

CHEMICAL ENGINEERING PROGRAM

Chemical engineering is a broad field of engineering and thus requires diverse preparation in science and engineering. Distinguishing chemical engineering from other engineering disciplines is its use of chemical and biochemical reactions to produce products and materials for society. Traditionally, chemical engineers have provided leadership in the petrochemical, refining, chemical, polymer and food processing industries. Because of strengths in the foundation sciences of mathematics, chemistry, physics and biology, as well as in engineering, this leadership role has now extended to the biochemical, biomedical, high-tech materials, semiconductor and microelectronics, nanotechnology, and environmental quality and safety industries, and a host of other areas. Chemical engineers have consistently commanded starting salaries among the highest of all college graduates because of the combined breadth and depth of their education.

Program Mission

The Chemical Engineering Program (CHEN) at Texas A&M at Qatar will:

- Provide the best environment possible for students, staff and faculty to aspire to excellence and to develop to the maximum of their potential.
- Ensure graduates have the competencies to become leaders in the process industries, business, government and education.
- Use state-of-the-art facilities, equipment and tools in our teaching and research.
- Work as part of the international community to help develop creative solutions to problems of national and international importance.

Program Educational Objectives

The objectives of the Chemical Engineering Program at Texas A&M at Qatar are:

1. Graduates will apply the foundation, depth and breadth of knowledge for successful chemical engineering careers in industry, government and academia.
2. Graduates will apply effective communication, leadership and teaming skills.
3. Graduates will have a sense of responsibility, be ethical in the conduct of their profession, and have an appreciation for the impact of their profession on society.

The chemical engineering curriculum provides a balanced education in virtually all aspects of chemical engineering principles and practice, and includes education in economics, humanities and communication. Chemical engineering courses emphasize fundamentals and methods that are applicable to the analysis, development, design and operation of a wide variety of chemical engineering systems and processes, thereby providing the necessary background for entry into the wide array of activities described above. At the same time, specific example applications provide the student with insight into the ability of chemical engineers to work in such a variety of areas. The sequence of courses converges in the senior year into a comprehensive capstone design course that includes elements of economics, safety and environmental issues. The course provides an experience much like that of an industry design project. It is this philosophy of fundamentals, applications and design that has enabled the chemical engineering graduates to adapt

readily to a dynamic and rapidly changing world and to solve problems they have not previously experienced.

To supplement coursework, well-equipped laboratories provide students with experiences in operating and analyzing a variety of unit operations and process control equipment and in using modern computational tools and software used in chemical engineering.

The CHEN electives are to be taken from a prescribed list. Other courses may also be acceptable, with special approval.

Before commencing coursework in the major, students must be admitted to the major or have the approval of the department.

The undergraduate program in Chemical Engineering at Texas A&M University at Qatar is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Faculty

Abdalla, Ahmed A, Professor
Chemical Engineering-Qatar
PHD, North Carolina State University, 2001

Abdel-Wahab, Ahmed I, Professor
Chemical Engineering-Qatar
PHD, Texas A&M University, 2003

Al-Mohannadi, Dhabia, Engineering Assistant Professor
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PHD, Texas A&M University, 2019

Al-Rawashdeh, Ma'moun, Engineering Assistant Professor
Chemical Engineering-Qatar
PHD, Technical University of Eindhoven, Netherlands, 2013

Al-Sowidi, Khalifa, Professor of the Practice
Chemical Engineering-Qatar
BEN, Arizona State University, 1984

Economou, Ioannis, Professor
Chemical Engineering-Qatar
PHD, Johns Hopkins University, 1993

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Chemical Engineering-Qatar
PHD, Auburn University, 2004

Kakosimos, Konstantinos E, Associate Professor
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PHD, Aristotle University, 2009

Linke, Patrick, Professor
Chemical Engineering-Qatar
PHD, University of Manchester Institute of Science and Technology, 2001

Malave, Ceasar, Professor
Chemical Engineering-Qatar
PHD, University of South Florida, 1987

Nounou, Mohamed N, Professor
Chemical Engineering-Qatar
PHD, Ohio State University, 2000

Salama, Ghada H, Instructional Professor
Chemical Engineering-Qatar

PHD, Cairo University, 2001

Vechot, Luc N, Associate Professor
Chemical Engineering-Qatar

PHD, Ecole Nationale Supérieure des Mines de Saint Etienne, France, 2007

Majors

- Bachelor of Science in Chemical Engineering (<http://catalog.tamu.edu/undergraduate/qatar/chemical-engineering-program/chemical-engineering-bs/>)

Minors

- Chemical Engineering Minor (<http://catalog.tamu.edu/undergraduate/engineering/chemical/minor/>)