

ATTACHMENT 5.

Kingdom of Saudi Arabia

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

**T6. Course Specifications
(CS)**

Course Specifications

Institution: Najran University	Date: 22/01/2017
College/Department: Faculty of Engineering/Electrical Engineering Department	

A. Course Identification and General Information

1. Course title and code: Graduation Project II (492EE-3)			
2. Credit hours: 3			
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs) Electrical Engineering			
4. Name of faculty member responsible for the course Dr. Adam Alhawari			
5. Level/year at which this course is offered: 10th level			
6. Pre-requisites for this course (if any): EE491-2: Graduation Project I			
7. Co-requisites for this course (if any): None			
8. Location if not on main campus: None			
9. Mode of Instruction (mark all that apply)			
a. traditional classroom	<input checked="" type="checkbox"/>	What percentage?	100%
b. blended (traditional and online)	<input type="checkbox"/>	What percentage?	<input type="text"/>
c. e-learning	<input type="checkbox"/>	What percentage?	<input type="text"/>
d. correspondence	<input type="checkbox"/>	What percentage?	<input type="text"/>
f. other	<input type="checkbox"/>	What percentage?	<input type="text"/>

Comments: **None**

B. Objectives

1. What is the main purpose for this course?

- Identify and formulate engineering problems in the area of electrical engineering
- Work effectively as a member of the team
- Conduct enough literature review in the project domain
- Design a system, component or process with defined constraints
- Solve engineering problems and implement designed solution
- Collect and analyze data, and draw conclusions through experiments while testing a project
- Communicate orally and in writing the project design details in a technical report

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)

- Use the data show to explain various concepts of the topics
- Offering the students extra hour of tutorial in addition to the prescribed office hours.

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

Course Description:

The graduation project is a culminating handy course work for which the students are expected to integrate and apply what they have learned through previous academic work and field experiences, with faculty supervision. This is the continuation of graduation project-I, and consequently graduation project-II is supposed to be taken in the consecutive semester.

Throughout the semester, the students try to implement what they proposed in graduation project-I as a group. Project students meet in class or lab weekly, segregate the work into sub-projects, and integrate the individual works in order to reach their target and faculty critique and suggestions. At the conclusion of the semester, students present their design projects along with the thesis to the supervising committee.

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Choosing a project and writing a proposal. Group Formation Form is Due.	1, 2	(6 hours)
Initial Student Presentations: Project title, description, motivation and aims.	3	(3 hours)
Project planning, project process, project management activities, work breakdown, time estimates, milestones, activity sequencing, activity network, scheduling, Gantt charts, re-planning.	4	(8 hours)
Literature Survey: Search and Review, tracing the information, critical evaluation, writing literature review, ethics and responsibilities.	5,6	(12 hours)
Software Development, life cycle, models. Assistance in Writing progress Report	7,8	(6 hours)
Student Presentations I: Project Proposal: problem definition, objectives, justification, and approach.	9	(3 hours)
The initial Design/the Analysis Stage: System requirements specification, Functional and non-functional requirements, data, software and hardware requirements,	11,12,13	(9 hours)
Student Presentations II: literature survey, analysis, and design.	14	(3 hours)

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	42	0	None	0	None	42
Credit	42	None	None	0	None	42

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.

<p>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.)</p>			
Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	Knowledge		
1.1	Subject-based knowledge	Lectures, discussion rounds, tutorials Computer programing tools	Logbook, Presentation and Final Report Draft
2.0	Cognitive Skills		
2.1	<ul style="list-style-type: none"> – Identify and formulate engineering problems in the area of Electrical Engineering – Function in multidisciplinary teams – Conduct enough literature review in the project domain – Design a system, component or process with defined constraints – Solve engineering problems and implement designed solutions – Collect and analyze data, and draw conclusions through experiments while testing a project – Communicate effectively in written and oral forms, and achieve ethical aspects 	<ul style="list-style-type: none"> – Offering extra tutorials for students – Encourage class participation – Making field trips (to, for example, Najran TV & Radio transmission station) to help students understand various concepts of the course topics 	Logbook, Presentation and Final Report Draft
3.0	Interpersonal Skills & Responsibility		
3.1	Conduct collaborative and peer-to-peer coaching sessions which enhance team work skills.	Make all class meeting in the class room to enhance the students hands –	Logbook, Presentation and Final Report Draft

		on experience Lectures and tutorials	
3.2	During the classes students has to act responsible and ethical behavior	Make all class meeting in the class room to enhance the students hands – on experience Lectures and tutorials	Logbook, Presentation and Final Report Draft
4.0	Communication, Information Technology, Numerical		
4.1	Record the students' attendance.	Invite the students to benefit from the office hours to ask more about their subject.	Ability to formulate different problems and provide solutions
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)								
	1.1	2.1	3.1	3.2	4.1				
1	✓								
2	✓		✓						
3	✓		✓						
4	✓	✓	✓	✓					
5	✓	✓		✓					
6	✓	✓		✓					
7				✓	✓				

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	Logbook (supervisor)	Every week	15 %
2	Final Report Draft (supervisor)	Week 13	35 %
3	Presentation (examination panel)	Week 14	20 %
4	Final Report Draft (examination panel)	Week 14	30 %

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, besides, the students can email their enquiries to the main lecture. Beside students have open general discussions with other class mates.
- Six (6) hours per week and can be arranged according to the student needs.

E. Learning Resources

1. List Required Textbooks
Any available books in the library related to field of work.
2. List Essential References Materials (Journals, Reports, etc.)
Published research articles
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
None

4. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

None

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

MATLAB Program

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.)

None

2. Computing resources (AV, data show, Smart Board, software, etc.)

3D Electromagnetic Software such as Computer Simulation Technology (CST)

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

None

G. Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Complete course evaluation questionnaire by the students.
- Open discussion for the students to touch their weak and strong points in the subject.
- Feedback from the examination panel records.

2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department

Provide workshops for all staff members to improve their presentations skills and arrangement of lectures

3 Processes for Improvement of Teaching

<ul style="list-style-type: none">- Learning from students' feedback- Learning from instructor and department feedback- Learning using various teaching methods (lecturing, discussions, workshops, exams...)
<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>Checking students' results by another teaching staff member through reviewing the assessment samples during the semester in order to verify the students' results.</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)- Annual updating and improving (during summers)

Name of Instructor: DR. ADAM ALHAWARI

Signature: _____ Date Report Completed: 22/01/2017

Name of Course Instructor _____

Program Coordinator: _____

Signature: _____ Date Received: _____