

## PROGRAM OF STUDY

### BSMT 3-1 PROGRAM SCHEME

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#### FIRST YEAR

##### First Year – 1<sup>st</sup> 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	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
<b>Sub-Total</b>			16	11	21		
<b>Total</b>			27				

##### First Year – 2<sup>nd</sup> 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
<b>Sub-Total</b>			16	10	21		
<b>Total</b>			26				

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## SECOND YEAR

### Second Year – 1<sup>st</sup> Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
			Lec	Lab			
NAV	3	Electronic Navigation and Compasses	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
MARENV		Protection of the Marine Environment	3	0	3	None	None
NGEC	3	The Contemporary World	3	0	3	None	None
NGEC	7	Science, Technology and Society	3	0	3	None	None
NGEC	1	Understanding the Self	3	0	3	None	None
PE	3	Dual Sports	0	2	2	None	None
<b>Sub-Total</b>			18	10	23		
<b>Total</b>			28				

### Second Year – 2<sup>nd</sup> 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	2	3	3	NAV 3, COLREGS	None
MARCOM		Maritime Communications	3	3	4	None	None
MGMT	1	Leadership and Teamwork	3	0	3	None	None
SEAM	4	Cargo Handling and Stowage	3	3	4	SEAM 3	None
NGEC	8	Ethics	3	0	3	None	None
PE	4	Team Sports	0	2	2	None	None
<b>Sub-Total</b>			14	11	19		
<b>Total</b>			25				

### THIRD YEAR

#### Third Year – 1<sup>st</sup> Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
			Lec	Lab			
NAV	6	Operational Use of ECDIS	1	3	2	NAV 3, NAV 4	None
SEAM	5	Shiphandling and Manoeuvring	2	3	3	NAV 3	None
MARLAW		Maritime Law	4	0	4	None	None
NGEC	4	Mathematics in the Modern World	3	0	3	None	None
NGEC	10	Social Sciences & Philosophy	3	0	3	None	None
<b>Sub-Total</b>			13	6	15		
<b>Total</b>			19				

#### Third Year – 2<sup>nd</sup> Semester

Course Code	No.	Course Descriptive Title	Contact Hours		Units	Pre Requisite/s	Co-Requisite/s
			Lec	Lab			
D-WATCH		Deck Watchkeeping with Bridge Resource Management	3	3	4	MGMT 1, NAV 5, NAV 6, SEAM 5, MARCOM, MET-O, COLREG S	None
MGMT	2	Integrated Management System	2	0	2	None	None
MARPOW		Basic Marine Engineering	3	0	3	None	None
NGEC	6	Art Appreciation	3	0	3	None	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
NGEC	2	Readings in Philippine History	3	0	3	None	None
<b>Sub-Total</b>			20	3	21		
<b>Total</b>			23				



**FOURTH 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
<b>Sub-Total</b>			N/A	N/A	N/A		
<b>Total</b>			N/A				

*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
<b>Sub-Total</b>					40		
<b>Total</b>							

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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 3-1 PROGRAM SCHEME

## FIRST YEAR

First Year – 1<sup>st</sup> 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 – 2<sup>nd</sup> 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 – 1<sup>st</sup> 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 – 2<sup>nd</sup> 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

#### Third Year – 1<sup>st</sup> 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 Electro 3	None
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				

#### Third Year – 2<sup>nd</sup> 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	None



## (Program of Study (3-1 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			
					AuxMach 1-Lab AuxMach 2-Lab AuxMac 3-Lab	
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				

## FOURTH 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	N/A	N/A		
Total		N/A				

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.





*(Program of Study (3-1 scheme) for Bachelor of Science in Marine Engineering (BSMarE))*

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						

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

