



كلية الهندسة
College of Engineering
QATAR UNIVERSITY جامعة قطر

Master of Science in Gas and Process Engineering



About the Program

The Master of Gas and Process Engineering was established by the Chemical Engineering Department in Qatar University to prepare highly qualified graduates ready to contribute to the gas industry in Qatar. In addition, the graduates of this program will also be capable to continue for PhD studies and join research or academic institutions. The program equips the graduates with advanced knowledge in chemical engineering, gas production, gas processing, and environment related topics. Graduates will apply their knowledge and research expertise in gas industry. Graduates could take leading role in the design and operation of different gas processes in Qatar and worldwide. The program emphasizes research projects and thesis in areas marked as national needs such as gas processing systems engineering, catalysis, LNG, GTL and process simulation and optimization, corrosion and flow assurance.

About the Curriculum and Coursework:

Students enrolled in the program are required to complete a minimum of 30 credit hours of coursework and 6 credit hours of thesis. A typical duration of the program is four semesters (two years) and the maximum duration is eight semesters (four years). The Program is offered for both part- and full-time students.

Degree Requirements:

A minimum of 30 credit hours is required to complete Master of Science in Gas and Process Engineering including:

- Two courses of Required College Core Courses: Research Methodology (3CH) and Graduate Seminar (0 CH)
- Four courses of Required Major Core Courses (12 CH)
- Three courses from the basket of technical electives (9 CH for thesis option and four courses for project option (12 CH))
- A minimum of 6 credit hours for Thesis option or 3 credit hours as project option



Research Interests/Emphasis:

Focus areas in Gas and Process Engineering include upstream oil and gas processing (e.g. Oil/Gas separation, flaring reduction/elimination, Hydrate prediction and prevention, MEG/Corrosion Inhibitor Injection Glycol dehydration, gas processing (e.g. Slugcatcher specification, Hydrate prediction and prevention, Dehydration: MEG injection, silica gel, zeolite adsorption, Amine absorption, Dew point control unit, Mercury removal unit, Flow metering and Condensate stabilization) as well as NG processing and LNG application.

Facilities:

The program mainly uses the facilities in the department of chemical engineering and at the Gas Processing Center.

Potential Careers:

Masters in Gas and Process Engineering can do research, technological, expert, advisory, and managerial work in gas technologies, oil refineries, oil fields, gas processing, petroleum and petroleum product terminals, scientific institutions, chemical processes, chemical laboratories, or continue in doctoral studies. On acquiring managerial and practical experience, they can work as executives in the petroleum business. The degree will enhance prospects for potential employment in Governmental bodies, national and international industries located in and outside Qatar as well as with service and utility providers among others. Also, potential employment opportunities exist with consulting companies and research institutions.

Financial Support:

A number of funding opportunities are available for graduate students through external and internal sources such as the National Priority Research Program (NPRP) of Qatar Foundation and Qatar University internal grants. Qualified graduates can also apply for graduate assistantships that are provided by Qatar University.

