

# Master Chemical Engineering

## MSc Programme



People often take everyday products like foods, medicines and electronics for granted, being unaware of the fact that for those to exist, fundamental molecular knowledge and outstanding engineering skills are key.

Chemical Engineering is the key discipline in the development of chemical products and processes to fulfil society's current and future needs, and covers a wide range of subjects from the molecular level to large-scale chemical manufacturing processes.

Degree	Master of Science
Starts	September 2019
Type	full-time
Credits	120 ECTS, 24 months
Language	English
Application deadline	April 2019
Tuition fee	€18.750 (non EU) € 2.083 (EU)
Scholarships	<a href="https://www.scholarships.tudelft.nl">scholarships.tudelft.nl</a>

### Programme

The Master of Science programme in Chemical Engineering at Delft University of Technology (TU Delft) provides students with the knowledge, insights and skills they need to become independent and responsible researchers or engineers in this field. The programme operates hand in hand with the university's Chemical Engineering research groups and for decades has been delivering graduates who are in high demand by the chemical industry and academia. Chemical Engineering at Delft aims for the highest quality standards in teaching and

research and has a rich heritage spanning 125 years. The programme places a strong emphasis on innovative thinking and stresses multidisciplinary problem-solving using a systematic approach, incorporating considerations of sustainability, economics and social welfare into the analytical process.

### Tracks

The programme offers two tracks and a scientific and societal orientation for all Chemical Engineering students.

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FIRST YEAR				SECOND YEAR	
1ST SEMESTER		2ND SEMESTER		MASTER THESIS PROJECT INDUSTRIAL INTERNSHIP ELECTIVES	
1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER		
APPLIED NUMERICAL MATHEMATICS	TRACK-RELATED COURSES	PRODUCT & PROCESS DESIGN			
MOLECULAR TRANSPORT PHENOMENA		ETHICS & ENGINEERING	DESIGN PROJECT		
MOLECULAR THERMODYNAMICS		ELECTIVES			

Students choose one of the tracks:

- **Chemical Product Engineering:**  
Molecular engineers are involved in the design and synthesis of products ranging from pharmaceuticals to building materials.
- **Process Engineering:**  
Process Engineering involves the design and operation of manufacturing processes and is essential in our technology-dependent, industrialized society.

## Experiences

"I joined TU Delft's MSc programme in Chemical Engineering (Process Engineering track) after already having gathered a few years of work experience, as I wanted to expand my knowledge within the field. TU Delft offered me the opportunity to learn from – and interact with – experienced, knowledgeable and skilled professors, within a multicultural and multi-disciplinary environment. The curriculum offered is of a high standard, building on the various fields of chemical engineering opportunities from both a theoretical and applied perspective. The curriculum also offers plenty of scope to explore areas of personal interest. The university campus has a vibrant, international atmosphere, which encourages the exchange and nurturing of ideas. In addition to the academic staff, the support staff is also very helpful, making it easy to adjust to living and studying in the Netherlands. Overall, I feel that TU Delft and the MSc programme in Chemical Engineering have allowed me to grow both professionally and personally, laying a solid foundation for my future."

*Malcolm Meyer (South Africa)*

## Career prospects

The great majority of our graduates are employed shortly after graduating. Most of our graduates work in industry, in the Netherlands or elsewhere. Many have found employment with leading firms like Shell, AkzoNobel, DSM, Exxon Chemical, Heineken, ING, BASF, Philips, Procter & Gamble, ASML and Unilever. Others have joined consultancy firms, work in the public sector, are active in non-profit organisations or have started their own businesses

## Student profile

Graduates with a BSc in Chemical Engineering are eligible for direct admission. Graduates with a Dutch BSc in Chemistry, Life Science and Technology, Applied Earth Sciences, Applied Physics, Mechanical Engineering and Aerospace Engineering may be admitted, but are required to follow a bridging programme. For graduates from a Dutch University of Applied Sciences (HBO) to be eligible for admission to the Bridging Programme, they must hold (or expect soon to obtain) the Bachelor's degree Chemical Engineering (Chemische Technologie) or equivalent in addition to having a GPA of at least 75% and have spent no more than four years for the Bachelor.



**5<sup>th</sup>** in Europe  
QS World University Ranking for  
Chemical Engineering



**10<sup>th</sup>**  
Chemical Engineering Ranking  
Worldwide 2019



**50%**  
International students

## Career perspective



**90%**  
Find a job within 6 months



**8,1/10**  
As rated by Alumni