



## Implementation memory of the Master of Management of Environment and Natural resources

### A. GENERAL AND ORGANIZATIONAL ASPECTS

#### 1. Denomination of the study

Developing curricula for Environmental safety and Conservation of the Biodiversity in South-East Asia

#### 2. General organization

**Institution or institutions (in the case of interuniversity programmes) that makes the procedure:** An Giang University, Vietnam

**Study regime (full time/partial time):** Full time

**Modality (on-site, on-line, mixt):** on-site

**Complete time:** 2 years

**Training period (annual, half-yearly, quarterly):** 2 years

**Credits number to be achieved:** 60 credits

**Language:** Vietnamese and some courses will teach by English

**Professional prospects (research, professional, mixt):** mixt

#### 3. Objectives

##### a. General objectives

Train master degrees students who are qualified in professional competence, the basis of scientific research reasoning and the ability to study independently in the management of natural resources, biodiversity conservation and environmental protection to meet the needs of society towards our country's goal in sustainable development.

##### b. Detail objectives

Firmly grasp the expertise in managing and exploiting natural resources; river basin management, ecosystems and biodiversity conservation; quality management of soil environment, water and air; and waste management.

Ability to study independently, create a premise to continue to study at higher levels or be able to participate in research at institutes, centers, international organizations in the field of conservation and environmental protection

### 4. Standard outputs of the training program

#### a. General knowledge

Be able to manipulate the basic knowledge of Marxist-Leninist philosophy, apply a scientific world view, dialectical methodology, show the approach and solving problems in the practical work of the branch;

Achieve equivalent foreign language proficiency according to the Master's Degree Training Regulations of the Ministry of Education and Training and An Giang University.

b. Basic knowledge and specialized

Mastering specialized knowledge, can undertake tasks in many fields such as managing and exploiting natural resources; river basin management, ecosystems and biodiversity conservation; quality management of soil environment, water and air; and waste management.

c. Graduation essay

Carry out an in-depth study of issues related to natural resource management, biodiversity conservation and environmental management. Presented in the prescribed form; Meet the requirements set by the training institution on the basic contents; Identify new points and important contributions of the thesis.

d. About the capacity of autonomy and responsibility

Have ability to identify and solve many issues of professional training and to propose innovative initiatives; be capable of self-directing personal development capacity, adapting to a highly competitive work environment and professional leadership; Make expert conclusions about the complex issues of the profession; protect and take responsibility for professional conclusions.

e. Standard skills

\* *Vocational skills*

Build projects on the establishment of conservation areas and national parks; expertise and evaluate environmental impacts from conservation and socio-economic development projects; manage and inventory waste sources;

Proficiency in the use of tools, techniques, means and software applied in research and apply climate change adaptation solutions in conservation and management of natural resources and environmental sustainability;

Utilize system thinking in building models of application in conservation and development of resources, environment and tourism;

Support state management units to implement environmental management policies, natural resources and ecosystems, and apply social and environmental safeguard measures;

Design and implement researches related to the field of natural resources and environment management.

\* *Complementary skills*

Ability to synthesize, analyze, evaluate, forecast, plan and write reports;

Ability to work independently and work in teams.

Have the skills to guide, promote group discussions; preparation, planning and organization of workshops, conferences and training;

Have ability to communicate, collaborate, negotiate and manage conflicts in working with communities and partners;

g. Standards of moral quantities

\* *Citizenship*

Complying with the Constitution, the laws of the State, the labor discipline.

A high sense of responsibility with the collective, community and society.

\* *Morality, personal sense of moralize work about serving attitude*



Having the moral qualities, the political and social consciousness of the citizen.  
Behavior and communication must meet the prescribed standards of the profession  
Having a professional working style.  
Honesty in work and scientific research.

\* *Positive attitude passionate*

Actively participate in social activities.  
Be highly responsible for the workplace and undertaking.

## 5. Admission

**Maximum number of students:** 20 students

### **Admission and selection criteria or merits assessment:**

Candidates have a bachelor degree in Management of Environment and natural resources and join an entrance examination.

The entrance examination comprises 03 tests in (1) probability statistics mathematics, (2) foreign language (English, French, Chinese,...) and (3) environmental management. The candidate will not attend the foreign language if they satisfy the currently Training Regulations of Ministry of Training and education for master training.

For the candidates whose bachelor degrees are not of management of environment and natural resources (e.g. environmental science, crop science, etc.), they must take the 03 courses in environmental ecology, environmental science, and method of analysis of environmental parameters. However, AGU will consider the candidate's detailed transcript to decide the number of supplementary courses.

### **Previous studies acknowledgement:**

The candidates have good acknowledgement in management of Environment and natural resources; Biodiversity conservation, and Environmental ecology.

## **B. JUSTIFICATION**

### **1. Comparability of the qualification in the international context**

The quality of training will be on a par with those in Southeast Asia

### **2. Internal academic reference**

#### **a. Relationship with other existent degrees with official character:**

Master degree of Management of Environment and health of Mahidol University, Thailand

#### **b. Existent offer in Cambodia of similar programmes:**

No

#### **c. Research lines that supports the programme:**

The research groups of the CONSEA Universities supporting this initiative are:

Research group code	Research group name	Number of members	Number of projects*	Number of agreements*
xxx...				

*\*Approximately number (from last 3-5 years)*

*Observation: adapt this table according your codes, names or whatever you need.*

### 3. Society needs (demand)

Labor market and society need managers at Ministry/Office of Environment and Natural Resources with university education qualifications (for example, master degrees) in natural resource management, biodiversity conservation, and environmental protection towards the goal of sustainable development of the country.

### 4. Potential source of students

The potential source of students are from An Giang, Dong Thap, Kien Giang provinces, Vietnam

## C. ACADEMIC ASPECTS

### 1. Training goals of the study: competences' profile

#### a. Characteristics and objectives of the degree

The overall objective of Msc. Curriculum is to equip students with high qualification in management of environment and natural resources. The purpose is to prepare the scientists to be capable of studying, understanding and taking care of the protection of natural environment and management of natural resources. The final goal is the rational and sustainable management skills and the knowledge of using natural resources, the confrontation of environmental problems and the consideration of Nature Conservation and the Management in Natural, Urban and Rural areas.

#### b. Target groups /audience

- Management and extraction of renewable and non-renewable natural resources;
- Management of river basin, ecosystems and biodiversity conservation;
- Quality environment management of soil, water and air; and general waste management.

#### c. Output profile of the graduates

The graduation for master students will be concerned if they complete the master curriculum and satisfy the requirement of English proficiency (e.g: TOEIC 550, TOEFL ITP 450, iBT 45, IELTS 5.0).

**d. Competencies explanation**

i. Transversal competences (general)

Equipping students with high acknowledgement in managements of environment and natural resources to protect the environment and ecosystems of the Mekong river basin.

ii. Specific competences

- To develop the project related to the establishment of conservation areas and national parks;
- To evaluate and assess for environmental impact from projects of biodiversity conservation, socio-economic development;
- To manage and invent for waste sources;
- To develop creativity, teamwork, presentation and communication skills;
- To self-study in science and improve professional skills;
- To assist the state management units to implement policies on environmental management, natural resources and ecosystems, and apply social and environmental safeguard measures.

2. Curricular structure

**2.1. Overview of curriculum**

Training time: 2 years (including 1,5 years for courses in class and 0,5 year for thesis).  
Total credit of curriculum: 60 credits, including:

General knowledge: 5 credits

Fundamental and Professional knowledge: 14 credits

Major knowledge: 26 credits

Thesis: 15 credits

Compulsory and elective courses:

Compulsory courses: 44 credits (73,3%)

Elective courses: 16 credits (26,7%)

**Professors profile** (expertise)

**2.2. List of course names in the curriculum**

No.	code	Course name	Credit	Course type		Hour		Previous course	Parallel course	Prerequisite course	Semester
				Compulsory	Elective	Theory	practice				
<b>I</b>		<b>General knowledge (5 credits) (Compulsory course: 5 credits; Elective course: 0 credit)</b>									
1	PHI702	Philosophy	3	3		45					I
2		English Proficiency	To be certified according to the standards from the MOET of Vietnam								
3	ENV701	Research Methodology	2	2		15	30				I
<b>II</b>		<b>Fundamental and Professional Knowledge: 16 Credits (Compulsory: 10 credits, Selective: 4 credits)</b>									
4	ENV702	Principles of natural resources and environmental management	2	2		30					I
5	ENV705	Application of GIS and Remote sensing into natural resources and environmental management	2	2		15	30				II
6	ENG704	English in environment	2	2		30	0				
7	ENV703	Basic of biological conservation	2	2		30					I
8	ENV704	Structure and function of typical ecosystems in the Mekong Delta	2	2		15	30				I
9	TIE701	Application of statistics into natural resources and	2	2	2	15	30				I



No.	code	Course name	Credit	Course type		Hour		Previous course	Parallel course	Prerequisite course	Semester
				Compulsory	Elective	Theory	practice				
		environmental management.									
10	TIE702	Environmental biology indicators	2			15	30				I
11	TIE703	Quantifying ecology	2			15	30				I
12	TIE704	Monitoring techniques on natural resources	2			15	30				I
13	TIE705	Environmental sociology	2			30					I
14	TIE706	Policies and strategies on environmental resources	2		2	30					I
15	TIE707	Environment and resources economics	2			30					I
<b>III</b>	<b>Major courses</b>										
<b>III. 1</b>	<b>Biodiversity conservation: 08 credits (Compulsory: 04 credits, Selective: 04 credits)</b>										
16	ENV705	Investigate and set up a biodiversity monitoring system	1	1			30				I
17	TIE712	Management of conservation areas and national parks	2	2		15	30				II I
18	ENV706	Field visits and writing report resources conservation	1	1			30				II
19	TIE708	Biodiversity of aquatic resources	2		2	15	30				I



No.	code	Course name	Credit	Course type		Hour		Previous course	Parallel course	Prerequisite course	Semester
				Compulsory	Elective	Theory	practice				
20	TIE709	Biodiversity of land resources	2			15	30				I
21	TIE711	Wildlife conservation and rescue technology	2			15	30				II
22	ENV710	Project development and management for resource conservation	2		2	15	30				II
23	TIE713	Applied biotechnology in conservation	2			15	30				II
<b>III. 2</b>	<b>Natural resources and ecological management: 12 Credits (Compulsory: 06 credits, Selective: 06 credits)</b>										
24	ENV707	Integrated water resources management	2	2		30					II
25	ENV709	Assessment and rational use of land resources	2	2		30					II
26	ENV711	Integrated management of river basin and coastal zone (marine resources)	2	2		15	30				II I
27	ENV712	Forest resources management	2			30					II I
28	ENV713	Planning and management of fisheries resource	2		2	30	2				II I
29	ENV714	Mineral resources management	2			30					II I
30	TIE714	Management of specificity ecosystem services management in the Mekong	2		2	15	30				II





No.	code	Course name	Credit	Course type		Hour		Previous course	Parallel course	Prerequisite course	Semester
				Compulsory	Elective	Theory	practice				
		Delta									
31	TIE715	Risk assessment of Ecology	2			15	30				II
32	TIE719	Modelling in management of environment and natural resources	2			15	30				II I
33	TIE720	Applied ecological techniques for resilience of resource and environment	2		2	15	30				II I
34	ENV716	Communitybased on natural resource management	2			15	30				II I
<b>III. 3</b>	<b>Environmental management: 6 TC (Compulsory: 2TC; Selective: 4TC)</b>										
35	ENV708	Management of environmental quality	2	2		15	30				II
36	ENV718	Environmental water management for aquaculture	2			15	30				II I
37	ENV719	Climate change and resilience	2		2	15	30				II I
38	ENV720	Energy and environment	2			15	30				II I
39	TIE716	Application of nanotechnology in environmental treatment	2			15	30				II
40	TIE717	Water pollution control technology	2		2	15	30				II

No.	code	Course name	Credit	Course type		Hour		Previous course	Parallel course	Prerequisite course	Semester
				Compulsory	Elective	Theory	practice				
41	TIE718	Technology for treatment and management of solid waste and hazardous waste	2			15	30				II
42	ENV717	Analysis of environmental systems	2			30					II I
43	ENV715	Cleaner production	2		2	30					II I
44	ENV721	Management of agricultural and rural environment	2			30					II I
<b>Master thesis: 15 credits (Compulsory: 15 credits, Selective: 00 credits)</b>											
45	ENV722	Master thesis	15	15							I V
		<b>Total</b>	<b>60</b>	<b>42</b>	<b>18</b>						

### 3. Envisage measures for students mobilities

The potential sources of students are from Mekong delta of Vietnam, Laos, and Cambodia.

### 4. Envisage of possible collaborations with other professionals and researches that not will hold the professor status.

AGU will invite the PhD. Lecturers from the universities/insitutes in Mekong delta of Vietnam, Thailand, Campodia, and Europe to join for lecturing with this master program.

### **D. Courses Description of Master in management of environment and natural resources**



Codes		Credits
<b>i. Core courses</b>		
PHI702	Philosophy	2
ENV701	Research methodology	2
ENV702	Principles of natural resources and environmental management	2
ENV705	Application of GIS and Remote sensing into natural resources and environmental management	2
ENG704	English in environment	2
ENV703	Basic of biological conservation	2
ENV704	Structure and function of typical ecosystems in the Mekong Delta	2
<b>ii. Major courses</b>		
TIE712	Management of conservation areas and national parks	2
ENV707	Integrated water resources management	2
ENV709	Assessment and rational use of land resources	2
ENV711	Integrated management of river basin and coastal zone (marine resources)	2
<b>iii. Elective courses</b>		
TIE701	Application of statistics into natural resources and environmental management.	2
TIE702	Environmental biology indicators	
TIE703	Quantifying ecology	
TIE704	Monitoring techniques on natural resources	
TIE705	Environmental sociology	2
TIE706	Policies and strategies on environmental resources	
TIE707	Environment and resources economics	
TIE708	Biodiversity of aquatic resources	2
TIE709	Biodiversity of land resources	
TIE711	Wildlife conservation and rescue technology	2
ENV710	Project development and management for resource conservation	
TIE713	Applied biotechnology in conservation	
ENV712	Forest resources management	2
ENV713	Planning and management of fisheries resource	
ENV714	Mineral resources management	
TIE714	Management of specificity ecosystem services management in the Mekong Delta	2



TIE715	Risk assessment of Ecology	
TIE719	Modelling in management of environment and natural resources	2
TIE720	Applied ecological techniques for resilience of resource and environment	
ENV716	Communitybased on natural resource management	
ENV718	Environmental water management for aquaculture	2
ENV719	Climate change and resilience	
ENV720	Energy and environment	
TIE716	Application of nanotechnology in environmental treatment	2
TIE717	Water pollution control technology	
TIE718	Technology for treatment and management of solid waste and hazardous waste	
ENV717	Analysis of environmental systems	2
ENV715	Cleaner production	
ENV721	Management of agricultural and rural environment	
<b>iv. Research Courses</b>		
ENV705	Investigate and set up a biodiversity monitoring system	1
ENV706	Field visits and writing report resources conservation	1
ENV708	Management of environmental quality	2
<b>v. Thesis</b>		
ENV722	Thesis Writing	15
<b>Total</b>	<b>i + ii + iii + iv + v (Min. - Max.)</b>	<b>60</b>

<b>A: Core courses</b>
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## RESEARCH METHODOLOGY

### Course Description

The module equips students with in-depth knowledge of: scientific research methods including phenomena, objects, assumptions, and research protocols; reference materials reporting, writing articles on scientific research and writing graduate theses.

### Learning Outcomes:

Learners gain knowledge about:

- The system of views applied in research.
- System of scientific research methods.

- The stages of conducting a research project.
- Assess a scientific research.

### **Competencies**

At the end of the module, students will have the skills to select the most urgent issues in the topic and develop a research syllabus; skills in applying methods in scientific research and mastering the steps of a research topic; skills in reviewing, evaluating a scientific research topic.

### **Teachers' profile**

Assoc. Prof. Dr. Nguyen Trung Thanh

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### **Language**

Vietnamese

## **PRINCIPLES OF NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT**

### **Course Description**

The module aims to provide students with basic knowledge about the environment, resources and the importance of resources for current and future socio-economic development. The format is satisfying the growing demand. In order to exploit economically effective resources to meet human needs in life, it is necessary to ensure the speed of regeneration and restoration of natural resources inherent in various kinds of natural resources. Integrated management of the environment and resources should be considered.

### **Learning Outcomes:**

Participants assessed the role and importance of resources and environment, applied knowledge of environmental laws and policies, knowledge of environmental management tools.

### **Competencies**

Students have the skills to analyze and evaluate tools, models of resource management, and synthesize critical issues in environmental management. Planning, implementation and evaluation in the field of environmental management

### **Teachers' profile**

Invite lecture in UBB

Or Dr. Nguyen Van Kien

Center of research and rural development, An Giang University.

Cell phone:                      E-mail: [nvkien@agu.edu.vn](mailto:nvkien@agu.edu.vn)

### **Language**

Vietnamese/English

## **APPLICATION OF GIS AND REMOTE SENSING INTO NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT**

### **Course Description**

The course will introduce geographic information systems (GIS) and remote sensing, combining aspects of GIS and Remote Sensing related to resource and environmental management. It also provides specific topics on application of some common environmental management issues in Vietnam.

### **Learning Outcomes:**

The goal of this course is to introduce GIS and Remote Sensing knowledge, combined with knowledge of the areas of resource and environmental management for students to develop specific applications for resource management and environment. The application of the topics will help students understand the analysis, evaluation, solution design, planning for a problem of application of natural resources and environment management based on the basis of GIS and Far. Detective.

### **Competencies**

Enhance the ability to analyze and evaluate the design of GIS and remote sensing solutions in the areas of natural resources and environment management.

### **Teachers' profile**

Dr. Tran Hau Vuong

Department of Meteorology and Hydrology, University of Environment and Natural resources, Ho Chi Minh city.

Cell phone: E-mail:

### **Language**

Vietnamese

## **ENGLISH IN ENVIRONMENT**

### **Course Description**

The module equips students with knowledge of English as well as advanced English vocabulary in Natural Resource and Environmental Management. The content focuses on specific situations of natural resources and environment management.

### **Learning Outcomes:**

Provide specialized English terms. The content of terms encompasses aspects of resource and environmental management.

### **Competencies**

Enhance reading comprehension and access to specialized vocabulary and English materials in the world.

### **Teachers' profile**

Dr. Nguyen Tran Nhan Tanh

Faculty of Engineer – Technology - Environment, An Giang University

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**Language**

English and Vietnamese

**BASIC OF BIOLOGICAL CONSERVATION**

**Course Description**

The module equips students with in-depth knowledge about: the biological basis of biological conservation. It includes concepts of biodiversity and biodiversity conservation, legal bases of biodiversity conservation, biodiversity conservation methods and models for biodiversity conservation in Vietnam and in the world.

**Learning Outcomes:**

Raising awareness in the field of biological conservation: the classification of endangered species for conservation purposes, principles and methods of conservation, and barriers to conservation in biology.

**Competencies**

Enhance the ability to analyze, explain and reasonate, address issues related to biological conservation.

**Teachers' profile**

Invite lecture in EU

Or Assoc. Prof. Dr Nguyen Van Cong

**Language**

English /Vietnamese

**STRUCTURE AND FUNCTION OF TYPICAL ECOSYSTEMS IN THE  
MEKONG DELTA**

**Course Description**

The course provides intensive knowledge of the interactions between the organism and the environment and organisms, to help prevent the ecological imbalances characteristic of the Mekong Delta. This is a course designed to equip students with the skills to synthesize information about geology, land, water, organisms, economics, culture and society to make decisions, and organize action. This includes theoretical guidance, reference materials, summary and synthesis of materials, fieldwork for observation skills and information gathering interviews.

**Learning Outcomes:**

Enhance understanding of the structure and function of typical ecosystems in the Mekong Delta.

**Competencies**

Enhance the ability to analyze, explain and reason, solve ecological issues.

**Teachers' profile**

Assoc. Prof. Dr Nguyen Huu Chiem

**Language**

Vietnamese

**B: Major courses**

**MANAGEMENT OF CONSERVATION AREAS AND NATIONAL PARKS**

**Course Description**

The module equips students with specialized knowledge about protected areas and national parks, methods of classification and management of protected areas and national parks in Vietnam and in the world. Students can exploit the values and functions of protected areas and national parks.

**Learning Outcomes:**

Improving knowledge and expertise in managing protected areas and national parks. Providing knowledge on common management methods and tools such as policy instruments (laws, international conventions, etc.), technology tools (information technology information and communication, maps and remote sensing, modeling ...) and community participation in protected area management and national parks.

**Competencies**

Strengthening the ability to analyze, explain and reasonate, address issues related to protected area management and national parks based on the legal, economic and scientific aspects.

**Teachers' profile**

Invite lecture in EU

Or Dr. Bui Truong Tho

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**Language**

English

**INTEGRATED WATER RESOURCES MANAGEMENT**

**Course Description**

The module equips students with knowledge about: the distribution of water resources in the world as well as in Vietnam, the flow characteristics, the flow potential, the causes of the depletion of water resources, the measures aimed at management and rational use of water resources.



**Learning Outcomes:**

Enhancing professional knowledge in the field of integrated water resources management.

**Competencies**

Strengthening the ability to analyze, explain and reasonate, solve problems related to water resources.

**Teachers' profile**

Dr. Nguyen Van Quang

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**Languages**

Vietnamese

**ASSESSMENT AND RATIONAL USE OF LAND RESOURCES**

**Course Description**

The course equips students with the necessary knowledge related to the use of fertilizers as a basis for fertilizing high productivity and quality of crops with high fertilizer efficiency avoiding negative impacts on the environment.

**Learning Outcomes:**

To help students understand the concept of land resources, to understand the perspectives of land use. The method of land use planning is based on a rational and sustainable view of reality.

**Competencies**

- Analysis and synthesis of issues related to the concept of land resources
- To grasp the method of land use planning from a rational point of view and sustainable development.

**Teachers' profile**

Dr. Nguyen Van Chuong

Faculty of Agriculture and Natural resources, An Giang University

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**Language**

Vietnamese

**INTEGRATED MANAGEMENT OF RIVER BASIN AND COASTAL ZONE  
(MARINE RESOURCES)**

**Course Description**

The module is equipped with knowledge about effective management of river basins and coastal zones. The main features include the characteristics of river basins and



coastal zones, how information is managed, management planning and management practices. The module also includes discussions on the development and development of management plans that provide a deeper understanding of the knowledge provided and practice of practical application.

**Learning Outcomes:**

Improve knowledge of river basins and coastal zones. Understand the management process including collecting, managing and using information. At the same time, capture the way the development and implementation of management plans.

**Competencies**

Enhance the skills of analyzing, evaluating and developing effective river and coastal zone management strategies

**Teachers' profile**

Dr. Nguyen Tran Nhan Tanh

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**Languages**

Vietnamese

<b>C: Elective courses</b>
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**APPLICATION OF INTO NATURAL RESOURCES AND ENVIRONMENTAL  
MANAGEMENT**

**Course Description**

The module equips students with knowledge about: concepts and applications of statistics in natural resources and environment management

**Learning Outcomes:**

Understand concepts of probability; random variables and probability distribution laws, numerical features of random variables; Big number law.

Understand the estimation problems; statistical hypotheses and correlation theory, basic linear regression, multivariate regression and linear regression, time series for use in the analysis of service problems in resource management. and environment.

**Competencies**

Enhance the ability to analyze, explain and reason, solve problems related to management of natural resources and environment

**Teachers' profile**

Dr. Nguyen Van Quang



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### **Languages**

Vietnamese

## **ENVIRONMENTAL BIOLOGY INDICATORS**

### **Course Description**

The module equips students with in-depth knowledge of environmental indicator organisms to assess the nature and quality of the environment in that area and through which they can identify the presence of pollutants for monitoring and monitoring of environmental quality.

### **Learning Outcomes:**

Improve knowledge of professional knowledge in the field of renewable energy such as energy and renewable energy; the origin of natural energy; the exploitation of renewable energy sources: solar, wind, biomass, hydropower, tide, sea waves.

### **Competencies**

Skills in analyzing, synthesizing, evaluating problems, exchanging and discussing issues and presentations related to environmental indicator organisms.

Group-work skill

Apply knowledge learned for monitoring, monitoring and environmental management.

### **Teachers' profile**

Dr Nguyen Van Chuong

Faculty of Agriculture and Natural resources

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### **Language**

Vietnamese

## **QUANTIFYING ECOLOGY**

### **Course Description**

The course provides students with the ability to analyze quantitative and empirical research and helps students to design and implement quantitative policy analysis of the ecosystem.

### **Learning Outcomes:**

Revise basic statistical concepts such as descriptive statistics, probability, probability distribution, sampling and distribution, hypothesis estimation and testing.

### **Competencies**

Students can apply to analyze issues related to ecosystems.

### **Teachers' profile**

Dr Chau Thi Da

Head of External Relations Office, An Giang University.  
Aquaculture Senior  
E-mail: [ctda@agu.edu.vn](mailto:ctda@agu.edu.vn)

**Language**

Vietnamese

## **MONITORING TECHNIQUES ON NATURAL RESOURCES**

### **Course Description**

The module provides knowledge of sampling systems for gas, water, soil, and organisms to observe and study the environment, as well as gathering other information needed from the process. Surveys can be made for a number of purposes, including setting up "baselines, trends, and cumulative effects" on the environment, to test the process of environmental modeling, mass education on environmental conditions, or to inform design and decision-making policies, to ensure compliance with environmental regulations, human impact assessment, or to carry out inventory of natural resources.

### **Learning Outcomes:**

Comprehensive knowledge of monitoring. Identify the object and the content of the observation. Establish monitoring program, environmental monitoring network for an object.

### **Competencies**

Summarization, analyze, explain and argue to identify key environmental issues.

### **Teachers' profile**

Dr Nguyen Tran Thien Khanh

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### **Language**

Vietnamese

## **ENVIRONMENTAL SOCIOLOGY**

### **Course Description**

The module equips students with in-depth knowledge of: the logical development of environmental studies and sociological approaches is a particularly necessary approach; the developmental history of environmental sociology; research areas of interest such as history, theoretical forms, patterns and important variables, attitudes, human behavior on the environment, environmental groups, risk assessment, environmental, multilateral relations between economics, politics and the environment. The subject also mentions the research direction and some applications of Environmental Sociology.

### **Learning Outcomes:**

Learners understand the relationship between human society and its physical environment. It is a two-way interaction between society and the environment, the

interaction between social groups in relation to resources and the environment. Learners have a theoretical basis for developing strategies and policies related to the environment for sustainable development.

### **Competencies**

Strengthen the ability to analyze, explain and reasonate, address issues related to the interaction between social groups in relation to resources and the environment.

### **Teachers' profile**

Dr. Thai Huynh Phuong Lan

Faculty of Agriculture and Natural resources, An Giang University

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### **Language**

Vietnamese

## **POLICIES AND STRATEGIES ON ENVIRONMENTAL RESOURCES**

### **Course Description**

Course content will include 5 chapters: introductory knowledge about the state and law; the provisions of the law on environmental protection; state management on environment; international law on environmental; and natural resources protection and the mode of environmental policy formulation and analysis.

### **Learning Outcomes:**

- Understand the basic concepts of environment in the fields of environmental engineering, environmental economics... to provide a scientific basis for access at a level that can be understood and applied in the legal documents and technical specifications.
- See the basis of the definition, the definition of the law on environmental protection and natural resources, the target and method of regulation of the laws, principles and structure of the source of the laws and policies.
- Understand the process of issuing laws and policies, regulations on environmental protection, state management and implementation of environmental protection policies.

### **Competencies**

Students must have the skills to read and apply environmental laws; analyze and evaluate the provisions of environmental law and the system of environmental legislation; read and apply analysis and planning of environmental policy on conserving natural resources.

### **Teachers' profile**

Dr. Tran Hau Vuong

Department of Meteorology and Hydrology, University of Environment and Natural Resources, Ho Chi Minh City.

Cell phone:

E-mail:

### **Language**

Vietnamese

## RESOURCE AND ENVIRONMENTAL ECONOMICS

### **Course Description**

The module equips students with in-depth knowledge of natural resource and environmental economics. Students are equipped with an economic approach to solve environmental problem and also to use and manage resources wisely. This approach is presented in a sequence of successive steps: assessing the economic importance of environmental degradation, finding the economic cause of the recession, and developing economic measures to limit environmental degradation. In addition, the trainees also learn about the environmental impact assessment from an economic perspective.

### **Learning Outcomes:**

Assist students in understanding the definitions and concepts of specific economics in the field of environment and resource management; causes of economic development affect the environment; methods can be used to evaluate the value of environmental resources; principles of environmental pollution control from an economic perspective. From there, the development of economic instruments to control the environment and resource use is effective and sustainable.

### **Competencies**

Upon the completion of the module, students will be able to analyze and process information related to the module. This module helps students be able to analyze environmental and resource impacts on economic development. Through the requirements to carry out specific exercises, students will have discussions and group work to help developing teamwork skills, public speaking skills, and problem solving skills.

### **Teachers' profile**

Invite lecture from RUPP

Or Dr. Nguyen Huu Tri

Faculty of Economics, An Giang University.

Cell phone: 0918 028192

E-mail: [nhtri@agu.edu.vn](mailto:nhtri@agu.edu.vn)

### **Language**

English

## BIODIVERSITY OF AQUATIC RESOURCES

### Course Description

The module equips students with in-depth knowledge of the diverse aquatic resources including algae, seaweed, invertebrates and vertebrates living in water; their role in watershed and human life; the impacts of the environment on humans; diversity and measures to assess and conserve biodiversity.

### Learning Outcomes:

Understand the diversity, species composition of aquatic groups; understand the biological, ecological, role and importance of aquatic groups; aware of biodiversity status and measures to protect and conserve the biodiversity of important aquatic organisms.

### Competencies

Analyze and assess the diversity of aquatic organisms in aquatic ecosystems; apply biological and ecological knowledge of aquatic species groups to assess the water environment quality; propose measures to develop and conserve biodiversity of appropriate groups of aquatic organisms.

### Teachers' profile

Assoc. Prof. Dr. Vu Ngoc Ut

Aquatic Faculty, Can Tho University.

Cell phone:

E-mail: [vnut@ctu.edu.vn](mailto:vnut@ctu.edu.vn)

### Language

Vietnamese

## BIODIVERSITY OF LAND RESOURCES

### Course Description

The module equips students with in-depth knowledge of: the evolutionary origin of the biological diversity of the world of organisms from prokaryotes to animals; the diversity of the five existing terrestrial organisms and the conservation and rational use of these resources. In addition, this course provides students with a holistic approach to the study and management of terrestrial resources.

### Learning Outcomes:

Help students understand the definitions and concepts of populations and species; the values of groups of organisms for the environment and for human beings; genetic and environmental laws governing the development of species and populations; the importance of species biodiversity for the development of human society. From that, the students understand the approaches to research, management and rational use of existing biological resources.

### Competencies

Upon the completion of the module students will be able to find and process information related to the module. Help students have access to research, application and protection of biological resources rational. Discussions and group work will provide students with skills in teamwork, teamwork, public speaking skills, and problem solving skills.

### **Teachers' profile**

Assoc. Prof. Dr. Vo Lam

Faculty of Agriculture and Natural Resources, An Giang University

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### **Language**

English

## **WILDLIFE CONSERVATION AND RESCUE TECHNOLOGY**

### **Course Description**

The module equips students with in-depth knowledge about: biodiversity, history of evolution, role of forest animals, species value; the deterioration and loss of species diversity in Vietnam and in the world; the urgency of the issue of conservation; international conventions on the conservation of species diversity; Vietnam's laws pertaining to conservation and action plans for conservation of species diversity in Vietnam; conservation forms are being applied nowadays in the world and in Vietnam; procedures, sequences, and techniques related to rescue operations and re-release of wildlife back to natural habitats.

### **Learning Outcomes:**

Help students understand the definitions, concepts of biodiversity, the possibility of extinction of natural species; the values that species diversity brings to the environment and people; the importance of species diversity to the development of human society. From there it is imperative to preserve species in nature; forms of conservation of species diversity in the world today and the forms of conservation that Vietnam is applying; technical measures for rescue and rehabilitation of animal life-assurance to meet the re-entry requirements of habitats.

### **Competencies**

Upon completion of the module students will be able to find and process information related to the module. Assist the trainees in identifying species of the endangered species through investigation, survey and comparison of that species with the IUCN Threat Level Scale. Discussions and group work will provide students with skills in teamwork, teamwork, public speaking skills, and problem solving skills.

### **Teachers' profile**

Invite lecture from EU or Assoc. Prof. Dr. Nguyen Trung Thanh



Faculty of Engineer – Technology - Environment, An Giang University

Cell phone: 0907101590

E-mail: [ntthanh@agu.edu.vn](mailto:ntthanh@agu.edu.vn)

### **Language**

English

## PROJECT DEVELOPMENT AND MANAGEMENT FOR RESOURCE CONSERVATION

### **Course Description**

The module equips students with concepts, characteristics, expertise in project construction and resource conservation. Students are equipped with a scientific approach in solving problems of resource conservation, setting up conservation projects. This approach is presented in a sequence of successive steps: assessing the characteristics, importance of environmental conservation in project formulation, finding causes for impact and developing it with the aim of limiting the impact of the project on natural resources. Learners can apply knowledge of project construction related to conservation of resources from an economic point of view.

### **Learning Outcomes:**

Provide learners with the knowledge of how to set up the project to understand the definitions and concepts of specific project development in the field of conservation and management of resources; causes and impacts of the project on natural resources; methods can be used to evaluate the value of environmental resources; an analysis of the benefits of the project to conservation of resources. From there, building and adjusting projects to conserve and use resources is effective and sustainable.

### **Competencies**

Upon the completion of the module, students will be able to analyze and process information related to the module. The module will assist the trainee in setting up a project related to resource conservation through the cost-benefit analysis method. Through the requirements to carry out specific exercises, students will have discussions and group work to help developing teamwork skills, public speaking skills, and problem solving skills.

### **Teachers' profile**

Dr. Nguyen Huu Tri

Faculty of Economics, An Giang University.

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E-mail: [nhtri@agu.edu.vn](mailto:nhtri@agu.edu.vn)

### **Language**

Vietnamese

## APPLIED BIOTECHNOLOGY IN CONSERVATION

### **Course Description**

The module equips students with knowledge on application of biotechnology in conservation including application levels, storage techniques, storage, propagation and adaptation to natural conditions.

**Learning Outcomes:**

Improving knowledge on the application of biotechnology in conservation, including basic knowledge on conservation and biotechnology, how to apply biotechnology in conservation such as culture, propagation and preservation, storage and adaptation.

**Competencies**

Enhance the ability to analyze, explain and reason, solve issues related to the application of biotechnology in conservation.

**Teachers' profile**

Dr. Doan Thi Minh Nguyet

Faculty of Agriculture and Natural resources, An Giang University

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**Language**

Vietnamese

**FOREST RESOURCES MANAGEMENT**

**Course Description**

Equip students with basic knowledge about forest resources; characteristics and reality of forest resources in the world and in Vietnam; Identify causes of degradation, extinction; the principles and methods of sustainable forest management in the country and internationally.

**Learning Outcomes:**

The course teaches students the concepts, characteristics and reality of forest resources in the world and in Vietnam, identifying the causes of degradation, extinction, and methods of sustainable forest resource management. .

**Competencies**

Knowledge, methods and attitudes about forest resources and forest resource management, students can apply to the management and development of this valuable resource in sustainable environmental management.

**Teachers' profile**

Dr. Nguyen Van Minh

Faculty of Agriculture and Natural resources, An Giang University

Cell phone:

E-mail: [nvminh@agu.edu.vn](mailto:nvminh@agu.edu.vn)

**Language**

Vietnamese

## PLANNING AND MANAGEMENT OF FISHERIES RESOURCE

### Course Description

The course provides practical knowledge in management, planning and conservation of fisheries resources in the Mekong Delta in particular and in Vietnam in general. This course helps participants to acquire knowledge in the protection and preservation of fisheries resources that are seriously threatened by many factors influenced by industrial development in production, population, climate change and upstream development.

### Learning Outcomes:

Provide basic knowledge of natural conditions, characteristics of aquatic resources, aquatic species, factors influencing natural aquatic resources; legal documents, regulations and steps for the implementation of the planning and protection of fisheries resources.

### Competencies

Provide skills to synthesize information, orient the protection and management of sustainable fisheries.

### Teachers' profile

Dr. Chau Thi Da

Faculty of Agriculture and Natural Resources, An Giang University

Cell phone: 0919216036

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### Language

Vietnamese

## MINERAL RESOURCES MANAGEMENT

### Course Description

The course provides students with general knowledge of geological features, material composition, origin and formation conditions of minerals as well as the laws of their distribution in space and time; the exploitation and management of mineral resources and impacts on the environment. In addition, the course also explores the status of mining and mineral resource management in the Mekong Delta and sustainable management solutions.

The module includes the following main issues:

- The concept of minerals; objects, tasks and research on mineral resources.
- An overview of the composition of mineral deposits.

- The origin and formation conditions of the minerals; the law of distribution in space, over time
- Some mineral resources in the Mekong Delta; the management of mineral resources.

**Learning Outcomes:**

Knowledge of basic mineral issues: minerals, mineral and rock concepts, crustal composition and ore processing, mineral structure, mineral body and ore composition; characteristics of mineral deposits by source, rules of distribution of mineral deposits; management and exploitation of mineral resources and impacts on the environment

**Competencies**

Apply the theory of exploitation and management of mineral resources in accordance with the trend of sustainable development: formulating ideas, building, implementing and operating plans.

**Teachers' profile**

Dr. Nguyen Tran Thien Khanh

Faculty of Engineer – Technology - Environment, An Giang University

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**Language**

Vietnamese

MANAGEMENT OF TYPICAL ECOSYSTEM SERVICES IN THE MEKONG  
DELTA

**Course Description**

The Wetland Aquaculture Ecosystem Service course is a course that provides students with an analysis of how different aquaculture systems can be developed that are profitable (effective). Much of what society receives from both aquaculture production and ecosystem services is provided by wetland ecosystems. This course will illustrate the comprehensive picture of the combination and harmony of aquaculture activities and natural wetland ecosystems in a large scale. This can be considered as one of the main strategies to promote the development of aquaculture production through sustainable management of ecosystem services which can maximize the assurance food security and poverty alleviation as well as to enhance the resilience of social networks in the adaptation to the current climate change situation. The topics discussed in this course will be related to good management practices, adaptive policies and strategies, human resources development, and the development of human resources capacity to improve livelihoods for aquaculture farmers.

**Learning Outcomes:**

Provide basic scientific knowledge for the development and application of approaches aimed at promoting the use and exploitation of ecosystem services, wetland

management and sustainable aquaculture. This course will help practitioners and managers:

- Understand the terms of sustainable management of ecosystem services, wetlands and aquaculture.
- Understand the connections between nature and development, and issues that need to be taken into consideration in terms of what is lost between the environment, the wetland ecology, the aquaculture development and economics together with a combination of measurement of development.

### **Competencies**

- Students who have individual assignments and / or small research projects will submit their report in PowerPoint presentations form during the study and submission of the report practical topics and / or small research proposals proposed by the subject faculty.
- In addition, students will also practice using GIS and InVest models to develop aquaculture scenarios and wetland ecosystem services.

### **Teachers' profile**

Dr. Chau Thi Da

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### **Language**

English

## **RISK ASSESSMENT OF ECOLOGY**

### **Course Description**

The course aims to assist the trainees with basic knowledge of ecological risk concepts, exposure assessment of pollutants in ecosystems, risk assessment process and assessment of pollutant impacts on ecosystems.

### **Learning Outcomes:**

Equip learners with knowledge to forecast risk for ecosystems due to pollutants in the environment and provide some management solutions.

### **Competencies**

### **Teachers' profile**

Assoc. prof. Dr. Nguyen Van Cong

Faculty of Environment and Natural Resources, Can Tho University

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### **Language**

Vietnamese



## MODELLING IN MANAGEMENT OF ENVIRONMENT AND NATURAL RESOURCES

### Course Description

After the course, participants will be able to:

- Basic knowledge:
  - + Can master and manipulate key steps in a study of mathematical models. It is possible to identify and describe some important processes in a number of issues related to environmental and natural resource management.
  - + Can design and build a mathematical model based on systematic thinking and presentation of issues of concern about natural resources and environment management through mathematical models.
  - + Mathematical model can be used to solve some specific issues related to natural resources and environment management.
- Ability to communicate professionally:
  - + Can express clearly personal views on another study.

### Learning Outcomes:

This module is specialized knowledge and will be taught to students in the following areas:

- The meaning of the mathematical model in the management of natural resources and environment.
- Basic processes in developing a mathematical model
- Systems thinking method in research on resource and environment management and application of Vensim software
- Application of knowledge of mathematical models in the development of a decision support system in the management of natural resources and environment.

### Competencies

Enhance professional knowledge in the field of applying mathematical knowledge to support the management of natural resources and environment.

### Teachers' profile

Assoc. prof. Dr. Van Pham Dang Tri

Faculty of Environment and Natural Resources, Can Tho University

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E-mail: [vpdtri@ctu.edu.vn](mailto:vpdtri@ctu.edu.vn)

### Language

English

## APPLIED ECOLOGICAL TECHNIQUES FOR RESILIENCE OF RESOURCE AND ENVIRONMENT

### Course Description

The module provides the knowledge of ecological engineering. The content includes basic knowledge of ecology and an in-depth understanding of techniques applied in ecological and environmental restoration. The module provides key techniques including ecological restoration techniques which include soil and water resources and waste management techniques.

### Learning Outcomes:

Enhance professional knowledge on the application of ecological techniques in ecological restoration and the environment. Knowledge includes basic and in-depth parts of wetlands, lands, models and applications of ecological techniques for ecological restoration and waste management.

### Competencies

Training skills in analyzing, evaluating and solving problems related to ecological techniques. Self-design of an ecosystem for the treatment of environmental pollution and ecosystem restoration.

### Teachers' profile

Dr. Nguyen Tran Nhan Tanh

Faculty of Engineer – Technology - Environment, An Giang University

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E-mail: [ntntanh@agu.edu.vn](mailto:ntntanh@agu.edu.vn)

### Language

English

## COMMUNITY BASED ON NATURAL RESOURCE MANAGEMENT

### Course Description

The module equips students with in-depth knowledge of: the value and importance of natural resources in the country's economic growth as well as in the life of the community. In addition, students learn more about the types of ecosystem service and agro-ecological systems, water resources, fish, fisheries and forest resources in production and management of natural resources involve the community.

### Learning Outcomes:

Enhance professional knowledge in the field of natural resources management (renewable and non-renewable); types of ecosystem services and agro-ecological systems, water resources, fish, fisheries, and forest resources in community production and management of resources.

### Competencies

Enhance the ability to analyze, explain, reason and report, address issues related to production and management of natural resources.

### **Teachers' profile**

Dr. Thai Huynh Phuong Lan

Faculty of Agriculture and Natural Resources, An Giang University

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### **Language**

Vietnamese

## ENVIRONMENTAL WATER MANAGEMENT FOR AQUACULTURE

### **Course Description**

The module equips students with knowledge on water environment and water environment management in aquaculture including factors influencing water quality (agriculture, industry, daily life, and aquaculture), methods in water environment management (chemical-physical and biological monitoring methods), and methods of water treatment (chemistry, biology, and microbiology).

### **Learning Outcomes:**

Learners understand the nature and causes of impacts on the water environment; Understanding impact mechanisms, fluctuations of water environment factors, chemical and biological mechanisms in water environment assessment and management; Recognizing the status and trends of environmental pollution under human activities and the importance of managing and treating the aquatic environment in aquaculture.

### **Competencies**

Analyzing and evaluating the status of aquatic environment quality in aquaculture; propose measures and design appropriate water management and treatment systems.

### **Teachers' profile**

Assoc. Prof. Dr. Vu Ngoc Ut

Aquatic Faculty, Can Tho University.

Cell phone:                                      E-mail: [vnut@ctu.edu.vn](mailto:vnut@ctu.edu.vn)

### **Language**

English

## CLIMATE CHANGE AND RESILIENCE

### **Course Description**

The module equips students with in-depth knowledge of: Global Climate Change, the impacts of climate change on natural resources and the environment. Also, after



completing the course, students will be able to grasp some of the solutions to adapt to climate change.

**Learning Outcomes:**

Improve expertise knowledge in climate change such as greenhouse gases, greenhouse gas emissions, climate change causes, climate change trends, the effects of climate change in different areas as well as adaptation solutions to climate change.

**Competencies**

Enhance the ability to analyze, explain and reason, address issues related to climate change and teamwork skills, and report.

**Teachers' profile**

Dr. Tran Hau Vuong

Department of Meteorology and Hydrology, University of Environment and Natural Resources, Ho Chi Minh city.

Cell phone:

E-mail:

**Language**

Vietnamese

ENERGY AND ENVIRONMENT

**Course Description**

The module equips students with in-depth knowledge of: renewable energies and sources of natural energy; exploitation of renewable energy sources: solar, wind, biomass, hydropower, tide, sea waves.

**Learning Outcomes:**

Improve knowledge of professional knowledge in the field of renewable energy such as energy and renewable energy; the origin of natural energy; exploitation of renewable energy sources: solar, wind, biomass, hydropower, tide, sea waves.

**Competencies**

Enhance the ability to analyze, explain and reason, address issues related to energy and renewable energy.

**Teachers' profile**

Assoc. Prof. Dr. Nguyen Trung Thanh

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**Language**

English

## APPLICATION OF NANOTECHNOLOGY IN ENVIRONMENTAL TREATMENT

### Course Description

Course content will consist of 5 chapters, including an overview of adsorption and catalysis materials, materials characterization techniques, materials manufacturing techniques, applications of materials environmental treatment and material application achievements in environmental treatment.

### Learning Outcomes:

Equip students with the knowledge of nanomaterial and introduce their applications in environmental treatment. Learners are able to master the technology of making materials by chemical methods and improve their research and experiment ability.

### Competencies

Upon the completion of the module, students will be able to find and process information related to the module. Learners mastered the techniques of making materials by chemical methods and improving their research and experiment ability.

### Teachers' profile

Assoc. Prof. Dr. Nguyen Trung Thanh

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### Language

Vietnamese

## WATER POLLUTION CONTROL TECHNOLOGY

### Course Description

The module provides learners with knowledge on the sources of pollution, typical water pollution factors, impacts of pollution on water resources and aquatic resources. This helps people learn how to identify contaminated water, and recommend measures to manage water quality.

### Learning Outcomes:

Provide knowledge on basic problems of water pollution and control of water pollution.

### Competencies

1. Differentiate the phenomena of water pollution
2. Evaluating the possibility of causing toxins and toxins in the aquatic environment and aquatic resources.
3. Participating in water quality monitoring.
4. Propose method in water treatment.

### Teachers' profile

Dr. Nguyen Tran Thien Khanh

Faculty of Engineer – Technology - Environment, An Giang University

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**Language**

Vietnamese

TECHNOLOGY FOR TREATMENT AND MANAGEMENT OF SOLID WASTE  
AND HAZARDOUS WASTE

**Course Description**

The module equips students with an in-depth knowledge of: technology for treatment and management of solid waste, hazardous waste.

**Learning Outcomes:**

The subjects help students improving their knowledge on technology for treatment and management of solid waste and hazardous waste from the time they are first generated to recovery, recycling, biological treatment, heat and burial in an effective way.

**Competencies**

Provide students with the ability to analyze, explain, and reason; solve problems related to management and treatment of solid waste and hazardous waste.

**Teachers' profile**

Dr. Nguyen Tran Thien Khanh

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**Language**

English

ANALYSIS OF ENVIRONMENTAL SYSTEMS

**Course Description**

The course equips learners with a range of analytical tools related to natural and social systems to address the analytical tasks in the field of environment such as: SWOT analysis, impact assessment environment; life cycle assessment; physical flow analysis; analysis of environmental risks. The course also helps developing the skills of the six levels of knowledge: knowledge - comprehension - application - integration - assessment to apply to research and management in the field of environment, and the ability to work in teams, present ideas.

**Learning Outcomes:**

Analyze the system and use an analytical tool to solve problems in the field of the environment. Coordinate methodology: processes, regulations, techniques, tools for analysis in environmental management.

## **Competencies**

Use analytical tools to solve problems in the environment.

## **Teachers' profile**

Dr. Nguyen Tran Nhan Tanh

Faculty of Engineer – Technology - Environment, An Giang University

Cell phone:

E-mail: [ntntanh@agu.edu.vn](mailto:ntntanh@agu.edu.vn)

## **Language**

Vietnamese

## CLEANER PRODUCTION

### **Course Description**

The module equips students with in-depth knowledge of: reducing waste at source and using materials, energy efficiency in production, services and products; some case studies on CP application in industrial and agricultural activities; international standard for environmental management system ISO 14001 and LCA product life cycle assessment.

### **Learning Outcomes:**

Improve knowledge and expertise on pollution prevention, clean technology, and cleaner production and ISO 14001 standards such as: New methods and approaches to prevent pollution and increase economic efficiency in operations. develop; method of reuse / recycling of waste; method of assessing the profit from the CP project; relationship between cleaner production and sustainable development; case studies on CP projects in Vietnam; Vietnamese environmental laws, standards and policies.

### **Competencies**

Enhances the ability to analyze, interpret, reason and evaluate data on waste streams from production processes, sources and characteristics of wastes, thereby providing management and control procedures. Cleaner production for businesses; ability to organize, develop and implement CP or ISO according to ISO 14001; implement and propose cleaner production options in industrial production; evaluate environmental aspects and environmental policy for a business; ability to work with a multi-disciplinary team, communicating, presenting and working effectively in a multidisciplinary team that deals with environmental issues.

### **Teachers' profile**

Dr. Doan Thi Minh Nguyet

Faculty of Agriculture and Natural resources, An Giang University

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## **Language**

Vietnamese

## MANAGEMENT OF AGRICULTURAL AND RURAL ENVIRONMENT

### Course Description

The course provides students with a comprehensive knowledge and analytical approach to environmental issues in the areas of agricultural production, thereby finding effective solutions in the management of the shallow environment and rural enterprise; be skillful in approaching problems, thinking and applying methods in the management of the agricultural environment; qualities of working independently, working in team, presentation skills in the study and research process; apply and propose measures and policies in the management of agricultural environment in accordance with the trend of sustainable development of the country.

### Learning Outcomes:

Knowledge and methods of integrated analysis of environmental issues in the agricultural field. So they can find effective solutions, measures and policy recommendations in the management of the agricultural environment in the rural of Vietnam and the world.

### Competencies

Apply measures and policies in the management of agricultural and rural environments.

### Teachers' profile

Dr. Pham Van Quang

Faculty of Agriculture and Natural Resources, An Giang University

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### Language

Vietnamese

<b>D: Research courses</b>
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## INVESTIGATE AND SET UP A BIODIVERSITY MONITORING SYSTEM

### Course Description

The module equips students with practical knowledge in investigating, and establishing a biodiversity monitoring system; field methods applied in the ecosystem approach; construction planning or to improve the biodiversity monitoring system from the results of the monitoring system.

### Learning Outcomes:

Raise awareness of field knowledge in investigating and establishing a biodiversity monitoring system. Provide knowledge and introduce the common tools currently being applied for the biodiversity monitoring system

**Competencies**

Strengthen field observation, analysis, interpretation, planning in investigating and establishing a biodiversity monitoring system.

**Teachers' profile**

Invite lecture from EU

Or Dr. Bui Truong Tho

Center of Advance Rechnology Application of Ben Tre Province

Cell phone: 0868597679      E-mail: [tho.buitruong@gmail.com](mailto:tho.buitruong@gmail.com)

**Language**

English

FIELD VISITS AND WRITING REPORT RESOURCES CONSERVATION

**Course Description**

To help students understand the concept of land resources, to understand the perspectives of land use. The method of land use planning is based on a rational and sustainable view of reality.

**Learning Outcomes:**

Equip students with the necessary knowledge related to the use of fertilizers as a basis for fertilizing high productivity and quality of crops with high fertilizer efficiency avoiding negative impacts on the environment.

**Competencies**

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**Teachers' profile**

Dr. Nguyen Van Chuong

Faculty of Agriculture and Natural Resources, An Giang University.

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**Language**

Vietnamese

MANAGEMENT OF ENVIRONMENTAL QUALITY

**Course Description**

The module introduces environmental management tools that help supporting management and sustainable development strategies.

**Learning Outcomes:**

Enhance understanding of environmental management tools and strategies for sustainable development

**Competencies**

Analyze, evaluate and find solutions to critical issues in environmental management.

**Teachers' profile**

Dr. Nguyen Van Kien

Center of Research and Rural Development, An Giang University.

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**Language**

Vietnamese

<b>E: Thesis</b>
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**Thesis - Credits: 15**

**Competencies**

Students will complete the dissertation with the knowledge they have learned. Topics include graduation theses such as laboratory studies, field work, analysis, assessment, research proposals for natural resource and environmental management processes.

**Language**

Vietnamese