LECTURE

MARINE RESOURCES AND ENVIRONMENT MANAGEMENT

Lecturer: Prof. Nguyen Ky Phung

MSc. Nguyen Van Tin

MSc. Tran Thi Kim

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LECTURE NOTE

MARINE RESOURCES AND ENVIRONMENT MANAGEMENT

COURSE SYLLABUS

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GENERAL INFORMATION

Vietnamese subject name: Quản lý tài nguyên và môi trường biển

English subject name: Marine resources and environment management

Number of credits: 3 ECTS

Number of theoretical periods / sessions: 30 periods

Number of practice periods / sessions: No

Prerequisite subject: No

COURSE DESCRIPTION

The course provides basic knowledge about the resources of the sea and islands, tools for the management of marine resources, marine pollution and the control of marine pollution. The course also introduces the knowledge of the country's marine and island environment.

COURSE GOALS

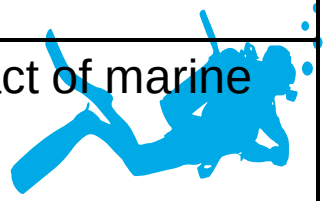
The principal purpose of the course is to give students the following knowledge:

- Analysis and evaluation of present marine environmental resources.
- Acquire knowledge of marine resource management tools.
- Marine Resource Assessment (MPA).
- Marine environment resource management tools.

LEARNING OUTCOMES

By the end of the course, successful students will:

Knowledge	• Understand the basic concepts of the marine and coastal environment. • Understand the management and planning guidelines for the coastal/coastal zone. • Knowledge of marine and island resources • Capture objects and ways to manage a specific sea area. • Impacts of marine pollution • Marine-ocean pollution control systems.
Comprehensive	• Presenting the basic knowledge of the marine environment, the impacts of marine pollution and the marine-ocean pollution control systems.
Application	• Management and development of coastal zones
Analysis	• Resources of marine resources and the impact of marine pollution
Synthesis	• Knowledge of marine and island resources, the impact of marine pollution, marine-ocean pollution control systems



COURSE OUTLINE

Week 1	Integration for management of the natural resources and environment of the islands
Week 2; 3,4 & 5	Marine resources and the benefits of marine resources
Week 6-10	Marine pollution, the impacts of marine pollution
Week 11-15	Management of marine resources and environment

COURSE CONTENT

Topic 1 Integration for management of natural resources and environment of the islands

- Concepts of sea, marine space and coastal zone
- Marine environment
- Marine environmental issues

Topic 2 Marine resources and the benefits of marine resources

- Marine resources- Benefit of Biological resources
- Marine resources- Benefit of Non-living resources
- Marine resources - Coastal ecosystems
- Marine resources -Assessment method of resource benefit

COURSE CONTENT (cont.)

Topic 3 The effects of natural resources exploitation on the marine environment

- Marine pollution
- Impacts by mining resources using the resource

Topic 4 Management of marine resources and environment - Tools for managing environmental resources

- Tools for managing environmental resources
- Resource planning and management
- Marine and Ocean pollution control system

COURSE ASSESSMENT

Course assignments will constitute a multi-part project:

Assignment #1 - (in-class) : The students will learn in detail what marine space and coastal zones, marine resources, marine environment, and marine pollution are, how these are zoned and identified. Some prime examples will be discussed in this assignment.

Assignment #2- (home work) : will help the students to study the marine environment including: Biological resources and non-living resources; ccoastal ecosystems (corals, sea-grass beds, mangrove forests). Individual assignments will be issued to help the students in ddetermine the marine environment.

Assignment #3- (home work) : The students will deal with physical, biological and ecological characteristics of the sea. What and how to determine impact of marine resources on organisms and non-living resources by using the problem tree analysis.

Assignment #4- (mostly in-class) : The students will present the basic knowledge of flow dynamics and hydrography, the basic knowledge of modeling of substance transmission in marine environment through a seminar in class. The scheme for analysis of natural systems and design of numerical models and simulate the processes of substance transmission in water.

GRADING SCALE

The students' performance will be based on the following:

Assessment
Progress assessment (30%):
- Exercise (15%):
- Homework (15%):

Final assessment (60%):
- Final examination (45%)
- Semi- Final examination (15%)

Evaluation
A (8,5 – 10)
B (7,0 – 8,4)
C (5,5 - 6,9)
D (4,0 – 5,4)

REFERENCES

Literature

Compulsory

[1]. Lecture of Marine resources and environment management

Recommended:

[1] Phung Nguyen Ky, Management of marine resources, 2015

[2] Au Nguyen Van, East Sea Natural Geography, VNU Publishing House, 2003

[3] Joan Brown, Angela Colling, Dave Park, John Phillips, Dave Rothery vµ John Wright, Trinh Le Ha, Ocean structure and processes, Publishing Ha Noi, 2001.

[4] Lac Vo, General geology, Publishing Ha Noi, 2001