

## Master's programme

### 1<sup>st</sup> year – Regular programme (with Internship and electives)

	1 <sup>st</sup> period										2 <sup>nd</sup> period										3 <sup>rd</sup> period										4 <sup>th</sup> period										Summer																																																																					
Monday	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28																																																										
month	Sept			Oct				Nov			Dec			Jan			Feb			March			April				May			June				July			Aug																																																																									
week	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10																																																		
	CH3044A Process Dynamics & Control 4 EC										Advanced Chemical Engineering Courses 15 EC										Christmas Holidays										Spring Holidays										CH3804 Product & Process Design 3 EC										Free/resits										CH3804 Product & Process Design 3 EC										Free/resits										Summer Holidays																													
	CH3151 Molecular Transport Phenomena 4 EC																																								Chemical Engineering Electives 12 EC																				CH3843 Design Project 12 EC																																																	
	CH3133 Computational Practicum 3 EC																																																																																																													
	TPM330 Ethics & Risks 4 EC																																																																																																													

Legend: Electives Core Courses Design Module Chemical Engineering Electives

### 2<sup>nd</sup> year

	1 <sup>st</sup> period										2 <sup>nd</sup> period										3 <sup>rd</sup> period										4 <sup>th</sup> period										Summer																													
Monday	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28																		
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	Professional and Societal Orientation 30 EC										Christmas Holidays																														CH3930 / CH3942 Master Thesis 30 EC/42 EC																				Summer Holidays									

**Remark:** The second year is flexible. Electives can also be done in other periods. Internship in Industry can also be done after the Master Thesis Project.

## Organisation

### Director of Studies

**Jan van Esch**

The director of studies has final responsibility for the Chemical Engineering master of science programme.

Prof.dr. J.H. van Esch

Applied Sciences building (58), Van der Maasweg 9, room E2.040

T: +31 (0) 15 27 88826 ✉ [J.H.vanEsch@tudelft.nl](mailto:J.H.vanEsch@tudelft.nl)

### Programme coordinator

**Jolanda Quak**

The programme coordinator manages the daily matters of the programme and answers questions regarding organisational and course-related issues.

Jolanda Quak MSc

Applied Sciences building (58), van der Maasweg 9, room B0.120

Applied Physics building (22), Lorentzweg 1, room A206

T: +31 (0)15 27 83633 ✉ [J.Quak@tudelft.nl](mailto:J.Quak@tudelft.nl)

### Academic counsellor

**Carina Vonk**

The academic counsellor advises students on all kinds of study related matters, including personal problems; all private matters can be discussed confidentially. Students' questions are generally related to the programme, illness and personal problems and study problems (e.g. planning and time management).

Drs. Carina Vonk

Applied Science building (58), van der Maasweg 9

T: +31(0)15 27 85411 ✉ [C.C.Vonk@tudelft.nl](mailto:C.C.Vonk@tudelft.nl)

### Education & Student Affairs

Jaffalaan 9a (entrance Mekelweg) 2628 BX Delft

T: +31(0)15 27 88012 [www.tudelft.nl/studenten/administratie](http://www.tudelft.nl/studenten/administratie)

**Administration of results, account group Applied Sciences**

T: +31(0)15 27 89826 ✉ [spa-tnw@tudelft.nl](mailto:spa-tnw@tudelft.nl)

### Board of Examiners

The Board of Examiners decides on whether you deserve a master diploma for a set of successfully completed courses and projects. If you have followed the regular programme this decision is straightforward, but deviations are possible. To apply for acceptance of changes to the regular programme, a request should be submitted to the Board of Examiners. It is advised to consult the programme coordinator in advance. These requests should be sent to the secretary of the board:

✉ [BoardofExaminers-CE-AS@tudelft.nl](mailto:BoardofExaminers-CE-AS@tudelft.nl)

### Board of Studies

The Board of Studies is an advisory body, consisting of students and teachers, which meets at least every quarter. The Board of Studies has three main responsibilities:

- To advise on the Teaching and Examination Regulations and the Implementation Regulations
- To annually evaluate the programme
- To advise on all matters concerning education

If you have any comments concerning these points, please send an email to: ✉ [BoardofStudies-CE-AS@tudelft.nl](mailto:BoardofStudies-CE-AS@tudelft.nl)

## Useful web addresses

### Brightspace

[brightspace.tudelft.nl](http://brightspace.tudelft.nl)

Brightspace is TU Delft's digital learning environment. Students, instructors and staff use Brightspace for almost all communication for their courses. There is a Brightspace page for every course, but also for the master Chemical Engineering programme.

### Digital study guide

[www.studiegids.tudelft.nl](http://www.studiegids.tudelft.nl)

In the digital study guide you can find programme details, courses and course details related to your study programme.

### Timetables

[timetables.tudelft.nl](http://timetables.tudelft.nl)

Here you can find the timetables for courses and for the programme. For individual timetables see: [MyTimetable.tudelft.nl](http://MyTimetable.tudelft.nl)

### Register for exams

[examdesk.tudelft.nl](http://examdesk.tudelft.nl)

Written exams require registration! You have to register using Osiris which can be found via Brightspace. Students are required to register for written exams in the examination registration system no later than 14 days before the exam.

### Regulations

[tnw.tudelft.nl/regulations](http://tnw.tudelft.nl/regulations)

The regulations handle all possible issues concerning education and examinations. All rights and obligations of both students and teachers are explained in detail. The Teaching & Examination Regulations and the Implementation Regulations are established by the Board of Studies. The Board of Examiners establishes the Rules and Guidelines regarding examinations. See the web page for an overview and archive of all regulations. In the Rules and Guidelines you will find the pass/fail regulations, the meaning of the marks, and the conditions for the predicate 'with distinction'.

### Faculty student portal

[tudelft.nl/en/student/faculties/as-student-portal/](http://tudelft.nl/en/student/faculties/as-student-portal/)

Within the student portal of the Faculty of Applied Sciences you can find lots of relevant information relating to student matters at TU Delft, such as timetables, internship, master thesis project, contact information and study facilities.

On this webpage you also find links to the general TU Delft student information.

### E-service

[e-service.tudelft.nl](http://e-service.tudelft.nl)

Allows you to forward TU Delft e-mail to your personal e-mail address, and change your password.

### Student association

[tg.tudelft.nl](http://tg.tudelft.nl)

"Technologisch Gezelschap" is the study association for Chemical Engineering.

### TU Delft Library

[library.tudelft.nl](http://library.tudelft.nl)

TU Delft has an extended library where you can borrow books. The website gives access to many search portals, electronic journals etc.

## Study programme

The MSc programme takes two years (120 EC).

There is a choice of Scientific Orientations which are advisable for a specific field

you want to work in: Energy, Health, Circularity or Nuclear.

The core programme comprises 60 EC:

### Obligatory Core Modules (all tracks, period 1, 14 EC)

Course Code	Course Title	Instructor	EC
CH3133	Computational Practicum (CP)	Schweidtmann, Bera	3
CH3044A	Process, Dynamics & Control (PDC)	B. Bera	4
CH3153	Molecular Transport Phenomena (MTP)	Garbin, Boukany	4

\* Please note that TPM330A is also part of Q1

### Advanced Chemical Engineering courses (12 EC, students choose 3 courses from 6)

Course Code	Course Title	Instructor	EC
CH3133	Computational Practicum (CP)	Schweidtmann, Bera	3
CH3051	Applied Transport Phenomena (ATP)	Burdyny, Rwei	4
CH3682A	Reactors and Kinetics (R&K)	Van Ommen, Urakawa	4
CH3143	Advanced Thermodynamics (ATD)	Smith, Van der Veen	4
CH3013	Interfaces & Particles (I&P)	Rossi, Garbin	4
CH3175	Solid State Materials (SSM)	Siebbeles, Houtepen	4
CH3373	Soft Materials Engineering (SME)	Mendes, Boukany, Picken	4

### Obligatory Design Modules (period 1, 3&4, 20 EC)

Course Code	Course Title	Instructor	EC
CH3803	Product & Process Design (PPD)	de Haan, Meesters	6
CH3843	Design Project	de Haan, Meesters	12
TPM330A	Ethics and Risks	Santoni de Sio, Reiniers	4

### Thesis Project (CH3930, 30 EC or CH3942, 42 EC)

Combining the core programme with the Master Thesis project and a Professional and Social Orientation (PSO) completes the Master's programme.

The thesis project is always done within one of the research sections of the university (Chemical Engineering department, radiation science or technology department also refer to the programme specifics for which departments are eligible).

For the Professional and Social Orientation (PSO), students may opt for:

• Research and Development (R&D) – an 18 EC Industrial Internship (with a 42 EC MEP) or (with 30 EC MEP and 12 EC Electives), or an 24EC Industrial Internship and 6 EC electives (with a 30 EC MEP).

### Programme additions

Contact the programme coordinator:

• Honours programme: this is an individual programme of at least 20 EC on top of the full Chemical Engineering programme, which contains a specially developed 5 EC course for all TU Delft honours track students. The full programme including the additional honours track should be completed within 2 years. Prior approval is required.

• Science and Engineering (S&E) – an external research project (15EC), with 3-15EC electives and a 30EC or 42EC MEP.

• Education (Ed1/Ed2) – get a Dutch secondary school qualification.

• Management of Technology (MoT) – consists of (either the first or) the second semester of the MSc MoT programme.

• Study Abroad (SA) – one semester, project and/or courses, at a foreign university.

• Double degree programmes, such as Chemical Engineering-Management of Technology, require a minimum of 180 EC and should be completed within 3 years. Formal permission to start a double degree programme is ALWAYS required in advance!

## Approved Chemical Engineering Electives

Course Code	Course Module	EC	Period
CH3061	Multiphase Reactor Engineering	4	3
CH3073	Separation Processes, Design and Operation	3	3
CH3082	Chemical Technology	3	3
CH3101	Heterogeneous Catalysis for chemical engineers	3	3
CH3222	Energy Storage in Batteries	4	3
CH3382	Molecular engineering of soft materials in health care	4	3
CH3412	Biological Transport Phenomena	4	3
CH3421	Computational Transport Phenomena	6	3
CH3513	Electrochemistry for Renewable Energy	4	3
CH3531	Functional Ceramics	3	3
CH3542	Inorganic Materials	3	3
CH3564	Particle Technology for Health and Energy	3	3
CH3622	Process Intensification	3	3
CH3632	Chemistry and Physics of Solar Cells	6	3
CH3672	Computational Materials Science	3	3
CH3763	Nuclear Medicine	3	3
CH3765	Advanced Materials Analysis by Radiation Instrumentation	3	3
CH3771	Nuclear Chemistry	6	3
CH3783	Materials Chemistry for the Nuclear Fuel Cycle	3	3
CH3921	Sustainable Polymer Materials	3	3
CH3982	Literature Study	3	
AP3171	Advanced Physical Transport Phenomena	6	3
AP3252	Electron Microscopy Characterization of the Nanoscale	3	4
AP3371	Radiological Health Physics	6	3*
LM3311	Green Chemistry and Sustainable Technology	3	4
LM3731	Advanced Biocatalysis	6	2+3
SET3070	Thermochemistry of Biomass Conversion	4	3
SET3085	Hydrogen Technology	4	4

\*This course starts before and ends after period 3

A more detailed description the programme and courses can be found in the study guide: [chem.msc.studyguide.tudelft.nl](https://chem.msc.studyguide.tudelft.nl)