

*** Marine Engineering** (*Dated September 30th, 2015*)

Total credits of the curriculum :	136 credits
- General education knowledge:	28 credits
<i>(Not including physical education, military defense education and soft skills)</i>	
- Basic courses:	6 credits
- Fundamental courses:	23 credits
- Core courses:	9 credits
- Advanced courses:	70 credits
+ <i>Required:</i>	<i>48 credits</i>
+ <i>Elective:</i>	<i>15/58 credits</i>
+ <i>Graduation thesis/ subjects replacing thesis:</i>	<i>7 credits</i>

Available curriculum

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
I		General education knowledge (<i>Not including subjects 10 - 12</i>)	28				
1	PHI1004	<i>Fundamental Principles of Marxism - Leninism 1</i>	2	24	6		
2	PHI1005	<i>Fundamental Principles of Marxism - Leninism 2</i>	3	36	9		PHI1004
3	POL1001	<i>Ho Chi Minh Ideology</i>	2	20	10		PHI1005
4	HIS1002	<i>The Revolutionary Line of the Communist Party of Vietnam</i>	3	42	3		POL1001
5	INT1003	<i>Introduction to Informatics 1</i>	2	10	20		
6	INT1005	<i>Introduction to Informatics 3</i>	2	12	18		INT1003
7	FLF2101	<i>General English 1</i>	4	16	40	4	
8	FLF2102	<i>General English 2</i>	5	20	50	5	FLF1105
9	FLF2103	<i>General English 3</i>	5	20	50	5	FLF1106
10		<i>Physical Education</i>	4				
11		<i>National Defence Education</i>	8				
12		<i>Soft Skills</i>	3				
II		Basic courses	6				
13	HIS1056	<i>Fundamental of Vietnamese culture</i>	3	42	3		
14	GEO1050	<i>Earth and Life sciences</i>	3	42	3		
III		Fundamental courses	23				
15	MAT1090	<i>Linear algebra</i>	3	30	15		
16	MAT1091	<i>Calculus 1</i>	3	30	15		
17	MAT1092	<i>Calculus 2</i>	3	30	15		MAT1091

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
18	MAT1101	<i>Probability and Statistics</i>	3	27	18		MAT1091
19	PHY1100	<i>Mechanics - Thermodynamics</i>	3	30	15		
20	PHY1103	<i>Electromagnetism - Optics</i>	3	30	15		PHY1100
21	CHE1080	<i>General Chemistry</i>	3	42		3	
22	CHE1069	<i>General Chemistry Laboratory</i>	2		30		CHE1080
IV		Core courses	9				
23	HMO2201	<i>Computational methods</i>	3	36	6	3	MAT1092
24	HMO2202	<i>Fluid mechanics</i>	3	33	9	3	MAT1092, PHY1100
25	HMO2203	<i>GIS and remote sensing</i>	3	30	12	3	
V		Advanced courses	70				
V.1		<i>Required</i>	48				
26	HMO3600	<i>General oceanography</i>	3	30	12	3	
27	HMO3601	<i>Marine hydrometry</i>	3	27	15	3	HMO3600
28	HMO3602	<i>Marine physics</i>	3	30	12	3	HMO3600
29	HMO3603	<i>Marine chemistry</i>	3	27	15	3	HMO3600
30	HMO3604	<i>Marine biology and ecology</i>	3	30	12	3	HMO3600
31	HMO3606	<i>Ocean currents</i>	3	30	12	3	HMO3602
32	HMO3607	<i>Ocean waves and tide</i>	3	30	12	3	HMO3602
33	HMO3808	<i>Marine geotechnology</i>	3	27	15	3	HMO3600
34	HMO3809	<i>Technical drawing</i>	3	24	18	3	
35	HMO3810	<i>Introduction to marine engineering</i>	3	30	12	3	HMO3600
36	HMO3811	<i>Marine structures</i>	3	30	12	3	HMO3810
37	HMO3812	<i>Marine facilities system planning</i>	3	30	12	3	HMO3600

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
38	HMO3813	<i>Engineering economics</i>	3	30	12	3	
39	HMO3631	<i>Marine hydrometry practice</i>	3		30		HMO3601
40	HMO3821	<i>Specialization practice</i>	3		30		
41	HMO3822	<i>Graduation practice</i>	3		30		
V.2		<i>Elective</i>	15/58				
42	HMO3814	<i>Port and harbor</i>	3	30	12	3	HMO3811
43	HMO3616	<i>Coastal sediment processes</i>	3	30	12	3	HMO3606 HMO3607
44	HMO3815	<i>Estuarine hydrodynamics</i>	3	30	12	3	HMO3606 HMO3607
45	HMO3816	<i>Reclamation and dredging engineering</i>	3	30	12	3	HMO3811
46	HMO3615	<i>Waves and sea level calculation</i>	3	24	18	3	HMO3607
47	HMO3817	<i>Engineering mechanics</i>	3	30	12	3	MAT1101
48	HMO3818	<i>Coastline and beach dynamics</i>	3	30	12	3	HMO3607 HMO3808
49	HMO3612	<i>River-sea interaction</i>	3	30	12	3	HMO3606 HMO3607
50	HMO3623	<i>Marine environment and resources management</i>	3	30	10	5	HMO3600
51	HMO3819	<i>Modeling of environmental systems</i>	3	30	12	3	HMO3810
52	HMO3820	<i>Basic of environmental engineering</i>	3	30	12	3	HMO3603 HMO3604
53	HMO3628	<i>Transport of contaminants in marine environment</i>	3	30	12	3	HMO3602

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
54	HMO3625	<i>Marine water chemical analysis</i>	3	24	18	3	HMO3603
55	HMO3629	<i>Marine environmental engineering</i>	3	30	12	3	HMO3600
56	HMO3730	<i>Environmental Control of Oil and hazardous materials</i>	3	30	12	3	HMO3604
57	HMO3605	<i>Marine geology and geomorphology</i>	3	30	12	3	HMO3600
58	HMO3611	<i>Numerical methods in oceanography</i>	3	24	18	3	HMO3602
59	HMO3614	<i>Coastal ocean circulation</i>	3	30	12	3	HMO3606
60	HMO3505	<i>Hydraulics</i>	4	30	15	15	HMO3602
V.3		<i>Graduation thesis/ subjects replace thesis</i>	7				
V.3.1		<i>Graduation Thesis</i>	7				
61	HMO4076	<i>Graduation Thesis</i>	7				
V.3.2		<i>Subjects replacing thesis</i>	7				
62	HMO4084	<i>Principles of oceanography</i>	3	30	12	3	HMO3606 HMO3607
63	HMO4086	<i>Sustainable exploitation of marine resources</i>	4	42	15	3	HMO3603 HMO3604 HMO3606 HMO3607
Total			136				