

*** Hydrology (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>53 credits</i>
+ <i>Elective:</i>	<i>10/65 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	FLF2101
9.	FLF2103	<i>General English 3</i>	5	20	50	5	FLF2102
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>Fundamentals of Vietnamese Culture</i>	3	42	3		
14.	GEO1050	<i>Earth and Life Sciences</i>	3	30	10	5	
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
18.	MAT1101	<i>Probability and Statistics</i>	3	27	18		MAT1091

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
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 dynamic</i>	3	33	9	3	MAT1092 PHY1100
25.	HMO2203	<i>GIS and Remote Sensing</i>	3	30	12	3	
V		Advanced courses	70				
<i>V.1</i>		<i>Required</i>	<i>53</i>				
26.	HMO3535	<i>Principles of Hydrology</i>	4	40	15	5	
27.	HMO3501	<i>Hydrological Analysis</i>	4	40	15	5	HMO3535
28.	HMO3502	<i>Hydrogeography</i>	3	33	8	4	HMO3535
29.	HMO3503	<i>Hydrogeology</i>	3	33	8	4	HMO3535
30.	HMO3534	<i>Meteorology and Climate</i>	3	33	8	4	
31.	HMO3505	<i>Hydraulics</i>	4	40	16	4	HMO3535
32.	HMO3507	<i>Geodesy and Cartography</i>	3	36	6	3	
33.	HMO3508	<i>Water Quality</i>	3	33	8	4	HMO3535
34.	HMO3509	<i>Hydrological Models</i>	3	33	8	4	HMO3501
35.	HMO3510	<i>Hydrogeography of Vietnam</i>	3	33	8	4	HMO3502
36.	HMO3533	<i>Climate change</i>	3	33	9	3	HMO3534
37.	HMO3600	<i>General Oceanography</i>	3	30	12	3	
38.	HMO3536	<i>Applications of Hydrological models</i>	3	30	12	3	HMO3509

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
39.	HMO3512	<i>Water Resource Survey</i>	3	33	8	4	HMO3535
40.	HMO3528	<i>General training</i>	2	6	24		HMO3535
41.	HMO3529	<i>Specialize training</i>	2	6	24		
42.	HMO3537	<i>Practical training</i>	2	12	18		
43.	HMO3001	<i>Term project</i>	2	25		5	
V.2		<i>Elective</i>	10/65				
44.	GEO2300	<i>Geography</i>	3	33	8	4	
45.	HMO3513	<i>River Dynamic</i>	4	44	12	4	HMO3505
46.	HMO3506	<i>Environmental Impact Assessment</i>	3	33	8	4	HMO3535
47.	HMO3514	<i>Hydrological Forecast</i>	4	44	12	4	HMO3501
48.	HMO3515	<i>Water Balance Estimation</i>	4	32	23	5	HMO3501
49.	HMO3538	<i>Hydrology of estuaries and wetlands</i>	3	36	6	3	HMO3513 HMO3600
50.	HMO3518	<i>Urban Hydrology</i>	3	36	6	3	HMO3535
51.	HMO3519	<i>River Training</i>	3	36	6	3	HMO3513
52.	HMO3520	<i>Operational hydrological forecast</i>	3	9	31	5	HMO3514
53.	HMO3521	<i>Water Environment Monitoring & Protection</i>	4	40	17	3	HMO3535
54.	HMO3522	<i>Water Resources Planning and Management</i>	4	40	17	3	HMO3501
55.	HMO3524	<i>Economics of Water Management and Policy</i>	3	30	12	3	HMO3535
56.	HMO3525	<i>Water Treatment Methods</i>	3	33	12		HMO3508
57.	HMO3526	<i>Flow Control & Regulation</i>	3	33	12		HMO3501
58.	HMO3527	<i>Operational water resource investigation</i>	3	13	27	5	HMO3512
59.	HMO3603	<i>Marine chemistry</i>	3	27	15	3	HMO3600

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
60.	HMO3625	<i>Sea water analyse</i>	3	24	18	3	HMO3603
61.	HMO3608	<i>Regional Oceanography and Vietnam East Sea</i>	3	30	12	3	HMO3600
62.	HMO3602	<i>Marine Physics</i>	3	30	12	3	HMO3600
63.	HMO3539	<i>Thematic maps</i>	3	30	12	3	PHY1100
V.3		<i>Graduation thesis/ subjects replace thesis</i>	7				
64.	HMO4072	<i>Graduation Thesis</i>	7	15		90	
		<i>Subjects replacing thesis</i>	7				
65.	HMO3520	<i>Operational hydrological forecast</i>	3	9	31	5	HMO3514
66.	HMO3515	<i>Water Balance Estimation</i>	4	32	23	5	HMO3501
		Total	136				