

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
Compulsory courses						
1h	TMR4170	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	TMR4182	MARINE DYNAMICS	1	7,5	o	o
1v	TMR4195	DESIGN OFFSHOR STRUC	2	7,5	o	v
Optional courses						
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	v
1h	TMR4200	FATIGUE/FRACTURE	3	7,5	v	v
1h	TMR4235	STOCH THEORY SEALOAD		7,5	v	v
1h	TMR4275	MOD/SIM/AN DYN SYS		7,5	-	v
1v	TKT4145	FIN ELEM METH		7,5	v	v
1v	TMR4140	DES MAR PROD PLANTS		7,5	v	-
1v	TMR4205	BUCKLING/COLLAPS STR	3	7,5	v	-
1v	TMR4217	HYDRO HIGH-SPEED VEH	2	7,5	v	v
1v	TMR4220	NAVAL HYDRODYNAMICS	2	7,5	v	v
1v	TMR4225	MARINE OPERATIONS	2	7,5	v	v
1v	TMR4230	OCEANOGRAPHY	4	7,5	v	v
Specialization courses						
2h	TMR4505	MARINE STRUCTURE SC		7,5	o	-
2h	TMR4525	MARINE HYDRODYN SC		7,5	-	o
Specialization projects						
2h	TMR4500	MARINE STRUCTURE SP		7,5	o	-
2h	TMR4520	MARINE HYDRODYN SP		7,5	-	o
Supplementary courses						
2h	TMR4115	DESIGN METHODS	5	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	-
Master Thesis						
2v	TMR4900	MARINE STRUCTURES		30,0	o	o

o = compulsory course

v = optional course

Ex 1h = Term 1, Exam Autumn

Ex 2h = Term 3, Exam Autumn

Ex 1v = Term 2, Exam Spring

Ex 2v = Term 4, Master Thesis Spring

- 1) Compulsory course for students without the equivalent background.
- 2) Select at least two subjects for the specialization Marine hydrodynamics.
- 3) Select at least one subject for the specialization Marine structures.
- 4) The course is not considered when planning the teaching and examination schedules.
- 5) 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
Compulsory courses						
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	v
Optional courses						
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	TMR4182	MARINE DYNAMICS		7,5	v	v
1v	TMR4280	INTERNAL COMB ENGINE		7,5	v	v
Supplementary courses						
1h	BI3061	BIOL OCEAN	2	7,5	-	v
1h	TIØ4120	OP RESEARCH INTRO		7,5	-	v
1h	TMM4165	JOINING TECH		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		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
		Compulsory courses				
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	-
		Optional courses				
1h	TMR4135	FISH VESSEL WORK DES		7,5	-	v
1h	TMR4137	SUST UTIL MAR RES		7,5	-	v
1h	TMR4170	MARINE STRUCTURES BC		7,5	-	v
		Supplementary courses	2			
1h	TIØ4120	OP RESEARCH INTRO		7,5	-	v
1h	TMM4165	JOINING TECH		7,5	-	v
1h	TMR4130	RISK ANALYSIS SAFETY		7,5	-	v
1h	TMR4215	SEA LOADS		7,5	-	v
1h	TPK4160	VALUE CHAIN CONTROL		7,5	-	v
		Compulsory courses at Delft	3			
1v	MT044	NAVAL SHIP DESIGN		3,0	-	o
1v	MT113	DESIGN ADV VEHICLES		3,0	v	o
1v	MT218	MECHATRONIC MAR TECH		5,0	o	v
1v	MT525	MARINE PROP SYSTEMS		2,0	o	v
1v	MT713	MARINE ENGINEERING C		2,0	o	o
1v	WB4408A	DIESEL ENGINES A		4,0	o	-
1v	WB4408B	DIESEL ENGINES B		4,0	o	-
		Optional courses at Delft	3			
1v	CT4130	PROBABILISTIC DESIGN		4,0	v	v
1v	MT044	NAVAL SHIP DESIGN		3,0	v	-
1v	MT213	MARINE ENG		2,0	v	-
1v	MT313	SHIPPING MANAGEMENT		3,0	v	v
1v	MT514	SHIP MOTIONS/MANOEUUV		3,0	v	v
1v	MT515	RESISTANCE/PROPULS		3,0	-	v
1v	MT724	SHIP FINANCE		3,0	-	v
1v	MT727	SHIPYARD PROCESSES		4,0	-	v
1v	MT728	SHIP REPAIR/SALVAGE		3,0	v	v
1v	MT729	MARITIME BUS GAMES		3,0	v	v
1v	MT816	COMPOSITE MAT IN MT		2,0	-	v
1v	MT1401	MARITIME LAW		3,0	-	v
1v	OE4603	INTRO OFFSH STRUCT		3,0	-	v
1v	OE4652	FLOAT OFFSH STRUCT		4,0	v	v
1v	SPM9322	SIMULAT MASTER CLASS		5,0	-	v
1v	WB1415-04	MULTY BODY DYN B		4,0	v	-
1v	WB3420-03	LOGISTICS INTRODUCT		5,0	-	v
1v	WB3550	HEAT/MASS TRANSFER		3,0	v	-
1v	WB4421	GAS TURBINE SIM/APPL		3,0	v	-
1v	WB4426	INDOOR CLIM CON FUND		3,0	v	-
1v	WB4427	REFR TECH AND APPL		4,0	v	-
1v	WM0324LR	ET/ENG FOR AERO ENG		3,0	v	-
1v	WM0903TU	TECH AND GLOBAL DEV		2,0	v	-

o = Compulsory course

v = Optional course

Ex 1h = Term 1, Exam Autumn

Ex 1v = Term 2, Exam Spring

cont.

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.
- 3) Information on the subjects, see <http://blackboard.tudelft.nl>. Altogether 30 ECTS pr. semester.

Specialization:

2. Marine Engineering
3. Marine Systems Design and Logistics

*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

MARINE SYSTEMS ENGINEERING

Ex	Subject no.	Subject title	Note	Cr	Specialization			
					1	2	3	4
		Specialization courses						
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	-
2h	TMR4575	FISH/MAR RES SC		7,5	-	-	-	o
		Specialization projects						
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	-
2h	TMR4570	FISH/MAR RES SP		7,5	-	-	-	o
		Supplementary courses	1					
2h	TBA4305	FREIGHT TRANSP SYST		7,5	-	-	v	-
2h	TEP4212	ENV/CLEAN TECH		7,5	-	v	-	-
2h	TIØ4120	OP RESEARCH INTRO		7,5	v	-	-	v
2h	TIØ4130	OPT METHODS		7,5	-	-	v	-
2h	TMM4135	ANALYS/ASSESSMENT		7,5	-	v	-	-
2h	TMM4165	JOINING TECH		7,5	-	-	v	v
2h	TMM4220	INNOV-WITHOUT LIMITS		7,5	v	-	-	-
2h	TMR4115	DESIGN METHODS		7,5	v	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	-	v	-
2h	TMR4190	FINITE ELEM METH		7,5	v	-	v	v
2h	TMR4200	FATIGUE/FRACTURE		7,5	v	-	v	-
2h	TMR4215	SEA LOADS		7,5	-	v	v	v
2h	TMR4275	MOD/SIM/AN DYN SYST		7,5	-	v	v	v
2h	TMR4290	DIESEL-EL PROP SYST		7,5	-	v	v	v
2h	TPK4160	VALUE CHAIN CONTROL		7,5	-	-	v	v
2h	TPK5100	PROJ MANAGEMENT		7,5	v	-	v	v
2h	TTK4115	LIN SYST THEORY		7,5	-	v	-	-
2h	TTT4175	MARINE ACOUSTICS		7,5	-	-	-	v
2h	TVM4162	INDUSTRIAL ECOLOGY		7,5	-	-	-	v
		Master Thesis						
2v	TMR4905	MARINE SYST		30,0	o	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. Technical Operation of Marine Systems
2. Marine Engineering
3. Marine Systems Design and Logistics
4. Fisheries and Marine Resources

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
		Compulsory courses		
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	TMR4182	MARINE DYNAMICS	1	7,5
1v	TTT4150	NAVIGATION SYSTEMS		7,5
		Optional courses		
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
		Compulsory courses		
2h	TMR5240	NAUTICAL SCIENCE AC		7,5
2h	TMR5250	NAUTICAL SCIENCE PRO		7,5
2h	TMR5260	NAUTICAL SCIENCE SC		7,5
		Optional courses		
2h	TMR4130	RISK ANALYSIS SAFETY		7,5
2h	TMR4235	STOCH THEORY SEALOAD		7,5
2h	TTT4175	MAR ACOUSTICS		7,5
		Master Thesis		
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.