

# FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

## MSC-PROGRAMME IN MARINE TECHNOLOGY (MSN1)

Term 1, 2, 3 and 4

### MARINE STRUCTURES

Ex	Subject no.	Subject title	Note	Cr	Specialization	
					1	2
<b>Compulsory courses</b>						
1h	TMR4175	MARINE STRUCTURES BC	1	7,5	o	o
1h	TMR4190	ELEM METHODS STRUCT		7,5	o	o
1h	TMR4215	SEA LOADS		7,5	o	o
1v	TMR4180	MARINE DYNAMICS	1	7,5	o	o
1v	TMR4195	DESIGN OFFSHOR STRUC		7,5	o	v
<b>Optional courses</b>						
1h	TMR4115	DESIGN METHODS		7,5	v	v
1h	TMR4130	RISK ANAL/SAFETY MAN		7,5	v	-
1h	TMR4135	FISH VESSEL/WORK DES		7,5	v	-
1h	TMR4200	FATIGUE/FRACTURE		7,5	v	v
1h	TMR4235	STOCH THEORY SEALOAD		7,5	v	v
1h	TMR4275	MOD/SIM/AN DYN SYS		7,5	-	v
1v	TMR4140	DES MAR PROD PLANTS		7,5	v	-
1v	TMR4145	PROD MOD DESIGN		7,5	v	-
1v	TMR4205	BUCKLING/COLLAPS STR		7,5	v	-
1v	TMR4217	HYDRO HIGH-SPEED VEH		7,5	v	v
1v	TMR4220	NAVAL HYDRODYNAMICS		7,5	v	v
1v	TMR4225	MARINE OPERATIONS		7,5	v	v
1v	TMR4230	OCEANOGRAPHY		7,5	-	v
<b>Specialization courses</b>						
2h	TMR4505	MARINE STRUCTURE SC		7,5	o	-
2h	TMR4525	MARINE HYDRODYN SC		7,5	-	o
<b>Specialization projects</b>						
2h	TMR4500	MARINE STRUCTURE SP		7,5	o	-
2h	TMR4520	MARINE HYDRODYN SP		7,5	-	o
<b>Supplementary courses</b>						
2h	TMR4115	DESIGN METHODS	2	7,5	v	v
2h	TMR4130	RISK ANAL/SAFETY MAN		7,5	v	-
2h	TMR4135	FISH VESSEL/WORK DES		7,5	v	-
2h	TMR4200	FATIGUE/FRACTURE		7,5	v	v
2h	TMR4235	STOCH THEORY SEALOAD		7,5	v	v
2h	TMR4275	MOD/SIM/AN DYN SYS		7,5	-	v
2h	TMR4300	EXP AND NUM HYDRODYN		7,5	-	v
2h	TMR4305	ADV ANAL MAR STRUCT		7,5	v	-
<b>Master Thesis</b>						
2v	TMR4900	MARINE STRUCTURES		30,0	o	o

o = compulsory course

v = optional course

Ex 1h = Term 1, Exam Autumn

Ex 1v = Term 2, Exam Spring

Ex 2h = Term 3, Exam Autumn

Ex 2v = Term 4, Master Thesis Spring.

1) Compulsory course for students without the equivalent background.

2) Select two supplementary courses. Courses are not considered when planning the teaching and examination schedules.

Specialization:

1. Marine structures

2. Marine hydrodynamics

# FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

## MSC-PROGRAMME IN MARINE TECHNOLOGY (MSN1)

Term 1 and 2

### MARINE SYSTEMS ENGINEERING

Ex	Subject no.	Subject title	Note	Cr	Specialization	
					1	4
<b>Compulsory courses</b>						
1h	TMR4130	RISK ANALYSIS SAFETY		7,5	o	v
1h	TMR4135	FISH VESSEL WORK DES		7,5	-	o
1h	TMR4137	SUST UTIL MAR RES		7,5	-	o
1h	TMR4223	MARINE MACHINERY	1	7,5	o	v
1h	TMR4253	MARINE SYST DESIGN	1	7,5	o	o
1h	TMR4295	DES OF MECH SYST		7,5	o	v
1v	TMR4140	DES MAR PROD PLANTS		7,5	-	o
1v	TMR4265	OPERATION TECHN BC		7,5	o	o
<b>Optional courses</b>						
1h	TMR4115	DESIGN METHODS		7,5	-	v
1h	TMR4290	DIESEL-EL PROP SYST		7,5	-	v
1v	TMR4120	UNDERWATER ENG BC		7,5	v	v
1v	TMR4145	PROD MOD DESIGN		7,5	v	v
1v	TMR4180	MARINE DYNAMICS		7,5	v	v
1v	TMR4280	INTERNAL COMB ENGINE		7,5	v	v
<b>Supplementary courses</b>						
1h	BI3061	BIOLOG OCEANOGRAPHY	2	7,5	-	v
1h	TIØ4120	OP RESEARCH INTRO		7,5	-	v
1h	TMM4165	JOINING TECH		7,5	-	v
1h	TMR4175	MARINE STRUCTURE BC		7,5	-	v
1h	TMR4215	SEA LOADS		7,5	-	v
1h	TMR4275	MOD/SIM/AN DYN SYST		7,5	-	v
1h	TPK4160	VALUE CHAIN CONTROL		7,5	-	v
1h	TPK5100	PROJ MANAGEMENT		7,5	-	v
1h	TTT4175	MARINE ACOUSTICS 1		7,5	-	v
1h	TVM4162	INDUSTRIAL ECOLOGY		7,5	-	v

o = Compulsory course

v = Optional course

Ex 1h = Term 1, Exam Autumn

Ex 1v = Term 2, Exam Spring

According to their specialization the students will be assigned to an academic supervisor in the first or beginning of the second semester. The combination of courses must be approved by the programme. The courses are selected so that the total weighting each term amounts to 30 credits (Cr).

- 1) Compulsory for students without the equivalent background.
- 2) Courses are not considered when planning the teaching and examination schedules.

Specialization:

1. Operation Technology
4. Fisheries and Marine Resources

# FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

## MSC-PROGRAMME IN MARINE TECHNOLOGY (MSN1)

Term 1 and 2

MARINE SYSTEMS ENGINEERING - for students to TU Delft\*

Ex	Subject no.	Subject title	Note	Cr	Specialization	
					2	3
		<b>Compulsory courses</b>				
1h	TMR4115	DESIGN METHODS		7,5	-	o
1h	TMR4223	MARINE MACHINERY	1	7,5	o	v
1h	TMR4253	MARINE SYST DESIGN	1	7,5	-	o
1h	TMR4275	MOD/SIM/AN DYN SYST		7,5	o	v
1h	TMR4290	DIESEL-EL PROP SYST		7,5	o	v
1h	TMR4295	DES OF MECH SYST		7,5	o	-
		<b>Optional courses</b>				
1h	TMR4135	FISH VESSEL WORK DES		7,5	-	v
1h	TMR4137	SUST UTIL MAR RES		7,5	-	v
1h	TMR4175	MARINE STRUCTURES BC		7,5	-	v
		<b>Supplementary courses</b>	2			
1h	TIØ4120	OP RESEARCH INTRO		7,5	-	v
1h	TMM4165	JOINING TECH		7,5	-	v
1h	TMR4115	DESIGN METHODS		7,5	-	v
1h	TMR4130	RISK ANALYSIS SAFETY		7,5	-	v
1h	TMR4215	SEA LOADS		7,5	-	v
1h	TMR4290	DIESEL EL PROP SYST		7,5	-	v
1h	TPK4160	VALUE CHAIN CONTROL		7,5	-	v
		<b>Compulsory courses at Delft</b>				
1v	MT044	NAVAL SHIP DESIGN		3,0	-	o
1v	MT113	DESIGN ADV VEHICLES		3,0	o	-
1v	MT218	MECHATRONIC MAR TECH		5,0	o	o
1v	MT713	MARINE ENGINEERING C		2,0	o	o
1v	MT728	SHIP REPAIR/SALVAGE		3,0	o	o
1v	WB4408A	DIESEL ENGINES A		4,0	o	-
1v	WB4408B	DIESEL ENGINES B		4,0	o	-
		<b>Optional courses at Delft</b>				
1v	CT4130	PROBABILISTIC DESIGN		4,0	v	v
1v	MT313	SHIPPING MANAGEMENT		3,0	v	v
1v	MT514	SHIP MOTIONS/MANOEUV		3,0	v	v
1v	MT515	RESISTANCE/PROPULS		2,0	v	v
1v	MT724	SHIP FINANCE		3,0	v	v
1v	MT729	MARITIME BUS GAMES		3,0	v	v
1v	MT816	COMPOSITE MAT IN MT		2,0	v	v
1v	OE4603	INTRO OFFSH STRUCT		3,0	v	v
1v	OE4652	FLOAT OFFSH STRUCT		4,0	v	v
1v	SPM9322	SIMULAT MASTER CLASS		5,0	-	v
1v	WB3420-03	LOGISTICS INTRODUCT		5,0	v	v
1v	WMO732MT	MARITIME LAW		3,0	-	v

o = Compulsory course

v = Optional course

Ex 1h = Term 1, Exam Autumn

Ex 1v = Term 2, Exam Spring

According to their specialization the students will be assigned to an academic supervisor in the first or beginning of the second semester. The combination of courses must be approved by the programme. The courses are selected so that the total weighting each term amounts to 30 credits (Cr).

- 1) Compulsory for students without the equivalent background.
  - 2) Courses are not considered when planning the teaching and examination schedules.
- cont.

- Specialization:
2. Marine Engineering
  3. Design of Marine Systems

\*For students who choose the option Marine Systems Engineering and the main profiles Marine Engineering or Design of Marine Systems, there is an obligatory 6-months stay at TU Delft in the Netherlands in the second semester of the first year.

## FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

### MSC-PROGRAMME IN MARINE TECHNOLOGY (MSN1)

Term 3 and 4 (2008/09)

#### MARINE SYSTEMS ENGINEERING

Ex	Subject no.	Subject title	Note	Cr	Specialization		
					1	2	3
		<b>Specialization courses</b>					
2h	TMR4535	MARINE MACHINERY SC		7,5	o	-	-
2h	TMR4555	OPER TECHN SC		7,5	-	o	-
2h	TMR4565	MAR SYST DESIGN SC		7,5	-	-	o
		<b>Specialization projects</b>					
2h	TMR4530	MARINE MACHINERY SP		7,5	o	-	-
2h	TMR4550	OPER TECHN SP		7,5	-	o	-
2h	TMR4560	MAR SYST DESIGN SP		7,5	-	-	o
		<b>Supplementary courses</b>	1				
2h	TBA4305	FREIGHT TRANSP SYST		7,5	-	-	v
2h	TIØ4120	OP RESEARCH INTRO		7,5	v	-	-
2h	TMM4165	JOINING TECH		7,5	-	-	v
2h	TMR4115	DESIGN METHODS		7,5	v	v	-
2h	TMR4130	RISK ANALYSIS SAFETY		7,5	-	-	v
2h	TMR4135	FISH VESSEL WORK DES		7,5	v	-	-
2h	TMR4137	SUST UTIL MAR RES		7,5	-	-	v
2h	TMR4200	FATIGUE/FRACTURE		7,5	-	v	v
2h	TMR4215	SEA LOADS		7,5	-	v	v
2h	TMR4275	MOD/SIM/AN DYN SYST		7,5	-	v	v
2h	TMR4290	DIESEL-EL PROP SYST		7,5	-	v	v
		<b>Master Thesis</b>					
2v	TMR4905	MARINE SYST ENG		30,0	o	o	o

o = Compulsory course

v = Optional course

Ex 2h = Term 3, Exam Autumn

Ex 2v = Term 4, Master Thesis Spring

According to their specialization the students will be assigned to an academic supervisor in the first or beginning of the second semester. The combination of courses must be approved by the programme. The courses are selected so that the total weighting each term amounts to 30 credits (Cr).

1) Select two supplementary courses. Courses are not considered when planning the teaching and examination schedules.

Specialization:

1. Marine Engineering
2. Technical Operation of Marine Systems
3. Design of Marine Systems

# FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

## MSC-PROGRAMME IN MARINE TECHNOLOGY (MSN1)

Term 1, 2, 3 and 4

### NAUTICAL SCIENCE

Ex	Subject no.	Subject title	Note	Cr
		<b>Compulsory courses</b>		
1h	TMA4120	CALCULUS 4K	1	7,5
1h	TMR4215	SEA LOADS		7,5
1h	TMR5230	NAUTICAL SCIENCE BC		7,5
1h	TTT4140	FUND OF NAVIGATION		7,5
1v	TMR4180	MARINE DYNAMICS	1	7,5
1v	TTT4150	NAVIGATION SYSTEMS		7,5
		<b>Optional courses</b>		
1v	TMR4220	NAVAL HYDRODYNAMICS		7,5
1v	TMR4217	HYDRO HIGH-SPEED VEH	2	7,5
1v	TMR4225	MARINE OPERATIONS		7,5
1v	TMR4230	OCEANOGRAPHY		7,5
1v	TMR4240	MARINE CONTROL SYST	3	7,5
1v	TTK4105	CONTROL SYSTEMS	4	7,5
1v	TTK4190	GUIDANCE AND CONTROL		7,5
		<b>Compulsory courses</b>		
2h	TMR5240	NAUTICAL SCIENCE AC		7,5
2h	TMR5250	NAUTICAL SC PROJECT		7,5
2h	TMR5260	NAUTIC SC SPEC SUBJ		7,5
		<b>Optional courses</b>		
2h	TMR4130	RISK ANALYSIS SAFETY		7,5
2h	TMR4235	STOCH THEORY SEALOAD		7,5
2h	TTT4175	MAR ACOUSTICS		7,5
		<b>Master Thesis</b>		
2v	TMR4925	NAUTICAL SCIENCE		30,0

o = Compulsory course

v = Optional course

Ex 1h = Term 1, Exam Autumn

Ex 1v = Term 2, Exam Spring

Ex 2h = Term 3, Exam Autumn

Ex 2v = Term 4, Master Thesis Spring

- 1) Compulsory course for students without the equivalent background.
- 2) The course is not considered when planning the teaching and examination schedules.
- 3) TTK4105 or equivalent is necessary background for TMR4240.
- 4) It is recommended to study this course in parallel to TMR4240