

- **International Standard Program in Geology**

The International Standard Program in Physics started in 2009 with the collaboration from the University of Illinois at Urbana-Champaign (U.S.A). The total minimum required number of credits is 161.

- **General education knowledge** **38 credits**
(not including physical education, military defense education, and soft skills)
- **Basic courses:** **6 credits**
- **Fundamental courses:** **22 credits**
- **Core courses:** **31 credits**
 - + *Required:* *25 credits*
 - + *Elective:* *6/12 credits*
- **Advanced courses:** **64 credits**
 - + *Required:* *42 credits*
 - + *Elective:* *12/21 credits*
- **Undergraduate thesis:** *10 credits*

Available curriculum

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
I		General education knowledge <i>(Not including subjects 12-14)</i>	38				
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>Revolutionary Strategies of Vietnamese Communist Party</i>	3	42	3		POL1001
5	INT1003	<i>Introduction to Informatics 1</i>	2	10	20		

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
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	FLF2105	<i>General English 5</i>	5	20	50	5	FLF2104
12		<i>Physical Education</i>	4				
13		<i>National Defense Education</i>	8				
14		<i>Soft Skills</i>	3				
II		Basic courses	6				
15	HIS1056	<i>Fundamentals of Vietnamese Culture</i>	3	42	3		
16	GEO1050	<i>Earth and Life Sciences</i>	3	30	10	5	
III		Fundamental courses	22				
17	MAT1090	<i>Linear Algebra</i>	3	30	15		
18	MAT1091	<i>Calculus 1</i>	3	30	15		
19	MAT1192	<i>Calculus 2</i>	2	20	10		MAT1091
20	MAT1101	<i>Probability and Statistics</i>	3	27	18		MAT1091
21	PHY1100	<i>Mechanics - Thermodynamics</i>	3	30	15		MAT1091
22	PHY1103	<i>Electromagnetism - Optics</i>	3	30	15		MAT1091
23	PHY1104	<i>General Physics Practice</i>	2		30		PHY1100
24	CHE1080	<i>General chemistry</i>	3	42		3	
IV		Core courses	31				
IV.1		Required	25				
25	GLO2076	<i>English for Geology</i>	3	20	20	5	FLF2103
26	GLO2078	<i>Physical Geology</i>	4	45	10	5	GEO1050

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
27	GEO2059	<i>GIS and remote sensing</i>	3	15	25	5	GLO2078
28	GLO2068	<i>Natural Disasters</i>	3	30	10	5	GLO2078
29	GLO2066	<i>Exploring Geology in the Field</i>	3		45		GLO2078
30	GLO2074	<i>Introduction to Geophysics</i>	3	30	10	5	GLO2078
31	GLO2058	<i>Applied Geoinformatics</i>	3	15	25	5	GE02059
32	GLO2086	<i>Techniques of Geological Survey</i>	3	10	30	5	GLO2074
IV.2		<i>Elective</i>	6/1 2				
33	GLO2069	<i>Geomorphology</i>	3	30	10	5	GLO2078
34	GLO3120	<i>Marine Geology</i>	3	30	10	5	GLO2074
35	GLO2080	<i>Geodesy</i>	3	30	10	5	GEO1050
36	GLO2088	<i>Marine Geophysics</i>	3	30	10	5	GLO2074
V		Advanced Courses	64				
VI		Required	42				
37	GLO2057	<i>Mineralogy and Mineral Optics</i>	5	50	20	5	GLO2078
38	GLO2064	<i>Petrology and petrography</i>	5	40	30	5	GLO2057
39	GLO2090	<i>Sedimentology and Stratigraphy</i>	4	35	20	5	GLO2057
40	GLO2062	<i>Structural Geology and Tectonics</i>	5	40	30	5	GLO2064 GLO2090
41	GLO2067	<i>Exploring Structural Geology in the Field</i>	3		45		GLO2062
42	GLO2070	<i>Geochemistry</i>	3	30	10	5	GLO2064 GLO2090
43	GLO2071	<i>Introduction to Paleontology</i>	3	30	10	5	GLO2078
44	GLO2091	<i>History of Earth</i>	3	30	10	5	GLO2062

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
45	GLO2073	<i>Geology of Vietnam</i>	5	55	15	5	GLO2071 GLO2062
46	GLO3110	<i>Earth Materials and the Environment</i>	3	30	10	5	GLO2078
47	GLO2092	<i>Scientific method in Geology</i>	3	10	30	5	GLO2078
V2		<i>Elective</i>	<i>12/2 1</i>				
48	GLO3111	<i>Environmental Geology</i>	3	30	10	5	GLO2078
49	GLO3113	<i>Earth Systems Modeling</i>	3	30	10	5	GLO2078
50	GLO3092	<i>Minerals of Vietnam</i>	3	30	10	5	GLO3110
51	GLO3136	<i>Petroleum basins of Vietnam</i>	3	30	10	5	GLO2064 GLO2090
52	GLO3127	<i>Petroleum Geology</i>	3	30	10	5	GLO2062
53	GLO2095	<i>Quaternary Geology</i>	3	30	10	5	GLO2090
54	GLO2097	<i>Methods of minerals and geological mapping</i>	3	25	15	5	GLO2073
V3		Undergraduate thesis	10				
55	GLO4055	<i>Graduation Thesis</i>	10				GLO2092
		Total	161				