

*** Honors Program in Hydrology** (*Dated September 30th, 2015*)

Total credits of the curriculum :	151 credits
- General education knowledge:	33 credits
<i>(Not including physical education, military defense education and soft skills)</i>	
- Basic courses:	6 credits
- Fundamental courses:	23 credits
- Core courses:	12 credits
- Advanced courses:	77 credits
+ <i>Required:</i>	<i>57 credits</i>
+ <i>Elective:</i>	<i>10/61 credits</i>
+ <i>Graduation thesis/ subjects replacing thesis:</i>	<i>10 credits</i>

Available curriculum

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
I		General education knowledge <i>(Not including subjects 11 -13)</i>	33				
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.	FLF2104	<i>General English 4</i>	5	20	50	5	FLF2103
11.		<i>Physical Education</i>	4				
12.		<i>National Defence Education</i>	8				
13.		<i>Soft Skills</i>	3				
II		Basic courses	6				
14.	HIS1056	<i>Fundamentals of Vietnamese Culture</i>	3	42	3		
15.	GEO1050	<i>Earth and Life Sciences</i>	3	30	10	5	
III		Fundamental courses	23				
16.	MAT1090	<i>Linear Algebra</i>	3	30	15		
17.	MAT1091	<i>Calculus 1</i>	3	30	15		
18.	MAT1092	<i>Calculus 2</i>	3	30	15		MAT1091
19.	MAT1101	<i>Probability and Statistics</i>	3	27	18		MAT1091
20.	PHY1100	<i>Mechanics - Thermodynamics</i>	3	30	15		
21.	PHY1103	<i>Electromagnetism - Optics</i>	3	30	15		PHY1100
22.	CHE1080	<i>General chemistry</i>	3	42		3	

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23.	CHE1069	<i>General Chemistry Laboratory</i>	2		30		CHE1080
IV		Core courses	12				
24.	HMO2201	<i>Computational methods</i>	3	36	6	3	MAT1092
25.	HMO2202	<i>Fluid dynamic</i>	3	33	9	3	MAT1092 PHY1100
26.	HMO2203	<i>GIS and Remote Sensing</i>	3	30	12	3	
27.	HMO2204	Equations of Mathematical Physics	3	36	6	3	MAT1092
V		Advanced courses	77				
<i>V.1</i>		<i>Required</i>	<i>57</i>				
28.	HMO3535	<i>Principles of Hydrology</i>	4	40	15	5	
29.	HMO3501	<i>Hydrological Analysis</i>	4	40	15	5	HMO3535
30.	HMO3502	<i>Hydrogeography</i>	3	33	8	4	HMO3535
31.	HMO3503	<i>Hydrogeology</i>	3	33	8	4	HMO3535
32.	HMO3534	<i>Meteorology and Climate</i>	3	33	8	4	
33.	HMO3505	<i>Hydraulics</i>	4	40	16	4	HMO3535
34.	HMO3600	<i>General Oceanography</i>	3	36	6	3	
35.	HMO3507	<i>Geodesy & Cartography</i>	3	36	6	3	
36.	HMO3508	<i>Water Quality</i>	3	33	8	4	HMO3535
37.	HMO3509	<i>Hydrological Models</i>	3	33	8	4	HMO3501
38.	HMO3510	<i>Hydrogeography of Vietnam</i>	3	33	8	4	HMO3502
39.	HMO3533	<i>Climate change</i>	3	33	9	3	HMO3534
40.	HMO3512	<i>Water Resource Survey</i>	3	33	8	4	HMO3535
41.	HMO3514	<i>Hydrological Forecast</i>	4	44	12	4	HMO3501
42.	HMO3528	<i>General training</i>	2	6	24		HMO3535
43.	HMO3529	<i>Specialize training</i>	2	6	24		HMO3512
44.	HMO3537	<i>Practical training</i>	2		30		HMO3501
45.	HMO3536	<i>Applications of Hydrological models</i>	3	30	12	3	HMO3509

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
46.	HMO3701	<i>Term project 1</i>	2	30			HMO3535
47.	HMO3702	<i>Term project 2</i>	2	30			HMO3701
V.2		<i>Elective</i>	10/61				
48.	GEO2300	<i>Geography</i>	3	35	7	3	
49.	HMO3513	<i>River Dynamic</i>	4	44	12	4	HMO3505
50.	HMO3515	<i>Water Balance Estimation</i>	4	32	23	5	HMO3501
51.	HMO3538	<i>Hydrology of estuaries and coastal zones</i>	3	36	6	3	HMO3513 HMO3600
52.	HMO3506	<i>Environmental Impact Assessment</i>	3	33	8	4	HMO3535
53.	HMO3518	<i>Urban Hydrology</i>	3	36	6	3	HMO3535
54.	HMO3519	<i>River Training</i>	3	36	6	3	HMO3513
55.	HMO3520	<i>Operational hydrological forecast</i>	3	9	31	5	HMO3514
56.	HMO3522	<i>Water Resources Planning and Management</i>	4	40	17	3	HMO3501
57.	HMO3521	<i>Water Environment Monitoring & Protection</i>	4	40	17	3	HMO3535
58.	HMO3524	<i>Economics of Water Management and Policy</i>	3	30	10	5	HMO3535
59.	HMO3525	<i>Water Treatment Methods</i>	3	33	12		HMO3508

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
60.	HMO3526	<i>Flow Control & Regulation</i>	3	33	12		HMO 3501
61.	HMO3527	<i>Operational water resource investigation</i>	3	13	27	5	HMO3512
62.	HMO3539	<i>Thematic maps</i>	3	30	12	3	PHY1100
63.	HMO3603	<i>Marine chemistry</i>	3	20	20	5	
64.	HMO3625	<i>Sea-water analyse</i>	3	20	20	5	
65.	HMO3608	<i>Regional Oceanography and Vietnam East Sea</i>	3	30	10	5	
66.	HMO3602	<i>Marine Physics</i>	3	30	10	5	
V.3		<i>Graduation thesis</i>	10				
67.	HMO4073	<i>Graduation Thesis</i>	10				
		Total	151				