



## WHAT IS CHEMICAL ENGINEERING?

Chemical engineering is mainly about converting raw materials into useful products such as petrol, diesel, plastics, fertiliser and other everyday goods.

Chemical engineering actively involves in designing and continuously improving industrial processes. In order to meet market demands, chemical engineering resolves industry-wide issues through resources availability assessment, cost analysis, and environmental sustainability. Therefore, an excellent chemical engineering programme equips future chemical engineers with the necessary knowledge and skills.

## WHAT DOES A CHEMICAL ENGINEER DO?

Chemical engineers use their sciences and engineering know-how to design and transform raw materials into high-quality demanded products.

They design chemical plant processes to improve the overall quality of the products in industrial settings. This is to ensure the process is economical, safe and sustainable.



A peek into a Chemical Engineer's day

## WHY CHEMICAL ENGINEERING AT UTP?

- 1 Comprehensively designed programme with strong inputs from industry experts
- 2 Students can choose specialisations that are in demand by the industry during their final year of study
- 3 World-class teaching and learning, research capabilities as well as state-of-the-art labs and facilities
- 4 Strong partnership with multinational oil and gas companies such as PETRONAS, Schlumberger, Baker Hughes, Shell and ExxonMobil
- 5 UTP graduates are highly sought after by oil and gas industry, with 90% being employed within 6 months after graduation
- 6 More than 70% of UTP alumni are currently working in oil and gas industry
- 7 The academic staff are highly qualified and experienced, and a high percentage of them are chartered and professional engineers. Thus, undergraduate students can benefit greatly from their knowledge and expertise
- 8 The programme is accredited by the Engineering Accreditation Council (EAC) which is recognised by all countries under the Washington Accord signatories
- 9 Top 200 QS World University Rankings by Subject in 2019



## WHAT AM I GOING TO LEARN?



### National / University

- Management, Social Sciences and Humanities
- Introduction to Oil and Gas
- Scientific Inquiry
- Co-Curriculum



### Common Engineering

- Engineering Mathematics
- Engineering Economics
- Health, Safety and Environment
- Data Analytics
- Engineers in Society



### Core Discipline by Programme

- Mass and Energy Transfer
- Thermodynamics
- Separation and Reaction Engineering
- Process Instrumentation and Control
- Process Plant Design and Economics



### Specialisation

- Environment and Sustainable Engineering
- Process Systems Engineering
- Processing Industry
- Process Plant Safety



### Project Based

- Engineering Team Project
- 7 months Structured Industrial Internship Programme
- Community Engagement Project
- Final Year Research Project
- Plant Design Project



### Minor (Optional)

- Entrepreneurship
- International Relations
- Project Management
- Big Data Analytics

### Contact

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