

MINISTRY OF EDUCATION AND TRAINING  
**QUY NHON UNIVERSITY**

**UNDERGRADUATE PROGRAM**

Level of education : **Undergraduate**  
Major : **Resource and environmental management**  
Code : **7850101**  
Type of education : **Full-time**

*Gia Lai, 2025*

## UNDERGRADUATE PROGRAM

*(Issued together with Decision No: 2094/QĐ-ĐHQN dated July 22, 2025  
of the Rector of Quy Nhon University)*

Level of education : **Undergraduate**  
Major : **Resource and environmental management**  
Code : **7850101**  
Speciality (if any) :  
Type of education : **Full-time**

### 1. PROGRAM OBJECTIVES (POs)

#### 1.1. General objectives

The Resource and Environmental Management program aims to train graduates with comprehensive knowledge and professional skills in natural resource management, environmental protection, climate change adaptation, and sustainable development. Graduates are expected to possess practical competence and innovative capacity in natural resources and environmental management; and to be capable of applying digital technologies, data analysis, and artificial intelligence tools to support management, monitoring, and decision-making processes.

In addition, graduates are expected to demonstrate political and professional ethics, good health, lifelong learning ability, and a strong sense of social responsibility, contributing to the sustainable use of natural resources and environmental protection in support of the country's sustainable development in the context of international integration. In addition, graduates are expected to demonstrate political and professional ethics, good health, lifelong learning ability, and a strong sense of social responsibility, contributing to the sustainable use of natural resources and environmental protection in support of the country's sustainable development in the context of international integration.

#### 1.2. Specific objectives

The specific objectives of the Bachelor's program in Resource and Environmental Management are to equip students with the following competencies:

+ PO1: Possess fundamental and advanced knowledge in natural resources and environmental management to meet professional requirements and international integration.

+ PO2: Demonstrate critical thinking, a holistic perspective, and interdisciplinary collaboration skills to address environmental issues at local, national, and regional levels.

+ PO3: Develop lifelong learning ability, innovation capacity, entrepreneurial thinking, and digital competence to adapt to changes in professions and society.

+ PO4: Demonstrate professional ethics, social responsibility, and a commitment to community service.

## 2. EMPLOYMENT OPPORTUNITIES AND FURTHER STUDY PROSPECTS

Graduates of the Resource and Environmental Management program may:

- Work in state management agencies related to natural resources and the environment, such as the Ministry of Agriculture and Environment, Departments of Agriculture and Environment, Departments of Science and Technology, and Divisions of Agriculture and Environment at provincial, municipal, and local levels.

- Work as environmental management, occupational safety, and sustainable development officers in enterprises, industrial parks, high-tech zones, and domestic or international economic corporations.

- Engage in research and teaching at research institutes, universities, and non-governmental organizations (NGOs) operating in the fields of environment, natural resources, sustainable development, and climate change.

Graduates with a bachelor’s degree in Environmental Resource Management may also pursue further studies at the master’s and doctoral levels in related fields such as Environmental Resource Management, Natural Resource Management, Environmental Science, Environmental Management, Climate Change, and Sustainable Development.

## 3. LEARNING OUTCOMES

### Program Learning Outcomes (PLOs)

Chương trình được thiết kế để đảm bảo sinh viên tốt nghiệp đạt được chuẩn đầu ra sau:

Program Learning Outcomes	Performance Indicators
PLO1: Apply knowledge of general education, disciplinary foundations, and related fields to analyze and provide information for natural resources and environmental management.	PI1.1: Identify fundamental knowledge in natural sciences, social sciences, economics, natural resources, and environment to perform professional tasks.
	PI1.2: Apply disciplinary and interdisciplinary knowledge to analyze, synthesize, and provide information for

	assessment and decision-making in natural resources and environmental management.
PLO2: Apply knowledge related to the collection, analysis, and processing of natural resources and environmental data to provide information for decision-making.	PI2.1: Identify methods and tools for collecting and analyzing data related to natural resources and the environment.
	PI2.2: Apply methods and techniques for data analysis to prepare professional reports serving management and decision-making.
PLO3: Apply administrative procedures, technological tools, and information systems to collect, process, and manage data for professional tasks in the field of natural resources and environment.	PI3.1: Present administrative procedures and legal regulations related to natural resources and environmental management in Vietnam.
	PI3.2: Perform administrative and professional tasks in state management agencies, public service units, and consulting organizations in the field of natural resources and environment.
	PI3.3: Use software and information systems to collect, process, and manage specialized data for assessment, planning, and decision-making.
PLO4: Apply communication and teamwork skills to solve professional tasks in an interdisciplinary and global context.	PI4.1: Select appropriate presentation, communication, and teamwork methods for professional tasks.
	PI4.2: Present professional, technical, and administrative documents in the field of natural resources and environment.
	PI4.3: Read and understand English materials in the field and identify global environmental issues related to the profession.
PLO5: Use critical thinking and problem-solving skills in research and professional work.	PI5.1: Identify and analyze practical issues in natural resources and environmental management.
	PI5.2: Propose and implement research or practical solutions for professional issues

	in the field of natural resources and environment.
PLO6: Identify career opportunities and propose innovative startup ideas in the field of natural resources and environment.	PI 6.1: Identify the professional context and development trends in the field of natural resources and environment.
	PI 6.2: Develop innovative startup ideas that contribute to solving practical issues related to natural resources and the environment.
PLO7: Apply self-learning ability, digital competence, and lifelong learning to adapt to and develop professional careers in the field of natural resources and environment.	PI7.1: Select appropriate learning resources and digital tools to improve professional knowledge proactively.
	PI7.2: Apply information from digital platforms to solve problems and develop long-term professional competence.
PLO8: Demonstrate professional ethics and responsibility through making professional judgments and evaluations in the field of natural resources and environment.	PI8.1: Identify ethical issues and professional responsibilities in professional activities.
	PI8.2: Make professional judgments and evaluations based on ethical standards and their impacts on society and the environment.

#### 4. PROGRAM DURATION AND TOTAL CREDITS

4.1. Program Duration: 04 years

4.2. Total credits: 135 credits (excluding Physical Education and National Defense Education).

Program structure	Credits
<b>General Knowledge</b>	24
<b>Professional Knowledge</b>	111
- Fundamental knowledge	29
- Specialized knowledge (if any)	43
- Supplementary Knowledge	26
- Internship	7
- Graduation thesis, Alternative courses	6
<b>Total</b>	<b>135</b>

## **5. ADMISSION REQUIREMENTS**

Admission is conducted in accordance with the current admission regulations of Quy Nhon University.

## **6. TRAINING METHOD, GRADUATION REQUIREMENTS**

6.1. Training Method: The program is implemented under the credit-based system.

6.2. Graduation Requirements: (Academic requirements, Physical Education and National Defense Education, foreign language and information technology requirements)

- Academic requirements: Complete all courses and credit requirements of the program with a minimum cumulative GPA of 2.00 on a 4.0 scale.

- Program learning outcomes: Achieve the program learning outcomes (PLOs) of the Environmental Resource Management program.

- Physical Education and National Defense Education: Complete all Physical Education courses and obtain the National Defense and Security Education certificate as required by regulations.

- Foreign language requirement: Meet the foreign language proficiency standard in accordance with the current regulations of Quy Nhon University.

- Information technology requirement: Meet the basic information technology competency standard in accordance with the current regulations of Quy Nhon University.

## **7. TEACHING METHODS AND LEARNING ASSESSMENT**

### **7.1 Teaching Methods**

The Environmental Resource Management program adopts an integrated, student-centered teaching approach to develop students' knowledge, skills, and professional competencies. The main teaching methods include:

- + Lectures combined with practical cases: Theoretical knowledge is delivered together with real-world examples, data, and case studies in natural resources and environmental management to enhance understanding and application.

- + Experiential learning: Practical training, field surveys, and internships at agencies, enterprises, and protected areas... help students gain hands-on experience and exposure to real professional environments.

- + Group discussion and collaborative learning: Discussions and group work promote academic interaction, communication skills, teamwork, and critical thinking.

- + Application of digital technologies: Software, simulation tools, and digital databases (e.g., GIS, environmental management software, climate change modeling tools) are used to enhance teaching effectiveness and keep students updated with modern professional practices.

+ Self-directed learning and research: Students are guided to access scientific literature and environmental data, fostering lifelong learning and strengthening their ability to independently acquire knowledge and adapt to professional changes.

#### 7.2 Learning Assessment

Learning assessment is conducted in accordance with the Regulations on Undergraduate Training issued together with Decision No. 1487/QĐ-ĐHQN dated July 1, 2021 by the Rector of Quy Nhon University, and the current regulations on assessment based on the program learning outcomes.

## 9. PROGRAM CONTENT

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experimental/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>I. General Knowledge</b>				<b>36</b>									
<b>I.1. Political Science &amp; Law</b>				<b>13</b>									
1	1130299	Philosophy of Marxism and Leninism	1	3	40		10		85		PTLPA	C	
2	1130300	Political economics of marxism and leninism	2	2	27		6		57		PTLPA	C	
3	1130091	Ho Chi Minh thought	5	2	27		6		57	1130046	PTLPA	C	
4	1130301	Science socialism	3	2	27		6		57		PTLPA	C	
5	1130302	History of Vietnamese Communist Party	4	2	27		6		57		PTLPA	C	
6	1130049	Fundamentals of Law	1	2	27		6		57	1130045	PTLPA	C	
<b>I.2. Physical Education, National Defense and Security Education</b>				<b>12</b>									
<b>I.2.1. Physical Education (Students select 1 of the following 8 groups, 3/24 credits)</b>				<b>3</b>									
7	1120172	Physical Education 1 (Football 1) (*)	1	1	4		26		21		PE	CC1	
8	1120173	Physical Education 2 (Football 2) (*)	2	1	4		26		21	1120172	PE	CC1	
9	1120174	Physical Education 3 (Football 3) (*)	3	1	4		26		21	1120173	PE	CC1	
10	1120175	Physical Education 1 (Volleyball 1) (*)	1	1	4		26		21		PE	CC2	
11	1120176	Physical Education 2 (Volleyball 2) (*)	2	1	4		26		21	1120175	PE	CC2	
12	1120177	Physical Education 3 (Volleyball 3) (*)	3	1	4		26		21	1120176	PE	CC2	
13	1120178	Physical Education 1 (Basketball 1) (*)	1	1	4		26		21		PE	CC3	
14	1120179	Physical Education 2 (Basketball 2) (*)	2	1	4		26		21	1120178	PE	CC3	
15	1120180	Physical Education 3 (Basketball 3) (*)	3	1	4		26		21	1120179	PE	CC3	
16	1120181	Physical Education 1 (Badminton 1) (*)	1	1	4		26		21		PE	CC4	
17	1120182	Physical Education 2 (Badminton 2) (*)	2	1	4		26		21	1120181	PE	CC4	
18	1120183	Physical Education 3 (Badminton 3) (*)	3	1	4		26		21	1120182	PE	CC4	
19	1120184	Physical Education 1 (Vietnamese Traditional Matial Arts 1) (*)	1	1	4		26		21		PE	CC5	
20	1120185	Physical Education 2 (Vietnamese Traditional Matial Arts 2) (*)	2	1	4		26		21	1120184	PE	CC5	

21	1120186	Physical Education 3 (Vietnamese Traditional Matial Arts 3) (*)	3	1	4			26		21	1120185	PE	CC5
22	1120187	Physical Education 1 (Taekwondo Matial Arts 1) (*)	1	1	4			26		21		PE	CC6
23	1120188	Physical Education 2 (Taekwondo Matial Arts 2) (*)	2	1	4			26		21	1120187	PE	CC6
24	1120189	Physical Education 3 (Taekwondo Matial Arts 3) (*)	3	1	4			26		21	1120188	PE	CC6
25	1120190	Physical Education 1 (Karatedo Matial Arts 1) (*)	1	1	4			26		21		PE	CC7
26	1120191	Physical Education 2 (Karatedo Matial Arts 2) (*)	2	1	4			26		21	1120190	PE	CC7
27	1120192	Physical Education 3 (Karatedo Matial Arts 3) (*)	3	1	4			26		21	1120191	PE	CC7
28	1120239	Physical Education 1 (Pickleball 1) (*)	1	1	4			26		15		PE	CC8
29	1120240	Physical Education 2 (Pickleball 1) (*)	2	1	4			26		15	1120239	PE	CC8
30	1120241	Physical Education 3 (Pickleball 1) (*)	3	1	4			26		15	1120240	PE	CC8
<b>I.2.2. National Defense and Security Education</b>				<b>9</b>									
31	1120168	National Defense and Security Education 1 (*)	4	3	37			16		82		NDSEC	C
32	1120169	National Defense and Security Education 2 (*)	4	2	22			16		52	1120168	NDSEC	C
33	1120170	National Defense and Security Education 3 (*)	4	2	14			32		44	1120169	NDSEC	C
34	1120171	National Defense and Security Education 4 (*)	4	2	4			52		34	1120170	NDSEC	C
<b>I.3. Foreign Language</b>				<b>7</b>									
35	1090061	English 1	1	3	45					90		FLD	C
36	1090166	English 2	2	4	60					120	1090061	FLD	C
<b>I.4. Social Sciences and Humanities/Mathematics, Natural Science - Environment, Management Science</b>				<b>4</b>						<b>0</b>			
37	1150422	Start up	5	2	25			10		55		FBA	C
38	2030003	Communication Skills	2	2	18			4	20	48		SSH	C
<b>II. Professional Knowledge</b>				<b>111</b>									
<b>II.1. Fundamental Knowledge</b>				<b>29</b>									
39	1010479	Mathematical statistics	2	2	30					60		FM	C
40	2020522	Environmental chemistry	2	2	22	4	8			56		NS	C
41	2020627	Earth science	1	2	25			10		55		NS	C
42	1050240	Basic Information	1	3	30			30		75		IT	C
43	2020757	Geodesy	3	2	21			18		51		NS	C
44	1080142	Environment science	1	2	25			10		55		NS	C

45	2020631	Environmental Geology	2	2	25		10			55		NS	C
46	2020628	General Cartography	2	2	30		0			60		NS	C
47	2020728	Fundamentals of remote sensing	3	2	21			18		51	2020628;	NS	C
48	2020758	Geographic Information System	3	2	21			18				NS	C
49	2020759	Fundamental of Natural Resource and Environmental Management	3	3	34	6	10			85		NS	C
50	1080196	Climate change and Natural hazards	4	2	25		10			55		NS	C
51	2020525	Geography of Viet Nam	1	3	40		10			85		NS	C
<b>II.2. Specialized knowledge</b>					<b>43</b>								
II.2.1a. Compulsory					35								
52	2020163	Forest management and biodiversity	5	2	25		10			55	1080142; 2020759	NS	C
53	2020170	Soil Resources and Environmental Management	4	2	22			16		52	1080142	NS	C
54	2020171	Water Resources, Environmental Management	4	2	20		10	10		50	1080142	NS	C
55	2020526	Solid waste and hazardous waste management	6	2	25		10			55	1080142; 2020759	NS	C
56	2020760	The Overall planning development of Economic - Social	3	2	25		10			55		NS	C
57	2020761	Rural planning	7	2	25			10		55		NS	C
58	2020166	Landscape planning	7	2	25			10		55	2020759	NS	C
59	2020528	Land use planning	6	2	20			20		50		NS	C
60	2020529	Water resources Planning	6	2	20			20		50		NS	C
61	2020762	Air environment management and protection	7	2	24		4	8		54	2020759	NS	C
62	1080146	Mineral and energy resources	5	2	25		10			55	1080142; 2020759	NS	C
63	2020175	Natural resource and Environmental Economics	7	2	25		10			55	1080142; 2020759	NS	C
64	1080144	Environmental Impact Assessment	6	3	40			10		85	1080142	NS	C
65	2020763	Environmental Quality Monitoring And Assessment	5	3	30	5		20		80	2020759; 2020632	NS	C
66	2020764	Environmental Technology	6	3	30		10	20		75		NS	C
67	2020181	Applied Climatology and Hydrology	3	2	25			10		55		NS	C
II.2.1b. Optional (8/16 credits)					<b>8</b>					0			
68	2020119	Human Geography	2	2	30					60		NS	E1
69	2020633	Green Economics	2	2	25		10			55		NS	E1
70	1080258	Community-Based Natural Resource and Environmental Management	4	2	25		10			55	2020759	NS	E2
71	2020768	Agricultural economy and rural development	4	2	25		10			55		NS	E2
72	2020769	Sustainable Livelihoods	5	2	25		10			55		NS	E3
73	2020168	Tourism Resource and Environment	5	2	25		10			55		NS	E3

74	2020770	Management and operation of waste treatment systems	7	2	25		10		55	2020759	NS	E4
75	2020771	Application of Artificial Intelligence (AI) in Natural Resources and Environmental Management	7	2	21		18		51		NS	E4
<b>II.3. Supplementary Knowledge</b>			<b>33</b>									
<b>II.3.1. Professional training</b>			<b>26</b>									
II.3.1.a. Compulsory			<b>22</b>									
76	2020182	Soil and soil map	3	3	40		10		85		NS	C
77	2020452	Landscape and Landscape ecology	4	2	25		10		55		NS	C
78	2020534	State management of natural resources and environment	5	2	20	5	10		55	2020759	NS	C
79	2020765	English for environmental and resource management	4	2	30				60		NS	C
80	2020766	Application of Remote sensing, GIS in environmental and resource management	5	2	21		18		51	2020728 2020758	NS	C
81	2020186	Data Processing and Information Management in Natural Resources and Environment	6	3	32		26		77	1010479 2020759	NS	C
82	2020535	Environmental Quality Analysis Practice	5	2	0		60		30	2020632; 2020763	NS	C
83	2020536	Environmental Documentation Practice	7	2	0		60		30		NS	C
84	2020767	Scientific research methods in natural resources and environment	4	2	20		10	10	50		NS	C
85	2020632	Critical Thinking and Teamwork Skills	2	2	25		10		55		NS	C
II.3.1.b. Optional (4/10 credits)			<b>4</b>									
86	2020772	Education and Communication of Resources – Environment	6	2	20		8	12	50		NS	E5
87	2020773	Environmental Engineering Drawing	6	2	25		10		55		NS	E5
88	2020774	Thematic mapping	7	2	21		18		51		NS	E6
89	2020539	Application of UAV technology in natural resources and environmental monitoring	7	2	15		30		45		NS	E6
90	2020775	Modeling in Environmental and Resource Management	7	2	21		18		51		NS	E6
<b>II.3.2. Internships</b>			<b>7</b>									
91	2020185	Landscape Field Trip	4	1					0	2020627; 2020181; 2020182	NS	C
92	2020190	Thematic Internship (Pollution Control and Environmental Protection)	6	1					0	2020759; 1080146; 2020170; 2020171	NS	C
93	2020191	Graduation Internship	8	5					0		NS	C

II.4. Graduation Thesis, Alternative courses				6									
94	2020192	Graduation thesis	8	6								NS	EG1
Alternative courses				6									
95	2020776	Health, Safety and Environment	8	3	40		10	10		90	2020534; 2020632	NS	EG2
96	2020777	Environmental project establishment and management	8	3	40		10			85	1080144; 2020534	NS	EG2
<b>Total (excluding Physical Education and National Defense and Security Education)</b>				<b>135</b>									

## 10. TENTATIVE TEACHING PLAN (dự kiến) (như bản hiện hành)

### Semester 1:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experiment / Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	1130299	Philosophy of Marxism and Leninism	1	3	40	0	10	0	0	85	0	PTLPA	C
2	1130049	Fundamentals of Law	1	2	27	0	6	0	0	57	1130045	PTLPA	C
3	1090061	English 1	1	3	45	0	0	0	0	90	0	FLD	C
4	2020627	Earth science	1	2	25	0	10	0	0	55	0	NS	C
5	1050240	Basic Information	1	3	30	0	0	30	0	75	0	IT	C
6	2020525	Geography of Viet Nam	1	3	40	0	10	0	0	85	1080046	NS	C
7	1080142	Environment science	1	2	25	0	10	0	0	55	0	NS	C
<b>Optional 1/8 credits</b>													
8	1120172	Physical Education 1 (Football 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC1
9	1120175	Physical Education 1 (Volleyball 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC2
10	1120178	Physical Education 1 (Basketball 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC3
11	1120181	Physical Education 1 (Badminton 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC4
12	1120184	Physical Education 1 (Vietnamese Traditional Matial Arts 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC5
13	1120187	Physical Education 1 (Taekwondo Matial Arts 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC6
14	1120190	Physical Education 1 (Karatedo Matial Arts 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC7
15	1120239	Physical Education 1 (Pickleball 1) (*)	1	1	4	0	0	26	0	21	0	PE	CC8
<b>Total</b>				<b>18</b>									

## Semester 2:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experimental/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	1130300	Political economics of marxism and leninism	2	2	27	0	6	0	0	57	0	PTLPA	C
2	1090166	English 2	2	4	60	0	0	0	0	120	1090061	FLD	C
3	2030003	Communication Skills	2	2	18	0	4	20	0	48	0	SSH	C
4	1010479	Mathematical statistics	2	2	30	0	0	0	0	60		FMS	C
5	2020522	Environmental chemistry	2	2	22	4	8	0	0	56	0	NS	C
6	2020631	Environmental Geology	2	2	25	0	10	0	0	55	0	NS	C
7	2020628	General Cartography	2	2	30	0	0	0	0	60	0	NS	C
8	2020632	Critical Thinking and Teamwork Skills	2	2	25	0	10	0	0	55	0	NS	C
<b>Optional (3/11 credits: including 1 credit from Physical Education (8 credits) and 2 credits from the remaining courses (4 credits))</b>													
9	2020119	Human Geography	2	2	30	0	0	0	0	60	0	NS	E1
10	2020633	Green Economics	2	2	25	0	10	0	0	55	0	NS	E1
11	1120173	Physical Education 2 (Football 2) (*)	2	1	4	0	0	26	0	21	1120172	PE	CC1
12	1120176	Physical Education 2 (Volleyball 2) (*)	2	1	4	0	0	26	0	21	1120175	PE	CC2
13	1120179	Physical Education 2 (Basketball 2) (*)	2	1	4	0	0	26	0	21	1120178	PE	CC3
14	1120182	Physical Education 2 (Badminton 2) (*)	2	1	4	0	0	26	0	21	1120181	PE	CC4
15	1120185	Physical Education 2 (Vietnamese Traditional Matial Arts 2) (*)	2	1	4	0	0	26	0	21	1120184	PE	CC5
16	1120188	Physical Education 2 (Taekwondo Matial Arts 2) (*)	2	1	4	0	0	26	0	21	1120187	PE	CC6
17	1120191	Physical Education 2 (Karatedo Matial Arts 2) (*)	2	1	4	0	0	26	0	21	1120190	PE	CC7
18	1120240	Physical Education 2 (Pickleball 2) (*)	2	1	4	0	0	26	0	21	1120239	PE	CC8
<b>Total</b>				<b>20</b>									

## Semester 3:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experimental/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	1130301	Science socialism	3	2	27	0	6	0	0	57	0	PTLPA	C
2	2020757	Geodesy	3	2	21	0	0	18	0	51	0	NS	C
3	2020728	Fundamentals of remote sensing	3	2	21	0	0	18	0	51	2020628;	NS	C
4	2020758	Geographic Information System	3	2	21	0	0	18	0	0	0	NS	C
5	2020759	Fundamental of Natural Resource and Environmental Management	3	3	34	6	10	0	0	85	0	NS	C
6	2020760	The Overall planning	3	2	25	0	10	0	0	55	0	NS	C

		development of Economic - Social											
7	2020181	Applied Climatology and Hydrology	3	2	25	0	0	10	0	55	0	NS	C
8	2020182	Soil and soil map	3	3	40	0	0	10	0	85	0	NS	C
<b>Optional 1/8 credits</b>													
9	1120174	Physical Education 3 (Football 3) (*)	3	1	4	0	0	26	0	21	1120173	PE	CC1
10	1120177	Physical Education 3 (Volleyball 3) (*)	3	1	4	0	0	26	0	21	1120176	PE	CC2
11	1120180	Physical Education 3 (Basketball 3) (*)	3	1	4	0	0	26	0	21	1120179	PE	CC3
12	1120183	Physical Education 3 (Badminton 3) (*)	3	1	4	0	0	26	0	21	1120182	PE	CC4
13	1120186	Physical Education 3 (Vietnamese Traditional Matial Arts 3) (*)	3	1	4	0	0	26	0	21	1120185	PE	CC5
14	1120189	Physical Education 3 (Taekwondo Matial Arts 3) (*)	3	1	4	0	0	26	0	21	1120188	PE	CC6
15	1120192	Physical Education 3 (Karatedo Matial Arts 3) (*)	3	1	4	0	0	26	0	21	1120191	PE	CC7
16	1120241	Physical Education 3 (Pickleball 3) (*)	3	1	4	0	0	26	0	21	1120240	PE	CC8
<b>Total</b>				<b>18</b>									

#### Semester 4:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experiment/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	1130302	History of Vietnamese Communist Party	4	2	27	0	6	0	0	57	0	PTLPA	C
2	2020765	English for environmental and resource management	4	2	30	0	0	0	0	60	0	NS	C
3	2020767	Scientific research methods in natural resources and environment	4	2	20	0	10	10	0	50	0	NS	C
4	1080196	Climate change and Natural hazards	4	2	25	0	10	0	0	55	0	NS	C
5	2020170	Soil Resources and Environmental Management	4	2	22	0	0	16	0	52	1080142	NS	C
6	2020171	Water Resources, Evironmental Management	4	2	20	0	10	10	0	50	1080142	NS	C
7	2020452	Landscape and Landscape ecology	4	2	25	0	10	0	0	55	0	NS	C
8	2020185	Landscape Field Trip	4	1	0	0	0	0	0	0	2020627; 2020181; 2020182	NS	C
9	1120168	National Defense and Security Education 1 (*)	4	3	37	0	16	0	0	82	0	NDSEC	C
10	1120169	National Defense and Security Education 2 (*)	4	2	22	0	16	0	0	52	1120168	NDSEC	C
11	1120170	National Defense and Security Education 3 (*)	4	2	14	0	0	32	0	44	1120169	NDSEC	C
12	1120171	National Defense and Security Education 4 (*)	4	2	4	0	0	52	0	34	1120170	NDSEC	C
<b>Optional 2/4 credits</b>													
13	1080258	Community-Based Natural	4	2	25	0	10	0	0	55	2020759	NS	E2

		Resource and Environmental Management											
14	2020768	Agricultural economy and rural development	4	2	25	0	10	0	0	55	0	NS	E2
<b>Total</b>				<b>17</b>									

### Semester 5:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experimental/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	1130091	Ho Chi Minh thought	5	2	27	0	6	0	0	57	1130046	PTLPA	C
2	1150422	Start up	5	2	25	0	10	0	0	55	0	FBA	C
3	2020163	Forest management and biodiversity	5	2	25	0	10	0	0	55	1080142; 2020759	NS	C
4	1080146	Mineral and energy resources	5	2	25	0	10	0	0	55	1080142; 2020759	NS	C
5	2020763	Environmental Quality Monitoring And Assessment	5	3	30	5	0	20	0	80	2020759; 2020632	NS	C
6	2020766	Application of Remote sensing, GIS in environmental and resource management	5	2	21	0	0	18	0	51	2020728 2020758	NS	C
7	2020535	Environmental Quality Analysis Practice	5	2	0	0	0	60	0	30	2020632; 2020763	NS	C
8	2020534	State management of natural resources and environment	5	2	20	5	10	0	0	55	2020759	NS	C
<b>Optional 2/4 credits</b>													
9	2020769	Sustainable Livelihoods	5	2	25	0	10	0	0	55	0	NS	E3
10	2020168	Tourism Resource and Environment	5	2	25	0	10	0	0	55	0	NS	E3
<b>Total</b>				<b>19</b>									

### Semester 6:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experimental/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	2020526	Solid waste and hazardous waste management	6	2	25	0	10	0	0	55	1080142; 2020759	NS	C
2	2020528	Land use planning	6	2	20	0	0	20	0	50	0	NS	C
3	2020529	Water Resources Planning	6	2	20	0	0	20	0	50	0	NS	C
4	2020764	Environmental Technology	6	3	30	0	10	20	0	75		NS	C
5	2020186	Data Processing and Information Management in Natural Resources and Environment	6	3	32	0	0	26	0	77	1010479 2020759	NS	C
6	2020190	Thematic Internship (Pollution Control and Environmental Protection)	6	1	0	0	0	0	0	0	2020759; 1080146; 2020170; 2020171	NS	C
7	1080144	Environmental Impact Assesment	6	3	40	0	0	10	0	85	1080142	NS	C

<b>Optional 2/4 credits</b>													
8	2020772	Education and Communication of Resources – Environment	6	2	20	0	8	12	0	50	0	NS	E5
9	2020773	Environmental Engineering Drawing	6	2	25	0	0	10	0	55	0	NS	E5
<b>Total</b>				<b>18</b>									

### Semester 7:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experimental/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	2020761	Rural planning	7	2	25	0	0	10	0	55	0	NS	C
2	2020175	Natural resource and Environmental Economics	7	2	25	0	10	0	0	55	1080142; 2020759	NS	C
3	2020166	Landscape planning	7	2	25	0	0	10	0	55	2020759	NS	C
4	2020762	Air environment management and protection	7	2	24	0	4	8	0	54	2020759	NS	C
5	2020536	Environmental Documentation Practice	7	2	0	0	0	60	0	30	0	NS	C
<b>Optional (4/10 credits, including 2 credits in Technology and 2 credits in Management)</b>													
6	2020770	Management and operation of waste treatment systems	7	2	25	0	10	0	0	55	0	NS	E4
7	2020771	Application of Artificial Intelligence (AI) in Natural Resources and Environmental Management	7	2	21	0	0	18	0	51	0	NS	E4
8	2020774	Thematic mapping	7	2	21	0	0	18	0	51	0	NS	E6
9	2020539	Application of UAV technology in natural resources and environmental monitoring	7	2	15	0	0	30	0	45	0	NS	E6
10	2020775	Modeling in Environmental and Resource Management	7	2	21	0	0	18	0	51	0	NS	E6
<b>Total</b>				<b>14</b>									

### Semester 8:

No	Course Code	Course Name	Semester	Number of credits	Class duration			Experimental/Practical	Others	Self-study time	Prerequisite Course Code	Managing Faculty	Note
					Theory	Practise	Tests						
<b>Compulsory</b>													
1	2020191	Graduation Internship	8	5	0	0	0	0	0	0	0	NS	C
<b>Compulsory</b>													
2	2020192	Graduation thesis	8	6	0	0	0	0	0	0	0	NS	EG1
3	2020776	Health, Safety and Environment	8	3	40	0	10	10	0	90	2020534; 2020632	NS	EG
4	2020777	Environmental project establishment and management	8	3	40	0	10	0	0	85	1080144; 2020534	NS	EG2
<b>Total</b>				<b>11</b>									

## **11. GUIDELINES FOR PROGRAM IMPLEMENTATION**

- This training program is applied to students admitted to the Resource and environmental management program starting from the 2025 enrollment cohort.

- The implementation of the program is based on the designed curriculum, training objectives, targeted learners, workforce requirements, and other specific training requirements. For elective courses, depending on development trends, societal needs, and actual conditions, the Faculty will advise students in selecting appropriate courses.

- The Dean of the Faculty is responsible for organizing and providing guidance on the principles for developing detailed course syllabi to ensure that the objectives, contents, and requirements of the program are fully achieved, while also meeting the needs of learners and society.

- The training program shall be reviewed and updated at least once every two years to ensure alignment with the development of the Environmental Resource Management discipline and the socio-economic development needs.

*Gia Lai, July 22, 2025*

**RECTOR**

**Assoc. Prof. Dr. Doan Duc Tung**