

PROGRAM OF STUDY

BSMT 2-1-1 PROGRAM SCHEME

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FIRST YEAR

First Year – 1st Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
NAV	1	Terrestrial and Coastal Navigation 1	3	3	4	None	None
SEAM	1	Basic Seamanship	3	3	4	None	None
ICT		Maritime Information Communication Technology with Cyber Security	1	3	2	None	None
NGEC	9	Math, Sciences, and Technology (for development)	3	0	3	None	None
NGEC	1	Understanding the Self	3	0	3	None	None
NGEC	5	Purposive Communication	3	0	3	None	None
NSTP	1	National Service Training Program	3	0	3	None	None
PE	1	Basic Swimming	0	2	2	None	None
Sub-Total			19	11	24		
Total			30				

First Year – 2nd Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
NAV	2	Terrestrial and Coastal Navigation 2	3	3	4	NAV 1	None
SEAM	2	Ship Construction	3	0	3	SEAM 1	None
COLREGS		Collision Regulations	3	3	4	None	None
MET-O		Meteorology and Oceanography	4	2	5	None	None
PE	2	Advanced Swimming	0	2	2	PE 1	None
NSTP	2	National Service Training Program	3	0	3	None	None
Sub-Total			16	10	21		
Total			26				

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SECOND YEARSecond Year – 1st Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
NAV	3	Electronic Navigation	2	3	3	NAV 2	None
NAV	4	Celestial Navigation	2	3	3	NAV 2	None
SEAM	3	Trim, Stability and Stress	2	2	3	SEAM 2	None
SEAM	5	Ship handling and Manoeuvring	2	3	3	NAV 3	None
MARCOM		Maritime Communications	3	3	4	None	None
MGMT	1	Leadership and Teamwork	3	0	3	None	None
Sub-Total			14	14	19		
Total			28				

Second Year – 2nd Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
NAV	5	Operational Use of Radar/ARPA ¹	2	3	3	NAV 3, COLREGS	None
NAV	6	Operational Use of ECDIS ²	1	3	2	NAV 3, NAV 4	None
D-WATCH		Deck Watchkeeping with Bridge Resource Management	3	3	4	MGMT 1, MARCOM, MET-O, COLREGS SEAM 5 Nav 5 Nav 6	None
SEAM	4	Cargo Handling and Stowage	3	3	4	SEAM 3	None
MARLAW		Maritime Law	4	0	4	None	None
Sub-Total			13	12	17		
Total			25				

Note: While NAV 5¹ and NAV 6² are reflected with the D-WATCH course in the 2nd Year – 2nd Semester as pre-requisites, the former (NAV 5 and NAV 6) have to be taken and successfully passed first prior to the taking of the latter (D-WATCH course).

THIRD YEAR**Pre-Requisite for Onboard Training (OBT)**

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
BT		Basic Training	N/A	N/A	N/A	None	None
SDSD		Ship Security Awareness Training and Seafarers with Designated Security Duties	N/A	N/A	N/A	None	None
Sub-Total					N/A		
Total							

Note: It is the discretion of the Maritime Higher Education Institutions (MHEIs) when to offer the BT and SDSD as long as it is prior to OBT.

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
OBT		Onboard Training			40	BT, SDSD	None
Sub-Total					40		
Total							

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FOURTH YEAR

Fourth Year – 1st Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
MARPOW		Basic Marine Engineering	3	0	3	None	None
NGEC	8	Ethics	3	0	3	None	None
RIZAL		The Life and Works of Dr José Rizal	3	0	3	None	None
NGEC	3	The Contemporary World	3	0	3	None	None
NGEC	4	Mathematics in the Modern World	3	0	3	None	None
MARENV		Protection of the Marine Environment	3	0	3	None	None
PE	3	Dual Sports	0	2	2	None	None
Sub-Total			18	2	20		
Total			20				

Fourth Year – 2nd Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
			Lec	Lab			
MGMT	2	Integrated Management System	2	0	2	None	None
NGEC	2	Readings in Philippine History	3	0	3	None	None
NGEC	6	Art Appreciation	3	0	3	None	None
NGEC	7	Science, Technology, & Society	3	0	3	None	None
NGEC	10	Social Sciences & Philosophy	3	0	3	None	None
NGEC	11	Arts and Humanities	3	0	3	None	None
PE	4	Team Sports	0	2	2	None	None
Sub-Total			17	2	19		
Total			19				

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Note: The Maritime Higher Education Institutions (MHEI) has the prerogative to rearrange the sequence of New General Education Courses (NGEC) except for NGEC9.



PROGRAM OF STUDY

BSMarE 2-1-1 PROGRAM SCHEME

FIRST YEAR

First Year – 1st Semester

Course Code	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
		Lec	Lab			
NGEC 9	Math, Science, and Technology (for development)	3	0	3	None	None
Mach 1	Machine Shop Theory	3	0	3	None	None
Electro 1	Basic Electricity	3	3	4	None	None
MDraw	Maritime Drawing and Diagrams	1	3	2	None	None
ICT	Maritime Information, Communications, and Technology with Networking	1	2	2	None	None
NGEC 4	Mathematics in the Modern World	3	0	3	None	None
NSTP 1	National Service Training Program	3	0	3	None	None
PE 1	Basic Swimming	0	2	2	None	None
Sub-Total		17	10	22		
Total		27				

First Year – 2nd Semester

Course Code	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
		Lec	Lab			
Thermo	Thermodynamics	6	0	6	NGEC 9	None
Electro 2	Basic Electronics	3	3	4	Electro 1	None
IChem	Industrial Chemistry and Tribology	3	2	4	None	None
E Mat	Engineering Materials	3	0	3	NGEC 9	None
Mech	Mechanics and Hydromechanics for Marine Engineering	3	0	3	NGEC 9	None
Mach 2	Machine Shop Practice 1	0	4	2	Mach 1	None
NGEC 5	Purposive Communication	3	0	3	None	None
NSTP 2	National Service Training Program 2	3	0	3	None	None
PE 2	Advance Swimming	0	2	2	PE 1	None
Sub-Total		24	11	30		
Total		35				



SECOND YEAR

Second Year – 1st Semester

Course Code	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
		Lec	Lab			
Mach 3	Machine Shop Practice 2	0	6	2	Mach 1 E Mat	None
Electro 3	Marine Electro-Technology with Maintenance and Repair	3	6	5	Electro 2	None
Aux Mach 1-Lec	Auxiliary Machinery 1 - Lecture	3	0	3	Thermo IChem Mech MDraw	None
Aux Mach 2-Lec	Auxiliary Machinery 2 - Lecture	3	0	3	Thermo IChem Mech MDraw	None
Aux Mach 3-Lec	Auxiliary Machinery 3 - Lecture	3	0	3	Thermo IChem Mech MDraw	None
NGEC 1	Understanding the Self	3	0	3	None	None
NGEC 3	The Contemporary World	3	0	3	None	None
NGEC 7	Science, Technology, & Society	3	0	3	None	None
PE 3	Dual Sports	0	2	2	None	None
Sub-Total		21	14	27		
Total		35				

Second Year – 2nd Semester

Course Code	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
		Lec	Lab			
Auto 1	Pneumatics and Hydraulics	3	3	4	Electro 3 Mech	None
Auto 2	Marine Plant Instrumentation and Control	3	3	4	Auto 1 Electro 3 Mech	None
Ship Con	Ship Construction and Stability	3	0	3	None	None
Mar Law	Maritime Legislations	4	0	4	None	None
NGEC 6	Art Appreciation	3	0	3	None	None
NGEC 8	Ethics	3	0	3	None	None
PE 4	Team Sports	0	2	2	None	None
Sub-Total		19	8	23		
Total		27				



THIRD YEAR

Pre-Requisite for Onboard Training (OBT)

Course Code	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
		Lec	Lab			
BT	Basic Training	N/A	N/A	N/A	None	None
SDSD	Ship Security Awareness Training and Seafarers with Designated Security Duties	N/A	N/A	N/A	None	None
Sub-Total				N/A		
Total						

Note: It is the discretion of the Maritime Higher Education Institutions (MHEIs) when to offer the BT and SDSD as long as it is prior to OBT.

Course Code	Course Descriptive Title	Contact Hours		Units	Pre - Requisite/s	Co- Requisite/s
		Lec	Lab			
OBT	Onboard Training			40	BT, SDSD	None
Sub-Total				40		
Total						

FOURTH YEAR

Fourth Year – 1st Semester

Course Code	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co- Requisite/s
		Lec	Lab			
AuxMach 1-Lab	Auxiliary Machinery 1 - Laboratory	0	5	2	AuxMach 1- Lec Auto 1 Auto 2 Electro 3	None
AuxMach 2-Lab	Auxiliary Machinery 2 - Laboratory	0	5	2	AuxMach 2- Lec Auto 1 Auto 2 Electro 3	None
AuxMach 3-Lab	Auxiliary Machinery 3 - Laboratory	0	5	2	AuxMach 3- Lec Auto 1 Auto 2	None



(Program of Study (2-1-1 scheme) for Bachelor of Science in Marine Engineering (BSMarE))

Course Code	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
		Lec	Lab			
					Electro 3	
Main Prop 1	Main Propulsion 1	3	0	3	Thermo Auto 1 Auto 2 AuxMach 1- Lec AuxMach 2- Lec AuxMach 3- Lec	None
EWK 1	Engine Watchkeeping 1	3	3	4	Mar Law ICT	None
NGEC 2	Readings in Philippine History	3	0	3	None	None
NGEC 10	Social Sciences and Philosophy	3	0	3	None	None
Sub-Total		12	18	19		
Total		30				

Fourth Year – 2nd Semester

Course Code	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
		Lec	Lab			
Maint	Maintenance and Repair of Auxiliary Machinery and Equipment	1	5	3	Mach 2 Mach 3 E Mat AuxMach 1- Lab AuxMach 2- Lab AuxMac 3- Lab	None
MGMT	Leadership and Teamwork	3	3	4	None	None
EWK 2	Engine Watchkeeping 2	0	5	2	EWK 1 Mar Law Main Prop 1 AuxMach 1- Lab AuxMach 2- Lab AuxMac 3- Lab	None
Main Prop 2	Main Propulsion 2	0	5	2	Main Prop 1 AuxMach 1- Lab AuxMach 2- Lab AuxMac 3- Lab	None
NGEC 11	Arts and Humanities	3	0	3	None	None
Rizal	The Life and Works of Dr José Rizal	3	0	3	None	None
Sub-Total		10	18	17		
Total		28				



Note: The Maritime Higher Education Institutions (MHEI) has the prerogative to rearrange the sequence of New General Education Courses (NGEC) except NGEC 9.

