic fields; electric field strength, Gauss's law, and electric potential	4	15
Properties of materials, dielectrics and capacitance, conductors and current density	2.5	10
Poisson's and Laplace's equations and the method of charge images	1	5
Magnetostatic fields; Biot–Savart law and Ampere's law	4	15
Magnetic materials and circuits, inductors and inductances, and energy in static fields.	2	5

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total

Contact Hours	45	15	0	0	0	60
Credit	3	1				3

3. Additional private study/learning hours expected for students per week.	6
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4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy			
On the table below are the five NQF Learning Domains, numbered in the left column.			
First , insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). Second , insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. Third , insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)			
Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Classify materials, and identify dielectrics, conductors and properties	Lectures and tutorials	Test 2, final exam assignments and homework
2.0	Cognitive Skills		
2.1	Apply vector calculus to understand the behavior of static fields	Lectures and tutorials	Test 1, final exam assignments and homework
2.2	Analyze electrostatic forces, fields, and potentials	Lectures and tutorials	Test 1, final exam assignments and homework
2.3	Analyze magnetostatic fields and derive Maxwell's equations	Lectures and tutorials	Test 2, final exam assignments and homework
3.0	Interpersonal Skills & Responsibility		
3.1			
3.2			
4.0	Communication, Information Technology, Numerical		

4.1			
4.2			
5.0	Psychomotor		
5.1			
5.2			

5. Map course LOs with the program LOs. (Place course LO #s in the left column and program LO #s across the top.)

Course LOs #	Program Learning Outcomes (Use Program LO Code #s provided in the Program Specifications)										
	a	b	c	d	e	f	g	h	i	j	k
	2.1	2.2	2.3	3.1	2.4	4.1	3.2	1.1	4.2	1.2	1.2
1	1				1						
2	1				1						1
3	1				1						
4	1				1				1		1

6. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Test 1	7	20%
2	Quiz 1 and 2	4 and 6	3%
3	Test 2	15	15%
4	Quiz 3 and 4	9 and 11	3%
5	Homework	3, 5, 7, 9, 11 and 13	7%
6	Final exam	16	50%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Teaching staff are available weekly for all the students and can answer any query that rises, beside

<p>the students can email their enquiries to the main lecture. Beside students have Open general discussions with other class mates.</p> <ul style="list-style-type: none"> • 6 hours per week and can be arranged according to the student needs.

E Learning Resources

1. List Required Textbooks
William H. Hayt, Jr. John A. Buck, “Engineering Electromagnetics”, Sixth Edition, 2004
2. List Essential References Materials (Journals, Reports, etc.)
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
Matthew N. O. Sadiku, “Elements of Electromagnetics”, Oxford Edition.
4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
Classroom, 25 seats
2. Computing resources (AV, data show, Smart Board, software, etc.)
Data show, Smart Board
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching
<ul style="list-style-type: none"> i. Complete course evaluation questionnaire by the students. ii. Open discussion for the students to touch their weak and strong points in the subject. iii. Feeding back from the mid-term exam records.
2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor

<ul style="list-style-type: none"> • Written feedback from a classroom observation that details judgment on teaching. • Written feedback that details judgment on course materials such as syllabi, handouts and exams. • Written documentation that details teaching contribution to the department. • Feedback from peer reviewer in the department after attendance classroom lecture.
<p>3 Processes for Improvement of Teaching</p> <p>Actions by department council</p>
<p>4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)</p> <p>Check marking by an independent member teaching staff of a sample of student work</p>
<p>5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.</p> <ul style="list-style-type: none"> • Ongoing updating and improving (during the course). • Semi-annual discussion in department council

Name of Instructor: Dr. Abdulkarem Hussein Mohammed Almawgani

Signature: _____ Date Report Completed: 14/3/2017

Name of Course Instructor _____

Program Coordinator: _____

Signature: _____ Date Received: _____