

## Advanced Program in Environmental Science

The Advanced Program in Environmental Science started in 2010 with the collaboration from Indiana University Bloomington (IUB) (U.S.A.). The total minimum required number of credits is 160.

<b>Total credits of the curriculum:</b>	<b>160 credits</b>
<b>- General education knowledge:</b>	<b>53 credits</b>
<b>- Major and minor courses:</b>	<b>107 credits</b>
- <i>Fundamental courses:</i>	52 credits
- <i>Core requirements:</i>	30 credits
- <i>Advanced courses:</i>	15 credits
- <i>Undergraduate thesis:</i>	10 credits

### Available curriculum

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
<b>I</b>		<b>General education knowledge</b> <i>(Not including subjects 12-16)</i>	<b>53</b>				
1	FLF2101	General English 1	4	16	40	4	
2	FLF2102	General English 2	5	20	50	5	FLF2101
3	FLF2103	General English 3	5	20	50	5	FLF2102
4	FLF2104	General English 4	5	20	50	5	FLF2103
5	FLF2105	General English 5	5	20	50	5	FLF2105
6	ENG W231a	Advanced English I	6	90			
7	ENG W231b	Advanced English II	5	75			
8	PHI1004	Fundamental Principles of Marxism - Leninism 1	2	24	6		
9	PHI1005	Fundamental Principles of Marxism - Leninism 2	3	36	9		PHI1004

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
10	POL1001	Ho Chi Minh Ideology	2	20	10		PHI1005
11	HIS1002	The Revolutionary Line of the Communist Party of Vietnam	3	42	3		POL1001
12	PES 1001	Physical Education I	2				
13	PES 1002	Physical Education II	2				
14	CME 1001	National Defense Education I	2				
15	CME 1002	National Defense Education II	2				
16	CME 1003	National Defense Education III	3				
17	INM 1001	Introduction to computer science and information technology	3	30	15		
18	HIS 1052	Fundamental of Vietnamese Culture	3	45			
19	SOC 1050	General Sociology	2	30			
<b>II</b>		<b>Major and minor courses</b>	<b>107</b>				
<i>II.1</i>		<i>Fundamental courses</i>	<i>52</i>				
20	L111	Biology   Evolution and Diversity	3	45			
21	C105	Principles of chemistry I	3	45			
22	C106	Principles of chemistry II	3	45			
23	C125	Experimental Chemistry I	2		30		
24	C126	Experimental Chemistry II	2		30		
25	C341	Chemistry   Organic Chemistry	3	45			
26	G225	Geological Science   Earth Materials	4	60			
27	G329	Geological Science   Field experience	5		75		

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
28	G304	Meteorology and Climatology	3	45			
29	M111	Mathematics   Linear Algebra	2	30			
30	M211	Mathematics   Calculus I	3	45			
31	M212	Mathematics   Calculus II	3	45			
32	M343	Mathematics   Introduction to Differential Equations with Applications I	3	45			
33	P221	Physics   Fundamental Physics I	5	75			
34	P222	Physics   Fundamental Physics II	5	75			
35	K300	Statistical Techniques	3	45			
II.2		<i>Core requiments</i>	30				
36	E332	Introduction to Ecology	3	45			
37	SPEA E363	Environmental management	3	45			
38	E476	Environmental Law and Regulation	3	45			
39	E340	Environmental Economics and Finance	3	45			
40	E475	Techniques in Environmental Science	3	28	17		
41	E272	Introduction to Environmental Science	3	45			
42	E325	Computing for Environmental Scientists	3	30	15		
43	V370	Research Methods and Statistical Modeling	3	45			
44	E536	Environmental Chemistry	3	45			
45	E499	Senior research)	3	45			
II.3		<i>Advanced couses</i>	15/ 75				

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
46	E311	Introduction to Risk Assessment and Communication	3	45			
47	E410	Introduction to Environmental Toxicology	3	45			
48	E431	Water supply and waste water treatment	3	45			
49	E451	Air Pollution and Control	3	45			
50	E419	Applied Remote Sensing of the Environment	3	45			
51	E411	Introduction to Groundwater Hydrology	3	45			
52	E440	Wetlands	3	45			
53	E452	Solid and Hazardous Waste Management	3	45			
54	E456	Lake and Watershed Management	3	45			
55	E470/ E570	Environmental Soil Science	3	45			
56	V161	Urban Problems and Solutions	3	45			
57	EVS3251	Environmental Auditing	3	45			
58	EVS3252	Environmental Planning	3	45			
59	EVS3254	Environmental Monitoring	3	45			
60	EVS3256	Soil Pollution and Remediation	3	45			
61	EVS3260	Environmental Indicators	3	45			
62	EVS3262	Human Ecology	3	45			
63	EVS3263	Biodiversity	3	45			
64	EVS3265	Ecotourism	3	45			
65	EVS3334	Hygiene and food safety	3	45			
66	EVS3500	Methods for environmental Analysis	3	45			
67	EVS3269	Toxicant Risk Management	3	45			

No.	Code	Subject	Credits	Credit hours			Prerequisite
				Lecture	Practice	Self-study	
68	EVS3272	Sustainable Use and Management of Water Resources	3	45			
69	EVS3501	Environmental Soil Water Ecology	3	45			
70	EVS3277	Environmental Assessing Modeling	3	45			
<i>II.3</i>		<i>Undergraduate thesis</i>	10				
	EVS499	Undergraduate thesis	10				
		<b>Total</b>	<b>160</b>				