

Chemical Engineering UG Handbook

College of Engineering, King Khalid University



Dr. Khaled Alsaikhan (Chairman)
Department of Chemical Engineering,
College of Engineering, King Khalid
University, AlQura'a, Abha, Saudi Arabia,
Email: kalsaihan@kku.edu.sa

Department of Chemical Engineering ranked between 151-200 in QS world university ranking



Bachelor in Chemical Engineering Degree Program is Accredited by the Engineering Technology Accreditation Commission of ABET twice consecutively, and Accredited by National Center for Academic Accreditation and Evaluation (NCAAA) in the year 2025



المركز الوطني للتقويم والاعتماد الأكاديمي
National Center for Academic Accreditation and Evaluation



Table of Contents

- **Introduction**
- **Chemical Engineering Department Vision**
- **Chemical Engineering Department Mission**
- **Programs**
- **Undergraduate Program Mission Statement**
- **Program Educational Objectives (PEOs)**
- **Program Learning Outcomes**
- **Program Delivery Mode**
- **Program Location**
- **Program Curriculum Structure**
- **Student Admissions**
- **Registration in semester**
- **Examination and grading system**
- **Attendance**
- **Academic Misconduct**
- **Rights and Responsibilities**
- **Student Advising and Guidance**
- **Chemical Engineering Laboratories**
- **Faculty and Staff**
- **Career Opportunity**
- **Alumni**

Chemical Engineering Program Introduction

The Kingdom of Saudi Arabia has been blessed by vast natural resources that have been utilized for the development of the Country and its people. Due to this enormous expansion of development and engineering projects, emerged the need for the existence of the Chemical Engineering Department at King Khalid University. The Chemical Engineering Department is committed to providing highly qualified chemical engineers, who could conduct innovative research and provide services to the profession and society through technical knowledge. The Department was established in 2007 with the mission of graduating national expertise. The Chemical Engineering Department at King Khalid University consists of twenty-one academic staff and around 350 undergraduate students among its five years program.

Chemical Engineering Department Vision

To achieve excellence, recognition and leadership in education, research, training, and consultancy in Chemical Engineering for fostering the development of society.

Chemical Engineering Department Mission

To bring out highly qualified, innovative, research capable and health, safety, and environment conscious chemical engineers as well as to furnish an excellent academic and research environment for its staff to engage in research, innovations, consulting, and community services.

Programs

- **Undergraduate Program**
- **Postgraduate Program**

Undergraduate Program: Mission Statement

Preparing graduates with excellent chemical engineering knowledge for empowering critical thinking, innovation, research, safety, and ethical values to serve industry and community.

Program Goals (PGs)

The PGs of the Chemical Engineering Undergraduate Program are mentioned as:

Domains	Program Goals (PGs)
Engineering Knowledge:	1. Utilize knowledge of Chemical Engineering to successfully work in the diversified sector of Chemical Engineering.
Innovations and Creativity:	2. Make use of technical expertise, design, and innovative skills to accomplish advanced studies and follow research work proficiently.
Attributes:	3. Take advantage of various attributes achieved through the program to effectively work in the private, corporate or government sector or as an entrepreneur.
Values:	4. Associate with profession and society and work with safety, ethical and environmental responsibilities.

Program Learning Outcomes

Knowledge and understanding	
K1	Broad knowledge and understanding of the underlying theories, principles, and concepts in chemical engineering.
K2	In-depth and specialized knowledge of processes, techniques, practices, and recent developments in chemical engineering.
K3	Knowledge and understanding of research and inquiry methodologies, laboratory practices, and safety.
Skills	
	Cognitive skills
S1	Apply integrated theories, principles, and concepts of chemical engineering to identify and solve complex problems and develop critical thinking for creative solutions to current issues.
	Practical Skill
S2	Ability to adapt and identify appropriate methods, materials, and equipment to carry out complex practical tasks to obtain, analyze, and interpret data.
	Communication and ICT Skills
S3	Ability to effectively communicate and share complex ideas, current developments, and challenges in chemical engineering with a variety of audiences.
S4	Use various mathematical techniques, specialized digital technology, and ICT tools to effectively process and analyze data to support research or projects.
Values, Autonomy and Responsibility	
	Values and Ethics
V1	Demonstrate professional and academic ethics; participate in social issues as responsible citizens; and coexist with others.
	Autonomy and Responsibility
V2	Ability to plan, manage, and execute tasks and activities independently and in teams, and develop continued self-learning skills.

Program Delivery Mode

The Bachelor of Science in Chemical Engineering (B.Sc. CHE) is offered to the program students in conventional day classes from 8:00 AM to 8:00 PM and is delivered using a combination of traditional in-class lecture/laboratory and web-based. The Bachelor program can be completed by full-time students in four years by adopting 12-20 credits per semester. Most of the theory courses of Chemical Engineering program are coupled with laboratory/tutorial classes to prepare qualified engineers both scientific and professional. Blended program delivery mode is also used in certain courses and up-to 20% of the course content can be delivered by using the e-learning system if needed. In case of an inevitable situation to provide highest level of expertise in a particular course, department could invite experts to conduct virtual classes (web based).

Program Location

The Chemical Engineering Department offering Bachelor of Science in Chemical Engineering, an undergraduate degree program, is located at the main campus of King Khalid University (KKU) at Al Quara, Abha, Kingdom of Saudi Arabia. There are no other locations where classes are supported for the bachelor's degree program in Chemical Engineering at the King Khalid University.

Program Curriculum Structure

Program Structure	Credit Hours
Institution Requirements	20
College Requirements	46
Program Requirements	89
Total	155

General Free Courses (xxx)

List-1	Course Code	Course Title	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
General Electives	111-GE-3	Engineering Drawing	--	3	college
	211-GE-2	Learning Skills	--	2	University
	221-GE-2	Creative and Innovation	--	2	University
	411-GE-2	Professional Ethics and Practice	--	2	University
	511-GE-2	Entrepreneurship and Venture Engineering	--	2	University

Program Courses

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 1	011-ENG-6	Intensive English Program-1	Required	--	6	college
	107-CHEM-4	General Chemistry	Required	--	4	college
	119-MATH-3	Differentiation & Integration -1	Required	--	3	College
	111-ICI-2	The Entrance to Islamic Culture	Required		2	University
	201-ARAB-2	Language Skills	Required		2	University
Level 2	012-ENG-6	Intensive English Program-2	Required	011-ENG-6	6	College
	102-CS-3	Computer Science	Required	--	3	College
	219-MATH-3	Differentiation & Integration -2	Required	119-MATH-3	3	college
	129-PHYS-4	Physics-1	Required		4	college
	112-ICI-2	Islamic Culture-2	Required		2	University
Level 3	111-GE-3	Engineering Drawing	Required	--	3	college
	211-CHEM-3	Organic Chemistry	Required	107-CHEM-4	3	College
	211-GE-2	Learning Skills	Required		2	College
	202- ARAB-2	Arabic Writing	Required	--	2	University
	329-MATH-3	Linear Algebra	Required		3	college
	211-CHME-3	Chemical Engineering Principles-1	Required	107-CHEM-4	3	Program

Level	Course Code	Course Title	Required or Elective	Pre-Requisite	Credit Hours	Type of requirements
Level 4	221-CHME-3	Chemical Engineering Principles-2	Required	211-CHME-3	3	Program
	218-ME-3	Static and Dynamic	Required	329-MATH-3	3	Program
	113-ICI-2	Islamic Culture-3	Required		2	University
	221-GE-2	Creativity and Innovation	Required	-	2	university
	231-CHEM-3	Physical Chemistry	Required	107-CHEM-4	3	College
	XXX	Free Course	Required		3	program
Level 5	319-MATH-3	Differential Equations	Required	219-MATH-3	3	Program
	311-CHME-3	Chemical Engineering Thermodynamics-1	Required	231-CHEM-3, 211-CHME-3	3	Program
	312-CHME-3	Fluid Mechanics	Required	221-CHME-3	3	Program
	114-ICI-2	Islamic Culture-4	Required		2	University
	313-CHME-3	Mass Transfer-1	Required	221-CHME-3	3	Program
	314-CHME-2	Chemical Process Technology	Required		2	Program
Level 6	301- ENG -2	Technical Report Writing	Required	012-ENG-6	2	University
	321-CHME-3	Chemical Engineering Thermodynamics-2	Required	311-CHME-3	3	Program
	322-CHME-3	Mass Transfer-2	Required	313-CHME-3	3	Program
	323-CHME-3	Particle Technology	Required	312-CHME-3	3	Program
	324-CHME-3	Chemical Reactions Engineering-1	Required	311-CHME-3	3	Program
	325-CHME-3	Heat Transfer	Required	221-CHME-3	3	program

Level	Course Code	Course Title	Required or Elective	Pre-Requisite	Credit Hours	Type of requirements
Level 7	242-CHEM-3	Quantitative Analytical Chemistry	Required	-	3	College
	419-MATH-3	Numerical Analysis	Required	319-MATH-3	3	Program
	411-CHME-3	Materials Science and Engineering	Required	-	3	Program
	412-CHME-3	Separation Processes	Required	313-CHME-3	3	Program
	411-GE-2	Professional Ethics and Practice	Required		2	University
	329-STAT-2	Principles of Statistics and Probabilities	Required		2	Program
Level 8	421-CHME-3	Plant Design and Economics	Required	322-CHME-3, 325-CHME-3	3	Program
	422-CHME-2	Reactors Design	Required	311-CHME-3, 324-CHME-3	2	Program
	423-CHME-3	Modeling & Simulation	Required	419-MATH-3, 322-CHME-3, 325-CHME-3	3	Program
	424-CHME-3	Industrial Pollution Control	Required	-	3	Program
	425-CHME-3	Industrial Safety and Occupational Health	Required		3	Program

Level	Course Code	Course Title	Required or Elective	Pre-Requisite	Credit Hours	Type of requirements
Level 9	511-GE-2	Entrepreneurship and Venture Engineering	Required	-	2	university
	511-CHME-3	Chemical Process Control	Required	423-CHME-3	3	Program
	512-CHME-3	Computer Applications in Chemical Engineering	Required	423-CHME-3	3	Program
	513-CHME-2	Graduation Project -I	Required	Passing 119 Cr	2	Program
	514-CHME-3	Chemical Engineering Selective in Energy and Environment	Required		3	Program
Level 10	521-CHME-2	Graduation Project -2	Required	513-CHME-2	2	Program
	411-IE-2	Engineering Management	Required	-	2	Program
	522-CHME-3	Chemical Engineering Selective in Chemical and Petrochemical Industries	Required	-	3	Program
	523-CHME-3	Chemical Engineering Selective in Bioengineering	Required	-	3	Program
	XXX	Free Course	Required	-	2	Program
	400-CHME-0	Summer Training	Required	Completion of 95 Cr.	0	Program

CAPSTONE DESIGN PROJECT

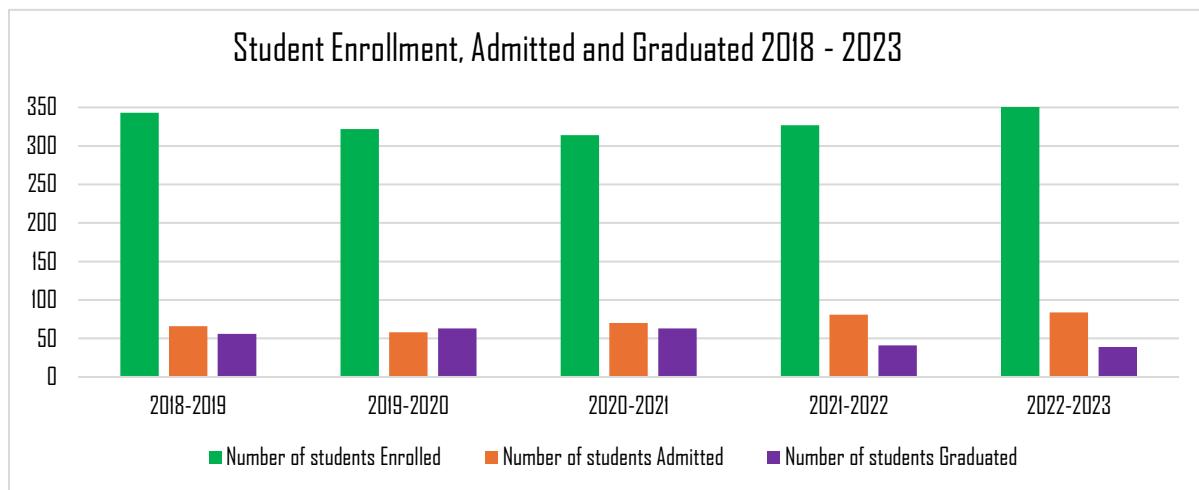
- A student can register for a graduation project only after completing 119 study hours*
- The student must continue working on the graduation project for two consecutive semesters.

GRADUATION REQUIREMENT:

- 155 credit hours in 5 academic years.
- Each year is with 2 semesters of 16 week of academics including of assessments.

Student Admissions

Students applying for admission to the College of Engineering are centrally admitted by the Deanship of Admission and Registration, King Khalid University. The new applicants are not accepted directly to the Bachelor of Science in Chemical Engineering program, but they must complete one year in the Preparatory Year Program (PYP) -1st Year. The University Council decides the number of students to be admitted for each academic year according to the recommendation of the college council. The deanship of admissions and registration implements all policies in liaison with the college of engineering. Admission takes place twice a year at the beginning of each semester. Figure 1.1 shows semester wise enrollments, new enrollments, and graduates.



Registration in Semester

Using the Chemical Engineering program course plan the student in choosing which courses to register for each semester. The assigned academic advisor also helps to select the course during semester registration. A student can register online using the course plan as a guide. The maximum credit hour load that can be registered in a semester is twenty, and they must register for a minimum of twelve credits. Based on Table 1-1 below, a student's cumulative grade point average (CGPA) determines how many credits

they have taken. Depending on the student's performance throughout the previous few semesters, the college's Coordinator of Students Registration may grant an exception.

Maximum Allowed Hours per Semester

S. No.	Cumulative Grade Point Average (CGPA)	Maximum Allowed Credit Hours per Semester
1	2	12
2	2.1 – 2.25	17
3	2.26 – 2.99	18
4	3.00 – 3.50	19
5	3.51 – 5	20

Examination and grading system

Students are evaluated at the end of every semester during the College of Engineering Grade Review process.

Success in a course is usually based on the combination of grades awarded for the course work and for the final examination.

- Each course will have a total of 100 points.
- The grade for the semester work is 60% of the total mark, and the remaining 40% for the grading for the final examination for the Undergraduate; semester work 70% mark and final exam 30% for graduate.
- The pass mark in each course is 60%.

The grading system at King Khalid University is shown in Table 1.1. A student's grade point average is determined by dividing the cumulative point value of all courses attempted by the number of units in the student's semester schedule. An example of hypothetical student's report having eight subjects in a particular semester is shown in Table 1.2.

Table 1.1: Grading System at KKU

Letter Grade	Grade Percent (%)	Grade Points per Credit Hour (on a scale of 5)	Grade Points per Credit Hour (on a scale of 4)	Description
A+	95-100	5.00	4.00	Excellent
A	90-94	4.75	3.75	
B+	85-89	4.50	3.50	Very Good
B	80-84	4.00	3.00	
C+	75-79	3.50	2.50	Good
C	70-74	3.00	2.00	
D+	65-69	2.50	1.50	Poor
D	60-64	2.00	1.00	
F	<60	1.00	0.00	Failure

Table 1.2: Grading Point Average (an example)

Subject	Credits-hours	Letter Grade	Point Average	Product
1	2	D+	2.5	5
2	3	D	2	6
3	3	C	3	9
4	4	D+	2.5	10
5	1	B	4	4
6	5	C	3	15
7	2	C+	3.5	7
8	2	B+	4.5	9
Total	22			65
GPA		65/22=2.95		

Grade Point Average (GPA) is $(65/22) = 2.9$

Similarly, for all the semesters taken together, the Cumulative Grade Point Average (CGPA) is calculated and the final CGPA is shown as in Table 1.3.

Table 1.3: CGPA Calculation (an example)

Course	Credit Hour (CH)	Marks (out of 100)	Letter Grade	Grade Point (GP) per Credit Hour	Total Grade Points (CH) X (GP)
CHE 1	3	92	A	4.75	14.25
CHE 2	2	97	A+	5.00	10.00
CHE 3	4	81	B	4.00	16.00
CHE 4	3	87	B+	4.50	13.50
CHE 5	2	72	C	3.00	6.00
CHE 6	4	87	B+	4.50	18.00
CHE 7	2	91	A	4.75	9.50
Total	20				87.25
Cumulative GPA = Total Grade Points / Total Credit Hour = 87.25 / 20 = 4.36					

CGPA Scale for various range of grades are given in Table 1.4.

Table 1.4: CGPA Scale

Range of CGPA	Description
> 4.50	Excellent
3.75 - 4.50	Very good
2.75 - 3.75	Good
2.00 - 2.75	Pass
< 2.00	Fail

Class Attendance

Believing that regular course attendance is necessary for academic success, King Khalid University requires that students should attend at least 75% of the lectures and practical lessons. Students failing to meet this requirement in any of the courses will be prohibited from appearing in the final examination of that course and will have F (Fail) grade in that course. Furthermore, the student who is absent from the final examination of a course(s) will not be given a substitute examination, except for a valid reason accepted by the College Council.

Academic Misconduct

Chemical Engineering department will not tolerate dishonest actions such as cheating and plagiarism, or disruptive behavior that violates its rules and conduct expectations. Offenders will be subject to punishment in accordance with student disciplinary regulations as issued by the University Council.

Rights and Responsibilities

The rights and responsibilities of students in the program are governed by the rules of King Khalid University. University has detailed rights and duties manual for the students available on website. A few of the rights and duties are mentioned below for detail student must go through the available manual of KKU.

Students' rights at KKU include:

- To have student handbook, containing information about the university, its regulations, and its facilities and to have an orientation program addressed to newcomers.
- To be treated fairly and with dignity regardless of age, color, creed, disability, marital status, national origin or ancestry, race, religion, or sex.
- To get the learning material and have access to any related knowledge in accordance with the university provisions and regulations that organize the academic work.

- To obtain study plans from the faculty or the department and the available academic programs, as well as to concede the schedule before commencing studies; to register for the courses offered to them by the registration system, and making sure that fair guidelines are followed during registration period; to take registration priorities into account when achieving the wishes of all students becomes impossible.
- To withdraw from or add any course, or to drop the entire semester, according to what the system of registration at the university permits during the period specified for that purpose.
- To prepare and conduct all scheduled exams in the syllabus. Students should be informed of the dismissal from the course before the final exam.
- To revise his/her answer sheet of examinations in accordance with the provisions and regulations issued by the university concerning these matters.
- To facilitate the students' access to their full rights decided by academic or administrative bodies based on the university provisions and regulations.
- To know the results obtained in all monthly, quarterly, and final exams performed after they have been corrected and approved.
- To enjoy subsidized care and social services provided by the university, and to participate in the activities undertaken in accordance with the university regulations and instructions concerning these matters.
- To use the services and facilities of the university (libraries, cafeteria, etc.) and in accordance with the rules and regulations in place at the university.
- The right to complaint or grievance of anything reflected upon him in his relationship with faculty, department or college or any unit of the university. The complaint or grievance process should be followed in accordance with the rules of the organization for the Protecting Students Rights Unit and enable the student to know the result of his/her complaints by the party responsible for them.
- The right of the students with special needs to receive an appropriate service, which meets his/her needs according to the regulations and rules considered.

Students' responsibilities at KKU

- Attending classes and doing the required tasks.
- Respecting faculty members, staff workers, and other people on campus.
- Respecting the rules and arrangements relating to the operation of the lectures.
- Preparation of research and other academic requirements in accordance with the scientific integrity and disciplinary action will be taken against students for cheating in any form.
- Obeying the rules and arrangements for the exams and the system.
- Obeying university systems, regulations, instructions, and decisions issued.
- Not to cause any damage to the facilities of the university.
- Obeying instructions of arranging, organizing, and using university facilities and equipment.
- Respecting the dress code and behavior suitable for undergraduate and Islamic norms.
- To maintain silence and behave with tranquility in the university premises and to refrain from smoking on campus.
- To not initiate and hold an event/activity outside campus by the name of the University without having written approval from the university.

Student Advising and Guidance

The College of Engineering has a mandatory advising system for the students. In the beginning of each semester the unit of advising system arranges meeting with new students to introduce them to college/departments knowledge study plan, and components of courses, and understand the regulations. Chemical Engineering students are divided into groups and assigned to individual Professors and Lecturers of the department. Students are advised by Chemical Engineering Department Staff members, called Academic Advisors. They advise their students every semester till the last semester of the program. The student academic advising unit has been constituted in the Chemical Engineering department for facilitating academic counselling and personal advice to guide the students on the right career path. The student counseling and personal meetings with the faculty members help to identify the student's difficulties in

academic activities and support to overcome the same. The Academic Advisor deals with the student's personal, family, psychological issues which are voluntarily presented to the academic advisor. Students are highly encouraged to improve the attending conferences, seminars, and workshops. Academic guidance, rules and regulations and forms are available for both students and faculty in the university website.

Chemical Engineering Laboratories

The department has a wide range of laboratories fully functioning for UG program. The laboratories are named below.

- 1. Separation Processes Laboratory**
- 2. Mass Transfer Operations Laboratory**
- 3. Chemical Reaction Engineering Laboratory**
- 4. Thermodynamics Laboratory**
- 5. Processes Control Laboratory**
- 6. Petroleum Laboratory**
- 7. Heat Transfer Laboratory**
- 8. Fluid Mechanics Laboratory**
- 9. Material Characterization Laboratory**
- 10. Water Treatment Laboratory**
- 11. Research Laboratory**

Faculty and Staffs

The faculty of the department Chemical Engineering (CHE) is well qualified and professionally committed to working for the department's vision and mission. The members of Faculty include doctorate and post-graduate degree holders, and a teaching assistant with bachelor's degree. The qualifications, specialization and experience of the faculty members include various fields of Chemical Engineering, Environmental Engineering, Polymer Engineering, Metallurgy and Process Control Engineering to cover all courses of the

curriculum. Their education and experience allow faculty to provide real time examples to the engineers. The faculty members have educations from prestigious Institutions from various nationalities other than the home country (KSA), including Pakistan, India, Sudan, Tunisia, and Egypt. Each Chemical Engineering faculty member is part of one or more groups according to their specialization. All theory lectures of the courses are taken by the doctorates according to their expertise and the laboratory courses are engaged by the master's degree holders. The faculty members are engaged in research and are in the process of research publications in high impact factor journals. Faculty members are also actively engaged in collaborative research with other universities, such as KAUST, with in Saudi Arabia.

Faculty Diversity and Strength

The Chemical Engineering department, currently, has 23 Faculties comprising of three Professors, four Associate Professor, thirteen Assistant Professors, three Lecturers to teach the Chemical Engineering Program and designations wise distribution of the faculty is as follows:

- **Professor** 3
- **Associate Professor** 4
- **Assistant Professor** 13
- **Lecturer** 3

In addition to the above faculty, the teaching assistants are also appointed and some of them are sent abroad for higher studies. The faculties of Chemical department hail from diverse background and nationalities i.e. Saudi Arabia, Egypt, Tunisia, Pakistan, UK, India and Sudan.

Faculty Details

Faculty Name	Designation	Academic Position	Email	Extn	Office number
Khaled Alsaikhan	Chairman	AST	kalsaihan@kku.edu.sa	3867	3-2-126
Mohamed K. Almesfer	Faculty Affairs CC	P	almesfer@kku.edu.sa	9499	3-2-113
Hamed Nasser Ben Harharah	PhD	P	hhharharah@kku.edu.sa	7059	3-2-115
Yasser Mohamed Fahmy	Graduate Studies and Scientific Research CC	P	yamahmoud@kku.edu.sa	8390	3-2-99
Basem Al Alwan	Research Review CC	ASC	beilwan@kku.edu.sa	9750	3-2-116
Varagunapandiyan Natarajan	Educational Services CC	ASC	vnatarajan@kku.edu.sa	3863	3-2-123
Mohamed Ilyas Khan	Alumni and Employment CC	ASC	mkaan@kku.edu.sa	9875	3-2-127
Arshad Khan	Graduation Project CC	ASC	moakhan@kku.edu.sa	7401	3-2-112
Hussain Yahya Sawwan	PhD	AST	aahasn1@kku.edu.sa	3865	3-2-125
Ahmed Abdulmataali	Plans and Curriculum CC	AST	aahasn1@kku.edu.sa	---	3-2-128
Ihab M. T. A. Shigidi	Test Preparation CC	AST	etaha@kku.edu.sa	9875	3-2-122
Atef El Jery	Academic Advising CC	AST	ajery@kku.edu.sa	7543	3-2-141
Abdelfattah Amari	PG Research Coordinator	AST	aamary@kku.edu.sa	7230	3-2-97
Moutaz M. Eldirderi	PhD	AST	maldrdery@kku.edu.sa	8390	3-2-139
Haithem M. Osman	PhD	AST	haman@kku.edu.sa	7400	3-2-124
Mohamed Ismail	PhD	AST	moadismail@kku.edu.sa	8851	3-2-102
Mudassir Hasan	Quality and Development CC	AST	m-hasan@kku.edu.sa	---	3-2-98
Khursheed A. B. Ansari	Marketing CC	AST	khansari@kku.edu.sa	3864	3-2-117
Mumtaj Shah	International Collaboration CC	AST	mushah@kku.edu.sa	---	3-2-110
Mohd Danish	PhD	AST	mdansh@kku.edu.sa	9156	3-2-118
Mohd Kafeel	M. Tech.	Lecturer	mokafeel@kku.edu.sa	9843	3-2-140
Mamoon Rashid	Schedules and Exams CC	Lecturer	mrashid@kku.edu.sa	9867	3-2-146
Abu Bakr Mustafa	M.Sc. Tech.	Lecturer	amelkhalee@kku.edu.sa	9874	3-2-145

*CC = Committee Coordinator

Faculty Contribution

Faculty staff contribute to the department in two ways such as academic and nonacademic. Course handling, Carrier Guidance, student development programs, Advising and Mentoring are important contributions to academic. Other than academics, faculty staff are involved in various committees to assist the departmental administrative task. Faculty staff are concerned to the upliftment of the society by providing community services from time to time. The faculty development program is carried out to develop skills and knowledge. Moreover, faculty are intensively involved in carrying out research and contribute to the department in terms of publications and patents.

Faculty Professional Development

Faculty members are committed and very active in all professional activities. Many faculty members are in the process of publishing research papers. During the university research day, the chemical engineering department contributed immensely in the various fields of faculty members' specialization. The University encourages staff to attend technically renowned conferences and publish research papers. The faculty research areas include core Chemical Engineering areas, Environmental Engineering, Polymer and Petroleum Engineering, Catalysis etc.

Departmental committees

There are various committees within the Chemical Engineering Department to carry out the smooth functioning of the academics. The committee's name is listed below.

- 1. Schedules and Exams Committee**
- 2. Academic Advising and Student Affairs Committee**
- 3. Plans and Curriculum Committee**
- 4. Graduate Studies and Scientific Research Committee**
- 5. Educational Services Committee**
- 6. Quality and Development Committee**
- 7. Test Preparation Committee**
- 8. Cooperative Research Training Committee**
- 9. Graduates and Employment Committee**
- 10. Alumni and Employers Committee**
- 11. Graduation Project Committee**
- 12. Marketing Committee**
- 13. International Collaboration Committee**

Career Opportunity

Chemical engineers play a crucial role in various industries, using their knowledge of chemistry, physics, mathematics, and engineering principles to design, develop, and optimize processes to produce chemicals, materials, energy, and more. The career paths for chemical engineers are diverse, and they can work in a wide range of industries. Here are some common career paths for chemical engineers:

- **Process Engineer**
- **Research and Development (R&D) Engineer**
- **Environmental Engineer**
- **Energy Engineer**
- **Biotechnology Engineer**
- **Materials Engineer**
- **Quality Control Engineer**
- **Food and Beverage Engineer**
- **Consultant**
- **Project Manager**

Alumni

Alumni form an integral part of any department's legacy, serving as the living embodiment of its mission and values. These individuals, having traversed the corridors of academia, emerge as ambassadors for their alma mater, leaving an indelible mark on society through their achievements and contributions. The alumni of the department of chemical engineering stand as a testament to the department's commitment to excellence, innovation, and societal progress. The alumni of the department of chemical engineering are a source of pride and inspiration. Their academic achievements, professional success, entrepreneurial endeavors, global impact, and commitment to giving back all contribute to the rich tapestry of the

university's legacy. Current students look to these accomplished individuals as role models, understanding that departmental experience is not just a period of study but a transformative journey that lays the foundation for a lifetime of meaningful contributions to society. The alumni of the chemical engineering department are working for various reputable companies, a few are listed below.

- **Abdullah Al-Qarni Foundation**
- **Abdullah Ibrahim Al Sayegh Company**
- **Al Jazeera Paints Company - Khamis Mushait**
- **Al-Farabi Petrochemical Company**
- **Al-Giha Holding Company**
- **Al-Rayez Sulphate**
- **Alshaya International Company**
- **Arabian plastic manufacturing company Ltd.**
- **Arabian Vermiculite Industries**
- **Energy Resources Development Company Limited**
- **International Sources Company for Environmental and Quality Systems**
- **King Abdulaziz City for Science and Technology (KACST)**
- **Military industries corporation**
- **Ministry of Defense**
- **Obeikan Digital Solution**
- **Petro Rabigh**
- **Saline Water Conversion Corporation (SWCC)**
- **Saudi Aramco**
- **Saudi electricity company**
- **Shoqaiq Steam Power Plants**
- **SIPCHEM Chemicals company**
- **Southern Provence cement company**
- **Tanmiah Food Company**

Contact Information

Dr. Khaled Alsaikhan

**Chairman, Department of Chemical
Engineering,**

College of Engineering Building B15

Email: kalsaihan@kku.edu.sa

Dr Atif El Jery

**Committee of Academic Advising and
Student Affairs**

Email: ajery@kku.edu.sa