

# FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

## MSC-PROGRAMME IN MARINE TECHNOLOGY (MSN1)

Term 1, 2, 3 and 4

Ex	Subject no.	Subject title	Note	Cr	Specialization							
					MS	MC	MH	ME	MO	MD	MR	
		<b>Compulsory and optional courses</b>	1									
1h	TEP4156	VISCOUS FLOWS		7,5	-	-	v	-	-	-	-	-
1h	TEP4165	COMP HEAT/FLUID FLOW		7,5	-	-	-	v	-	-	-	-
1h	TEP4185	NATURAL GAS TECHN		7,5	-	-	-	v	-	-	-	-
1h	TEP4275	INDUSTRIAL ECOLOGY		7,5	-	-	-	-	-	v	v	-
1h	TKT4124	MECHANICS 3		7,5	o	-	v4	-	-	-	-	-
1h	TMM4112	MACHINE ELEMENTS		7,5	-	-	-	v	-	-	-	-
1h	TMR4115	DESIGN METHODS		7,5	-	-	v	v	v	o	v	v
1h	TMR4130	RISK ANALYSIS		7,5	v	-	-	-	o	o	v	v
1h	TMR4137	SUST UTIL MAR RES		7,5	-	-	-	-	-	v	o	-
1h	TMR4190	FINITE ELEM METH		7,5	o	v	o	-	-	v	-	-
1h	TMR4200	FATIGUE/FRACTURE		7,5	v1	-	-	-	-	-	-	-
1h	TMR4215	SEA LOADS		7,5	o	o	o	-	-	-	v	-
1h	TMR4235	STOCK THEORY SEALOADS		7,5	v	-	v	-	-	-	-	-
1h	TMR4260	SAFE OPER/MAINTEN	2	7,5	-	-	-	o	o	o	v	v
1h	TMR4275	MOD/SIM/AN DYN SYS		7,5	-	o	v	o	v	v	v	v
1h	TMR4290	MAR ELECTR PROP SYST		7,5	-	v	-	o	-	v	v	-
1h	TMR4320	SIM BASED DESIGN		7,5	-	v3	v4	-	-	-	-	-
1h	TPK4120	SAFETY/RELIA ANALYSIS		7,5	-	-	-	-	o	-	-	-
1h	TTK4115	LINEAR SYST THEORY		7,5	-	v3	-	-	-	-	-	-
1h	TTK4150	NONLINEAR CONTR SYST		7,5	-	v	-	-	-	-	-	-
1v	-	EXP IN TEAM INT PRO		7,5	o	o	o	o	o	o	o	o
1v	TEP4170	HEAT AND COMB TECH		7,5	-	-	-	v	-	-	-	-
1v	TEP4215	ENERGY UTIL		7,5	-	-	-	v	-	-	-	-
1v	TMR4120	UNDERWATER ENG BC		7,5	-	-	-	-	-	v	-	-
1v	TMR4125	SHIP BUILDING		7,5	v	-	-	-	v	v	v	v
1v	TMR4135	MAR DES ADV VES/MET		7,5	-	-	-	-	v5	o	o	o
1v	TMR4140	DES MAR PROD PLANS		7,5	-	-	-	-	-	-	o	-
1v	TMR4170	MARINE STRUCTURES		7,5	v2	-	-	-	-	-	-	-
1v	TMR4182	MARINE DYNAMICS		7,5	o	o	o	-	-	-	-	v
1v	TMR4195	DESIGN OFFSHOR STRUC		7,5	o	-	v	-	-	-	-	-
1v	TMR4205	BUCKLING/COLLAPS STR		7,5	v1	-	-	-	-	-	-	-
1v	TMR4217	HYDRO HIGH-SPEED VEH		7,5	-	v	v	v	-	-	-	-
1v	TMR4220	NAVAL HYDRODYNAMICS		7,5	-	v	v	v	-	v	v	v
1v	TMR4222	MACH/MAINTEN		7,5	-	-	-	-	v5	-	-	-
1v	TMR4225	MARINE OPERATIONS		7,5	v	v	v	-	v	v	-	-
1v	TMR4230	OCEANOGRAPHY		7,5	-	-	v	-	-	-	-	-
1v	TMR4240	MARINE CONTROL SYST		7,5	-	o	-	v	-	-	-	-
1v	TMR4280	INT COMB ENGINES		7,5	-	-	-	o	v5	-	v	-
1v	TMR4315	PIPE SYSTEM DESIGN		7,5	-	-	-	v	v5	-	-	-
1v	TTK4190	GUIDANCE/CONTROL		7,5	-	v	-	-	-	-	-	-
		<b>Supplementary courses</b>	1,3									
1h	BI3061	BIOL OCEAN		7,5	-	-	-	-	-	v	v	-
1h	TEP4185	NATURAL GAS TECHN		7,5	-	-	-	-	-	v	v	-
1h	TMM4112	MACHINE ELEMENTS		7,5	-	-	-	-	-	-	v	-
1h	TMR4200	FATIGUE/FRACTURE		7,5	-	-	v	-	-	-	-	-
1h	TMR4320	SIM BASED DESIGN		7,5	-	-	-	-	-	-	v	-
1h	TPK5100	PROJ PLAN/CONTR		7,5	-	-	-	-	-	-	v	-
1h	TTT4175	MARIN ACOUSTIC		7,5	-	-	-	-	-	v	v	-
1v	TEP4112	TURBULENT FLOWS	2	7,5	-	-	v	-	-	-	-	-
1v	TEP4220	ENERGY/ENVIRONMENT		7,5	-	-	-	-	-	-	v	-
1v	TMA4275	LIFETIME ANALYSIS		7,5	-	-	-	-	v	-	-	-
1v	TMR4120	UNDERWATER ENG BC		7,5	-	-	-	-	v5	-	v	-
1v	TMR4220	NAVAL HYDRODYNAMICS		7,5	v	-	-	-	-	-	-	-
1v	TMR4230	OCEANOGRAPHY		7,5	-	v	-	-	-	-	v	-
1v	TPG4200	SUBSEA PROD SYST		7,5	-	-	-	-	v	-	-	-
1v	TPK4110	QUAL/PERF MANAGEMENT		7,5	-	-	-	-	v	-	v	-
1v	TTK4135	OPTIMISATION/CONTROL		7,5	-	v	-	-	-	-	-	-

cont.

# FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY

## MSC-PROGRAMME IN MARINE TECHNOLOGY (MSN1)

Ex	Subject no.	Subject title	Note	Cr	Specialization						
					MS	MC	MH	ME	MO	MD	MR
		<b>Specialization courses</b>									
2h	TMR4505	MARINE STRUCTURE SC		7,5	o	-	-	-	-	-	-
2h	TMR4515	MAR CONTR SYST SC		7,5	-	o	-	-	-	-	-
2h	TMR4525	MARINE HYDRODYN SC		7,5	-	-	o	-	-	-	-
2h	TMR4535	MARINE ENGINEER SC		7,5	-	-	-	o	-	-	-
2h	TMR4555	OPERATION MAIN ENG SC		7,5	-	-	-	-	o	-	-
2h	TMR4565	MARINE SYS DESIGN SC		7,5	-	-	-	-	-	o	-
2h	TMR4575	MARINE RES/AQUA SC		7,5	-	-	-	-	-	-	o
		<b>Specialization projects</b>									
2h	TMR4500	MARINE STRUCTURE SP		7,5	o	-	-	-	-	-	-
2h	TMR4510	MAR CONTR SYST SP		7,5	-	o	-	-	-	-	-
2h	TMR4520	MARINE HYDRODYN SP		7,5	-	-	o	-	-	-	-
2h	TMR4530	MARINE ENGINEER SP		7,5	-	-	-	o	-	-	-
2h	TMR4550	OPERATION MAIN ENG SP		7,5	-	-	-	-	o	-	-
2h	TMR4560	MARINE SYS DESIGN SP		7,5	-	-	-	-	-	o	-
2h	TMR4570	MARINE RES/AQUA SP		7,5	-	-	-	-	-	-	o
		<b>Supplementary courses</b>	1,3								
2h	BI3061	BIO OCEANOGRAPHY		7,5	-	-	-	-	-	v	v
2h	TEP4156	VISCOUS FLOWS		7,5	-	-	v	-	-	-	-
2h	TEP4165	COMP HEAT/FLUID FLOW		7,5	-	-	-	v	-	-	-
2h	TEP4185	NATURAL GAS TECHN		7,5	-	-	-	v	-	v	v
2h	TEP4212	GAS CLEAN/EMISS CONTR		7,5	-	-	-	v	-	-	-
2h	TEP4275	INDUSTRIAL ECOLOGY		7,5	-	-	-	-	-	v	v
2h	TI04120	OP RESEARCH INTRO		7,5	-	-	-	-	v	-	v
2h	TI04130	OPT METHODS		7,5	-	-	-	-	-	v	-
2h	TMM4112	MACHINE ELEMENTS		7,5	-	-	-	v	v	-	-
2h	TMR4115	DESIGN METHODS		7,5	-	-	v	-	-	-	v
2h	TMR4130	RISK ANALYSIS		7,5	v	-	-	v	-	-	v
2h	TMR4137	SUST UTIL MAR RES		7,5	-	-	-	-	v	v	-
2h	TMR4190	FINITE ELEMENT METHOD		7,5	-	v	-	-	-	v	-
2h	TMR4200	FATIGUE/FRACTURE		7,5	v	-	v	-	-	v	-
2h	TMR4215	SEA LOADS		7,5	-	-	-	-	v	v	v
2h	TMR4235	STOCH THEORY SEALOAD		7,5	v	-	v	-	-	-	-
2h	TMR4243	MARINE CONTROL SYS 2		7,5	-	v	-	v	-	-	-
2h	TMR4260	SAFE OPER MAINT	2	7,5	-	-	-	-	-	-	v
2h	TMR4275	MOD/SIM/AN DYN SYS		7,5	-	-	v	-	v	v	v
2h	TMR4290	MAR ELECTR PROP SYST		7,5	-	v	-	-	v	v	v
2h	TMR4300	EXP/NUM HYDRODYN		7,5	-	-	v	-	-	-	-
2h	TMR4305	ADV ANALY MAR STRUCT		7,5	v	-	-	-	-	-	-
2h	TPK4160	VALUE CHAIN CONTROL		7,5	-	-	-	-	-	v	v
2h	TPK5100	PROJ PLAN/CONTR		7,5	-	-	-	-	v	v	v
2h	TTK4115	LINEAR SYST THEORY		7,5	-	v	-	v	-	-	-
2h	TTK4150	NONLINEAR CONTR SYST		7,5	-	v	-	-	-	-	-
2h	TTT4175	MARINE ACOUSTICS		7,5	-	-	-	-	-	v	v
		<b>Master Thesis</b>									
2v	TMR4930	MARINE TECHNOLOGY		30,0	o	o	o	o	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

v1 - select one of the courses

v2 - compulsory course for students without equivalent background

v3 - select one of the two courses based on background

v4 - select at least one of the courses

v5 - select at least two of the courses

- 1) Courses should be selected so that the total weighting each term amounts to 30 credits (cr).
- 2) The course will not be taught in the academic year 2013/14.
- 3) Supplementary courses are not considered when planning the teaching and examination schedules.

Specializations:

MS - Marine structures

MC - Marine cybernetics

MH - Marine hydrodynamics

ME - Marine engineering

MO - Marine operation and maintenance engineering

MD - Marine systems design

MR - Marine resources and aquaculture