

Course Syllabus

1. Course Title: General Environment

2. Course Code: GREN133110

3. Credit Units: 2 (2/0/4) (2 units of theory/ 0 unit of practice/ 4 units of self-study)

Duration: 10 weeks (3 hours of theory+0 hours of practice, and 6 hours of self-study per week)

4. Course Instructors

1/ MSc. Nguyen Thi Thu Thao

2/ MSc. Nguyen Ha Trang

5. Course Requirements

Prerequisite courses: None

Previous courses: None

Parallel courses: None

6. Course Description

The course refers scientific knowledge on: The environment and the relationship between humans and the environment in both positive and negative aspects; Ecological factors and their impact on the environment; The impact on the environment due to population growth and manufacturing operations; Solutions for environmental protection and sustainable development.

7. Course Goals

| Goals | Goal Description | Programme ELOs |
|-------|---|----------------|
| G1 | Present concepts of environment and ecology. | ELO2 |
| G2 | Identify environmental issues and determine approaches to natural resources by rational exploitation and usage. | ELO4 |
| G3 | Design methods of learning and teamwork. | ELO9 |

8. Course Learning Outcomes (CLOs)

| CLOs | CLO Description | Programme ELOs |
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| G1 CLO1 | Present the concepts of environmental science and explain terms related to environment. | ELO2 |

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| | CLO2 | List of ecological factors and explain their impact on the environment. | |
| | CLO3 | Describe the bio-geo-chemical cycle, ecological succession and apply for environmental protection. | |
| | CLO4 | Present the characteristics of the population and identify the impact of population growth on the environment. | |
| G2 | CLO5 | Explain the causes and determine the consequences of environmental pollution. | ELO4 |
| | CLO6 | Determine rational exploration methods and usage of natural resources toward sustainable development in Vietnam. | ELO4 |
| G3 | CLO7 | Build teamwork skills. | ELO9 |

9. Learning Resources

- Textbooks:

1. Textbook of General Environment. HCMC National University Press, 2015.

- References:

1. Le Van Khoa et al. Environment and environmental protection education. Vietnam Education Publishing House, 2009.
2. Le Thi Thanh Mai. Textbook of Environment and People. HCMC National University Press, 2009.
3. Ministry of Education and Training. Textbook of Human and Environment. Vietnam Education Publishing House, 2011.

10. Student Assessment

- Grading scale: **10**

- Assessment plan:

| Type | Content | Timeline | Assessment method | CLOs | Rate (%) |
|--------------------|---|----------|-------------------|---------------|-----------|
| Assignments | | | | | 15 |
| BT#1 | Draw and describe the bio-geo-chemical cycle | Week 5 | Subtest | CLO3 | 5 |
| BT#2 | Classify natural resources. Apply the tools to effectively manage these resources. | Week 7 | Subtest | CLO5, CLO6 | 5 |
| BT#3 | Determine the rate of population growth, forecast population | Week 9 | Subtest | CLO4 | 5 |

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| | growth rate | | | | |
| Processing test | | | | | 20 |
| | Quiz | Week 8 | Test | CLO1, CLO2, CLO3, CLO4 | 20 |
| Assay | | | | | 15 |
| | Students are required to read materials and learn about a topic of environmental issues and give the presentation on the chosen topic. | Week 4-15 | Report | CLO 6, CLO7 | 15 |
| Final exam | | | | | 50 |
| | Covering contents of all the important course outcomes. | | Quiz | CLO1, CLO2, CLO3, CLO4, CLO5 | 50 |
| Total | | | | | 100 |

11. Course Content

| Week | Content | CLOs |
|------|---|---------------|
| 1 | Chapter 1: Introduction to environmental science (3,0,6) | |
| | A/ Content and pedagogical methods in class: (3) Content: <ul style="list-style-type: none"> 1.1 Concept of environment 1.2 Environmental classification 1.3 The relationship between humans and the environment 1.4 The principal function of the environment 1.5 Environmental issues in the world and in Vietnam Pedagogical methods: <ul style="list-style-type: none"> + Presentation of lecture + Focus group discussion | CLO1, CLO2 |
| | B/ Self-study content: (6) <ul style="list-style-type: none"> 1.6 The crucial responsibility of human for the environment 1.7 The environmental management tools | CLO1 |

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| 2-3 | Chapter 2: The essential components of the environment(6,0,12) | |
| | A/ Content and pedagogical methods in class: (6) Content: 2.1 Lithosphere 2.2 Hydrosphere 2.3 Atmosphere 2.4 Biosphere Pedagogical methods: + Presentation of lecture + Group discussion | CLO1, CLO2, CLO3, CLO7 |
| | B/ Self-study content: (12) 2.5 The process of human evolution 2.6 The relationship between population, resources and environment | CLO1, CLO2 |
| 4-5 | Chapter 3: The principles of applied ecology on environmental science (6,0,12) | |
| | A/ Content and pedagogical methods in class: (6) Content: 3.1 The concept of ecology 3.2 The ecological factors and their effect on living organisms 3.3 Population 3.4 Community 3.5 Ecosystem 3.6 Material cycle and energy flow in ecosystems 3.7 The impact of humans on the ecosystem 3.8 Ecological indicators Pedagogical methods: + Presentation of lecture + Group discussion + Individual presentaton | CLO1, CLO2, CLO3, CLO7 |
| | B/ Self-study content: (12) 3.9 The ecological priciples 3.10 The causes and consequences of pollution | CLO1, CLO5 |
| 6-7 | Chapter 4: Natural resources (6,0,12) | |
| | A/ Content and pedagogical methods in class: (6) Content: | CLO1, CLO5, CLO7 |

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| | <p>4.1 Definition and classification of resources</p> <p>4.2 Soil resources</p> <p>4.3 Forest resources</p> <p>4.4 Biological resources</p> <p>4.5 Water resources</p> <p>4.6 Marine resources</p> <p>4.7 Climate resources</p> <p>4.8 Mineral resources</p> <p>4.9 Energy</p> <p>Pedagogical methods:</p> <p>+ Presentation of lecture</p> <p>+ Group discussion</p> <p>+ Individual presentaton</p> | |
| | <p>B/ Self-study content: (12)</p> <p>4.10 Solid waste</p> <p>4.11 Environmental disasters and the solutions to environmental protection</p> | CLO1, CLO5 |
| | <p>Chapter 5: Demography and human needs (6,0,12)</p> | |
| 8-9 | <p>A/ Content and pedagogical methods in class: (6)</p> <p>Content:</p> <p>5.1 Concept of demography</p> <p>5.2 The population progression and population structure</p> <p>5.3 History of world population growth and in Vietnam</p> <p>5.4 The relationship between population, environment and natural resources</p> <p>5.5 Demand and activities satisfy human needs</p> <p>Pedagogical methods:</p> <p>+ Presentation of lecture</p> <p>+ Group discussion</p> <p>+ Individual presentaton</p> | CLO1, CLO2, CLO3, CLO7 |
| | <p>B/ Self-study content: (12)</p> <p>5.6 Impact of industrialization, urbanization on environment</p> <p>5.7 Approach in mining and sustainable use of natural resources</p> | CLO1, CLO5, CLO6 |
| 10 | <p>Chapter 6: Human impact on the environment (3,0,6)</p> | |

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| | <p>A/ Content and pedagogical methods in class: (3)</p> <p>Content:</p> <p>6.1 The concept of environmental pollution</p> <p>6.2 Environmental pollutants</p> <p>6.3 Classification of pollution sources</p> <p>6.4 Environmental quality standards</p> <p>6.5 Water pollution</p> <p>6.6 Air pollution</p> <p>6.7 Soil pollution</p> <p>6.8 Other pollutions</p> <p>6.9 Environment and social</p> <p>6:10 Environmental protection measures</p> <p>Pedagogical methods:</p> <p>+ Presentation of lecture</p> <p>+ Group discussion</p> | <p>CLO4, CLO5, CLO6, CLO7</p> |
| | <p>B/ Self-study content: (6)</p> <p>6:11 Sustainable development</p> <p>6.12 The direction and action programme for environmental protection</p> | <p>CLO3</p> |

12. Learning Ethics

Students must do homework by themselves. If plagiarism is found students will get zero point.

13. Date of first approval: August 1st, 2012

14. Approved by

Dean

Head of Departmen

Compiler

A/Prof. Nguyen Van Suc

MSc. Nguyen Thi Minh Nguyet

Nguyen Thi Thu Thao

15. Date and Up-to-date content

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| <p>1st time: Date: August 25th, 2015</p> <p>- Update content and structure of the programme adjusted in: teaching content and assessment method</p> | <p>Instructor:</p> <p>Head of Department:</p> <p>Dr. Tran Thi Kim Anh</p> |
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