

**Attachment 2 (a)**

**Kingdom of Saudi Arabia**

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

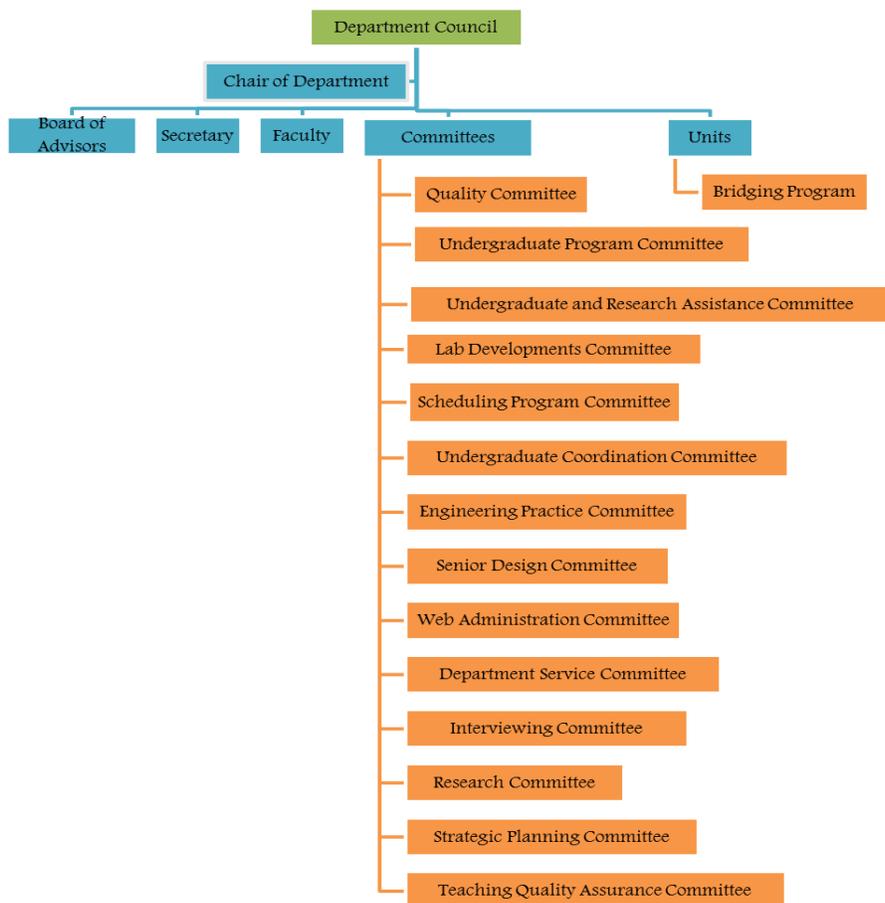
**Program Specifications  
(PS)  
Electrical Engineering**

National Commission for Academic Accreditation & Assessment

Program Specifications

For guidance on the completion of this template, please refer to NCAAA guidebooks.

1. Institution <b>Majmaah University</b>	Date of Report: 31\1\2015
2. College/Department <b>Engineering/Electrical Engineering</b>	
3. Dean: <b>Dr. Muhammad Al-Salamah</b>	
4. Insert program administrative flowchart	



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graph TD
    DC[Department Council] --- CD[Chair of Department]
    CD --- BA[Board of Advisors]
    CD --- S[Secretary]
    CD --- F[Faculty]
    CD --- C[Committees]
    CD --- U[Units]
    C --- QC[Quality Committee]
    C --- UPGC[Undergraduate Program Committee]
    C --- URGAC[Undergraduate and Research Assistance Committee]
    C --- LDC[Lab Developments Committee]
    C --- SPC[Scheduling Program Committee]
    C --- UCC[Undergraduate Coordination Committee]
    C --- EPC[Engineering Practice Committee]
    C --- SDC[Senior Design Committee]
    C --- WAC[Web Administration Committee]
    C --- DSC[Department Service Committee]
    C --- IC[Interviewing Committee]
    C --- RC[Research Committee]
    C --- SPC2[Strategic Planning Committee]
    C --- TQAC[Teaching Quality Assurance Committee]
    U --- BP[Bridging Program]
    
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5. List all branches/locations offering this program † Branch/Location 1. **Administrative Building**

#### A. Program Identification and General Information

1. Program title and code: <b>Electrical Engineering (EE)</b>
2. Total credit hours needed for completion of the program: <b>136 credit hours (Preparatory year is not included)</b>
3. Award granted on completion of the program: <b>Bachelor in Electrical Engineering</b>
4. Major tracks/pathways or specializations within the program (eg. transportation or structural engineering within a civil engineering program or counselling or school psychology within a psychology program) <b>1- Communications and Electronics</b> <b>2- Power and Machine</b> <b>3- Control and Systems (Not Active)</b>
5. Intermediate Exit Points and Awards (if any) (eg. associate degree within a bachelor degree program) <b>None</b>
6. Professional occupations (licensed occupations, if any) for which graduates are prepared. (If there is an early exit point from the program (eg. diploma or associate degree) include professions or occupations at each exit point) <b>None</b>

7. (a) New Program <input type="checkbox"/>	Planned starting date	<input type="text"/>
(b) Continuing Program <input checked="" type="checkbox"/>	Year of most recent major program review	<input type="text" value="2012"/>
Organization involved in recent major review (eg. internal within the institution, Accreditation review by University Council? Other _____?)		
8. Name of program coordinator or chair. If a program coordinator or chair has been appointed for the female section as well as the male section, include names of both. <b>Dr. Abdullah Almuheisen</b>		

9. Date of approval by the authorized body (MoHE for private institutions and Council of Higher Education for public institutions).

Campus Branch/Location	Approval By	Date
Main Campus: Administrative Building	Council of Higher Education	<b>Date</b>

## B. Program Context

1. Explain why the program was established.

a. Summarize economic reasons, social or cultural reasons, technological developments, national policy developments or other reasons.

The EE Program is essential to the community as its mission to provide graduates with distinguished engineering knowledge, professional and engineering problem solving skills. These skills are essential for both community services, industry and for technological development. In addition, the program meets the national science, technology and innovation plan of the Kingdom of Saudi Arabia where two of the main strategic priorities are the electronics and communication technology, and the energy technology.

b. Explain the relevance of the program to the mission and goals of the institution.

The mission of the University and College focuses on the education and research for the benefits of the society. The EE program fulfill the mission of the institute by providing an educational program that is based on providing graduates with the knowledge and professional and research skills.

2. Relationship (if any) to other programs offered by the institution/college/department.

a. Does this program offer courses that students in other programs are required to take?

Yes   
No

If yes, what has been done to make sure those courses meet the needs of students in the other programs?

- Regular meeting with department representative
- Students surveys
- Checking course description, syllabus, exams and score analysis
- Checking and analyzing the course report.

b. Does the program require students to take courses taught by other departments? Yes

No

If yes, what has been done to make sure those courses in other departments meet the needs of students in this program?

- Regular meeting with instructor and students
- Students surveys
- Checking course description, syllabus, exams and score analysis

3. Do students who are likely to be enrolled in the program have any special needs or characteristics? (eg. Part time evening students, physical and academic disabilities, limited IT or language skills).

Yes  No

4. What modifications or services are you providing for special needs applicants?  
Not applicable

### C. Mission, Goals and Objectives

1. Program Mission Statement (insert)  
The mission of the EE program can be summarized in providing graduates who have the required engineering knowledge and professional skills to serve the society both in research and community services.

2. List goals and objectives of the program within to help achieve the mission. For each goal and objective describe the major strategies to be followed and list the indicators that are used to measure achievement.

**Goals:**  
**To provide the best graduates in the country in the field of electrical engineering with leadership skills and distinguished research abilities.**

Objectives	Measurable Indicators	Major Strategies
<b>The Electrical Engineering Program in Majmaah University prepares students to have strong foundation in mathematical, scientific and engineering sciences who are able to:</b>		
1. Demonstrate technical competence in identifying, formulating, analysing and solving engineering problems.	1. Identifying, formulating, analyzing and solving engineering problems.	1. Surveys 2. Consultation report
2. Demonstrate the professional skills necessary to lead their professional discipline and have the lifelong learning skills to adapt to rapidly changing technologies.	1. Demonstrate professional skills. 2. Adapt to rapidly changing technologies.	1. Surveys 2. Consultation report
3. Pursue higher learning in the field of engineering and multidisciplinary areas to	1. Number of publications in peer reviewed national and international journals	1. Faculty self-report

emerge as successful researchers, entrepreneurs, experts and educators.	<ol style="list-style-type: none"> <li>2. Number of organized scientific and Research activities: workshops seminars, symposiums &amp; conferences)</li> <li>3. Number of subscription in periodicals and Journals.</li> </ol>	
4. Practice and inspire high ethical and professional standards.	<ol style="list-style-type: none"> <li>1. Percentage of graduates from undergraduate program leaving their works due to professional issues</li> <li>2. Employee satisfaction (out of 5)</li> <li>3. Number of students who came to senior management positions</li> </ol>	<ol style="list-style-type: none"> <li>1. Surveys</li> <li>2. Consultation report</li> </ol>

#### D. Program Structure and Organization

##### 1. Program Description:

List the core and elective program courses offered each semester from Prep Year to graduation using the below Curriculum Study Plan Table (A separate table is required for each branch IF a given branch/location offers a different study plan).

A program or department manual should be available for students or other stakeholders and a copy of the information relating to this program should be attached to the program specification. This information should include required and elective courses, credit hour requirements and department/college and institution requirements, and details of courses to be taken in each year or semester.

## Curriculum Study Plan Table

### 1- General Courses:

Year	Course Code	Course Title	Required or Elective	Credit Hours	College or Department
Preparatory Year	PENG 111	English Language 1	Required	8	College
	PMTH 112	Introduction to Mathematics 1	Required	2	College
	PCOM 113	Computer Skills	Required	2	College
	PSSC 114	Communication and Education Skills	Required	2	College
	PENG 121	English Language	Required	6	College
	PMTH 127	Introduction to Mathematics 2	Required	4	College
	PENG 123	Scientific and Engineering English Language	Required	2	College
	PPHS 128	Physics	Required	3	College
<b>Total Hours</b>				<b>29</b>	
1st Year Semester 1	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	Math 105	Differential Calculus	Required	3	College
	PHY 103	General Physics	Required	4	College
	GE 101	Fundamentals of Engineering Technology	Required	2	College
	GE 102	Fundamentals of Engineering Drawing	Required	3	College
	GE 103	Engineering Mechanics (Statics)	Required	3	College
<b>Total Hours</b>				<b>17</b>	
1st Year Semester 2	Math 106	Integral Calculus	Required	3	College
	Math 107	Algebra and Analytical Geometry	Required	3	College
	GE 108	Engineering Mechanics (Dynamics)	Required	3	College
	GE 105	Engineering Chemistry	Required	3	College
	EE 101	Fundamentals of Electric Circuits	Required	3	Department
	EE 111	Basic Electronic Devices and Circuits	Required	3	Department
<b>Total Hours</b>				<b>18</b>	
2nd Year Semester 1	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	Math 204	Differential Equations	Required	3	College
	EE 205	Electric Circuits Lab.	Required	1	Department
	EE 207	Logic Design	Required	3	Department
	EE 208	Logic Design Lab.	Required	1	Department
	EE 202	Electric Circuits Analysis	Required	3	Department
	EE 206	Electromagnetics 1	Required	3	Department
EE 212	Basic Electronic Devices and Circuits Lab.	Required	1	Department	
<b>Total Hours</b>				<b>17</b>	
2nd Year Semester 2	STAT 101	Statistics and Probability	Required	3	College
	CEN 210	Introduction To Programming	Required	3	College
	EE 288	Principles of Electric Machines	Required	3	Department
	EE 234	Electromagnetics 2	Required	3	Department
	EE 221	Signals and Systems Analysis	Required	3	Department
	EE 270	Fundamentals of Electrical Power Systems	Required	2	Department
	EE 271	Principles of Electric Power and	Required	1	Department

		Machines Lab			
		<b>Total Hours</b>			<b>18</b>
<b>3rd Year Semester 1</b>	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	GE 306	Engineering Report Writing	Required	2	Department
	EE 341	Automatic Control Systems	Required	3	Department
	EE 307	Analog and Digital Measurements	Required	3	Department
	EE 308	Measurements and Control Lab.	Required	1	Department
	EE 322	Communications Principles	Required	3	Department
	EE 323	Communications Principles Lab.	Required	1	Department
	EE 360	Microprocessors	Required	3	Department
		<b>Total Hours</b>			<b>18</b>

## 2- Communications and Electronics Track

<b>3rd Year Semester 2</b>	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	Math 254	Numerical Methods	Required	3	College
	EE 361	Microprocessors Lab	Required	1	Department
	EE 314	Analogue and Digital Electronic Circuits	Required	3	Department
	EE 315	Analogue and Digital Electronic Circuits Lab	Required	1	Department
	EE 324	Digital Signal Processing	Required	3	Department
	EE 325	Digital Communications	Required	3	Department
		<b>Total Hours</b>			<b>16</b>
<b>4th Year Semester 1</b>	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	GE 407	Engineering Economy	Required	2	College
	EE 435	Antenna & Wave Propagation	Required	3	Department
	EE 426	Wireless Communications	Required	3	Department
	EE 427	Communication and Signal Processing Lab.	Required	1	Department
	EE 436	Antennas and Wave Propagation Lab.	Required	1	Department
	EE 4**	Elective (1)	Required	3	Department
EE 498	Senior Design (1)	Required	2	Department	
		<b>Total Hours</b>			<b>17</b>
<b>4th Year Semester 2</b>	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	GE 408	Project Management	Required	2	College
	EE 415	VLSI	Required	3	Department
	EE 4**	Elective (2)	Required	3	Department
	EE 4**	Elective (3)	Required	3	Department
EE 499	Senior Design (2)	Required	2	Department	
		<b>Total Hours</b>			<b>15</b>

### 3- Power and Machine Track:

3rd Year Semester 2	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	Math 254	Numerical Methods	Required	3	College
	EE 361	Microprocessors Lab	Required	1	Department
	EE 389	Electric Machines	Required	3	Department
	EE 372	Electric Power Systems Analysis	Required	3	Department
	EE 373	Electric Power and Machine Lab 2	Required	1	Department
	EE 374	Power Electronics	Required	3	Department
<b>Total Hours</b>				<b>16</b>	
4th Year Semester 1	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	GE 407	Engineering Economy	Required	2	College
	EE 475	Applied Control	Required	3	Department
	EE 476	Electric Power Systems Protection	Required	3	Department
	EE 477	High-Voltage Systems	Required	2	Department
	EE 4**	Elective (1)	Required	3	Department
	EE 498	Senior Design (1)	Required	2	Department
<b>Total Hours</b>				<b>17</b>	
4th Year Semester 2	<b>MURE</b>	<b>University Requirement</b>	<b>Required</b>	<b>2</b>	<b>University</b>
	GE 408	Project Management	Required	2	College
	EE 478	Planning of Electric Distribution Systems	Required	2	Department
	EE 479	Protection & High Voltage Lab.	Required	1	Department
	EE 4**	Elective (2)	Required	3	Department
	EE 4**	Elective (3)	Required	3	Department
	EE 499	Senior Design (2)	Required	2	Department
<b>Total Hours</b>				<b>13</b>	
Include additional years if needed.					

## 2. Required Field Experience Component (if any, e.g. internship, cooperative program, work experience).

Summary of practical, clinical or internship component required in the program. Note: see Field Experience Specification
a. Brief description of field experience activity <ul style="list-style-type: none"> <li>• Collect data, write reports with observations and conclusions</li> <li>• Use instruments and software related to the training</li> <li>• Apply safety measures practically in the industrial engineering field</li> <li>• Apply presentation skills</li> </ul>
b. At what stage or stages in the program does the field experience occur? (eg. year, semester) The student should pass 90 Credit Hours (Completing 7 <sup>th</sup> level) to be allowed for Engineering Practice
c. Time allocation and scheduling arrangement. (eg. 3 days per week for 4 weeks, full time for one semester) Eight weeks (5 days per week ) in summer semester
d. Number of credit hours (if any) Zero Credit Hours

## 3. Project or Research Requirements (if any)

Summary of any project or thesis requirements in the program. (Other than projects or assignments within individual courses) (A copy of the requirements for the project should be attached.)
a. Brief description In EE Program, there are two senior designs (Senior Design 1 and Senior Design 2). There is a clear procedure about how to propose, discuss and accept abstracts from instructors. All senior design proposals should be approved by the department council. Students are free to choose the senior design and the supervisor within specific period. In the program, we have a special senior design committee which is responsible about organizing the senior designs work, providing faculty members and students with required information and making senior design examination time table.
b. List the major intended learning outcomes of the project or research task. <ul style="list-style-type: none"> <li>• An ability to design and conduct experiments, as well as to analyze and interpret data</li> <li>• An ability to design a system, component, or process to meet desired needs within realistic constraints</li> <li>• The ability to analyze, design, and implement systems.</li> <li>• An ability to function on multidisciplinary teams</li> <li>• An ability to apply knowledge of mathematics, science, and engineering</li> <li>• The ability to utilize statistics/probability, transform methods, discrete mathematics, or applied differential equations in support of electrical systems.</li> </ul>
c. At what stage or stages in the program is the project or research undertaken? (e.g. year, semester) 9 <sup>th</sup> and 10 <sup>th</sup> levels

d. Number of credit hours (if any) Senior Design 1 (2 Credit Hours) and Senior Design 2 (2 Credit Hours)
e. Description of academic advising and support mechanisms for students. - A senior design committee organizes the senior design process and announces the accepted senior design abstracts. - The college senior design's regulations, forms, and evaluation procedure are available in the senior design guidebook. - The supervisor supports his students during the semester with knowledge and regular supervision. Also he follows the percentage of achievement and gives a feedback.

f. Description of assessment procedures (including mechanism for verification of standards) - The senior design committee in the departments forms a special committees for senior design assessment using special forms - Committees are responsible to assess the senior design report, hardware implementation (if any), and students presentations and responsivity. - Students should prepare their reports and presentations regarding approved report requirements in order to be able to defend their senior design.
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### 3. Learning Outcomes in Domains of Learning, Assessment Methods and Teaching Strategy

Domain	Code		learning outcomes
	ABET	NCAAA	
A Knowledge	(h)	a1	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
	(j)	a2	Knowledge of contemporary issues.
B Cognitive Skills	(EE4)	A3	the ability to recall, understand, and present information, including knowledge of specific facts, knowledge of concepts, principles and theories, and knowledge of procedures
	(b)	b1	An ability to design and conduct experiments, as well as to analyze and interpret data
	(c)	b2	An ability to design a system, component, or process to meet desired needs within realistic constraints
	(e)	b3	An ability to identify, formulate, and solve engineering problems
	(EE1)	b4	The ability to analyze, design, and implement systems.
	(EE2)	b5	The ability to apply project management techniques to electrical systems.
C Interpersonal Skills & Responsibility	(d)	c1	An ability to function on multidisciplinary teams
	(f)	c2	An understanding of professional and ethical responsibility
	(i)	c3	Recognition of the need for and an ability to engage in life-long learning.
D Communication, Information	(a)	d1	An ability to apply knowledge of mathematics, science, and engineering

Technology, Numerical	(g)	d2	An ability to communicate effectively
	(k)	d3	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
	(EE3)	d4	The ability to utilize statistics/probability, transform methods, discrete mathematics, or applied differential equations in support of electrical systems.
E Psychomotor		e1	
		e2	

### Program Learning Outcome Mapping Matrix

Identify on the table below the courses that are required to teach the program learning outcomes. Insert the program learning outcomes, according to the level of instruction, from the above table below and indicate the courses and levels that are required to teach each one; use your program's course numbers across the top and the following level scale. Levels: I = Introduction P = Proficient A = Advanced

Courses	Learning Outcomes														
	Knowledge			Cognitive Skills					Interpersonal Skills &			Communication, Information			
	1			2					3			4			
	1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4
MATH 105			I			I						I			
PHY 103			I			I						I			
MATH 106			I			X						X			
MATH 107			P			P						P			
MATH 204			P			P						P			
STAT 201			A			A						A			
MATH 254			A		A							A			
GE 407			I			I						I	I	I	
GE 408	P		P	P										P	
EE 101			I		I							I			
EE 111			I		I							I		I	

Learning Outcomes															
Courses	Knowledge			Cognitive Skills					Interpersonal Skills &			Communication, Information			
	1			2					3			4			
	1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4
EE 202			I		I		I					I		I	
EE 205				I			I							I	
EE 206			I				I								I
EE 207				I	I		I					I			
EE 208			I		I	I						I		I	
EE 212				I	I							I		I	
EE 221			I		I		I					I			I
EE 234			I			I	I					I			
EE 270			I				I					I		I	
EE 271				I		I			I			I			
EE 288			I			I	I					I			
EE 307			P	P			P							P	
EE 308				P	P		P							P	
EE 314			P		P	P	P					P		P	
EE 315				P			P							P	
EE 322			P			P	P								P
EE 323				P	P									P	P
EE 324			P			P						P			P
EE 325			P		P	P						P		P	
EE 341			P		P	P	P		P						
EE 360			P			P	P					P		P	
EE 361				P	P		P								
EE 372			P		P	P	P					P		P	
EE 373				X	X	X			X			X			
EE 374			P	P	P		P					P			
EE 389			P		P	P						P			
EE 399		A			A	A	A		A	A		A	A	A	A
EE 415			A			A	A					A			A
EE 426			A			A	A					A			A
EE 427				A		A	A							A	
EE 433			A		A	A	A					A			A
EE 435			A			A	A					A			A
EE 436				A			A							A	
EE 439			A			A	A					A			A

Learning Outcomes															
Courses	Knowledge			Cognitive Skills					Interpersonal Skills &			Communication, Information			
	1			2					3			4			
	1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4
EE 475			A			A	A					A		A	A
EE 476			A			A						A			
EE 477			A			A						A			
EE 478			A		A	A		A				A		A	
EE 479				A	A	A	A					A		A	
EE 498	A	A				A		A	A		A	A	A	A	A
EE 499	A	A		A	A	A	A	A	A		A	A	A	A	

## 5. Admission Requirements for the program

Attach handbook or bulletin description of admission requirements including any course or experience prerequisites.

Application to the College of Engineering must be directed to the Admission and Registration Dean, which sets university wide admission criteria and imposes the college's specific requirements. Acceptance to the College of Engineering passes through two tiers of selection. In the first tier, the applicant must attain a combined score of 80, where the combined score is calculated as:

$$\text{Combined Score} = 0.4 \times [\text{high school GPA}] + 0.6 \times [\text{GAT}]$$

GAT is the General Aptitude Test administered by The National Center for Assessment in Higher Education. The college may impose other restrictions on admission, such as ceiling on the number of students the college can accept. The application for admission to the College of Engineering is open once per year, as opposed to very semester. Application dates and submission of documents are announced by Admission and Registration; visit [www.mu.edu.sa](http://www.mu.edu.sa) for more information. The second tier of admission to the College of Engineering requires applicants to pass the Preparatory Year, with its curriculum structured for engineering students. The preparatory year GPA necessary for admission to the college is at least 3.5 out of 5. Admission to the college does not require a student to pass all courses; however, the mandatory English, mathematics, and physics courses must be passed with at least D grade to be admitted to the college. The other courses, study skills and computer science, can be carried with the student to the first semester in the College of Engineering; but these courses must be completed by the first semester, otherwise, if the student cannot complete them by the first semester, he will be put on hold until these courses are completed.

## 6. Attendance and Completion Requirements

Attach handbook or bulletin description of requirements for:

- Attendance.
- Progression from year to year.
- Program completion or graduation requirements.

The success of the student is highly related to the attention the student is given to the course. Therefore, class attendance is taken seriously by the College of Engineering; and Majmaah University's regulations regarding attendance are strictly applied. MU regulations regarding attendance state that a student missing 25% of the total number of classes in the semester.

## E. Regulations for Student Assessment and Verification of Standards

What processes will be used for verifying standards of achievement (eg check marking of sample of tests or assignments? Independent assessment by faculty from another institution) (Processes may vary for different courses or domains of learning.)

### Exams, Rules and Regulations:

The following refers to the rules and regulations approved by the college council to accept excuses and this should serve as the guidelines for those who are in charge of the educational process as it was developed in accordance with executive affairs for Majmaah University.

1. Based on Examinations and Study Regulations at the university stage, "Executive Rules of MU" 1432-2010, approved by the University Council decree on its 6 the session dated 27/3/1432-2/3/2011 legal rules and regulations, related to final exams have been legislated without mentioning any mechanism to control absence cases from mid and final examinations.

2. Based on the first item, the Excuse rule of Mu grants University Council the authorities concerning conducting final exams in a way that doesn't contradict the general policy. According to the guidebook for academic systems issued by Registration and Admission Deanship "MU", page 6 includes the following paragraph: "A student who is absent from the final exam gets Zero and his rating is calculated according to the marks of the Semester work obtained, in case of not attending the final exam in any of subjects as a result of crucial excuse, the college council may accept his excuse in case of dire necessity and grant him a chance to conduct an alternative exam according to the following terms:

1. To provide an excuse since the time of occurrence till a week after it is over.
2. The excuse must be one of the compelling reasons approved by the college council.
3. The alternative exam and its result should be managed within a period not exceeding the end of the following semester.

### **The rules set specifically for the college of Engineering; Majmaah University**

- The decision to accept or reject excuses concerning exams is the responsibility of the instructor and the college council, hence informing the dean. Absence Form must be used.
  - In accordance with the instructions issued by Registration and Admissions Deanship, the college council has a full authority to accept or reject absence excuses from final exams and this is after providing the excuse and filling in the Absence Form designed for this reason.
  - In this case, the instructor, the head department and the examinations Committee must explain the following on the form: - The instructor: the percentage of absence and his marks during the term. - Head department: to what extent the excuse matches the regulations and absence rules of the university. - Examinations Committee: Student's previous absence from final exams, its frequency and excuses delivered before.
- The examinations committee receives copies of the excuses for mid and final exams and feed them in the data base for creating percentage statistics according to the number of students registered in the department.
- The examinations committee has announce the names of the students whose excuse have been accepted or rejected .the committee should state the time of conducting the alternative exam and its

mechanism.

- The committee of registration, timetables and Examinations in corporation with the Academic Guidance Unit should announce the regulations and rules that govern the mechanism of acceptance or rejection; this should be uploaded to the university web site and announced on the notice boards of the college.

#### **The terms approved by the college for accepting excuses**

- The excuse must be issued by governmental medical clinic.
- The Excuse to be submitted within three days from the day of the exam and a week from the beginning of the final exam.
- The student himself or a representative must submit the excuse according the forms used in the university.
- In case of compelling excuse, documents necessary should be submitted by the students, and if it is not possible, the excuse must be handwritten clarifying the causes of absence.
- The department must decide on whether to accept or reject the excuse within two days of its submission and inform the student of the date of the alternative examination not later than the end of the semester.
- In case of rejection by the department or the college council, the student must be informed pointing out the reasons for rejecting his excuse.

#### **Exams Regulations**

Dear Students, You are kindly requested to adhere to the following during exams:

1. Attending in the exam room at least twenty minutes before the start of the exam.
2. Mobile phones are strictly forbidden in the Exam room or any anything that is not approved by the Examination Committee.
3. Being tardy for half an hour from the beginning of the exam deprive students from attending the exam also, they are not allowed to leave unless they have stayed for half an hour.
4. Programmed Calculators and Mathematical tables are not allowed to be used without permission from the instructor of the course.
5. No extra blank sheets are allowed to be used as a draft.
6. You are kindly requested to adhere to the place specified by the Exam Room Invigilator.
7. Make sure of writing your name and your Academic Number on both questions and answers sheet and any other information requested by the supervisor or the instructor of the course.
8. Show your ID to the invigilator if requested.
9. You are to keep silent, and not to look or talk to any student in the exam room, in case of queries talk to the invigilator or the instructor in need.
10. Bring all the tools necessary such as stationery for examination as you are not allowed to borrow any from others in the Exam room. We wish you all success

## **F Student Administration and Support**

### **1. Student Academic Counselling**

Describe the arrangements for academic counselling and advising for students, including both scheduling of faculty office hours and advising on program planning, subject selection and career planning (which might be available at college level). Students' understanding and following registrations procedures and taking the courses in the proper sequence as outlined in major curriculum have a positive effect on the students' success and completing the curriculum within the minimum time

for graduation. Therefore, College of Engineering has given academic advising a decision support role by requiring approval from the academic advisor in every request submitted by students in cases related to changes in registration status, such as dropping of a course, change of major, medical excuses, etc. In addition to all of this, the college organizes an academic advising day, which is held every semester on Wednesday of the eighth week of the semester. For more information, see Academic Advising Day guide.

## 2. Student Appeals

Attach the regulations for student appeals on academic matters, including processes for consideration of those appeals.

## G. Learning Resources, Facilities and Equipment

1a. What processes are followed by faculty and teaching staff for planning and acquisition of textbooks, reference and other resource material including electronic and web based resources?

- There is a college library that includes all textbooks required by faculty and teaching staff.
- All faculty members are encouraged every year to fill special form for acquisition of textbooks, references and other resources material.

1b. What processes are followed by faculty and teaching staff for planning and acquisition resources for library, laboratories, and classrooms.

The university has its own digital library connected to Saudi Digital Library. Every faculty member has account and an access to all journals and databases.

2. What processes are followed by faculty and teaching staff for evaluating the adequacy of textbooks, reference and other resource provisions?

- All faculty members are encouraged to check number of textbooks and references and number of students in his section.
- Instructor can request more textbooks from the program coordinator using special form.
- The vice dean of student affairs is responsible about contacting the university library to provide the department with the required books.

3. What processes are followed by students for evaluating the adequacy of textbooks, reference and other resource provisions?

- There is a college library that includes all textbooks required by faculty and teaching staff and one bookshop.
- All students are encouraged borrow the textbook from the college library or from the university Library.
- Also, student can buy the textbook and provide the college with the bill and college will pay percentage of the cost of the book.

4. What processes are followed for textbook acquisition and approval?

- All textbook already approved by department and college councils.
- Replacing the textbook requires approval procedure through undergraduate program committee, Department council and college council. In some case university council approval is required.
- The adequacy of textbook should be checked by the instructor before the beginning of the semester and provide the program coordinator with the required number of textbooks needed.

## H. Faculty and other Teaching Staff

### 1. Appointments

Summarize the process of employment of new faculty and teaching staff to ensure that they are appropriately qualified and experienced for their teaching responsibilities.

Consultations about work performance are confidential and supportive, and occur on a formal basis at least once each year.

Junior teaching and other staff with leadership potential are identified and given a range of experiences to prepare them for future career development.

Teaching staff participate in activities that ensure they keep up to date with developments in their field.

The department makes regular announcement for open faculty positions. After the application requests have been collected, a series of steps and actions are conducted to evaluate the received applications and make recruitment recommendations. The steps are:

1. The application requests are sent to the Interviewing Committee in the EE Department.
2. The interviewing Committee conducts an initial evaluation and accordingly the applicant is either rejected or passed to the second stage of the application process.
3. If an applicant has passed successfully the first screening stage, the applicant will be scheduled for an interview
4. The interview concentrates on the education background and qualification, research, teaching experience (if any) and all academic activities.
5. If the applicant is recommended by the Committee, the application will go to either:
  - a. If the applicant is Saudi, the application needs to be recommended and approved by the following Councils: Department Council, College Council, and University Council.
  - b. If the applicant is non-Saudi, the application file is sent to the Dean of the College to sign up a contract with the applicant.

### 2. Participation in Program Planning, Monitoring and Review

a. Explain the process for consultation with and involvement of teaching staff in monitoring program quality, annual review and planning for improvement.

- All teaching staff has a part in monitoring program quality through filling Course Report.

- There are different committees with different responsibilities that are works to improve the program quality such as: Undergraduate Program Committee, Quality Committee, Examination Committee, Research Committee, Lab development committee and others.

- All members are encouraged to fill the program annual report.

b. Explain the process of the Advisory Committee (if applicable)

Students' understanding and following registrations procedures and taking the courses in the proper sequence as outlined in major curriculum have a positive effect on the students' success and completing the curriculum within the minimum time for graduation. Therefore, College of Engineering has given academic advising a decision support role by requiring approval from the academic advisor in every request submitted by students in cases related to changes in registration status, such as dropping of a course, change of major, medical excuses, etc. In addition to all of this, the college organizes an academic advising day, which is held every semester on Wednesday of the eighth week of the semester. For more information, see Academic Advising Day guide.

### 3. Professional; Development

What arrangements are made for professional development of faculty and teaching staff for:

a. Improvement of skills in teaching and student assessment?

- Several training courses are biannually offered by the Deanship of Quality and Skills Development
- College workshops and lectures intended for enhancing the faculty member skills in teaching and student assessment.

b. Other professional development including knowledge of research and developments in their field of teaching specialty?

- A special research committee is responsible about following the research process in the department.
- Deanship of scientific research in the university annually offers research funds for all program staff members.

### 4. Preparation of New Faculty and Teaching Staff

Describe the process used for orientation and induction of new, visiting or part time teaching staff to ensure full understanding of the program and the role of the course(s) they teach as components within it.

- Several training courses are biannually offered by the Deanship of Quality and Skills Development directed for orientation and induction of new, visiting or part time teaching staff.
- The college organize a meeting for all new and old members for information and experience exchange.

### 5. Part Time and Visiting Faculty and Teaching Staff

Provide a summary of Program/Department/College/institution policy on appointment of part time and visiting teaching staff. (ie. Approvals required, selection process, proportion to total teaching staff, etc.)

Not applicable

## I. Program Evaluation and Improvement Processes

### 1. Effectiveness of Teaching

a. What processes are used to evaluate and improve the strategies for developing learning outcomes in the different domains of learning? (eg. assessment of learning achieved, advice on consistency with learning theory for different types of learning, assessment of understanding and skill of teaching staff in using different strategies)

1. Collect feedback:

- Course report
- Surveys (Student Experience, Program Survey, and Course Survey).

2. Analyse:

- Strengths and weaknesses

3. Action:

- Educational Process.
- Recommend/Advice: Making recommendation to improve the teaching strategies.

<p>b. What processes are used for evaluating the skills of faculty and teaching staff in using the planned strategies?</p> <ul style="list-style-type: none"><li>• The Teaching Quality Assurance Committee is responsible to provide a comprehensive framework for the enhancement and evaluation of the teaching, learning quality and assessment process in the EE department. The committee goal is to:</li><li>• 1. Provide advice to the faculties about high quality teaching and learning methods in undergraduate award courses and subjects.</li><li>• 2. Provide quality assurance of award courses (including course structure and coherence), assessment and examination policies, processes for course management, learning support, student progress and student transition into courses and careers.</li><li>• 3. Develop, in collaboration with faculties and related Academic Board committees, appropriate qualitative and quantitative measures of performance of teaching and learning, taking into account national and international recommended practices, and overseeing, monitoring and reviewing their use;</li><li>• 4. Review and evaluating quality in teaching and learning of all award courses and associated student support services and programs, and making recommendations to the HOD on actions to improve the quality of teaching and learning in those courses and programs.</li><li>• 5. Advice and make recommendations to HOD on modifications to the structure, content, and method of presentation and delivery of award courses in response to quality assessments received in the previous year in order to ensure that these programs are of the highest possible quality.</li><li>• The quality unit performs biannual student's course survey to have feedback about the quality of teaching. Program uses SPSS to analyses results.</li></ul>

## 2. Overall Program Evaluation

<p>a. What strategies are used in the program for obtaining assessments of the overall quality of the program and achievement of its intended learning outcomes:</p>
<p>(i) From current students and graduates of the program? Surveys are used from current students (Program survey, experience survey and course</p>
<p>(ii) From independent advisors and/or evaluator(s).</p> <ol style="list-style-type: none"><li>1. Internal reviewers ( from other departments)</li><li>2. Consultants.</li><li>3. Board of advisors.</li><li>4. Review from the deanship of quality.</li></ol>
<p>(iii) From employers and/or other stakeholders. The program has a consulting committee with members that are from industry and they provide the program with a feedback about required improvements in the program.</p>

Complete the following two tables.

1. Program KPI and Assessment Table

2. Program Action Plan Table

**Program KPI and Assessment Table**

<b>KPI #</b>	<b>List of Program KPIs Approved by the Institution</b>	<b>KPI Target Benchmark</b>	<b>KPI Actual Benchmark</b>	<b>KPI Internal Benchmarks</b>	<b>KPI External Benchmarks</b>	<b>KPI Analysis</b>	<b>KPI New Target Benchmark</b>
<b>1</b>	Identifying, formulating, analysing and solving engineering problems.	3 out of 5	2.95 out of 5	3.5 out of 5	---	Results extracting from EP results and evaluation forms of senior design for number of students from 9th and 10th levels	3 out of 5
<b>2</b>	Demonstrate professional skills.	70%	60%	65%	75%	Based on national Proficiency test, about 60% demonstrated their professional skills.	70%
<b>3</b>	Percentage of graduates from undergraduate program leaving their works due to professional issues	5%	-	--	--	It is very difficult to follow graduates but after meeting several graduates , the number of students leaving their work is very small and not exceeds 5%	4%
<b>4</b>	Number of publications in peer reviewed national and international journals	1:2 ratio	1:1.4	1:2	---	Number of publications in journals is 14 and the number of PhD holder is 10. Twelve research projects are funded by the university. Table 7 shows the funded research projects:	1:2
<b>6</b>	Number of organized scientific and Research activities: workshops seminars, symposiums & conferences)						
<b>7</b>	Number of subscription in						

	periodicals and Journals.						
8	Percentage of graduates from undergraduate program leaving their works due to professional issues						
9	Employee satisfaction (out of 5)						
10	Number of students who came to senior management positions						

**Analysis of KPIs and Benchmarks:** (list strengths and recommendations)

**1.State goal/objective**

**Goal:** Providing a high quality of academic service based on national and international standards to enhance the competence of our graduate in labour and to contribute in the society

**Objective: Demonstrate technical competence in identifying, formulating, analysing and solving engineering problems.**

**Target benchmark or standard of performance**

Standard of performance: 3 out of 5

**Result achieved or actual benchmark**

The actual benchmark: 2.95 out of 5

**Comments and analysis**

Results extracting from EP results and evaluation forms of senior design for number of students from 9<sup>th</sup> and 19<sup>th</sup> levels shows the following:

Table 9: Rubrics used for KPI Identifying, formulating, analysing and solving engineering problems

KPI	Unsatisfactory (1)	Developing (2)	Satisfactory (3)
Identifying, formulating,	Student can identify the problem and has poor	Student can identify the problem partially and his	Student demonstrates high performance in identifying the

	analysing and solving engineering problems	performance in analysing and solving The engineering Problem	performance in analysing and solving problem is average	engineering problem and has the skills to analyse and solve the engineering problem.	
	Number of students	14	9	7	
<p>– Number of student: 20 from Engineering Practice – 10 students from senior design The assessment methods used: Engineering practice report and oral presentations and senior design evaluation forms.</p>					
<p>The average grade: <math>((14+18+21)/90)*100\%=59\%=2.95</math> Out Of 5</p>					
<p><b>2. State goal/objective</b></p> <p><b>Goal:</b> Enhancing the quality of program and to support the program to achieve its Mission, Goals and Objectives and to be accredited nationally internationally</p> <p><b>Objective: Demonstrate the professional skills necessary to lead their professional discipline and have the lifelong learning skills to adapt to rapidly changing technologies</b></p> <p><b>Target benchmark or standard of performance</b> Demonstrate the professional skills</p> <p><b>Result achieved or actual benchmark</b> 60%</p> <p><b>Comments and analysis</b> Based on national Proficiency test, about 60% demonstrated their professional skills.</p>					
<p><b>3. State goal/objective</b></p>					

**Goal:** Enhancing the quality of program and to support the program to achieve its Mission, Goals and Objectives and to be accredited nationally internationally/

**Objective: Practice and inspire high ethical and professional standards.**

**Target benchmark or standard of performance**

Percentage of graduates from undergraduate program leaving their works due to professional issues

**Result achieved or actual benchmark**

5%

**Comments and analysis**

It is very difficult to follow graduates but after meeting several graduates , the number of students leaving their work is very small and not exceeds 5%

**4 State goal/objective**

**Goal:** Enhancing the quality qualifications of the faculty members to achieve high levels of quality and excellence in all future teaching, scientific research and serving society/

**Objective: Pursue higher learning in the field of engineering and multidisciplinary areas to emerge as successful researchers, entrepreneurs, experts and educators**

**Target benchmark or standard of performance**

Number of publications in peer reviewed national and international journals (1:2 ratio)

**Result achieved or actual benchmark**

1:1.4 ratio

### Comments and analysis

Number of publications in journals is 14 and the number of PhD holder is 10. Twelve research projects are funded by the university.

Table 7 shows the funded research projects:

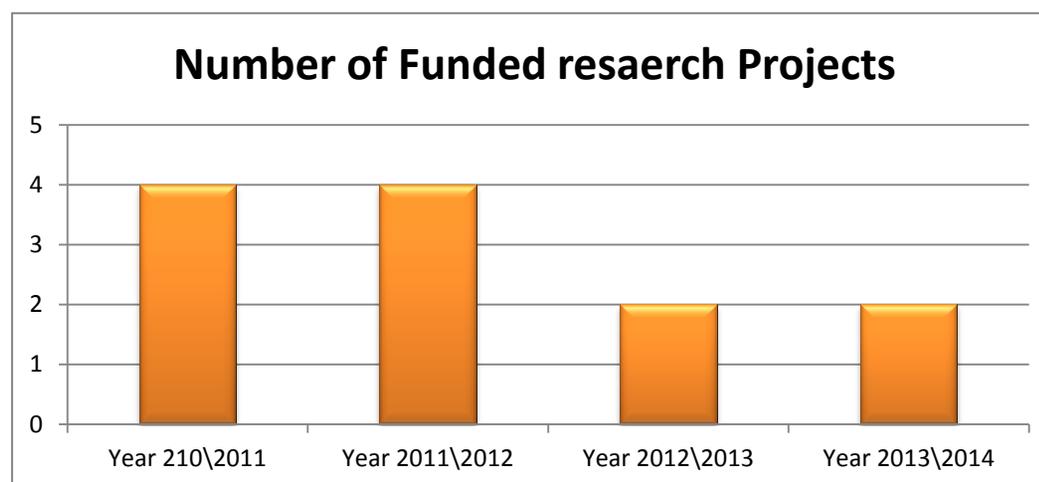


Table 7: Funded research projects in the EE program

**NOTE** The following definitions are provided to guide the completion of the above table for Program KPI and Assessment.

### Program Action Plan Table

Directions: Based on your “*Analysis of KPIs and Benchmarks*” provided in the above Program KPI and Assessment Table, list the recommendations identified below.

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
	Developing the admission rules	Studying the admission rules in the University, college and the program	Percentage of enrollment students to the total number for students	Strategic Committee Plan	1\9\2015	1\9\2016
	Preparation educational activities about the program and tracks	Organizing one presentation, advising day and meetings with students every semester	Percentage of enrollment students to the total number for students	Undergraduate coordination Committee	1\9\2015	1\9\2016
	Encouraging students to use the digital library	Organizing a presentation “How to use the digital library”	Improving the pass percentage - Improving the fail percentage- - Improving the transfer percentage	Undergraduate coordination Committee	1\9\2015	1\9\2016
	Improving the assessment methods	Organizing a workshop to faculty members “ Assessment methods and their importance on the performance of students”	Improving the pass percentage - Improving the fail percentage- - Improving the transfer percentage	Quality Unit	1\9\2015	1\9\2016
	Continuous investigation of stakeholder’s needs and their feedback about graduates.	Preparing a survey to investigate the stakeholders needs and their feedback about graduates	Improving the pass percentage - Improving the fail percentage- - Improving the transfer percentage	Quality Unit	1\9\2015	1\9\2016
	Studying and analyzing students cases and putting recommendations to improve the internal efficiency	Analyzing feedback and students appeals and writing recommendations	Improving the pass percentage - Improving the fail percentage- - Improving the transfer percentage	Head of department and students coordination committee.	1\9\2015	1\9\2016
	<b>A program for students patents and scientific inventions</b>	- Organizing an annual students research exhibition - Encouraging senior design supervisors to adopt hood projects for further work and to Participate in internal and external activities.	- Number of students participated in conference - number of patents and scientific inventions - Number of awards	<b>Undergraduate Research &amp; Assistance Committee</b>	1\9\2015	1\9\2016

	Developing the Engineering practice regulations	Preparing proposal for updating the admission rules	Number of students participated in Engineering practice to the -number of students that pass 90 Cr. Hours. - Number for students finished Engineering practice - Percentage of students finished senior designs	Engineering Practice Committee	1\9\2015	1\9\2016
	Cooperation with companies and organizations to find engineering practice places	Preparing list and contact information of companies with training program in EE fields	Number of students participated in Engineering practice to the -number of students that pass 90 Cr. Hours. - Number for students finished Engineering practice - Percentage of students finished senior designs	Engineering Practice Committee	1\9\2015	1\9\2016
	Organizing workshops about research methodology and how to write research papers	A workshop “The main contents of a scientific paper” A presentation “ Most famous mistakes in writing an article”	- Number of publications in national and international journals - Number of subscription in periodicals and Journals.	<b>Research Committee</b>	1\9\2015	1\9\2016
<b>11</b>	Support publications	Financially support conference attending and paper publications	- Number of publications in national and international journals - Number of subscription in periodicals and Journals.	Quality Unit	1\9\2015	1\9\2016
<b>12</b>	Encouraging researchers to work with research that helps to improve the environment and society	Workshop “Hot to propose for a funded projects” Presentations “ Funded projects in Saudi Arabia”	Number of consulting scientific services provided by the program -percentage of research projects intended to solve society problems - Number of papers published about solving society problems	Research Committee	1\9\2015	1\9\2016
	Performing self-Evaluation Report.	Quality unit in the department will study and fill the report through meetings with instructors, students, stakeholders and course reports	To be Accredited	Quality Unit	1\9\2015	1\9\2016

		surveys				
	Writing SSR	Quality unit work	To be Accredited	Quality Unit	1\9\2015	1\9\2016
<b>Action Plan Analysis (List the strengths and recommendations for improvement of the Program Action Plan).</b> The action plan written based on the operational EE program operational; plan which is based on the strategic plan of the program. The program concentrates in research and in accreditation.						

**Attachments:**

- 1. Copies of regulations and other documents referred to in template preceded by a table of contents.**
- 2. Course specifications for all courses including field experience specification if applicable.**

**Authorized Signatures**

<b>Dean / Program Chair</b>	<b>Name</b>	<b>Title</b>	<b>Signature</b>	<b>Date</b>
<b>Program Dean or Chair of Board of Trustees Main Campus</b>	Dr. Abdullah Almuhaisen			
<b>Vice Rector</b>				