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:

- Graduates will apply the foundation, depth and breadth of knowledge for successful chemical engineering careers in industry, government and academia.
- Graduates will apply effective communication, leadership and teaming skills.
- 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 Campus PHD, North Carolina State University, 2001

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

Akbulut, Mustafa, Associate Professor Chemical Engineering PHD, University of California at Santa Barbara, 2007

Al-Hashimi, Mohammed, Research Professor Chemical Engineering-Qatar Campus PHD, Queen Mary Westfield College, University of London, 2007

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

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

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

Alam, Mohammad, Lecturer Chemical Engineering PHD, University of Hong Kong, 1999

Aydogmus, Turkan, Associate Professor Of The Practice Chemical Engineering PHD, Texas A&M University, 2004

Balbuena, Perla B, Professor Chemical Engineering PHD, The University of Texas at Austin, 1996

Barteau, Mark A, Professor Chemical Engineering PHD, Stanford University, 1981 Blizzard, Gary Edward, Senior Lecturer Chemical Engineering MBA, The University of Texas at Austin, 2000

Djire, Abdoulaye, Assistant Professor Chemical Engineering PHD, University of Michigan, 2016

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

El-Halwagi, Mahmoud M, Professor Chemical Engineering PHD, University of California at Los Angeles, 1990

Elabd, Yossef A, Professor Chemical Engineering PHD, Johns Hopkins University, 2001

Elbashir, Nimir O, Professor Chemical Engineering-Qatar Campus PHD, Auburn University, 2004

Gagnon, Zachary, Associate Professor Chemical Engineering PHD, University of Notre Dame, 2009

Green, Micah, Professor Chemical Engineering PHD, Massachusetts Institute of Technology, 2007

Hasan, M M Faruque, Associate Professor Chemical Engineering PHD, National University of Singapore, 2010

Hilaly, Ahmad K, Professor of the Practice Chemical Engineering PHD, Colorado State University, 1992

Holtzapple, Mark T, Professor Chemical Engineering PHD, University of Pennsylvania, 1981

Hu, Chelsea, Assistant Professor Chemical Engineering PHD, Cornell University, 2018

Jayaraman, Arul, Professor Chemical Engineering PHD, University of California at Irvine, 1998

Jeong, Hae-Kwon, Professor Chemical Engineering PHD, University of Minnesota, 2004

Kakosimos, Konstantinos E, Engineering Professor Chemical Engineering-Qatar Campus PHD, Aristotle University, 2009

Khan, Faisal, Professor Chemical Engineering PHD, Pondicherry University, 1998 Kravaris, Costas, Professor Chemical Engineering PHD, California Institute of Technology, 1984

Kwon, Joseph, Associate Professor Chemical Engineering PHD, University of California at Los Angeles, 2015

Lele, Pushkar P, Associate Professor Chemical Engineering PHD, University of Delaware, Newark, 2010

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

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

Lutkenhaus, Jodie L, Professor Chemical Engineering PHD, Massachusetts Institute of Technology, 2007

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

Mashuga, Chad V, Associate Professor of Practice Chemical Engineering PHD, Michigan Technological University, 1999

Mittal, Jeetain, Professor Chemical Engineering PHD, The University of Texas at Austin, 2007 PHD, University of Texas at Austin, 2007

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

Pehlivan, Hatice, Senior Lecturer Chemical Engineering MS, Izmir Institute of Technology, 2013

Pistikopoulos, Efstratios, Professor Chemical Engineering PHD, Carnegie Mellon University, 1988

Rahmani, Nazmul, Professor Of The Practice Chemical Engineering PHD, University of Alberta, 2004

Reeves, Gregory, Associate Professor Chemical Engineering PHD, Princeton University, 2008

Rodden, John, Professor of the Practice Chemical Engineering PHD, Texas A&M University, 1988

Salama, Ghada H, Instructional Professor Chemical Engineering-Qatar Campus PHD, Cairo University, 2001 Seminario, Jorge M, Professor Chemical Engineering PHD, Southern Illinois University Carbondale, 1987

Sentmanat, Martin, Professor of the Practice Chemical Engineering PHD, McGill University, 1995

Shetty, Manish, Assistant Professor Chemical Engineering PHD, Massachusetts Institute of Technology, 2017

Sun, Qing, Assistant Professor Chemical Engineering PHD, University of Delaware, 2010

Tamamis, Phanourios, Associate Professor Chemical Engineering PHD, University of Cyprus, 2010

Tseregounis, Spyros, Professor of the Practice Chemical Engineering PHD, University of California at Los Angeles, 1984

Ugaz, Victor, Professor Chemical Engineering PHD, Northwestern University, 1999

Vaddiraju, Sreeram, Associate Professor Chemical Engineering PHD, University of Louisville, 2006

Vechot, Luc N, Associate Professor Chemical Engineering-Qatar Campus PHD, Ecole Natinale Superieure des Mines de Saint Etienne, France, 2007

Wang, Qingsheng, Associate Professor Chemical Engineering PHD, Texas A&M University, 2010

Wilhite, Benjamin A, Associate Professor Chemical Engineering PHD, University of Notre Dame, 2003

Woodard, Susan, Senior Lecturer Chemical Engineering PHD, Colorado State University, 1992

Wu, Hung-Jen, Associate Professor Chemical Engineering PHD, Texas A&M University, 2006

Wygle, Robert, Senior Lecturer Chemical Engineering BS, University of Notre Dame, 1980

Xie, Shuyi, Assistant Professor Chemical Engineering PHD, University Of Minnesota-Twin Cities, 2020

Zhu, Xuejun, Assistant Professor Chemical Engineering PHD, University of California, Berkeley, 2017

Majors

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

Minors

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