A process engineer develops and optimises industrial processes to make the huge range of products on which modern society depends. This includes oil and gas, water, pharmaceuticals, food and beverages, paper and sugar. Chemical process engineers have an understanding of the chemistry and physics required for these processes, the related equipment and how to integrate many individual operations into an integrated factory.

Chemical process engineers typically work in either large consulting firms in head offices where the design occurs, or onsite in factories. In Australia, process engineering is the destination career for chemical engineering graduates.

Sample companies include:
- Energy, oil and gas production (Shell, Caltex, BP, Origin Energy, Santos)
- Liquefied natural gas (Woodside, Santos, Shell)
- Food and beverage (Parmalat, Arnotts, Coca Cola, large wineries, Carlton and United Breweries, Bundaberg Distillery, Schweppes, XXXX, Mars, Nestle, Cadbury)
- Meat processing (Teyes Australia, JBS Australia, John Dee)
- Sugar production (Wilmar, Maryborough Sugar Limited, Mackay Sugar)
- Minerals processing (BHP, Rio Tinto)
- Pharmaceuticals (Bayer)
- Industrial chemicals (Orica, BASF)
- Water treatment (SA Water, Urban Utilities, United Water)
- Biofuels (Wilmar, Manildra)
- Paper industry (Amcor, Visy)
- Personal care products such as toilet paper, soap, shampoo, detergents, cleaning chemicals, nappies and feminine hygiene (Unilever, Kimberly Clark, Johnson & Johnson)
- Consulting firms (Hatch, Worley Parsons, Beca, GPA Engineering)

Sample jobs include:
- Process engineer
- Chemical engineer
- Consulting engineer
- Process technologist
- Industrial engineer
- Operations engineer
- Production manager

Imogen Kerr
Global learning and industry experience

‘QUT gave me the opportunity to learn from mega-projects in Germany and I applied this learning to my experience at an Australian oil and gas project. I know that process engineering can take me anywhere in the world.’
Bachelor of Engineering (Honours) (Chemical Process)

- Factory manager

Explore your options
Your engineering degree features common units in the first year that combine broad foundation principles with a wide range of major choices, giving you flexibility and options before you choose your career specialisation.

Why choose this course?
By studying chemical process engineering at QUT you’ll have a qualification that is highly recognised by industry, with more training around business skills to prepare you for the real world financial environment in which industry operates. Your learning of chemistry, maths and physics will be applied to the energy and materials sectors of the economy. You'll also develop project management and leadership skills to approach complex and multidisciplinary problems. You’ll have access to opportunities for site visits, work integrated learning and research projects.

As part of our commitment to diverse and real world learning, our mobility tours give you the opportunity to visit sites overseas. Visits have previously included Germany and Scandinavia.

Our engineering courses, whether a single or double degree, now include honours-level content integrated throughout the course. A bachelor honours degree is a higher-level qualification than a bachelor degree, and along with the advanced knowledge and skills, it will benefit you in your professional career or future research and study. The duration of the degree remains unchanged: a single engineering honours degree is a four-year program, and a double degree is five years.

Assumed knowledge
Before you start this course we assume you have sound knowledge in these areas

- English, or Literature, or English and Literature Extension, or English as an Additional Language (Units 3 & 4, C)
- Mathematical Methods (Units 3 & 4, C)

We assume that you have knowledge equivalent to four semesters at high school level (Years 11 and 12) with sound achievement (4, SA).

Course structure
To graduate with a Bachelor of Engineering (Honours), students are required to complete 384 credit points of course units, as outlined below:
- First year (96 credit points): four core units 48cp + one Maths option unit 12cp + foundation strand options 36cp (include two discipline foundation units 24cp + one option unit 12cp)
- Major: one (1) block of eight (8) major units 96cp plus eight (8) honours-level units 96cp (192 credit points)
- Complementary studies: one x second major or two x minor (96 credit points).

Honours units to consist of:
- Research methods 12cp
- Project 24cp
- 5 x advanced major units 60cp.

Professional recognition
All graduates are eligible for an Engineers Australia (EA) membership. EA is a signatory to the Washington Accord, which permits graduates to work in various countries across the world. This course is recognised internationally in the engineering profession, giving QUT graduates more career opportunities overseas.

Chemical Process Engineering is a relatively new degree and we are currently in the process of seeking accreditation by the Institution of Chemical Engineers to provide additional international recognition.

Fees
HECS-HELP
You may be eligible for HECS-HELP, a loan scheme to help you pay your course fees, if you are an Australian citizen or hold an Australian permanent humanitarian visa. For other conditions read the HECS-HELP information.

Student Services and Amenities Fee
You’ll need to pay the student services and amenities fee as part of your course costs. You may be eligible for SA-HELP, a loan scheme to help you pay your student services and amenities fee, if you are an Australian citizen or hold an Australian permanent humanitarian visa. For other conditions read the SA-HELP information.