

## Overview

The MSc in Chemical Engineering is an exciting research-led program, with a wide range of courses and a significant research component that provides an in-depth grounding in the various aspects of the broad field of chemical engineering. The program is delivered by experienced international faculty who are actively engaged in cutting-edge research. The Chemical Engineering program provides excellent training for those aiming to pursue a career in industry and academia as well as research and development.



## Content

You will study a set of core courses, as well as elective courses that enable you to deepen your knowledge in specialized areas within the broad field of Chemical Engineering. You will also have the opportunity to contribute to the process of discovery and knowledge creation through the conduct of original research in state-of-the-art facilities.

## Structure & Duration

The MSc in Chemical Engineering consists of 36 credit hours that include 12 credits of core courses, 12 credits of elective courses and 12 credits of Master's Thesis. Teaching is delivered through a combination of lectures and projects. The courses provide a comprehensive overview of the latest advances in chemical engineering.

The M.Sc. in Chemical Engineering program enables graduates to:

- 1) Advance professionally and be recognized as leaders in their chosen fields.
- 2) Apply their technical expertise to address the needs of society in critical, creative, ethical, and innovative manner.
- 3) Further develop their knowledge and skills through graduate education and professional schools.

During the research component of the program, you will have the opportunity to work with experts in the field using state-of-the-art facilities and techniques. The MSc program is typically completed within 2 years for full-time students.

## Courses

Typical courses include:

- Advanced Chemical Reaction Engineering
- Mathematical Methods in Chemical Engineering
- Advanced Chemical Engineering Thermodynamics
- Transport Phenomena
- Polymer Reaction Engineering
- Numerical Methods in Chemical Engineering
- Process Simulation and Optimization
- Chemical Systems Engineering
- Statistical Thermodynamics
- Multiphase Flow
- Separation Processes
- Interfacial Science
- Combustion and Air Pollution Control
- Advanced Process Control
- Sustainable Energy
- Chemical Process Safety
- Measurement and Instrumentation
- Experimental Design
- Materials Engineering and Corrosion
- Polymer Properties and Processing
- Biochemistry for Engineers

## Admission Requirements

Applicants must meet the following minimum criteria:

- Completion of a Bachelor's degree in a relevant discipline with a minimum CGPA of 3.0 out of 4.0, or equivalent from a reputable accredited institution.
- A minimum level of English proficiency in the form of either: iBT TOEFL score of 91 or overall academic IELTS score of 6.5.
- A minimum quantitative score of 155 in the general Graduate Record Examination (GRE) i
- A minimum of two referee recommendations (provided via online form).
- Statement of purpose (500-1,000 words).
- Admission interview.

## Scholarships

Khalifa University offers Graduate Research / Teaching Assistant (GRTA) scholarships to support qualified international students enrolled in graduate programs. The scholarship provides generous remuneration and benefits that include:

- Full coverage of tuition fees.
- Monthly stipend of AED 8,000 (equivalent to USD \$2,200)
- Free textbooks
- Visa processing costs
- Medical insurance coverage for students under the Khalifa University visa.
- Support to attend international research conferences.

## Application & Further Information



### ONLINE APPLICATION

<http://www.ku.ac.ae/pages/graduate-admissions>



### FURTHER INFORMATION

<http://www.ku.ac.ae/pages/graduate-programs->



### ENQUIRIES

[pgadmission@ku.ac.ae](mailto:pgadmission@ku.ac.ae)