

UNDERGRADUATE PROGRAM IN OCEANOLOGY

LEARNING OUTCOMES - MODULE MATRIX OF B.SC. IN OCEANOLOGY

No	Code	Module	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8
GENERAL EDUCATION										
1	BAA00003	Ho Chi Minh 's Ideology	L							M
2	BAA00004	General law	L							M
3	BAA00005	Basic Economics	L							M
4	BAA00006	Psychology	L							M
5	BAA00007	Creative Methodology	L					L	L	M
6	BAA00011	English 1	L			L				M
7	BAA00012	English 2	L			L				M
8	BAA00013	English 3	L			L				M
9	BAA00014	English 4	L			L				M
10	BAA00021	Gymnastics 1	L							M
11	BAA00022	Gymnastics 2	L							M
12	BAA00030	National Defense Education	L							M
13	BAA00101	Marxist-Leninist Philosophy	L							M
14	BAA00102	Marxist–Leninist Political Economy	L							M
15	BAA00103	Scientific Socialism	L							M
16	BAA00104	History of Vietnamese Communist Party	L							M
17	BIO00001	Fundamental Biology 1	M							M
18	BIO00002	Fundamental Biology 2	M							M
19	CHE00001	General Chemistry 1	M							M
20	CHE00002	General Chemistry 2	M							M
21	CSC00003	Introduction to Informatics	M		L					M
22	ENV00001	Fundamental of Environment Science	M							M
23	MTH00003	Calculus 1B	M							M
24	MTH00004	Calculus 2B	M							M
25	MTH00030	Linear Algebra	M							M
26	MTH00040	Probability and Statistics	M							M
27	MTH00081	Calculus Laboratory 1B	M		L					M
28	MTH00082	Calculus Laboratory 2B	M		L					M
29	PHY00001	General physics 1 (Mechanics - Thermodynamics)	M							M
30	PHY00002	General physics 2 (Electromagnetic - Optics)	M							M
31	PHY00081	Labwork on General Physics	M		L					M
32	PHY10001	Functions of a Complex Variable	M							M

		PROFESSIONAL EDUCATION								
		Fundamentals of Oceanology								
1	OMH00001	Introduction to Oceanology, Meteorology and Hydrology	L	L	L	L	M	L	L	H
2	OMH10001	Computational Methods		M		L		M		H
3	OMH10002	Mathematical Methods for Physics		M		L		M		H
4	OMH10003	Applied Programming		L		L	L	M	L	H
5	OMH10004	Fluid Mechanics	M			L		M		H
6	OMH10005	General Astronomy	M		L			L		H
7	OMH10006	Introduction to Oceanography	M			L		L		H
8	OMH10007	Introduction to Meteorology	M			L		L		H
9	OMH10008	Introduction to Hydrology	M			L		L		H
10	OMH10009	Measurements and Analysis of Random Data		M	L	L	L	M		H
11	OMH10010	Introduction to Ocean-Atmosphere Interaction	M			L	L	M		H
12	OMH10011	Introduction to Geophysical Fluid Dynamics	M			L		L		H
13	OMH10012	Numerical Modelling for Geophysical Flows		M		L	M	M		H
14	OMH10013	Methods of Data Mining 1	M	M		L	M	M		H
15	OMH10014	Remote Sensing and GIS		M	L		M	M	L	H
16	OMH10015	Practical Oceanography, Meteorology and Hydrology		M	H		H		M	H
17	OMH10016	Environmental Pollution	M			L	M	M		H
18	OMH10017	Data mining in Earth Science	M	L		L	M	M		H
		Specialization								
1	OMH10101	Physical Geography	L			L		M		H
2	OMH10102	Introduction to Marine Geomorphology and Geology	L			L		M		H
3	OMH10103	Introduction to Estuaries	M			L		M		H
4	OMH10104	Oceanic Currents and Water Circulation	H			L		M		H
5	OMH10105	Water Wave Mechanics	H			L		M		H
6	OMH10106	Tides	H			M	M	M		H
7	OMH10107	Special Topics in Oceanography	M	H	M		H	H	M	H
8	OMH10108	Practical Oceanography		M	H		H	H	M	H
9	OMH10109	Modelling Tools for Oceanographers		H		M	M	H	M	H
10	OMH10110	Sediment Transport	H	M	L	M		M		H
11	OMH10111	Chemical Oceanography	M			M		M		H
12	OMH10112	Marine Ecosystem	M			M		M		H
13	OMH10113	Physical Oceanography in the East Sea	M			M	M	M	M	H

14	OMH10114	Marine Governance and Marine Economics	M			M		M	M	H
15	OMH10115	Marine Physics	H			M		M		H
16	OMH10116	Ocean Surface Waves	H			M		M		H
17	OMH10117	Resources of Marine Environment and Climate Change	M			M		M	M	H
18	OMH10118	Bio-Geochemical Cycles	M			M		M		H
19	OMH10119	Methods of Data Mining 2		H	M	M		H	M	H
20	OMH10120	Data Management and Analysis in Oceanology, Meteorology and Hydrology	M		H			M	M	H
21	OMH10121	Special Topics in Ocean-Atmosphere Interaction	M	H	M	M	M	H	M	H
22	OMH10201	Introduction to Thermodynamics of the Atmosphere	H			M		M		H
23	OMH10202	An Introduction to Dynamic Meteorology	H			M		M		H
24	OMH10203	Synoptic Meteorology	H			M		M		H
25	OMH10204	Climatology and Climate in Vietnam	M			M		M	M	H
26	OMH10205	Special Topics in Meteorology	M	H	M	M	M	H	M	H
27	OMH10206	Practical Meteorology		M	H		H	H	M	H
28	OMH10207	Modelling Tools in Meteorology		H		M	M	H	M	H
29	OMH10208	Introduction to Boundary Layer Meteorology	H			M		M		H
30	OMH10209	Numerical Prediction	M		H	M		H		H
31	OMH10210	Agricultural Climate	M			L		M	M	H
32	OMH10211	Aeronautical Meteorology	M		M	L		M		H
33	OMH10212	Tropical Meteorology	H			M		M		H
34	OMH10213	Weather Prediction by numerical methods		M		M	M	M	M	H
35	OMH10214	Introduction to Ocean Climate and Air-Sea Interaction	M			M		M		H
36	OMH10215	Microclimatology	M			M		M		H
37	OMH10216	Statistical Methods in Climatology		M		M		M	M	H
38	OMH10217	Introduction to Atmospheric Convection	M					M		H
39	OMH10218	Data analysis and weather prediction by statistical methods		H	H			M	M	H
40	OMH10301	River Dynamics	H			M		M		H
41	OMH10302	Hydraulics	H			M		M		H
42	OMH10303	Watershed Hydrology	H			M		M		H
43	OMH10304	Hydrological Topics	M	H	M	M	M	H	M	H
44	OMH10305	Practical Hydrology		M	H		H	H	M	H
45	OMH10306	Geography and Hydrogeology	M			M		M		H
46	OMH10307	Estuarine Hydro-Ecology	M			M		M		H
47	OMH10308	Hydrological Modelling Tools		H	H	M	M	H	M	H
48	OMH10309	Hydrological Agriculture and Urban	M			M		M		H

49	OMH10310	Computational Hydrology		M	M	M		M	M	H
50	OMH10311	Prediction of Hydrology		M	M	M		M	M	H
51	OMH10312	Hydrological and Hydraulics Models		H	M	M	M	M		H
52	OMH10313	Hydrologic Measurement	M		H		M	M	M	H
53	OMH10314	Environmental Hydrology	M			M		M		H
54	OMH10315	River Engineering	M			M		M		H
55	OMH10316	Management of Water Resources	M		M	M		M		H
56	OMH10401	Dynamics of Marine Environment	H	M		M		M	M	H
57	OMH10402	Coastal processes	H			M		M	M	H
58	OMH10403	Dynamics of Atmospheric Environment	H	M		M		M	M	H
59	OMH10404	Marine eco-hydrology Dynamics	H	M		M		M	M	H
60	OMH10405	Special Topics in Oceanology, Meteorology, and Hydrology	M	H	M		M	H	M	H
61	OMH10406	Practical Majors		M	H		H	H	M	H
62	OMH10407	Modelling Tools		H		M	M	H	M	H
63	OMH10408	Weather Forecast		M		L		M	M	H
64	OMH10409	Integrated Coastal Zone Management	M			M		M		H
65	OMH10410	Coastal processes along the Mekong Delta	H			M		M	M	H
66	OMH10411	Special subjects of natural risk and environmental assessment	M			M		M	M	H
67	OMH10412	Advanced data mining techniques and applications		H	M	M		H	M	H
68	OMH10413	Application of advanced technology in Agro-Meteorology	M			L		M	M	H