

COURSE OUTLINE DETAILS

1. Course: Introduction to Aquaculture and Fisheries Science (*Nhập môn Khoa học nghề cá*)

- **Code number:** AQ206
- **Credits:** 3
- **Hours:** 36 theory hours; and 9 practice hours/field trip;

2. Management Unit:

- Department: **Coastal aquaculture**
- Faculty: **College of aquaculture and fisheries**

3. Requisites:

- **Prerequisites:** No
- **Corequisites:** No

4. Course objectives:

Objectives	Descriptions	Program outcomes
4.1	To introduce students about (1) the global, national and the Mekong delta context of aquaculture and fisheries (<i>including aquaculture, capture fishery, aquatic resource management and development and seafood processing</i>), (2) natural and potential conditions of Vietnam and the Mekong delta for aquaculture and fisheries development; (3) major aquaculture production systems; and (4) principles of aquaculture;	2.1.2 a
4.2	To train students on (1) data collection and analysis of the context of aquaculture and fisheries development and major aquaculture production systems; and (2) identify factors affecting the production of major aquaculture systems.	2.1.2b
4.3	To train students on how to work individually or in group to write a report and present about aquaculture and fisheries sectors and aquaculture production systems.	2.2.2
4.4	To develop an active attitude in self-study, long-life learning, and contributing to the sustainable development of aquaculture and fisheries	2.3

5. Course learning outcomes:

COs	Descriptions	Objectives	POs
	Knowledge		
CO1	Describe the current development of aquaculture and fisheries sectors in the world, Vietnam and the Mekong delta; and the characteristics of major aquaculture systems	4.1	2.1.2a
CO2	Identify accurate factors affecting the carrying capacity of aquaculture production systems.	4.1	2.1.2b
	Skills		
CO3	Compare the development levels of different aquaculture production systems	4.2	2.2.1a
CO4	Work individually and cooperatively in a small group environment;	4.3	2.2.2
	Attitudes/Autonomy/Responsibilities		
CO5	Display good attitude in study; (2) and perform responsibility in career.	4.3; 4.4	2.3

Note: "COs" means Course Outcomes; "POs" means Program Outcomes

6. Brief description of the course:

The course will (1) introduce students the global, national and the Mekong delta context of aquaculture and fisheries (*including aquaculture, capture fishery, aquatic resource management and development, seafood processing and marketing*); (2) analyze the natural conditions and potential of Vietnam in aquaculture and fisheries; (3) basic information about major aquaculture production systems; (4) explain principles of aquaculture production (focussing on factors affecting the carrying capacity of production systems); and (5) visit major aquaculture production systems and location in the Mekong delta such as hatcheries, grow-out farms, processing factories, fishing ports, markets, *etc.* In addition, the course also approaches different teaching methods to enhance the learning capability of students.

7. Course structure:

7.1. Theory

	Content	Hours	COs
Chapter 1	Context of Aquaculture and Fisheries Development	6	
1.1	Definition of aquaculture and fisheries		CO1, CO3
1.2	Context of global aquaculture and fisheries		
1.3	Context of Vietnam and Mekong delta aquaculture and fisheries		
1.4	Roles of aquaculture and fisheries in human		

	nutrition		
1.5	Climate change and aquaculture and fisheries development		
Chapter 2	Aquaculture and Fisheries Systems	14	
2.1	Aquaculture systems - Current development context - Production systems - Issues in aquaculture development		CO1, CO2, CO3
2.2	Capture fisheries - Current development context - Major fishing devices - Issues in capture fishery development		
2.3	Aquatic resource management and development - Current management context - Issues in aquatic resource management		
2.4	Seafood processing and marketing - Current development context - Local and international markets - Issues in seafood processing and marketing		
Chapter 3	Principles in Aquaculture Production	12	
3.1	Definitions		CO1, CO2, CO3
3.2	Factors that control carrying capacity in aquaculture		
3.3	Factors that influence the growth of aquatic		
3.4	Factors that influence yield in aquaculture		
3.5	Roles of economic in aquaculture production		
Chapter 4	Sustainable Development of Aquaculture	2	
4.1	Current status of aquaculture sustainability		CO1, CO2, CO3
4.2	Issues to enhance aquaculture sustainability		
Chapter 5	Final review	2	

7.2. Practice – Field-trips

	Content	Hours	COs
Unit 1	Field trips to fish farming	3	CO4, CO5
Unit 2	Field trips to shrimp farming	3	
Unit 3	Field trips to seafood processing and feed companies	3	

8. Teaching methods:

- Teaching in class + discussion
- Field trips and report+presentation

9. Duties of student:

Students have to do the following duties:

- Attend at least 80% of theory lectures
- Group or individual assignments and reports

- Attend the final exam
- Attend all fieldtrips

10. Assessment of course learning outcomes:

10.1. Assessment

No.	Point components	Rules and Requirements	Weights	COs
1	Individual assignment/test	Submit all of the required reports	10%	CO1-CO5
2	Field trips and group report and presentation	Attend and complete group report+presentation	40%	CO4, CO5
3	Final exam	<ul style="list-style-type: none"> - Short answer+multiple choice (60 minutes) - Attend at least 80% of theory lectures and all field trips - Obligation 	50%	CO1-CO5

10.2. Grading

- Grading components and final test scores will be marked on a scale of 10 (0 to 10), rounded to one decimal place.
- Course score is the sum of all the components of the evaluation multiplied by the corresponding weight. The course score is marked on a scale of 10 and rounded to one decimal place, then it is converted to A-B-C-D score and scored on a scale of 4 under the academic regulations of the University.

11. Learning materials:

Learning materials information	Barcode number
[1] FAO (2018). The State of World Fisheries and Aquaculture (published bi-annually)	
[2] Development strategies of aquaculture and fisheries in Vietnam to 2020 and vision to 2030. MARD, 2010.	
[3] Pilay, T.V. and Kutty M. N (2005) Aquaculture: Principles and Practices. Blackwell Publishing, 640 pages.	TS001591
[4] FAO (2008) FAO: Glossary of Aquaculture. 424 pages	
[5] Teaching material/hand-out	

12. Self-study Guide:

Week	Content	Theory (hours)	Practice (hours)/ Field trips	Student's Tasks
1-2	Chapter 1: Context of Aquaculture and Fisheries Development	6	0	Pre-reading: <ul style="list-style-type: none"> - Read handout - Chapter 1 - Read references: [1], [2]

3-8	Chapter 2: Aquaculture and Fisheries Systems	14	18	Pre-reading: - Read handout - Chapter 2 - Read references: [3], [4]
9-12	Chapter 3: Principles in Aquaculture Production	12	0	Pre-reading: - Read handout - Chapter 3 - Read references: [3], [4]
13	Chapter 4: Sustainable Development of Aquaculture	2	30	Pre-reading: - Read handout - Chapter 4 - Read references: [1], [2]
14	Chapter 5: Final Review	2	0	Review all lectures

ON BEHALF OF RECTOR
DEAN OF COLLEGE



Signature
Vũ Ngọc Út

Can Tho, 30/.../8.../2022
HEAD OF DEPARTMENT



Lê Quốc Việt