

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	Autumn			Spring			Cr	Exam	Specialization	
				F	Ø	S	F	Ø	S			1	2
Compulsory courses													
1h	TMR4175	MARINE STRUCTURES BC	1			12				7,5	x	o	o
1h	TMR4190	ELEM METHODS STRUCT		3	6	3				7,5	x	o	o
1h	TMR4215	SEA LOADS		3	6	3				7,5	x	o	o
1v	TMR4180	MARINE DYNAMICS	1				4	6	2	7,5	x	o	o
1v	TMR4195	DESIGN OFFSHOR STRUC	2				3	6	3	7,5	x	o	v
Optional courses													
1h	TMR4115	DESIGN METHODS		3	6	3				7,5	x	v	v
1h	TMR4200	FATIGUE/FRACTURE		3	6	3				7,5	x	v	v
1h	TMR4235	STOCH THEORY SEALOAD		3	6	3				7,5	x	v	v
1h	TMR4275	MOD/SIM/AN DYN SYS		3	6	3				7,5	x	-	v
1v	TMR4155	VISC FLOW AND TURB					4	1	7	7,5	x	-	v
1v	TMR4140	DES MAR PROD PLANTS					3	6	3	7,5	x	v	-
1v	TMR4145	PROD MOD DESIGN					2	2	8	7,5	-	v	-
1v	TMR4205	BUCKLING/COLLAPS STR					3	6	3	7,5	x	v	-
1v	TMR4217	HYDRO HIGH-SPEED VEH	2				3	6	3	7,5	x	v	v
1v	TMR4220	NAVAL HYDRODYNAMICS	2				3	6	3	7,5	x	v	v
1v	TMR4225	MARINE OPERATIONS	2				3	6	3	7,5	x	v	v
1v	TMR4230	OCEANOGRAPHY					3	6	3	7,5	x	v	v
Specialization courses													
2h	TMR4505	MARINE STRUCTURE SC		4	4	4				7,5	x	o	-
2h	TMR4525	MARINE HYDRODYN SC		4	4	4				7,5	x	-	o
Specialization projects													
2h	TMR4500	MARINE STRUCTURE SP				12				7,5	-	o	-
2h	TMR4520	MARINE HYDRODYN SP				12				7,5	-	-	o
Supplementary courses													
2h	TMR4115	DESIGN METHODS	3				3	6	3	7,5	x	v	v
2h	TMR4130	RISK ANAL/SAFETY MAN					2	8	2	7,5	-	v	-
2h	TMR4135	FISH VESSEL/WORK DES					2	8	2	7,5	x	v	-
2h	TMR4200	FATIGUE/FRACTURE					3	6	3	7,5	x	v	v
2h	TMR4235	STOCH THEORY SEALOAD					3	6	3	7,5	x	v	v
2h	TMR4275	MOD/SIM/AN DYN SYS					3	6	3	7,5	x	-	v
2h	TMR4300	EXP AND NUM HYDRODYN					4	4	4	7,5	-	-	v
2h	TMR4305	ADV ANAL MAR STRUCT					4	6	2	7,5	x	v	-
Master Thesis													
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 of the courses for specialization in marine hydrodynamics. The students receive further information from their supervisor.

3) 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, 2, 3 and 4

MARINE SYSTEMS ENGINEERING

Ex	Subject no.	Subject title	Note	Autumn			Spring			Cr	Exam	Specialization		
				F	Ø	S	F	Ø	S			1	2	3
		Compulsory courses												
1h	TMR4115	DESIGN METHODS		3	6	3			7,5	x	-	v	o	
1h	TMR4130	RISK ANALYSIS SAFETY		2	8	2			7,5	-	-	o	v	
1h	TMR4223	MARINE MACHINERY	1			12			7,5	x	o	o	v	
1h	TMR4253	MARINE SYST DESIGN	1			12			7,5	x	-	o	o	
1h	TMR4275	MOD/SIM/AN DYN SYST		3	6	3			7,5	x	o	v	v	
1h	TMR4290	DIESEL-EL PROP SYST		3	6	3			7,5	x	o	v	v	
1h	TMR4295	DES OF MECH SYST		3	6	3			7,5	x	o	o	-	
1v	TMR4265	OPERATION TECHN BC						12	7,5	x	o	o	o	
1v	TMR4280	INTERNAL COMB ENGINE					3	6	3	7,5	x	o	v	-
		Optional courses												
1h	TMR4135	FISH VESSEL WORK DES		2	8	2			7,5	x	-	-	v	
1h	TMR4175	MARINE STRUCTURE BC				12			7,5	x	-	v	v	
1h	TPG5100	MATH/COMPUTER METHOD		2	8	2			7,5	-	-	v	v	
1v	TMR4120	UNDERWATER ENG BC					3	6	3	7,5	-	v	v	v
1v	TMR4125	BUILD SHIPS/PLATFORM					3	3	6	7,5	x	v	v	-
1v	TMR4140	DES MAR PROD PLANTS					3	6	3	7,5	x	-	-	v
1v	TMR4145	PROD MOD DESIGN					2	2	8	7,5	-	-	-	v
1v	TMR4180	MARINE DYNAMICS					4	6	2	7,5	x	v	v	v
1v	TMR4220	NAVAL HYDRODYNAMICS					3	6	3	7,5	x	v	-	v
1v	TMR4230	OCEANOGRAPHY					3	6	3	7,5	x	-	-	v
		Specialization courses												
2h	TMR4535	MARINE ENG SC		4	6	2			7,5	x	o	-	-	
2h	TMR4555	OPER TECHN SC		4	6	2			7,5	x	-	o	-	
2h	TMR4565	DES MAR SYST SC		4	6	2			7,5	x	-	-	o	
		Specialization projects												
2h	TMR4530	MARINE ENG SP						12	7,5	-	o	-	-	
2h	TMR4550	OPER TECHN SP						12	7,5	-	-	o	-	
2h	TMR4560	DES MAR SYST SP						12	7,5	-	-	-	o	
		Supplementary courses	2											
2h	TBA4305	FREIGHT TRANSP SYST		3	3	6			7,5	x	-	-	v	
2h	TEP4230	INTRO ENE/PROC TECH		3	2	7			7,5	x	v	v	-	
2h	TIØ4120	OP RESEARCH INTRO		4	1	7			7,5	x	v	-	-	
2h	TMM4165	JOINING TECH		4	1	7			7,5	x	-	-	v	
2h	TMR4115	DESIGN METHODS		3	6	3			7,5	x	v	v	-	
2h	TMR4130	RISK ANALYSIS SAFETY		2	8	2			7,5	-	-	-	v	
2h	TMR4135	FISH VESSEL WORK DES		2	8	2			7,5	x	v	-	-	
2h	TMR4137	SUST UTIL MAR RES		4	6	2			7,5	x	-	-	v	
2h	TMR4200	FATIGUE/FRACTURE		3	6	3			7,5	x	-	v	v	
2h	TMR4215	SEA LOADS		3	6	3			7,5	x	-	v	v	
2h	TMR4275	MOD/SIM/AN DYN SYST		3	6	3			7,5	x	-	v	v	
2h	TMR4290	DIESEL-EL PROP SYST		3	6	3			7,5	x	-	v	v	
		Master Thesis												
2V	TMR4905	MARINE SYST ENG							30,0		o	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

MSC-PROGRAMME IN MARINE TECHNOLOGY - Marine systems is offered every year, starting in August, with preliminary application deadline 1. December the previous year. E-mail and web-site for further information: mscadm@ivt.ntnu.no (<http://www.marin.ntnu.no/msc>).

Specializations:

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

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 student without the equivalent background.
- 2) Select two supplementary courses. Courses are not considered when planning the teaching and examination schedules.

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	Autumn			Spring			Cr	Exam
				F	Ø	S	F	Ø	S		
		Compulsory courses									
1h	TMA4120	CALCULUS 4K	1	4	2	6			7,5	x	
1h	TMR4215	SEA LOADS		3	6	3			7,5	x	
1h	TMR5230	NAUTICAL SCIENCE BC		3	6	3			7,5	x	
1h	TTT4140	FUND OF NAVIGATION		4	2	6			7,5	x	
1v	TMR4180	MARINE DYNAMICS	1				4	6	2	7,5	x
1v	TTT4150	NAVIGATION SYSTEMS					4	2	6	7,5	x
		Optional courses									
1v	TMR4220	NAVAL HYDRODYNAMICS					3	6	3	7,5	x
1v	TMR4217	HYDRO HIGH-SPEED VEH	2				3	6	3	7,5	x
1v	TMR4225	MARINE OPERATIONS					3	6	3	7,5	x
1v	TMR4230	OCEANOGRAPHY					3	6	3	7,5	x
1v	TMR4240	MARINE CONTROL SYST	3				3	6	3	7,5	x
1v	TTK4105	CONTROL SYSTEMS	4				4	3	5	7,5	x
1v	TTK4190	GUIDANCE AND CONTROL					3	2	7	7,5	x
		Compulsory courses									
2h	TMR5240	NAUTICAL SCIENCE AC		3	6	3				7,5	x
2h	TMR5250	NAUTICAL SC PROJECT			12					7,5	-
2h	TMR5260	NAUTIC SC SPEC SUBJ		2	8	2				7,5	x
		Optional courses									
2h	TMR4130	RISK ANALYSIS SAFETY		2	8	2				7,5	-
2h	TMR4235	STOCH THEORY SEALOAD		3	6	3				7,5	x
2h	TTT4175	MAR ACOUSTICS		4	2	6				7,5	x
		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

MSC-PROGRAMME IN MARINE TECHNOLOGY - Nautical Science, is offered every year. E-mail and web-site for further information: mscadm@ivt.ntnu.no (<http://www.marin.ntnu.no/msc>).

- 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.