



11 كلية الهندسة 11  
COLLEGE OF ENGINEERING

# Freshman Guidebook

## دليل الطلاب المستجدين

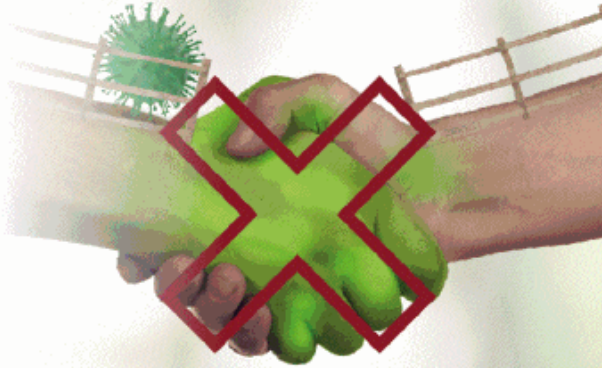
Prepared by:  
Academic Affairs Committee  
Fall 2021

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

عزيزى الطالب،  
من أجل سلامتك وسلامة أساتذتك وسلامة الجميع، يرجى  
التقيد بالإجراءات الاحترازية



اعتذر عن مصافحته  
حتى تبقون بسلام  
#نعود\_بحذر



نعود بحذر





نعود بحذر



نعود بحذر

خذ الخطوة.. وكن أنت القدوة

بادر باستكمال أخذ الجرعتين من اللقاح قبل بداية العام الجامعي الجديد

أسهم في بث الوعي بأهمية اللقاح، لوطن ينعم بالأمان الصحي

Always Remember !





# The College of Engineering

- The College of Engineering (CoE) was established in 2007
- The first batch of students joined the CoE in Fall 2009
- Seven Engineering Programs have been approved:
  1. Mechanical Engineering ( ME)
  2. Civil and Environmental Engineering (CEE)
  3. Chemical Engineering (ChE)
  4. Electrical Engineering (EE) [Male & Female]
  5. Bio-Medical Engineering – Female Only
  6. Materials Engineering (MatE) - Inactive
  7. Water Desalination Engineering - Inactive

# ABET accreditation



- ME, EE, CEE and ChE programs are ABET Accredited up to September 30, 2021. BME is in the process.
- What is ABET accreditation?

ABET accreditation is a review process to determine if educational programs meet defined standards of quality done by Accreditation Board for Engineering and Technology (ABET).

- For students, some benefits of being ABET accredited program:
  1. Verifies that your educational experience meets the global standard for technical education in your profession.
  2. Enhances your employment opportunities
  3. Paves the way for you to work and study globally

## The college Administration

<b>Dr Adel Aldalbahi</b>	Dean	2100 [Building# 11]	7171	aaldalbahi@kfu.edu.sa
	Vice dean of Academic Affairs			
<b>Dr Sarah Al-Amer</b>	Vice dean of Female Students Affairs	3093 [Building# 59]	9794	salamer@kfu.edu.sa

## Admission to a program

- At the beginning of the second semester, students are directed to fill in the list of program choices
- For male students, the available programs are: Electrical Engineering, Mechanical Engineering, Civil Engineering and Chemical Engineering
  - Each student should choose *four desires*.
  - The acceptance percentages for each program are specified as follows:
    1. The most desired program accepts a maximum of *30%* of the total number of students.
    2. The rest of the students is distributed evenly among the other programs (*≈23%* each program).
- For Female Students, the available programs are: Biomedical Engineering and Electrical Engineering
  - Each student should choose *two desires*.

## Admission to a program procedure

➤ The students will be distributed into three groups based on how many credit hours they successfully finished in the Fall semester :

✓ First Group: Completed successfully 11 CH's of the following table

S	Course ID	Course Code	اسم المقرر	Course Name	CHs
1	0817-144	Math 144	تفاضل وتكامل ١	Calculus I	4
2	0814-140	Phys 140	فيزياء عامة ١	General Physics I	3
3	0815-140	Chem 140	كيمياء عامة ١	General Chemistry I	3
4	2200-100	Engr 100	مدخل الى الهندسة	Introduction to Engineering	1
Total					11

Students of this group will be granted their first choice taking and into consideration their GPA of the first semester and the vacancies available at the first choice program. Otherwise, they will get the second choice, and so on.



## Admission to a program procedure (cont.)

- ✓ Second Group: The students who have finished *less than 11* CHs from the previous table are considered after finalizing the first group. They will compete with each other based on their GPAs and the vacancies available at the programs.
- ✓ Third Group: Student who *did not apply* through the system, the College has the right to distribute them to the departments that have less number of students, to make sure that all departments have almost the same number of students.

## Admission to a program steps

1. A link will be sent by email to students in the second semester well before the early registration.
2. Using your user name and password, long in to program selection page.
3. Go to "Major Declaration" field
4. **Select Major Choice #1, Major Choice #2, Major Choice #3 and Major Choice #4 and Click "Save Major Choices" button.**
5. The program selection decision is, then, made by the Academic Affairs committee and submitted to the Deanship of Admission and Registration .
6. Once approved by the Deanship of Admission and Registration, you will find your program on you banner page
7. Major choices codes are: **Mechanical Engineering (ME)**, **Electrical Engineering (EE)**, **Civil and Environmental Engineering (CEE)**, **Chemical Engineering (ChE)** and **Biomedical Engineering (BME)**.

# Program Change

Students can apply to change his program to another program after fulfilling the following requirements:

1. Student must successfully **finish at least 30 CH's** including **Math (calculus I and Calculus II), Physics I and Physics II, and Chemistry I and Chemistry II** Courses.
2. Student's Cumulative Grade Point Average (**CGPA**) **must be at least 3.5 out of 5**.
3. Student should apply well before the **beginning of Fall or Spring** semester or **two weeks before the early registration** start date. *If the student miss to apply at that period, his request will be postponed to the next semester.*
4. Student needs to apply using the "**Program Changing Program**".
5. The form should be signed by the chair of students current program and then by chair of the desired program who passes it to the Academic Affairs committee of his program to study it.
6. If the student's application is accepted by the desired program's Academic Affairs committee, the application is then proceeded the CoE Academic Affairs committee for further processing.
7. Program change can be done **only once**.

انتهى	1443/2/2 هـ 2021/9/9 م	1443/1/21 هـ 2021/8/29 م	تأجيل الدراسة للنظام الفصلي.
انتهى	1443/2/9 هـ 2021/9/16 م	1443/1/21 هـ 2021/8/29 م	تأجيل الدراسة للنظام السنوي للكتليات الصحية.
تقديم	1443/5/12 هـ 2021/12/16 م	1443/1/21 هـ 2021/8/29 م	تحديث بيانات المتوقع تخرجهم لضمان ظهورها بشكل صحيح في شهادة التخرج
متاح	1443/4/9 هـ 2021/11/14 م	1443/2/5 هـ 2021/9/12 م	الاعتذار عن الدراسة للنظام الفصلي.
متاح	1443/9/6 هـ 2022/4/7 م	1443/2/12 هـ 2021/9/19 م	الاعتذار عن الدراسة للنظام السنوي
انتهى	1443/2/16 هـ 2021/9/23 م	1443/2/15 هـ 2021/9/22 م	اليوم الوطني.
انتهى	1443/3/12 هـ 2021/10/18 م	1443/3/11 هـ 2021/10/17 م	إجازة نهاية أسبوع مطولة (الأحد - الاثنين).
باقي 5 أيام	1443/3/29 هـ 2021/11/4 م	1443/3/25 هـ 2021/10/31 م	الانسحاب من مقرر واحد فقط.

التقويم الزمني - العام الجامعي 1443/1442 هـ - الفصل الدراسي الأول			
العام الجامعي 1443/1442		الفصل الأول	الفصل الثاني
الموضوع	من تاريخ	إلى تاريخ	الحالة
فترة تقديم طلب الزيارة من داخل وخارج الجامعة للفصل الدراسي الأول 1443/1442 هـ.	1443/1/14 هـ 2021/8/22 م	1443/1/18 هـ 2021/8/26 م	انتهى
فترة تأكيد التسجيل للفصل الدراسي الأول للعام الجامعي 1443/1442 هـ.	1443/1/15 هـ 2021/8/23 م	1443/1/25 هـ 2021/9/2 م	انتهى
بدء الدراسة وانتظام المحاضرات للفصل الدراسي الأول للعام الجامعي 1443/1442 هـ.	1443/1/21 هـ 2021/8/29 م	1443/5/26 هـ 2021/12/30 م	متاح
فترة الحذف والإضافة للفصل الدراسي الأول للعام الجامعي 1443/1442 هـ.	1443/1/21 هـ 2021/8/29 م	1443/1/25 هـ 2021/9/2 م	انتهى

بقي 75 يوم	1443/6/10 هـ 2022/1/13 م	1443/6/6 هـ 2022/1/9 م	إجازة الفصل الدراسي الأول منتصف (العام) 1443/1442 هـ.
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بقي 19 يوم	1443/4/20 هـ 2021/11/25 م	1443/4/9 هـ 2021/11/14 م	التسجيل المبكر لطلاب وظالبات الجامعة للفصل الدراسي الثاني 1443/1442 هـ.
بقي 9 أيام	1443/3/29 هـ 2021/11/4 م	1443/3/29 هـ 2021/11/4 م	إجازة نهاية أسبوع مطولة (الخميس).
بقي 19 يوم	1443/4/13 هـ 2021/11/18 م	1443/4/9 هـ 2021/11/14 م	التقديم لطلب التحويل من داخل وخارج الجامعة للفصل الدراسي الثاني للعام الجامعي 1443/1442 هـ.
بقي 33 يوم	1443/4/27 هـ 2021/12/2 م	1443/4/23 هـ 2021/11/28 م	إجازة منتصف الفصل الدراسي الأول 1443/1442 هـ.
بقي 40 يوم	1443/5/19 هـ 2021/12/23 م	1443/5/1 هـ 2021/12/5 م	بداية الدراسة بعد إجازة منتصف الفصل الدراسي الأول 1442/1443 هـ.
بقي 54 يوم	1443/5/15 هـ 2021/12/19 م	1443/5/15 هـ 2021/12/19 م	إجازة نهاية أسبوع مطولة (الأحد).
بقي 61 يوم	1443/6/3 هـ 2022/1/6 م	1443/5/22 هـ 2021/12/26 م	الاختبارات النهائية للفصل الدراسي الأول للعام الجامعي 1443/1442 هـ.



# Academic Calendar (Spring 2021/2022)

الاعتذار عن الدراسة للنظام الفصلي.	1443/6/27 هـ 2022/1/30 م	1443/9/9 هـ 2022/4/10 م	باقي 96 يوم
إجازة نهاية أسبوع مطولة (الأربعاء - الخميس).	1443/7/1 هـ 2022/2/2 م	1443/7/2 هـ 2022/2/3 م	باقي 99 يوم
إجازة نهاية أسبوع مطولة (الأربعاء - الخميس).	1443/7/22 هـ 2022/2/23 م	1443/7/23 هـ 2022/2/24 م	باقي 120 يوم
التسجيل المقترح لفتح مقرر دراسي للفصل الصيفي 1443/1442 هـ.	1443/7/26 هـ 2022/2/27 م	1443/7/30 هـ 2022/3/3 م	باقي 124 يوم
الانسحاب من مقرر واحد فقط.	1443/8/3 هـ 2022/3/6 م	1443/8/7 هـ 2022/3/10 م	باقي 131 يوم
إجازة منتصف الفصل الدراسي الثاني (إجازة الربيع).	1443/8/10 هـ 2022/3/13 م	1443/8/14 هـ 2022/3/17 م	باقي 138 يوم
بداية الدراسة بعد إجازة منتصف الفصل الدراسي الثاني 1443/1442 هـ.	1443/8/17 هـ 2022/3/20 م	1443/9/24 هـ 2022/4/25 م	باقي 145 يوم
التسجيل المبكر للفصل الدراسي الأول 1443/1442 هـ.	1443/8/17 هـ 2022/3/20 م	1443/8/28 هـ 2022/3/31 م	باقي 145 يوم

الموضوع	من تاريخ	إلى تاريخ	الحالة
الاعتذار عن الدراسة للنظام السنوي.	1443/2/12 هـ 2021/9/19 م	1443/9/6 هـ 2022/4/7 م	باقي 163 يوم
فترة تقديم طلب الزيارة من داخل وخارج الجامعة للفصل الدراسي الثاني 1443/1442 هـ.	1443/5/29 هـ 2022/1/2 م	1443/6/3 هـ 2022/1/6 م	باقي 68 يوم
فترة تأكيد التسجيل للفصل الدراسي الثاني للعام الجامعي 1443/1442 هـ.	1443/5/29 هـ 2022/1/2 م	1443/6/17 هـ 2022/1/20 م	باقي 68 يوم
فترة الحذف والإضافة للفصل الدراسي الثاني للعام الجامعي 1443/1442 هـ.	1443/6/13 هـ 2022/1/16 م	1443/6/17 هـ 2022/1/20 م	باقي 82 يوم
تأجيل الدراسة للنظام الفصلي.	1443/6/13 هـ 2022/1/16 م	1443/6/24 هـ 2022/1/27 م	باقي 82 يوم
بدء الدراسة للفصل الدراسي الثاني للعام الجامعي 1443/1442 هـ.	1443/6/13 هـ 2022/1/16 م	1443/11/3 هـ 2022/6/2 م	باقي 82 يوم

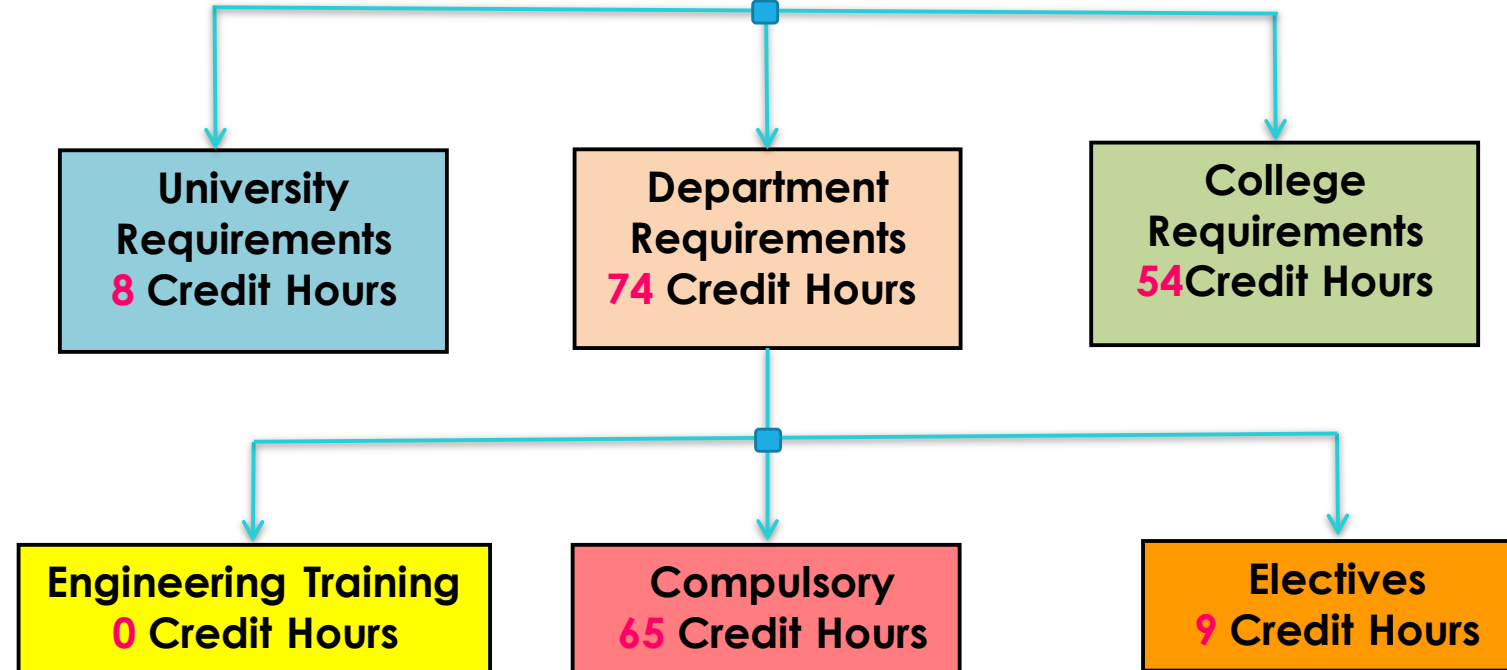
# Academic Calendar (Spring 2021/2022)

بقي 222 يوم	1443/11/17 هـ 2021/6/16 م	1443/11/6 هـ 2022/6/5 م	الاختبارات النهائية للفصل الدراسي الثاني 1443/1442 هـ.
بقي 236 يوم	1443/11/26 هـ 2022/6/25 م	1443/11/20 هـ 2022/6/19 م	التقديم لطلاب التحويل من داخل وخارج الجامعة للفصل الدراسي الاول 1444/1443 هـ.

بقي 131 يوم	1443/8/7 هـ 2022/3/10 م	1443/8/3 هـ 2022/3/6 م	الانسحاب من مقرر واحد فقط.
بقي 138 يوم	1443/8/14 هـ 2022/3/17 م	1443/8/10 هـ 2022/3/13 م	إجازة منتصف الفصل الدراسي الثاني (إجازة الربيع).
بقي 145 يوم	1443/9/24 هـ 2022/4/25 م	1443/8/17 هـ 2022/3/20 م	بداية الدراسة بعد إجازة منتصف الفصل الدراسي الثاني 1443/1442 هـ.
بقي 145 يوم	1443/8/28 هـ 2022/3/31 م	1443/8/17 هـ 2022/3/20 م	التسجيل المبكر للفصل الدراسي الأول 1443/1442 هـ.
بقي 182 يوم	1443/10/4 هـ 2022/5/5 م	1443/9/25 هـ 2022/4/26 م	بدء إجازة عيد الفطر المبارك للعام الجامعي 1443/1442 هـ.
بقي 194 يوم	1443/10/18 هـ 2022/5/19 م	1443/10/7 هـ 2022/5/8 م	بدء الدراسة بعد إجازة عيد الفطر المبارك للعام الجامعي 1443/1442 هـ.
بقي 211 يوم	1443/10/25 هـ 2022/5/26 م	1443/10/24 هـ 2022/5/25 م	إجازة نهاية أسبوع مطولة (الأربعاء - الخميس).

# Study Plan

**Bachelor of Science**  
**For All Engineering Programs**  
**136 Credit Hours (CH)**



## Study Plan

Requirements	CH's	Details	
University Requirements	8	4 CH compulsory	Islamic Creed and Contemporary Doctrines [2 CH]
			Contemporary Cultural Issues [2 CH]
		4 CH's electives	2 courses chosen from a list of courses provided [2 CH each]
Department Requirements	74	65 CH's compulsory	Given in the Department Course Flow Chart
		9 CH's electives	3 courses chosen from a list of courses provided
College Requirements	54	54 CH compulsory	Given in the Department Course Flow Chart and differs from one program to another program.

# Graduation

- A student graduates after the successful completion of the graduation requirements:
  - At least 136 Credit Hours (CH)
  - Summer Training
  - Total Cumulative Grade Point Average (CGPA) is at least 3.0 out of 5.0



# Credit Hours

## ➤ One Credit Hour means:

1. A 50 min lecture, One lecture a week for 15 weeks per semester [in total 15 lecture per semester each lecture is 50 minutes]

OR

2. A 150 min lab, once per week for 15 weeks per semester [in total 15 lab. per semester each lab. is 150 minutes]

## ➤ A 3 Credit Hour means:

1. Giving a 50-minute lecture, 3 lectures per week, 15 weeks per semester [in total of 45 lectures per semester each lecture is 50 minutes]

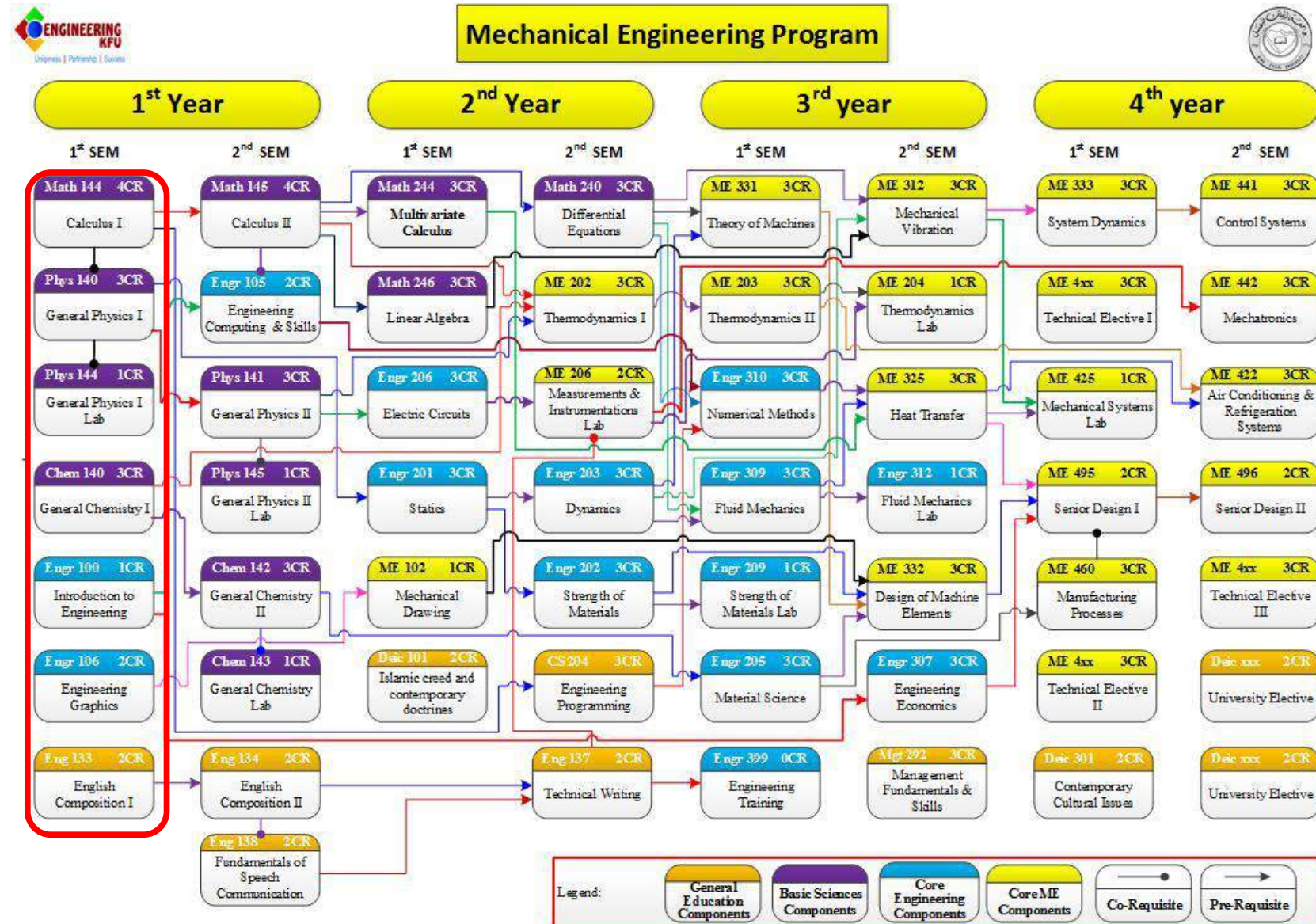
OR

2. Giving a 75-minute lecture, 2 lectures per week, 15 weeks per semester [in total of 30 lectures per semester each lecture is 75 minutes]

# SAMPLE OF STUDY PLAN

## 1<sup>st</sup> semester

- Courses of the 1<sup>st</sup> semester are registered *automatically* for new students
- Student is allowed to **drop only one** course of these courses

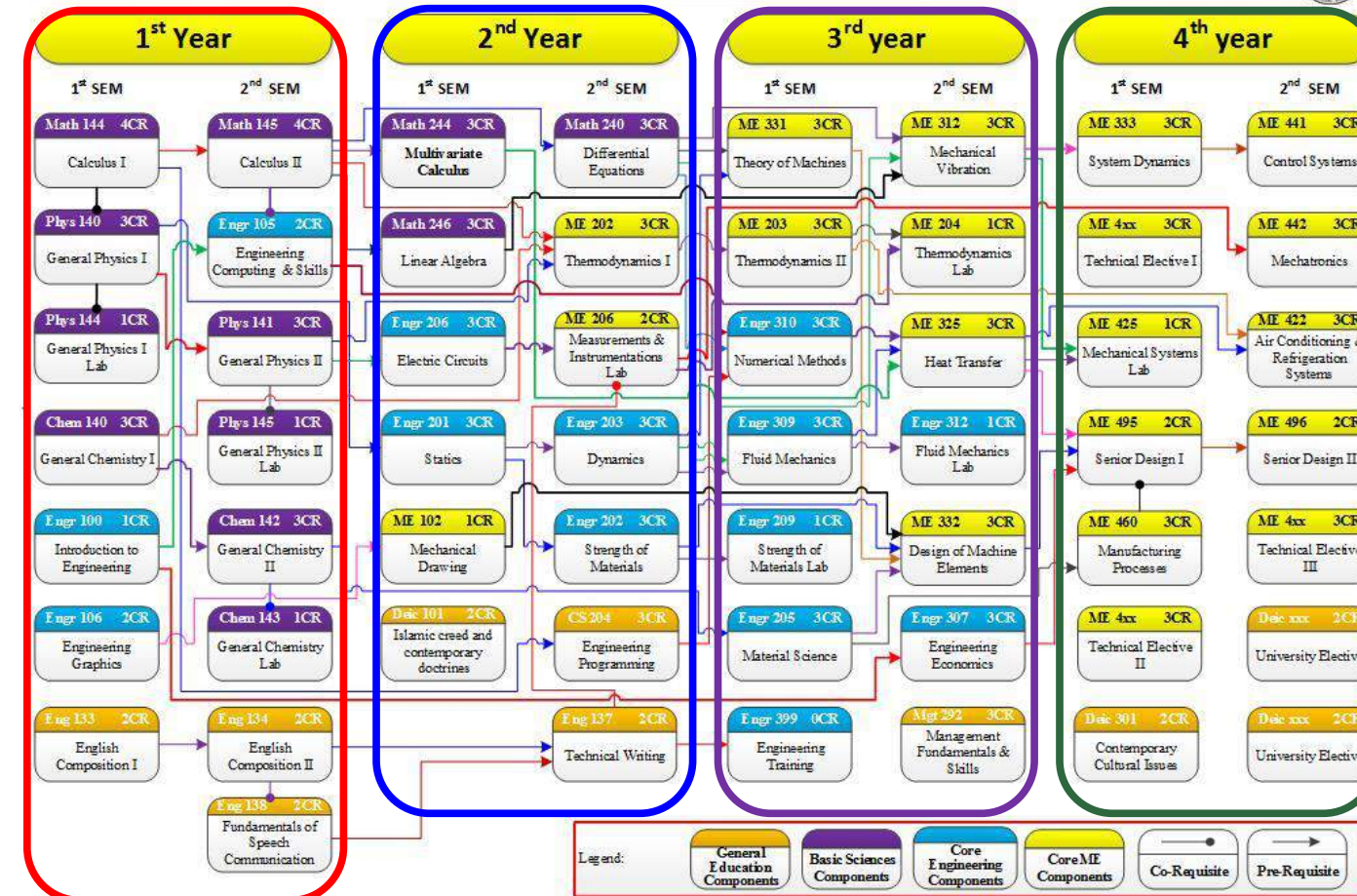




# Course Levels



## Mechanical Engineering Program



All courses in level 1 starts with 1

All courses in level 2 starts with 2

All courses in level 3 starts with 3

All courses in level 4 starts with 4

# Courses Code

**Mechanical Vibrations, ME 312, 2201-312, (34699)**

Course title information

Example

:

Course Name

Course code

Course Number

Course Reference Number (CRN).

Every section has a new CRN

College	Program	Program Code	Prefix of course symbol	Example		
				Course number	Course symbol	Course Name
Engineering (22)	General Engineering	2200	Engr	2200-100	Engr 100	Introduction to Engineering
	Mechanical Engineering	2201	ME	2201-312	ME 312	Mechanical Vibrations
	Electrical Engineering	2202	EE	2202-244	EE 244	Electronics II
	Civil and Environmental Engineering	2203	CEE	2203-470	CEE 470	Contracts and Specifications
	Chemical Engineering	2204	ChE	2204-303	ChE 303	Separation Processes I
	Biomedical Engineering	2206	BME	2206-330	BME 330	Biomedical Imaging Systems
Science (08)	Physics	0814	Phys	0814-140	Phys 140	General Physics I
	Chemistry	0815	Chem	0815-140	Chem 140	General Chemistry I
	Mathematics	0817	Math	0817-144	Math 144	Calculus I
English (17)	English language center	1722	Eng	1722-133	Eng 133	English composition I
Computer Science (09)	CS	0901	CS	0901-204	CS 204	Engineering Programming
Business Administration (06)	Management	0622	Mgt	0622-292	Mgt 292	Management Fundamentals & Skills

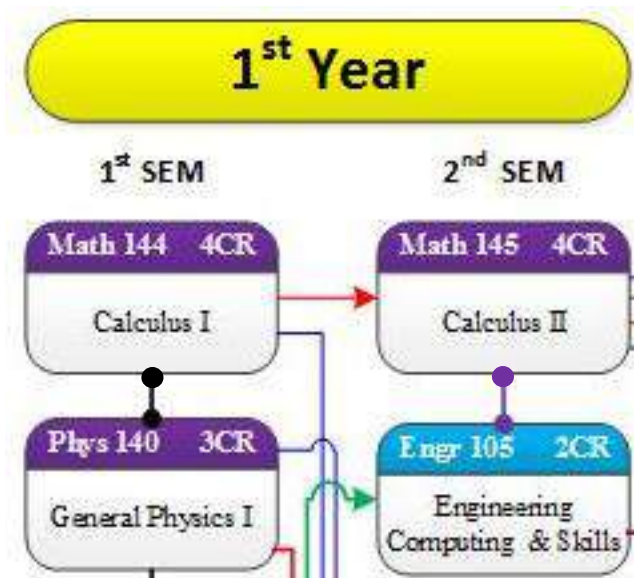
# Courses Description



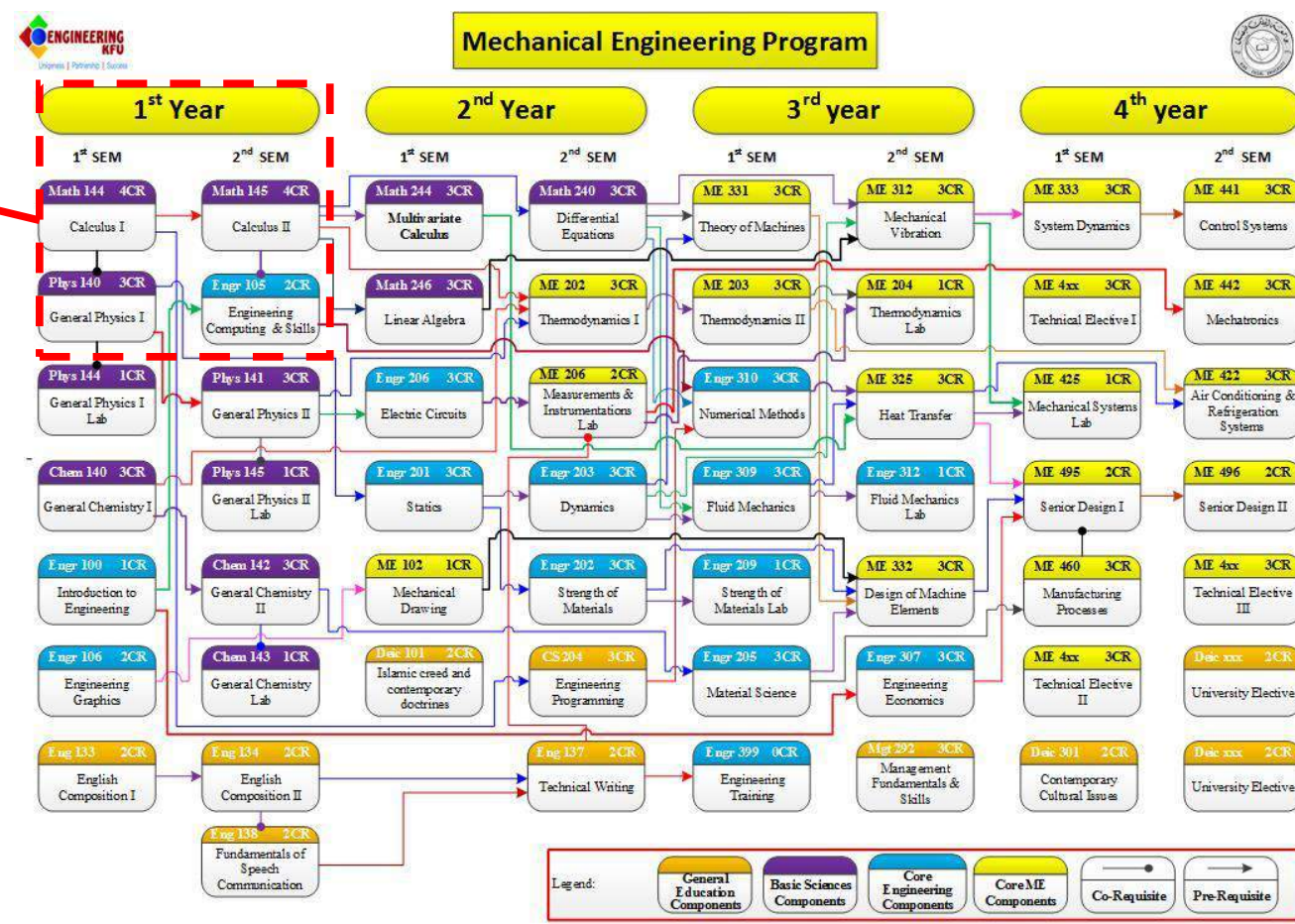
**Course Description (catalog):** The course is an introduction to units, measurements, motion in one and two dimensions, kinematics and dynamics, Newton's laws, work and energy, rotational dynamics, linear and angular momentum, torque, and collisions. Basic calculus and multi-variable algebra will be used.



# EXAMPLE



Course Name	Course Code	Credit Hours	Co and Pre-requisiste
Calculus I	Math 144	4	Non
Calculus II	Math 145	4	Pre: Calculus I – Math 144
Engineering Computing & Skills	Engr 105	2	<b>Pre:</b> Introduction to Engineering - Engr 100 <b>Co:</b> Calculus II – Math 145



# Study Plan Definitions

## ➤ Prerequisite:

1. A student must successfully finish the prerequisite course in current semester before taking the next course in a following semester.

## ➤ Example:



2. This reads as “A is a prerequisite to B”

3. Student **MUST** successfully finish A before taking B.
4. During early registration, while students is taking course A, he can register for course B. If, at the end of current semester, he finished course A successfully, then his early registration for course B will be confirmed automatically. Otherwise, his early registration for B will be cancelled, automatically as well, and he has to repeat A.

## Study Plan Definitions (cont.)

### ➤ Co-requisite [ Two-way co-requisite]

1. This is a special case of co-requisite cases. This is used mainly to join a course with its corresponding lab..



### ➤ Example:

2. It reads as “C and D are co-requisites to each other”
3. C and D are either “ take together” or “ leave together”.
4. In early registration, students must register for both courses together.
5. If student drop any of the two courses, his registration for the other course will be cancelled automatically.

## Study Plan Definitions (cont.)

### ➤ Co-requisite [ one way co-requisite]

1. A co-requisite course is a course that has to be taken prior to or concurrently with another.

Example:



2. It reads as “C is a co-requisite to D”
3. In early registration, students can not register for D unless he either completed C successfully, in a previous semester, or registered for C first.

4. If student drop C, his registration for D will be cancelled automatically.
5. In another words, If a course you are enrolled in has a co-requisite/s, you will also need to enroll in the 'co-requisite' course/s in the same semester (unless you have completed and passed it in an earlier trimester).

## Links to Study Plans

➤ ME “Mechanical Engineering”

<https://www.kfu.edu.sa/en/Colleges/AhsaEngineering/Pages/Mechanical-Curriculum.aspx>

➤ CEE “Civil and Environmental Engineering”

<https://www.kfu.edu.sa/en/Colleges/AhsaEngineering/Pages/Civil-Curriculum.aspx>

➤ EE “Electrical Engineering” [Male&Female]

<https://www.kfu.edu.sa/en/Colleges/AhsaEngineering/Pages/Electrical-Curriculum.aspx>

➤ ChE “Chemical Engineering”

<https://www.kfu.edu.sa/en/Colleges/AhsaEngineering/Pages/chemical-Curriculum.aspx>

➤ BME “Bio-Medical Engineering” – Female only

<https://www.kfu.edu.sa/en/Colleges/AhsaEngineering/Pages/Biomedical-Curriculum.aspx>



## Maximum CH Student can Register

The **maximum load** for each student is determined based on his **CGPA**

CGPA	Maximum Number of Credit Hours
More than 4.00	23
3.50 – 3.99	19
3.00 – 3.49	15
Less than 3.00 out of 5.00	12*

\*Students could register for less than 12 CH if they are not able to register for more courses. This could be due to, for example, conflict with pre-requisites



## Courses registering : Student perspective

College of Engineering is number 22

Course Reference Number (CRN)

صفحة : 1

القسم : هندسة - عامة

الكلية : الهندسة

رقم المقرر	CRN	الشعبة	حالة الشعبة	اسم المقرر	ساعات	الأيام	النشاط	الوقت	مدرس المادة	المتطلبات السابقة	مناح للكليات	مناح للتخصصات
2200-100	30395	01	متاحة	مدخل الى الهندسة	1	ر	نظري	1320 - 1230	سيد صادق علي		22	
2200-100	45722	02	متاحة	مدخل الى الهندسة	1	ن	نظري	1320 - 1230	سيد صادق علي		22	
2200-105	45723	01	ممنولة	مهارات حاسوبية هندسية	2	ح	نظري	1620 - 1330	سليم شطورو	0817-145/2200-100	22	
2200-105	45724	02	ممنولة	مهارات حاسوبية هندسية	2	ن	نظري	1020 - 0830	محمد علوي علوي	0817-145/2200-100	22	
2200-105	45725	03	ممنولة	مهارات حاسوبية هندسية	2	ث	نظري	1620 - 1330	عبدالعزيز فهد الغليقة	0817-145/2200-100	22	
2200-105	45726	04	ممنولة	مهارات حاسوبية هندسية	2	ر	نظري	1650 - 1400	محمد علوي علوي	0817-145/2200-100	22	
2200-105	50617	05	ممنولة	مهارات حاسوبية هندسية	2	ن	نظري	1620 - 1330	عبدالعزيز فهد الغليقة	0817-145/2200-100	22	
2200-105	47817	06	ممنولة	مهارات حاسوبية هندسية	2	ث	نظري	1620 - 1330	محمد علوي علوي	0817-145/2200-100	22	
2200-105	60169	07	ممنولة	مهارات حاسوبية هندسية	2	ح	نظري	1020 - 0830	عبدالعزيز فهد الغليقة	0817-145/2200-100	22	
2200-105	60170	08	ممنولة	مهارات حاسوبية هندسية	2	ر	نظري	1020 - 0830	عبدالعزيز فهد الغليقة	0817-145/2200-100	22	
2200-105	62305	35	غير متاحة	مهارات حاسوبية هندسية	2	ن	نظري	1420 - 1230		0817-145/2200-100	22	
2200-106	45728	01	متاحة	الرسم الهندسي	2	ح	نظري	1620 - 1330	محمد اتيق عول		22	
2200-106	45729	02	متاحة	الرسم الهندسي	2	ر	نظري	1330 - 1030	زياد نايف شطناوي		22	
2200-106	50618	03	ممنولة	الرسم الهندسي	2	ث	نظري	1620 - 1330	كفاية الله خان محمد حياة		22	
2200-106	58203	04	متاحة	الرسم الهندسي	2	ن	نظري	1330 - 1030	زياد نايف شطناوي		22	
2200-201	35676	01	ممنولة	ستاتيكا	3	ح ث خ	نظري	0920 - 0830	فمر الاسلام	0814-140	22	
2200-201	50127	02	ممنولة	ستاتيكا	3	ن ر	نظري	1145 - 1030	محيط الرحمان	0814-140	22	
2200-202	35677	01	ممنولة	مقاومة مواد	3	ن ر	نظري	1145 - 1030	اكبر نيار	2200-201	22	
2200-202	52102	02	ممنولة	مقاومة مواد	3	ح ث خ	نظري	1020 - 0930	اكبر نيار	2200-201	22	

# Registering courses: Student perspective

صفحة : 1											
Program offers the course				College offers the course							
القسم : الفيزياء * علوم				الكلية : العلوم							
رقم المقرر	CRN	الشعبة	حالة الشعبة	اسم المقرر	ساعات	الأيام	النشاط	الوقت	مدرس المادة	المتطلبات السابقة	مناخ للكلية
0814-101	21756	01	متاحة	فيزياء عامة (1)	4	ح ث خ	نظري	1620 - 1530	عادل الشعبي		0800 0814 0815 0816 0817
0814-101	24599	50	متاحة	فيزياء عامة (1)	0	خ	عملي	1010 - 0830	هشام قطب		0800 0814 0815 0816 0817
0814-102	21783	01	متاحة	فيزياء عامة (2)	4	ح ث خ	نظري	1520 - 1430	محمد محمود		0814 0817
0814-102	35645	50	متاحة	فيزياء عامة (2)	0	ن	عملي	1410 - 1230	فيصل صالح سعد الحريول		0814 0817
0814-132	21845	01	متاحة	الفيزياء	4	ح ث	نظري	1415 - 1300	ناجح محمد شعلان		0910 0911 0912 0914 0920 0900 0901 0902
0814-132	49578	02	متاحة	الفيزياء	4	ر	نظري	1415 - 1300	سيد غضنفر حسين		0910 0911 0912 0914 0920 0900 0901 0902
0814-132	49578	02	متاحة	الفيزياء	4	ن	نظري	1415 - 1300	سيد غضنفر حسين		0910 0911 0912 0914 0920 0900 0901 0902
0814-132	63497	03	متاحة	الفيزياء	4	ح ث	نظري	1545 - 1430	شوقي محمود عوضه		0902 0910 0911 0912 0920 0900 0901
0814-132	46270	41	متاحة	الفيزياء	0	ر	عملي	1610 - 1430	سيد غ		0910 0911 0912 0914 0920 0900 0901 0902
0814-132	49579	42	متاحة	الفيزياء	0	ر	عملي	1210 - 1030	سيد غ		0910 0911 0912 0914 0920 0900 0901 0902
0814-132	63498	43	متاحة	الفيزياء	0	خ	عملي	1440 - 1300	عثمان عبدالله العيد المحسن		0902 0910 0911 0912 0920 0900 0901
0814-132	63499	44	متاحة	الفيزياء	0	خ	عملي	1210 - 1030	عثمان عبدالله العيد المحسن		0902 0910 0911 0912 0920 0900 0901
0814-132	63500	45	متاحة	الفيزياء	0	ج	عملي	1210 - 1030	عثمان عبدالله العيد المحسن		0902 0910 0911 0912 0920 0900 0901
0814-140	30703	01	غير متاحة	فيزياء عامة 1	3	ح ث خ	نظري	1320 - 1230	شوقي محمود عوضه	0814-144/0817-144	22
0814-140	57359	02	متاحة	فيزياء عامة 1	3	ن ر	نظري	1145 - 1030	شوقي محمود عوضه	0814-144/0817-144	22
0814-140	56213	03	غير متاحة	فيزياء عامة 1	3	ن ر	نظري	1345 - 1230	شوقي محمود عوضه	0814-144/0817-144	22
0814-140	56214	04	متاحة	فيزياء عامة 1	3	ح ث خ	نظري	1020 - 0930	شوقي محمود عوضه	0814-144/0817-144	22
0814-140	60440	05	متاحة	فيزياء عامة 1	3	ن ر	نظري	1015 - 0900	فهم احمد اسحاق	0817-144	22
0814-141	30705	01	ممنلة	فيزياء عامة - 2	3	ح ث خ	نظري	0920 - 0830	شتليندرا كومار غاوتام	0814-140	22
0814-141	30706	02	ممنلة	فيزياء عامة - 2	3	ح ث خ	نظري	1020 - 0930	شتليندرا كومار غاوتام	0814-140	22
0814-141	43883	03	ممنلة	فيزياء عامة - 2	3	ن ر	نظري	1015 - 0900	ساجد علي الانصاري	0814-140	22
0814-141	46279	04	ممنلة	فيزياء عامة - 2	3	ن ر	نظري	1145 - 1030	ساجد علي الانصاري	0814-140	22
0814-141	56923	05	ممنلة	فيزياء عامة - 2	3	ح خ	نظري	1145 - 1030	ساجد علي الانصاري	0814-140	22

College of Engineering is number 22

# Grading scheme

## Grading scheme at King Faisal University

Symbol	Grade Range	Point Average	Value
A+	95 – 100	5.00	Exceptional
A	90 – less than 95	4.75	Excellent
B+	85 – less than 90	4.50	Very Good Plus
B	80 – less than 85	4.00	Very Good
C+	75 – less than 80	3.50	Good Plus
C	70 – less than 75	3.00	Good
D+	65 – less than 70	2.50	Average
D	60 – less than 65	2.00	Pass
F	less than 60	1.00	Fail
IP	--	--	In Progress
IC	--	--	Incomplete
DN	--	1.00	Denied
NP	60 and more	--	No grade -Pass
NF	Less than 60	--	No grade -Fail
W	--	--	Withdrawn

## How is your GPA calculated?

Course Name and Code	Credit Hours	Grade	Weight of Grade	Grade Point
Calculus I (Math 144)	4	B+	4.5	$4 \times 4.5 = 18$
General Physics I (Phys 140)	3	A	4.75	$3 \times 4.75 = 14.25$
General Physics I Lab. (Phys 140)	1	B	4.00	$1 \times 4.00 = 4.00$
General Chemistry 1 (Chem 140)	3	A+	5.00	$3 \times 5 = 15$
Introduction to Engineering (Engr 100)	1	C+	3.5	$1 \times 3.5 = 3.5$
Engineering Graphics (Engr 106)	2	B	4.00	$2 \times 4.00 = 8$
English Composition 1 (Eng 133)	2	A	4.75	$2 \times 4.75 = 9.5$
<b>Total</b>	<b>16</b>			<b>72.25</b>

This semester GPA =  $\frac{72.25}{16} = 4.52 \Rightarrow B +$

## CGPA

- Cumulative Grade Point Average is calculated by dividing the summation of all courses points by the summation of the courses credit hours

$$\text{CGPA} = \frac{\sum \text{Grade points for all taken courses}}{\sum \text{Credit hours for all taken courses}}$$

- You can access to the GPA calculator at Deanship of Admission and Registration>Electronic services> 



- Or via this link:

<https://www.kfu.edu.sa/ar/Deans/AdmissionRecordsDeanship/Pages/gpaCalculator.aspx>

المعدل	النقاط	الساعات النوعية	الساعات المكتسبة	الساعات المعتمدة
4.13	467	113	113	113

Attempts hours: عدد الساعات النوعية  
The total number of CH's of the  
courses student has studied even if  
his grade is F in a course or more

### حاسبة المعدل التراكمي

نظام الحساب: 5.00

البيانات التراكمية السابقة

عدد الساعات النوعية:

أدخل عدد النقاط:

نتائج المقررات المتوقعة للفصل الدراسي الحالي (التالي)

اسم المقرر	الدرجة *	عدد الساعات *	التقدير *	عدد النقاط
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**الفصل الحالي**  
**التراكمي**



## Find your class or lab. location

### ➤ Example:

Calculus I lecture is at 0112150 means:

011 2150

The College of Engineering building number is 11

Room 2150 in the second floor

College of Engineering building # ➔ 011

College of Science building # ➔ 009

Physics and Chemistry labs are taken in the college of science

# Examination Regulations

- For most of your courses, there will be three exams in each semester: **Mid-term Exam I (7<sup>th</sup> and 8<sup>th</sup> week), Mid-term Exam II (11<sup>th</sup> and 12<sup>th</sup> week)** and **Final exam in the 16<sup>th</sup> & 17<sup>th</sup> week.**
- The examination schedule is announced on the **website** of college of engineering and on the **advisement screens**, two weeks before the start of each exam.
- You should bring your **KFU and national ID card** to the examination hall.
- Avoid carrying unauthorized material to the exam hall such as **Smart watch, mobile phones, computerized calculators, etc...**
- Bring all necessary material and tools as announced by the instructor prior to the exam and **not to share** any of his belongings (calculator, pen, pencil...etc.) with other students.
- Adhere to all KFU and instructor examination rules.
- More information can be obtained the Vice Dean Office and from the Examination Office in the College of Engineering.

# Academic Advising

# Responsibilities of Academic Advisor

- Academic advising is a one-to-one contact between a faculty and a student to :
1. Plan, discuss, and review student's academic progress
  2. Handel the registration difficulties and offer help to over come them
  3. Handle the student's personal affairs, if they affect his academic progression
  4. Help students in selecting a major based on his desires and interests
  5. Help students to attain their academic goals and career objectives

# Students' Responsibilities

1. Be familiar with the requirements necessary for completing your study and the other academic policies and procedures.
2. Review your transcript and program requirements each semester, and keep track of your progression toward fulfill the graduation requirements.
3. Keep an open eye on the Academic Calendar. Do not miss deadlines—know when to register and when to drop/add each semester.

## Students' Responsibilities (cont.)

4. Schedule meetings with your advisor and prepare a list of questions.
5. Check your e-mail daily. Email is the official way of communication between the college and the students.



## Students' Responsibilities (cont.)

### 4. Students should not miss deadlines for:

- Registration
- Add/drop courses
- Withdrawal of a maximum one course

# What is Academic Warnings

Academic warning is a warning that is issued to students whose Grade Point Average (GPA), after a specific semester, is less than 3.0 out of 5.0. This is to alert them to improve their academic performance.

<b><u>Cases of Academic Warning:</u></b>	
1 <sup>st</sup> academic warning	If a student's GPA is less than 3.0 out of 5.0 for a specific semester*
2 <sup>nd</sup> academic warning	If a student's GPA is still less than 3.0/5.0 for the following semester
Transfer to another college	If student's GPA is still less than 3.0/5.0 for the third consecutive semester
* excluding summer semester - If after receiving a warning(s), student's GPA is increased to $\geq 3.0$ , all the previous warnings are cancelled	

## What is Academic Warnings(cont.)

**Students who receive an academic warning are encouraged to develop a plan for academic improvement in consultation with their academic advisor.**

# Electronic Services provided by the Deanship of Admission and Registration



# Electronic Service

## provided by the Deanship of Admission and Registration



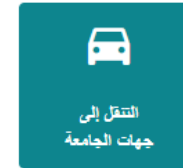
Print a student statement



Print a classes schedule



Academic Number



University Map



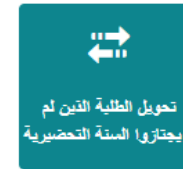
Transfer to another college



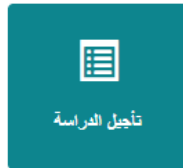
Print the academic register



Visiting students to KFU



Transfer to other colleges for  
preparatory Yr. failed students



Postponing study



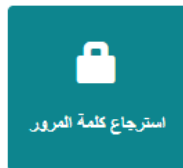
Forms



Classes schedule for all colleges



Transfer to KFU



Retrieve the Pass word



Edit details of expected graduate  
students



Drop a course



Cease registration



# Electronic Service

provided by the Deanship of Admission and Registration



Modify the mobile number



GPA calculator



Exit clearance



Stipends



Queries for students



Request an additional  
chance after receiving 3  
academic warnings



Print course description



Study Plans



Issue and activate a bank  
card

## Information Resources

- Students can obtain more information from the following resources:
  - college of Engineering website.
    - <https://www.kfu.edu.sa/ar/Colleges/AhsaEngineering/Pages/Home-new.aspx>
  - King Faisal University website [Deanship of Admission and Registration]
    - <https://www.kfu.edu.sa/ar/Deans/AdmissionRecordsDeanship/Pages/eServicesV2.aspx>
  - CoE TV - Screens
  - Check your email regularly



# *College of Engineering Programs*

# Department of Mechanical Engineering (ABET Accredited)

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By : Dr. Abdulaziz Elsinawi

August , 2021

# Mechanical Engineering

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Mechanical Engineering is one of the principal branches in Engineering and it is very broad based

Mechanical Engineering deals with the design, manufacture, production, operation and maintenance of mechanical equipment and systems.

A degree in mechanical engineering will open opportunities in any type of industry

## Why Mechanical Engineering?

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Saudi Arabia, being an oil rich country has several oil and gas industries and power plants

Such plants require the expertise of mechanical engineers to design, operate, and maintain a wide range of mechanical equipment and its associated systems



## Why Mechanical Engineering?

---

A thorough knowledge of design aspects, thermal characteristics, manufacturability, material aspects, etc., is essential while designing, operating and maintaining mechanical equipment or systems

Such knowledge is imparted through interactive lectures, hands on experience in our well equipped labs and through internships

# Applications of Mechanical Engineering



## Power Plants

Examples:

Qurayyah power plant

Hajr Electricity Production Company



## Chemical Process Plants

Examples:

Farabi Petrochemicals

Jubail United Petrochemical Company

# Applications of Mechanical Engineering



## Oil & Natural Gas Plants

Examples:

Wasit gas plant

Fadhili gas plant



## Manufacturing Plants

Examples:

The Saudi Arabian Amiantit Company

JESCO

# Applications of Mechanical Engineering

---



## Automotive Industry

Examples:

ISUZU

Saudi National Automobiles Manufacturing



## HVAC Industry

Examples:

Johnson Controls

Zamil Air Conditioners



# Where do KFU Mechanical Engineers work?

## Few Examples

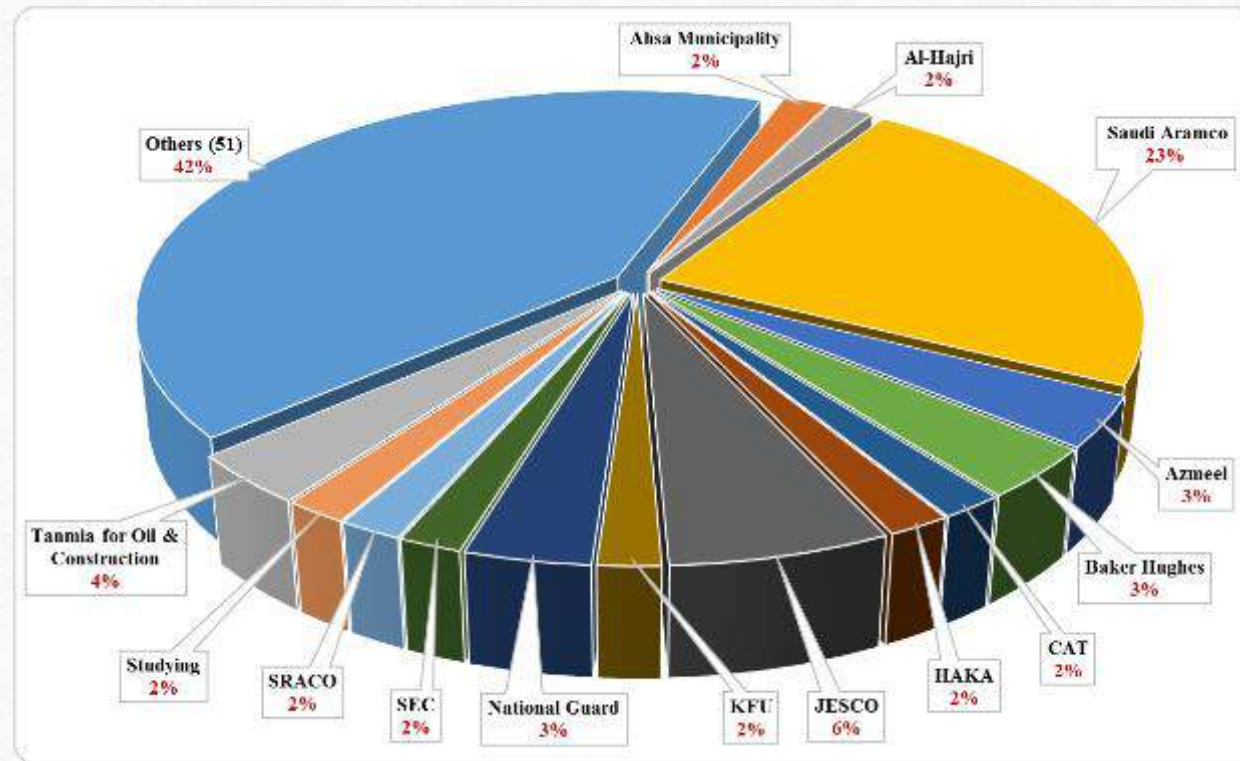


**PARSONS**

**Schlumberger**



# Distribution of KFUPM Mechanical Engineering Alumni

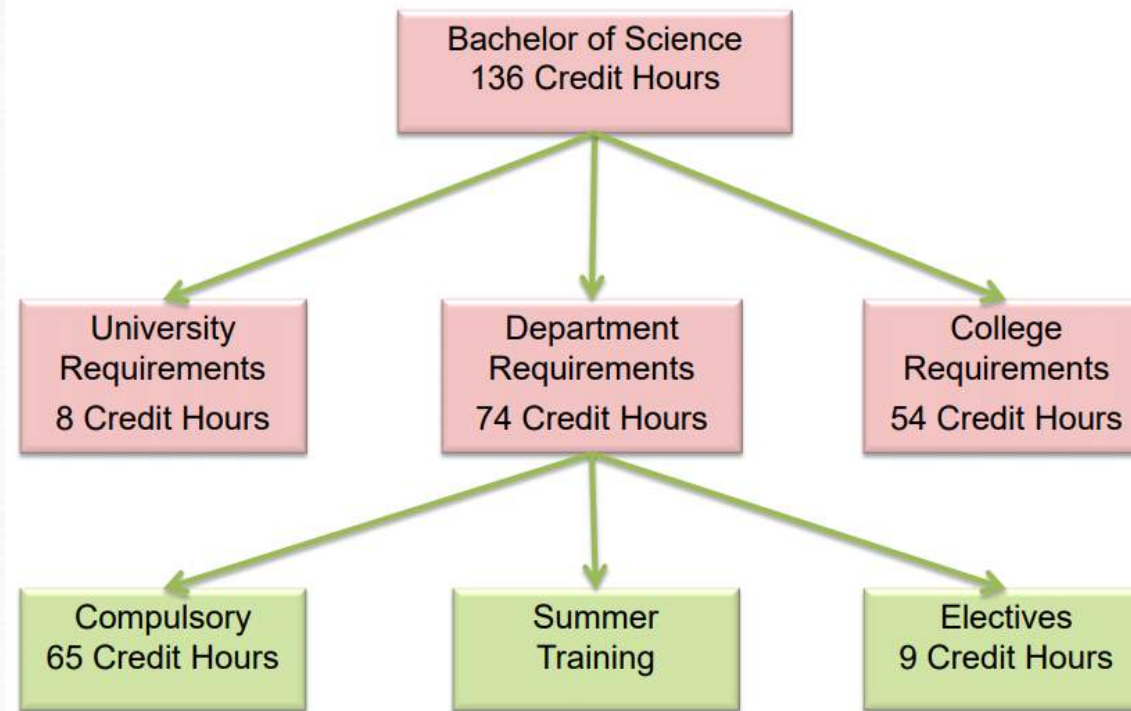




## B.Sc. Mechanical Engineering Curriculum at KFU

B.Sc. curriculum is a 4-year program (8 semesters)

Total of 136 credit hours



## Summary

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- . Mechanical Engineers are required for any industry
- . Our ME faculty members have wide range of exposure in the academic and in the industry sectors
- . Our faculty members are very friendly and guide students during the academic program
- . Our program is accredited by ABET
- . We welcome you to join Mechanical Engineering!

# Department of Electrical Engineering (ABET Accredited)

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**By: Dr. Mohammed Alarfaj**

August , 2021

## About Electrical Engineering

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Electrical engineers design, develop, test and supervise the manufacturing of electrical equipment, such as electric motors, radar and navigation systems, communications systems and power generation equipment.

Electronics engineers design and develop electronic equipment, including broadcast and communications systems, such as portable music players and Global Positioning System (GPS) devices.

## EE Program Mission

*The Electrical Engineering Program aspires to be recognized for supporting and sustaining the success of its community and stakeholders for realizing the Kingdom's development objectives and enrichment of humanity by:*

---

- ❖ Providing quality education that prepares graduates through a project-based learning to be professionals and to pursue graduate studies and research.
- ❖ Commitment to research that leads to better solutions to electrical engineering-related problems with emphasis on issues of national significance by working closely with industry and research centers.



## Areas of Specialization in Electrical Engineering

Electrical Engineers can specialize in a variety of areas.

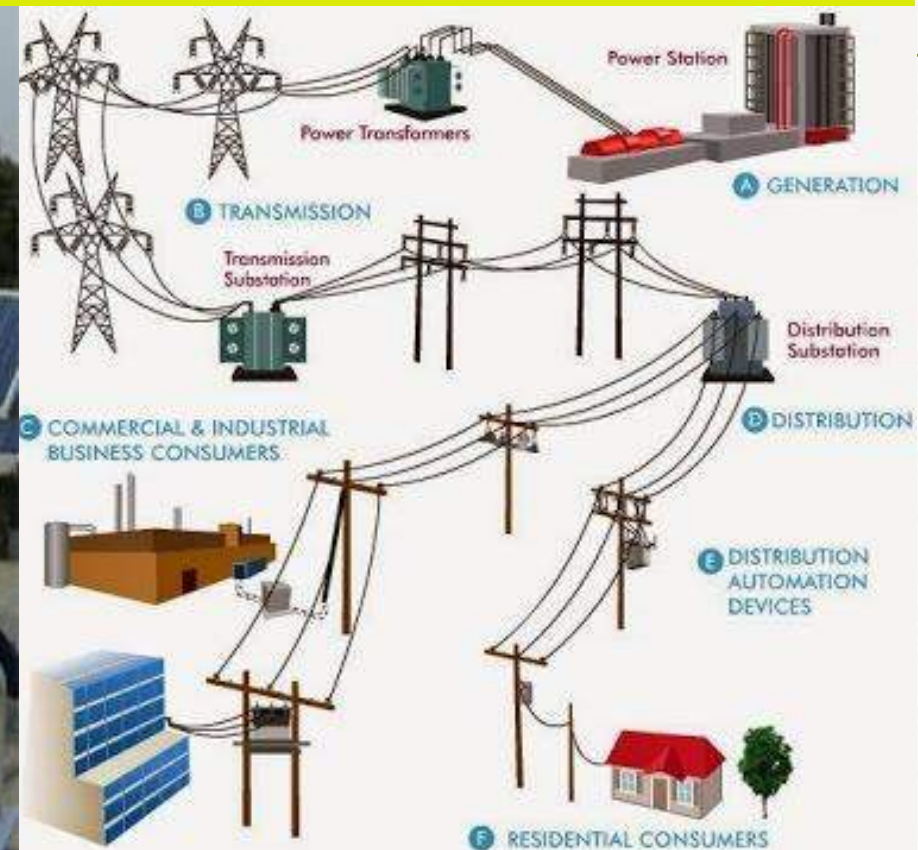
Major areas are:

- 
1. Communications
  2. Computer Hardware
  3. Control Systems
  4. Electromagnetics
  5. Electronic Design
  6. Power Systems
  7. Remote Sensing and Space Systems
  8. Semiconductor Devices



**POWER SYSTEMS** is the bread and butter of electrical engineering, the power systems field deals with the generation transmission and distribution of electrical power on both the large scale and small scale.

Nowadays it includes microgrids, smart grids, renewable energy systems.



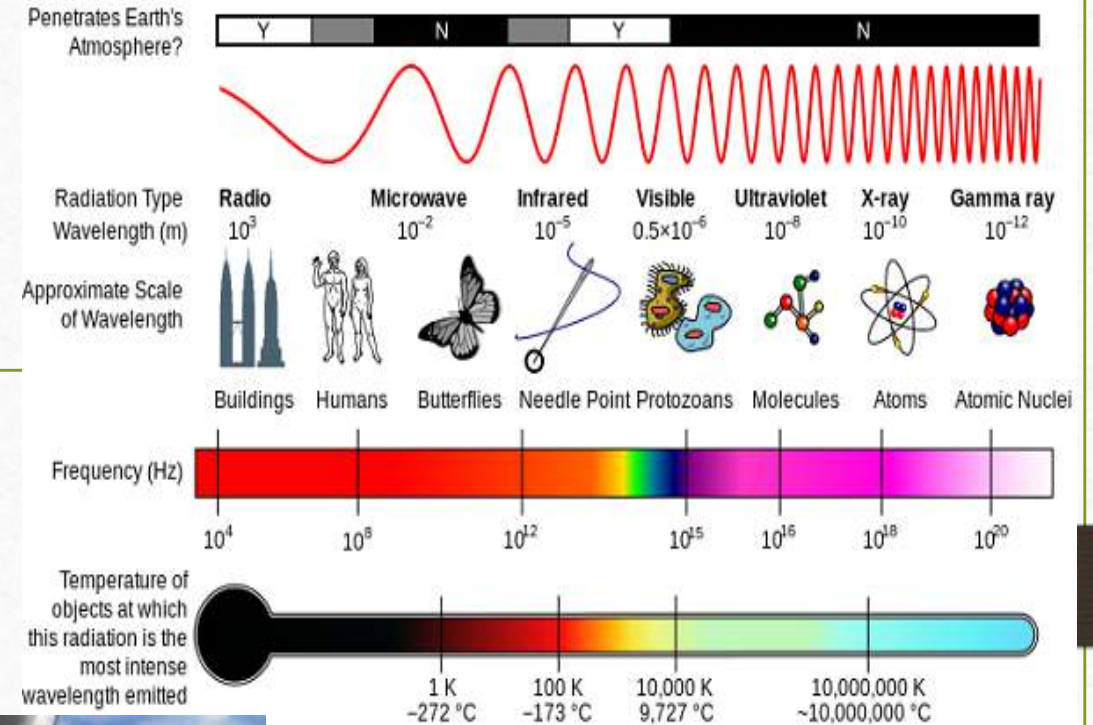
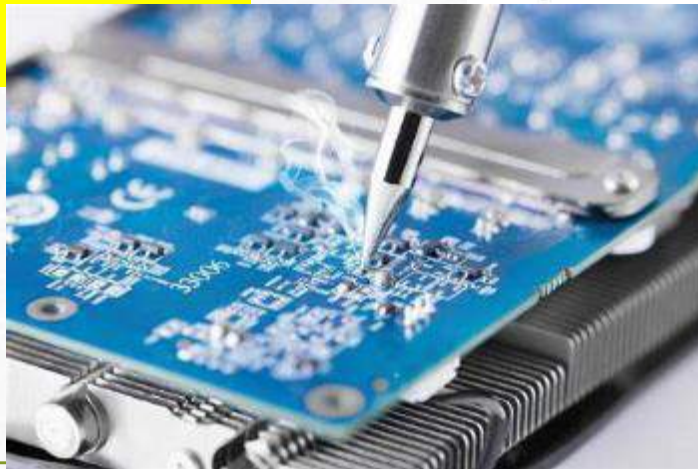
- ✓ **COMMUNICATIONS:** Society requires information to be transmitted in a fast, reliable, and secure way.
- ✓ **COMPUTER HARDWARE.** With the proliferation of digital electronics, most electrical engineering systems will include computer hardware as an integral part of the system.
- ✓ **CONTROL SYSTEMS** are encountered every day, including in temperature/climate control systems in buildings or navigational systems in vehicles, and they also play an integral role in any manufacturing process.





**ELECTROMAGNETICS** is applied in many ways within the field of electrical engineering. Careers include studying wave propagation, designing antennas, or microwave communications will thrive in this area.

**ELECTRONIC DESIGN** is the assembly of basic electronic components to accomplish some fundamental tasks



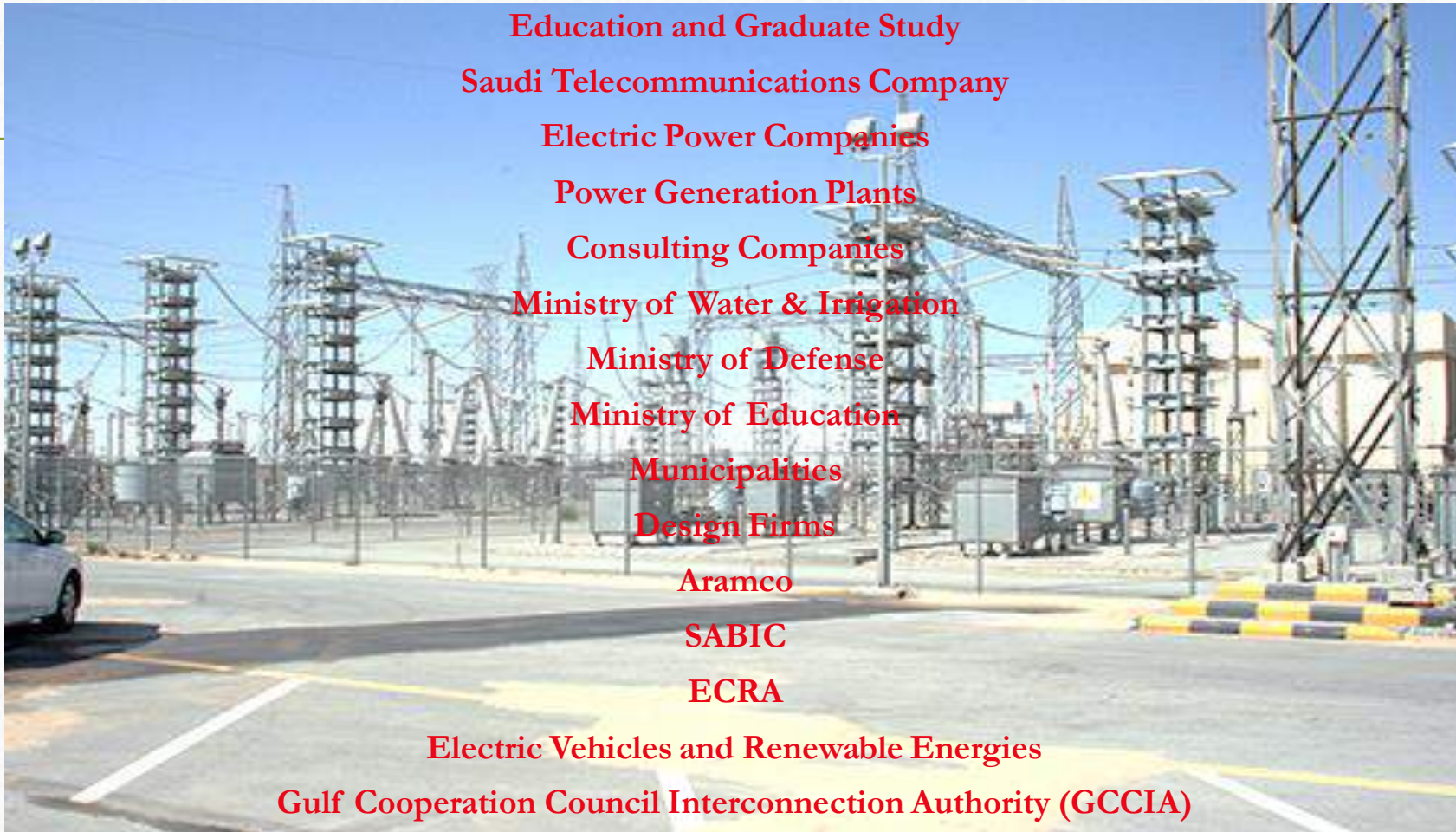
**OPTICS** Optical systems have become increasingly popular for manipulating information (optical signal processing), transmitting information (fiber optics), and remote measurement of electrical properties

**SEMICONDUCTOR DEVICES** are the active components inside nearly all modern electronic devices, all advances in electronics ultimately come down to making better semiconductor devices and understanding how they work.





# Major Employers for EE graduates



Education and Graduate Study

Saudi Telecommunications Company

Electric Power Companies

Power Generation Plants

Consulting Companies

Ministry of Water & Irrigation

Ministry of Defense

Ministry of Education

Municipalities

Design Firms

Aramco

SABIC

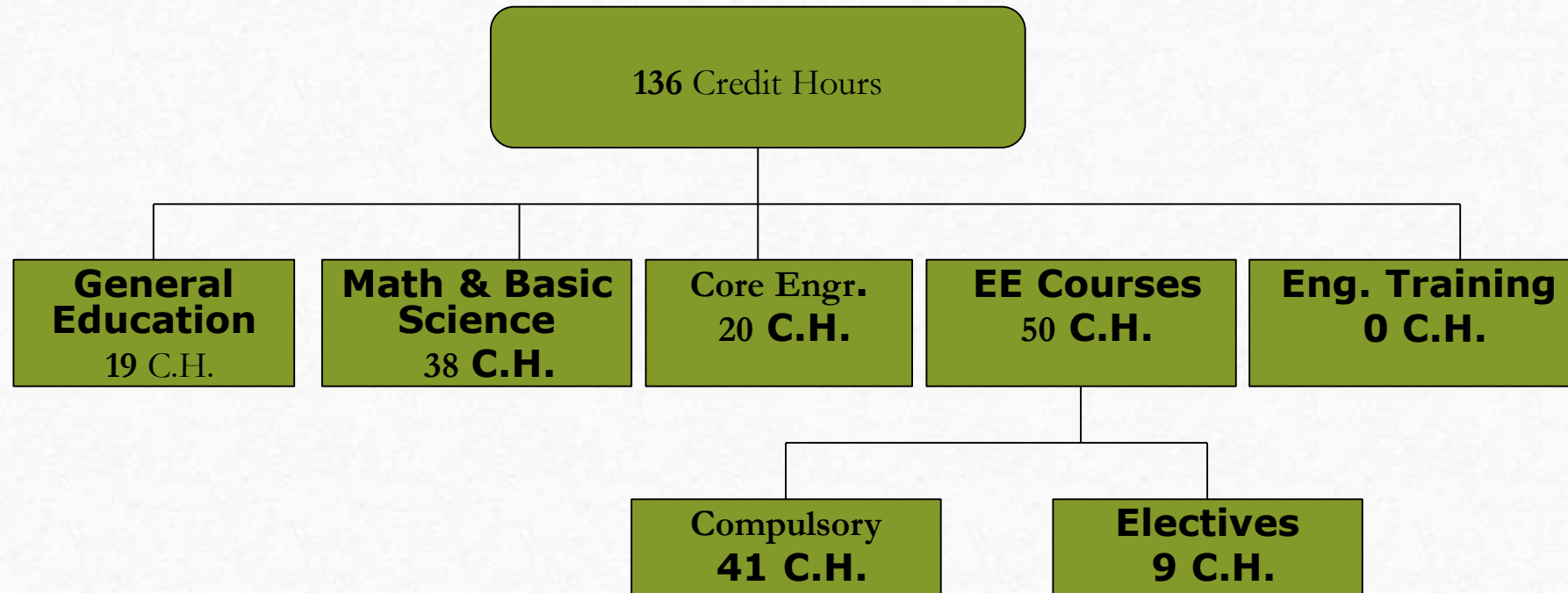
ECRA

Electric Vehicles and Renewable Energies

Gulf Cooperation Council Interconnection Authority (GCCIA)

# B.Sc. Electrical Engineering Curriculum at KFU

- ❖ EE B.Sc. curriculum is a 4-year program (8 semesters)
  - ❖ Total of 136 credit hours.
- 





## EE Department Achievements

The Electrical Engineering Program received

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The Accreditation by ABET (Accreditation Board for Engineering & Technology) 2012 through 2021.

The EE Dept Established several memorandum of collaboration with companies such as SEC, GCCIA, etc...

And Now working on establishing new memorandums of collaboration with ECRA and STC...

## EE Department Societies



It has a local section in Saudi Arabia



It is an association dedicated to advancing innovation and technological excellence for the benefit of humanity. It is designed to serve professionals involved in all aspects of the electrical, electronic, and computing fields and related areas of science and technology. It was founded in 1884. By 2010, it comprised over 000 members in 160 countries

Chapter's Advisor: Dr. Mohammed Shwehdi

# Department of Civil & Environmental Engineering (ABET Accredited)

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By: Dr. Faisal Shalabi

August , 2021

## What is Civil Engineering?

---

Civil engineering is dealing with the planning, designing and building of community structures like Roadways, Buildings, Tunnels, Bridges, Dams, Sewage Systems, Treatment Plant.....and so.

## CE Program Mission

The Department of Civil & Environmental Engineering strives for providing quality services through close partnership with the community by demonstrating commitment to:

---

- Quality education that prepares graduates to be in future professionals in their field and to pursue graduate studies and research.

- Quality research that leads to better solutions to engineering-related problems with emphasis on issues of national significance by working closely with industry and research centers.



# Areas of Specialization in Civil Engineering

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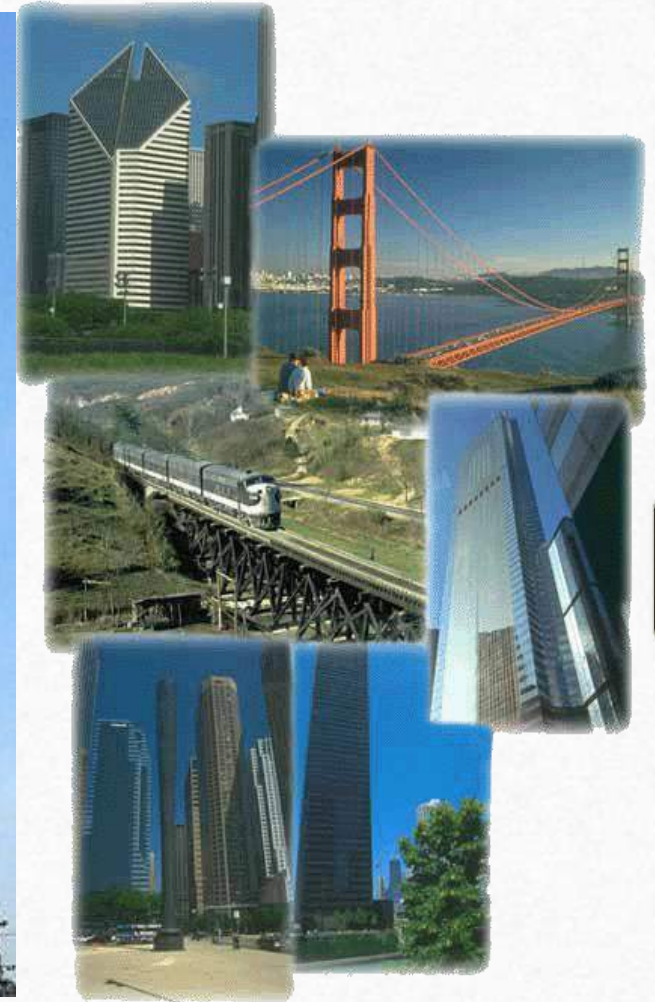
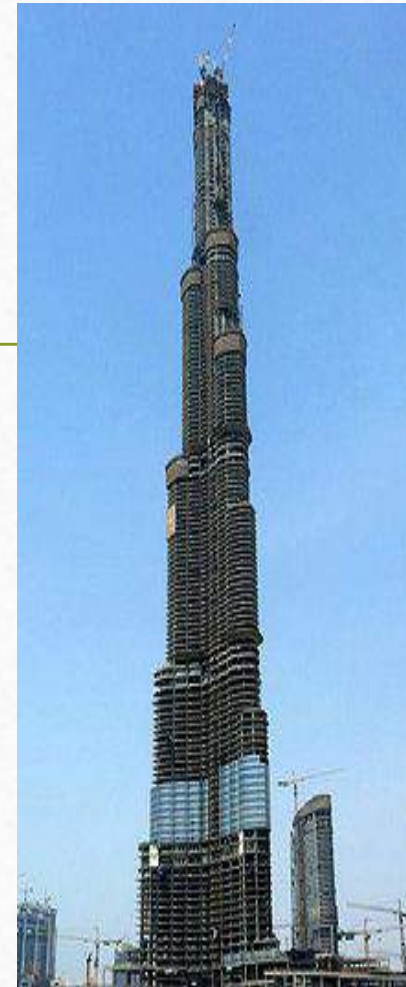
Civil Engineers can specialize in a variety of areas. Major areas are:



## Structural Engineering

A structural Engineer is the one who:

- designs the framework of buildings, towers, bridges, water treatment structures, tunnels and other structures to make sure of safety and economy.



# Water Resources & Water Management Engineering

- Designs and supervises construction and advises on the operation, maintenance and repair of water resource facilities such as dams, aqueducts, hydro-electric plants, water supply systems, beach protection, drainage systems.





# Environmental Engineering



- ❑ Environmental engineering deals with the technology to save nature from human and natural abuse and pollution.
- ❑ Wastewater treatment engineers are civil or environmental engineers trained to design or analyze water treatment plants.
- ❑ Water treatment plants are categorized as follows:
  - Sanitary waste treatment facilities,
  - Industrial waste treatment facilities,
  - Potable (drinking) water treatment facility.



# Geotechnical Engineering



- Is the branch of civil engineering concerned with the engineering behavior of earth materials and soil structure interaction. Geotechnical engineering includes investigating existing subsurface conditions and materials; determining their physical/mechanical and chemical properties that are relevant to the project considered, assessing risks posed by site conditions; designing earthworks and structure foundations; and monitoring site conditions, Design of Tunnels, Dams.

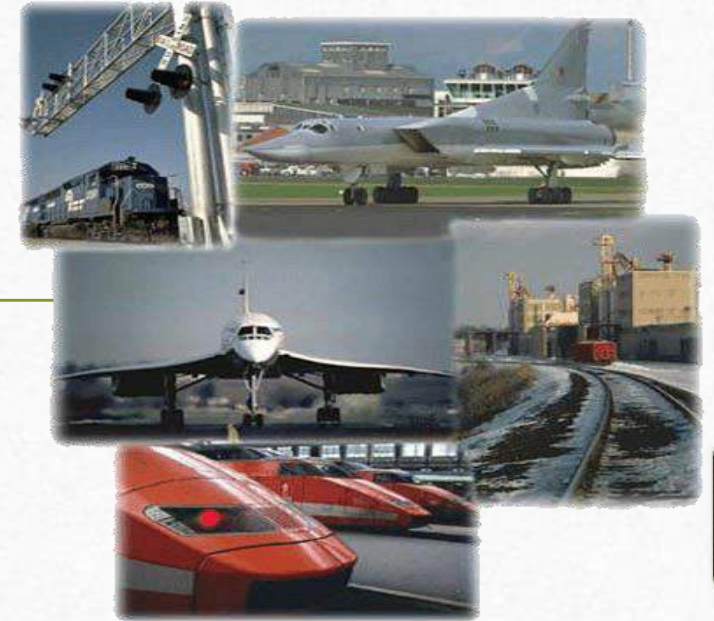




# Transportation Engineering



- Transportation Engineers design and analyze
  - Highways,
  - Railways,
  - Airports,
  - Urban and Suburban Road Networks,
  - Parking Lots, and
  - Traffic Control Signal Systems.



# Construction Management Engineering

- Estimates quantities and costs of materials, equipment, or labor needed to complete projects.
- Directs construction at project sites and monitor progress to ensure construction conforms to the design
- Deal with contracts of projects





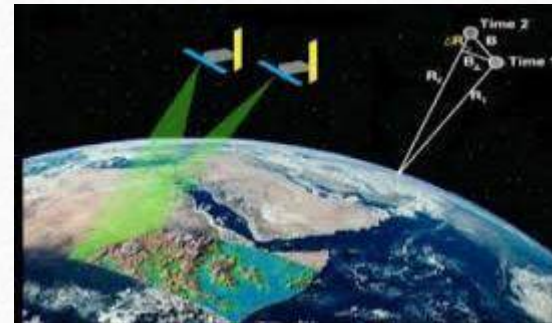
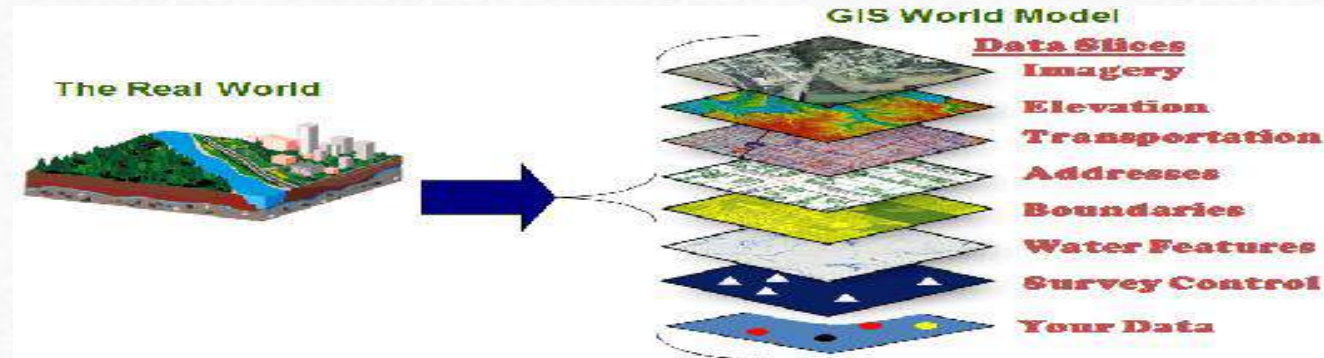
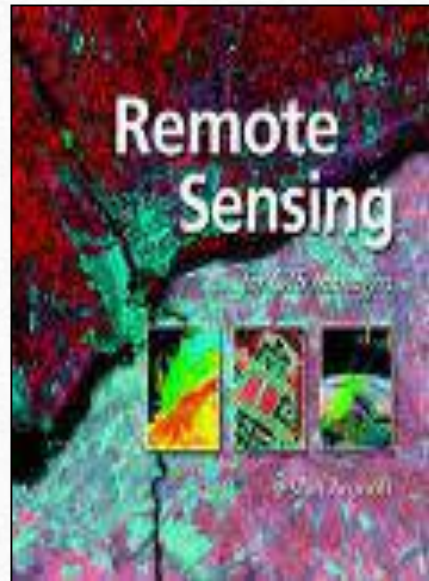
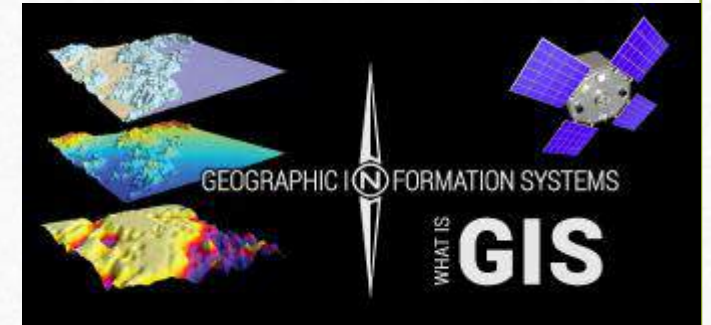
# Material Engineering



- ❑ Conducts research, development tests and evaluation of the quality or suitability of materials
- ❑ Coordinates and directs the research, development and testing of materials such as asphalt, concrete, steel, cement, timber and plastics.
- ❑ Advises contractors and others on materials most suited to meet individual construction problems

# Remote Sensing & GIS

- This is one of the new fields.
- The improvement in space technology, availability of GPS enhanced the scope of geographic information system.





# Surveying Engineering



- ❑ Activity involved in collection of topographic features of a location for future construction.
- ❑ Helps in environmental impact assessment
- ❑ Projects construction



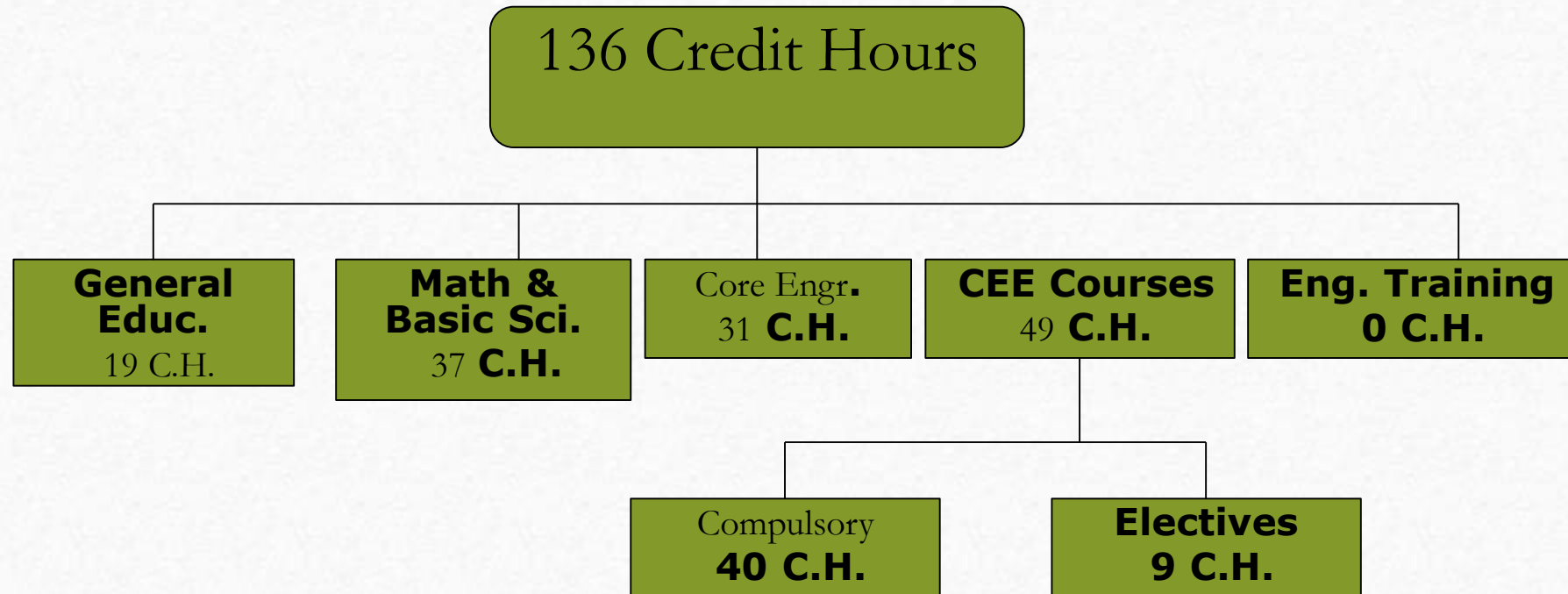
# Where do CE graduates Work?

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- ☐ Education and Graduate Study
- ☐ Design Firms
- ☐ Aramco
- ☐ Municipalities
- ☐ Construction Firms
- ☐ Management
- ☐ Consulting Companies
- ☐ Ministry of Public Works
- ☐ Ministry of Water & Irrigation
- ☐ Ministry of Municipals Affairs
- ☐ Ministry of Transport
- ☐ Ministry of Defense
- ☐ Ministry of Environment
- ☐ Ministry of Education
- ☐ Others

## B.Sc. Civil Engineering Curriculum at KFU

- CEE B.Sc. curriculum is a 4-year program (8 semesters)
  - Total of 136 credit hours.
- 



## Achievements of the CEE

---

The Civil Engineering Program just got  
The Accreditation by ABET (Accreditation  
Board for Engineering & Technology). For 6 years





# Department of Chemical Engineering (ABET Accredited)

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By: Dr. Mohammed AlYaari

August , 2021

# Introduction

- Chemical Engineering

**in Chemistry:**



**in Chemical Engineering:**

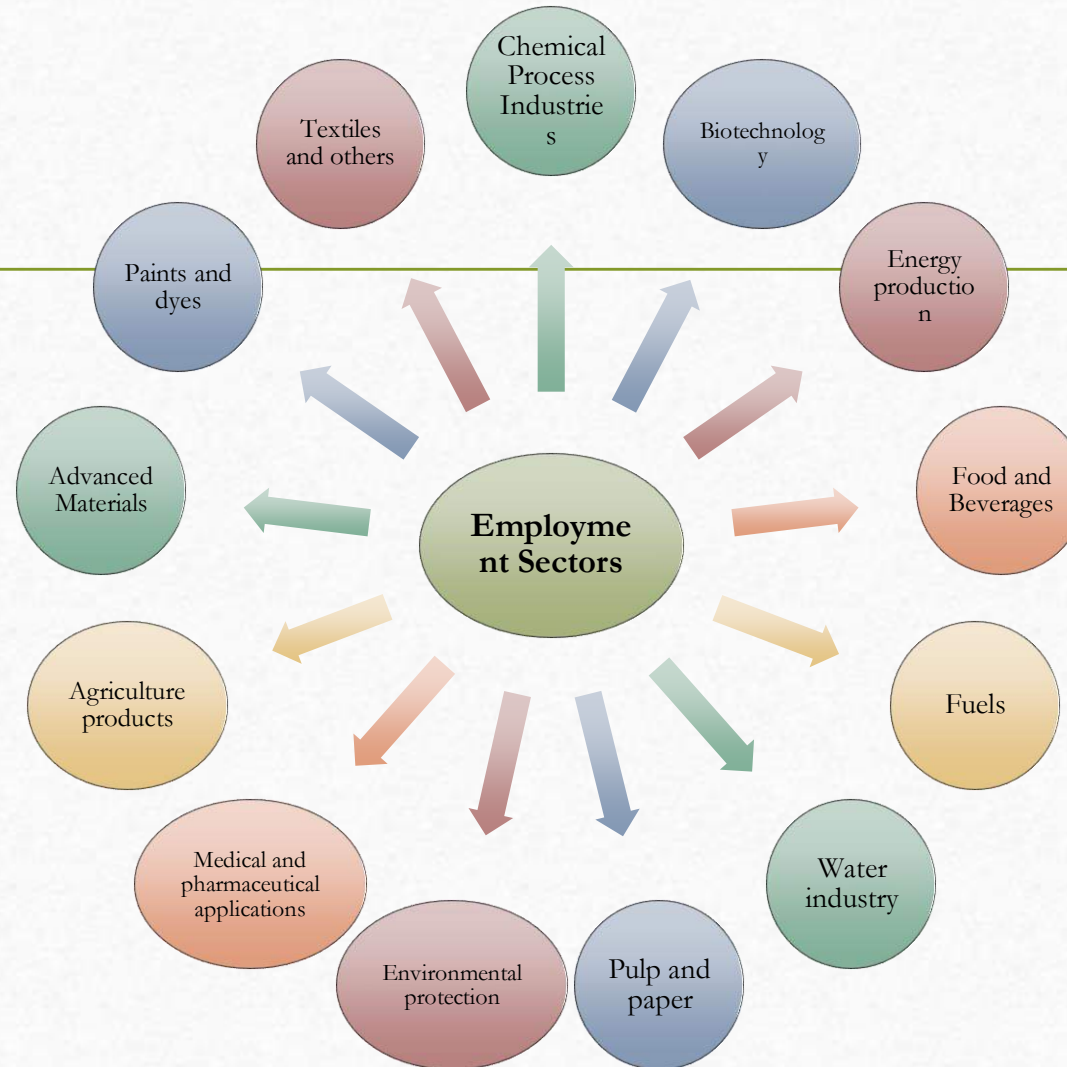


# Introduction

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- The Chemical Engineering Program was initiated in 2011
- The program is a blend of traditional chemical engineering topics and modern topics
- The program is an ABET accredited since 2015
- Chemical Engineering students study the science and engineering of processes in which materials, not just chemicals, undergo some sort of change, chemical or physical or both.
- The applications of these changes are essential to a wide variety of industrial processes
- They also learn about process automation and control

# Employment Opportunities





# Employment Opportunities

سابك  
SABIC

أرامكو السعودية  
Saudi Aramco



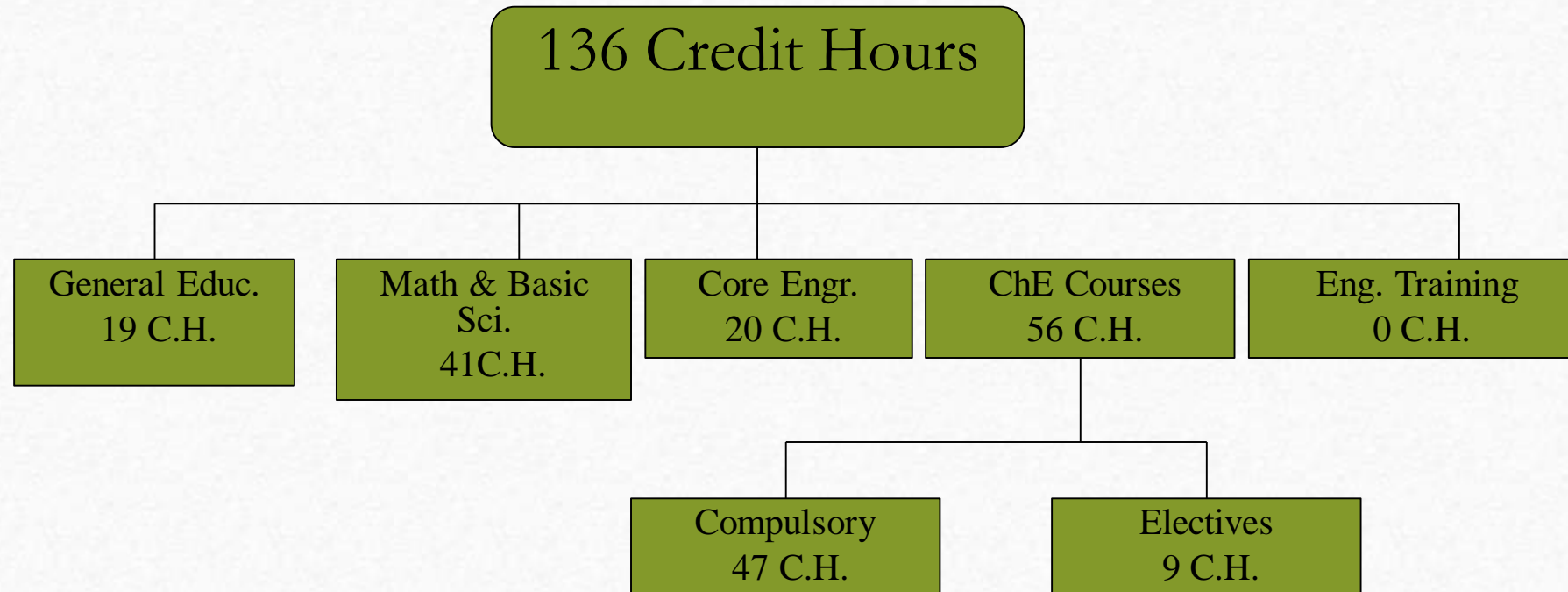
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AL HASA IRRIGATION & DRAINAGE AUTHORITY





# Study Plan

- ChE B.Sc. curriculum is a 4-year program (8 semesters)
- Total of 136 credit hours.



## Achievements of the ChE

---

The Chemical Engineering Program got  
The Accreditation by ABET (Accreditation Board for Engineering &  
Technology). For 6 years





# STUDENT CHAPTERS AT THE COLLEGE OF ENGINEERING





Society of Petroleum Engineers



AMERICAN SOCIETY OF CIVIL ENGINEERS





The College of Engineering have seven student chapters in the various engineering disciplines.

They represent high profile international engineering societies world wide.

The goal of establishing those student chapters is to link the students with the real world needs and to give the chance to be in contact with professionals in the GCC and from around the world.



## In Chemical Engineering

- American Institute of Chemical Engineering **AIChE** *Established in April, 2011*
- Society of Petroleum Engineers **SPE** *Established in February, 2014*



## In Civil and Environmental Engineering

- American Society of Civil Engineers **ASCE** *Established in, 2014*



## In Mechanical Engineering

- American Society of Mechanical Engineers **ASME**
- American Rail Way Engineering and Maintenance-of-Way Association **AREMA**
- Society of Automotive Engineers **SAE**



## In Electrical Engineering

- Institute of Electrical and Electronics Engineers **IEEE** *Established in 2011*



# WHAT IS A STUDENT CHAPTER?

It is a group of students from a university, college, technical or technological school who assemble under the umbrella of an international institute to organize activities related to engineering fields.

Student Chapters provide unique opportunities for networking, mentoring and bonding.





**WHO WE ARE?**



# AIChE



**A professional society of chemical engineers.**

**It was founded in 1907, and now it is the world's leading organization for chemical engineering professionals, with more than 60,000 members from over 110 countries**

**It has a local section in Saudi Arabia**



**Chapter's advisor:  
Dr. Safdar Hossain**



# SPE



## Society of Petroleum Engineers

A not-for-profit professional organization founded in **1957** as a constituent society of **AIME**. **SPE** became a separately incorporated organization in **1985**. It has more than **156,000** members in **154** countries participate in **201** sections and **396** student chapters. SPE's membership includes more than **72,000** student members

It has a local section in Saudi Arabia



Chapter's advisor:  
Eng. Majdi Adel





Is a leading provider of technical and professional conferences and continuing education, the world's largest publisher of civil engineering content, and an authoritative source for codes and standards that protect the public. It was founded in **1852**. It represents more than **150,000** members of the civil engineering profession in **177** countries, **76** sections, **160** branches, **302** student chapters, and **130** younger member groups

Chapter's advisor:  
Dr. Muhammad Umair Saleem



# ASME



Chapter's advisor:  
Dr. Mohammed Saber

It is a not-for-profit membership organization that enables collaboration, knowledge sharing, career enrichment, and skills development across all engineering disciplines. Founded in **1880** by a small group of leading industrialists, it has grown through the decades to include more than **100,000** members in **140+** countries **32,000** of these members are students.

It has a local section in Saudi Arabia





# AREMA



It was formed in **1997**, as the result of a merger of three engineering associations: the **American Railway Bridge and Building Association (ARB&B)**, the **American Railway Engineering Association (AREA)** and the **Roadmaster's and Maintenance of Way Association (RMWA)**. Its mission is the development and advancement of both technical and practical knowledge and recommended practices pertaining to the design, construction and maintenance of railway infrastructure

Chapter's advisor:  
Dr. Dr. Karthik Silaipillayarputhur



**SAE**



**INTERNATIONAL™**

Is a US based international organization responsible for developing standards for transport, automotive, aerospace and commercial vehicles. It also devotes resources to projects and programs in **STEM** education, professional certification, and collegiate design competitions. It was founded **1904** and now have **20** international sections world wide.

Chapter's advisor:

Dr. Dr. Tawfiq Al Mughanam



# IEEE



It is an association dedicated to advancing innovation and technological excellence for the benefit of humanity. It is designed to serve professionals involved in all aspects of the electrical, electronic, and computing fields and related areas of science and technology. It was founded in **1884**. By **2010**, it comprised over **395,000** members in **160** countries

It has a local section in Saudi Arabia



Chapter's advisor:  
Dr. Mohammed Shwehdi



# WHY TO GET INVOLVED?

**Meet people**

**Meet other industry professionals**

**Find a mentor**

**Find a job**

**Practice soft skills**

**Discover how your degree can be used**

**Get or give advice**

**An avenue for volunteer opportunities**

**Available leadership positions**



# WHAT ARE THE BENEFITS?

- ✓ Certified online webinars and training courses
- ✓ Annual meetings with high profile professionals
- ✓ Financial funding for student research and design projects
- ✓ Discounts from certain shops and service providers
- ✓ Discounts on eBooks, journals, conferences, proceedings, standards, ...
- ✓ Health insurance





# HOW TO BECOME A MEMBER?

**SPE**



Society of Petroleum Engineers

Go to

<https://www.spe.org>

Chose **Join SPE** the chose **Student** membership then complete the required information.

**AIChE**



Go to

<http://www.aiche.org>

Click **Join AIChE** then chose **Join as Student** then complete the required information.



# HOW TO BECOME A MEMBER?



Go to

<https://www.asce.org>

Click **Membership and communities** then click **Student Join for Free** then complete the required information.



Go to

<https://www.ieee.org>

Click **Membership** then chose **Join now** then complete the required information.



# HOW TO BECOME A MEMBER?

**ASME**



Contact the chapter's advisor

**AREMA**



Contact the chapter's advisor

**SAE**



Contact the chapter's advisor



**Some student chapters requires  
registration fees, The registration fees  
will reimbursed by the college**



# WHAT ELSE?

**Student chapters offer various student competitions locally and internationally**

**Being a member in those student chapters allows you to participate in these competitions**







**Society of Petroleum Engineers**

## **PetroBowl**



*The PetroBowl contest is SPE's largest student competition. SPE Chapters from around the world participate in this quick-fire quiz. Teams participate in Regional Qualifiers for a chance to attend the international championship games at SPE's Annual Technical Conference and Exhibition*

## **Student Paper Contest**



*Student members are invited to show their technical expertise by presenting original work to a panel of judges. The top students from each degree level and region are invited to present at an international stage and be published in OnePetro®*





## **AIChE Chemical Engineering for Good (ACE4G)**

*A competition to encourage chemical engineering students and their partners to consider how chemical engineering know-how can be applied in an appropriate way on a small scale to improve the quality of life of communities in the developing world*



## **Chem-E-Car Competition®**

*Team members design and construct a chemically powered vehicle within certain size constraints. This vehicle must be designed to also carry a specified cargo*





## Human Powered Vehicle Challenge

*In HPVC students work in teams to design and build efficient, highly engineered vehicles for everyday use—from commuting to work, to carrying goods to market*



## IAM3D Challenge

*Students competing in ASME IAM3D will showcase their creativity by demonstrating the value added through their ingenuity, application of sound engineering design principles, and leveraging Additive Manufacturing technology to address a broad spectrum of industrial, manufacturing, and humanitarian challenges.*







INTERNATIONAL™

SAE AERO  
DESIGN®

FORMULA  
SAE®

BAJA  
SAE®

 FORMULA  
HYBRID

## International's Collegiate Design Series (CDS)

*enabling them to design, build, and test the performance of a real vehicle and then compete with other students from around the globe in exciting and intense competitions*

