

# **THE IMPLEMENTATION REGULATIONS**

**2016-2017**

**CoMEM**

**MASTER OF SCIENCE**

**CIVIL ENGINEERING**

**DELFT UNIVERSITY OF TECHNOLOGY**

# Section 1 – Compiling the study programme

## Article 1 – The study load

The study load for the Master's degree course is 120 credits. None of the components of the course may have formed part of the Bachelor's degree programme.

*Teaching and Education Regulations MSc Article 8 subsection 3:*

*"It is not permitted for any subject in the study programme to have been part of the Bachelor's degree programme on the basis of which the student was admitted to the degree programme. If a compulsory subject was already completed in the aforementioned Bachelor's degree programme, the board of examiners will designate an alternative subject in its place. If an elective subject in the study programme was already completed in the aforementioned Bachelor's degree programme, the student will choose an alternative elective subject."*

## Article 2 – Tracks, specialisations and annotations

The CoMEM MSc degree programme has five tracks. CoMEM students at TU Delft do one of the following tracks:

- Arctic Marine Coastal Engineering (NTNU), article 3
- Coastal Engineering (TU Delft), article 4

## Article 3 – The composition of the study programme Arctic Marine Coastal Engineering

The examination programme is compiled in the following way:

This MSc track includes at least 120 EC, i.e. at least 30 ECTS in semester 1 at NTNU, Trondheim, at least 60 ECTS in total in semesters 2 and 3 at TU Delft and 30 ECTS in semester 4 at NTNU, Trondheim.

### semester 1 (NTNU)

<b>Compulsory courses:</b>		<b>ECTS</b>
TBA4145	Port and Coastal Facilities	7.5
TBA4265	Arctic and Marine Civil Engineering	7.5
FI5205	Corporate Responsibility and Ethics	7.5
<b>Optional courses:</b>		
TBA4275	Dynamic Response to Irregular Loadings	7.5
TMR4235	Stochastic Theory of Sealoads	7.5
TBA5100	Theoretical Soil Mechanics	7.5
<b>Recommended extra course:</b>		
Norwegian Elementary (NTNU Language Departments' online course)		

### semester 2 (TUD)

<b>Compulsory courses:</b>			<b>quarter</b>
CIE4061-09	Multidisciplinary Project	10	2.1 + 2.2
CIE4305	Coastal Dynamics 1	6	2.1
OE44115	Arctic Engineering	4	2.2
<b>Optional courses:</b>			
Recommended:			
CIE4309	Coastal Dynamics 2	5	2.2
CIE5308	Breakwaters and Closure Dams	4	2.1
Other optional courses:			
CIE5307	Coastal Zone Management	3	2.2

CIE5312	Turbulence in Hydraulics	3	2.1
CIE5314	Flood Defences	3	2.2
OE44135	Offshore Wind Support Structures	4	2.2
OE44120	Offshore Wind Farms Design	4	2.1
<b>Recommended extra course:</b>			
CIE4040-09	Traineeship (Internship)	10	summer
Dutch Elementary (only outside the 120 credits examination programme)		3	2.1+2.2

### semester 3 (TUD)

#### Compulsory courses:

CIE4130	Probabilistic Design and Risk Management	4	1.2
CIE4310	Bed, Bank and Shore Protection	4	1.2
CIE4340	Computational Modelling of Flow and Transport	4	1.1 + 1.2

#### Optional courses:

Recommended:

CIE5318	Fieldwork Hydraulic Engineering	4	1.1
CIE4330	Ports and Waterways 1	4	1.1
CIE4190	Analysis of Slender Structures	4	1.1

Conditional optional course:

AT327-12	Arctic Offshore Engineering (UNIS in October)	6	(1.1)
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Other optional courses:

CIE4115	Steel Structures 2	4	1.1
OE44005	Introduction to Offshore Engineering	3	1.1
OE44010	Introduction to Dredging Engineering	3	1.1
CIE4606	Geodesy and Remote Sensing	5	1.1

### semester 4 (NTNU)

#### Compulsory course:

TBA4920	MSc Thesis (Arctic Marine Coastal Engineering)	30	
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#### Conditional optional extra course:

AT-307F	Arctic Offshore Engineering (Fieldwork)	3	
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## Article 3 – The composition of the study programme Coastal Engineering TU Delft

The examination programme is compiled in the following way:

This MSc track includes at least 120 ECTS, i.e. at least 30 ECTS in semester 1 at NTNU, Trondheim, at least 30 ECTS in semester 2 at TU Delft, at least 30 ECTS in semester 3 at SOTON, Southampton and 30 ECTS in semester 4 at TU Delft.

### semester 1 (Trondheim)

<b>Compulsory courses:</b>		<b>ECTS</b>
TBA4265	Arctic and Marine Civil Engineering	7.5
TBA4145	Port and Coastal Facilities	7.5
FI5205	Corporate Responsibility and Ethics	7.5
<b>Optional courses:</b>		
Recommended:		
TMR4137	Sustainable Utilization of Marine Resources	7.5
TMR4235	Stochastic Theory of Sealoads	7.5
Other optional courses:		
TPK4120	Safety and Reliability Analysis	7.5
TBA4275	Dynamic Response to Irregular Loadings	7.5
TBA5100	Theoretical Soil Mechanics	7.5
<b>Recommended extra course:</b>		
Norwegian Elementary (NTNU Language Departments' online course)		

### semester 2 (Delft)

<b>Compulsory courses for all:</b>			<b>quarter</b>
CIE4061-09	Multidisciplinary Project	10	2.1 + 2.2
CIE4305	Coastal Dynamics 1	6	2.1
<b>Optional courses:</b>			
Recommended:			
CIE4130	Probabilistic Design and Risk Management (not if TPK4120 completed in Norway)	4	
CIE4301	Building with Nature in Hydraulic Engineering	5	2.2
CIE4309	Coastal Dynamics II	5	2.2
CIE4310	Bed, Bank and Shore Protection	4	
CIE4340	Computational Modelling of Flow and Transport	4	
CIE5300	Dredging Technology	4	2.1
CIE5302	Stratified Flows	3	2.2
CIE5307	Coastal Zone Management	3	2.2
CIE5308	Breakwaters and Closure Dams	4	2.1
CIE5312	Turbulence in Hydraulics	3	2.1
CIE5314	Flood Defences	3	2.2
Other optional courses:			
CIE4460	Polders and Flood Control	4	2.2
CIE5304	Waterpower Engineering	3	2.2
CIE5306	Ports and Waterways 2	4	2.2
Recommended extra course:			
CIE4040-09	Traineeship (Internship)	10	summer
Dutch Elementary (only outside the 120 credits examination programme)		3	2.1+2.2

### semester 3 (Southampton)

<b>Compulsory courses for all:</b>		
CENV6084	Maritime and Coastal Engineering and Energy	7.5
CENV6126	Coastal Morphodynamics	7.5

ENVS6033	Geographic Information Systems	7.5
<b>Optional courses:</b>		
ENVS6028	Environmental Impact Assessment	7.5
SOES3014	Coastal Sediment Dynamics	7.5

### in semester 4 (Delft)

**Compulsory course:**

CIE5030	MSc Thesis (Coastal Engineering)	30
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## Section 2 – Annotations and Honours Programme

*Only extra curricular, see the Implementation Regulations MSc Civil Engineering for possibilities.*

## Section 3 – Deviate from examination programme

### Article 4 – Deviate from the examination programme

The board of examiners may allow students to deviate from the examination programme. However, the programme coordinator at NTNU must also agree with the deviations.

## Section 4 – Examinations and practicals

### Article 5 – Practicals

1. The course teaching takes the form of lectures and/or practicals.
2. Practicals must be completed before students participate in the examination unless otherwise is indicated in the study guide pertaining to that particular subject.

### Article 6 – The types of examinations

The examinations linked to the different subjects are to be completed in the way laid down in the study guide pertaining to the subject in question.

### Article 7 – The frequencies, times and sequences of the exams

1. Written and oral examinations are to be completed at the end of the teaching period in which the subject was taught.
2. The resit periods for any of the written exams referred to in subsection 1 are at the end of the next teaching period. For subjects taught in the fourth teaching period the resit period is in August.
3. Practicals may be completed in the way laid down in the relevant timetables.

## **Section 5 – Access to Master Thesis Project**

### **Article 21 – Access to the Master Thesis Project**

1. Students may embark on the Master Thesis Project only when they have completed at least 90 ECTS of the CoMEM MSc programme.
2. Students are only allowed to present their Master Thesis if they have successfully completed all other obligations.

## **Section 6 – Transition Rulings**

*Not applicable*