

### COURSE OUTLINE DETAILS

**1. Course: English for Aquaculture II (Tiếng Anh chuyên ngành thủy sản II)**

- **Code number:** AQ102

- **Credits:** 2

- **Hours:** 30 theory hours, 60 self-study hours

**2. Management Unit:**

- **Department:** Applied Hydrobiology

- **Faculty:** College of Aquaculture and Fisheries

**3. Requisites:**

- **Prerequisites:** AQ101

- **Corequisites:** No

**4. Course objectives:**

Objectives	Descriptions	Program Outcomes
4.1	To provide students lexical resources and knowledge of aquaculture aspects through studying vocabularies and terminologies	2.1.1
4.2	To train students speaking, listening and reading skills and use proficiently specialized English vocabularies/terminologies for aquaculture to read, understand articles, papers, books for their thesis completion and future professional work	2.1.1
4.3	To develop critical thinking, presentation, communication skills and confidence for students	2.2.2
4.4	To raise student's awareness on self-study and long life study attitude	2.3

**5. Course learning outcomes:**

COs	Descriptions	Objectives	POs
	<b>Knowledge</b>		
CO1	Describe common specialized vocabularies, terminologies in aquaculture and related fields	4.1	2.1.1
CO2	Summarize basic aquaculture knowledge and information in English	4.1	2.1.1
	<b>Skills</b>		
CO3	Utilize proficiently specialized English vocabularies/terminologies in aquaculture to read,	4.2	2.1.1

COs	Descriptions	Objectives	POs
	<b>Knowledge</b>		
	understand articles, papers, books for their thesis completion and future professional work		
CO4	Develop ability of presentation, discussion and team working	4.3	2.2.2
CO5	Display confidence in presenting a presentation in English at seminar, workshops or conferences	4.3	2.2.2
	<b>Attitudes/Autonomy/Responsibilities</b>		
CO6	Develop ability of English study and long-life study	4.4	2.3

#### **Brief description of the course:**

The course covers most of the important aspects that mostly encountered in aquaculture to provide as much as possible vocabularies and terminologies in many different fields of aquaculture as a tool to help students read, understand specialized documents. All the involved aspects include (1) Aquaculture and Fishery introduction, (2) Fish taxonomy, (3) Fish nutrition requirement, (4) Water quality management in aquaculture, (5) Marine fish culture, and (6) Shrimp culture. In addition to illustrating and offering the lexical resources in specific papers or articles, students will be requested to prepare and present topics related to fish/shrimp biology, ecology, aquatic invertebrates, vertebrates, algae, aquatic plants management, culture techniques, etc....

#### **7. Course structure:**

	Content	Hours	COs
<b>Chapter 1.</b>	<b>Introduction to Aquaculture and fishery</b>	<b>3</b>	CO1, CO2, CO3, CO4
1.1.	Introduction to aquaculture		
1.2.	Aquaculture in Vietnam		
1.3.	Aquaculture in the Mekong Delta		
1.4.	Introduction to fishery		
1.5.	Fishery in Vietnam		
1.6.	Fishery in the Mekong Delta		
<b>Chapter 2.</b>	<b>Anatomy of fish and shellfish</b>	<b>3</b>	CO1, CO2, CO3, CO4
2.1.	Anatomy of fish		
2.2.	Anatomy of shrimp and crabs		
2.3.	Anatomy of squids		
2.4.	Anatomy of bivalves and snails		
<b>Chapter 3.</b>	<b>Microalgae and zooplankton</b>	<b>4</b>	
3.1.	Microgale		
3.2.	Zooplankton		
<b>Chapter 4.</b>	<b>Biodiversity of aquatic organisms</b>	<b>4</b>	CO1. CO2, CO3, CO4



4.1.	Algae and aquatic plants		
4.2.	Aquatic Invertebrates		
4.3.	Aquatic vertebrates		
<b>Chapter 5.</b>	<b>Ecosystems and aquatic organisms adaptation</b>	3	CO1. CO2, CO3, CO4
	Freshwater ecosystems and biodiversity		
	Coral reef ecosystem and biodiversity		
	Mangrove ecosystem and biodiversity		
<b>Chapter 6.</b>	<b>Live food production for aquaculture</b>	3	CO1. CO2, CO3, CO4
	Biology of algae and zooplankton		
	Production processes of live food		
<b>Presentations</b>	<b>Presentations in group or individuals with given topics</b>	<b>10</b>	CO5, CO6

### 8. Teaching methods:

Training reading, speaking, listening skills on class

Topic preparation and presentations

### 9. Duties of student:

Students have to do the following duties:

- Lecture/Class attendance: 80% of lectures
- Taking oral presentations and all exams

### 10. Assessment of course learning outcomes:

#### 10.1. Assessment

No.	Point components	Rules and Requirements	Weights	COs
1	Attendance	Number of attendance hour/total class hours	5%	CO6
2	Work assignment	Topic presentation Participation confirmed by team	30%	CO5, CO6
3	Mid term exam	Multiple choice exam Not absent	15%	CO1, CO2, CO3, CO4
4	Final exam	Multiple choice combined with written exam Attending at least 80% theoretical hours Compulsory exam	50%	CO1, CO2, CO3, CO4

## 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 score on a scale of 4 under the academic regulations of the University.

## 11. Learning materials:

Learning materials information	Barcode number
[1] Vu Ngoc Ut. 2010. Lecture notes in English for Aquaculture, 46pp.	TS.005688
[2] Stickney, R.R. 2000. Encyclopedia of Aquaculture - 1. A Wiley-Interscience Publication, 506pp.	639.803 E56/Vol.1
[3] Stickney, R.R. 2000. Encyclopedia of Aquaculture - 2. A Wiley-Interscience Publication, 1044pp	639.803 E56/Vol.2

## 12. Self-study Guide:

Week	Content	Theory (hours)	Practice (hours)	Student's Tasks
1	<b>Chapter 1: Introduction to Aquaculture and fishery</b> 1.1 Introduction to aquaculture 1.2 Aquaculture in Vietnam 1.3 Aquaculture in the Mekong Delta 1.4 Introduction to fishery 1.5 Fishery in Vietnam 1.6 Fishery in the Mekong Delta	6		Students read in advance: + Reference [1]: Lesson 1, page 1-7; Read Vietnam Fisheries page 8-10. + Reference [2]: read the text Fisheries management and aquaculture from page 372-381.
2	<b>Chapter 2: Anatomy of fish and shellfish</b> 2.1 Anatomy of fish 2.2 Anatomy of shrimp and crabs 2.3 Anatomy of squids 2.4 Anatomy of bivalves and snails	6		Students read in advance: +Reference [1]: Read the text at page 14-16, study vocabularies. Read the reading exercises at page 17 and 18.
3	<b>Chapter 3: Microalgae and zooplankton</b>	8		Students read in advance: +Reference [2]: read pp 17-23 +Reference [3]: read the text at pp 520-524 on microalgae

	3.1 Microalgae compositions 3.2 Zooplankton composition			culture; pp 1037-1043 for zooplankton
	<b>Chapter 4: Biodiversity of aquatic organisms</b> 4.1 Algae and aquatic plants 4.2 Aquatic Invertebrates 4.3 Aquatic vertebrates	8		Students read in advance: +Reference [3]: read the text at pp 540 – 546 on molluscs; read the text at pp 562-580; 671-676 on aquatic invertebrates and vertebrates
	<b>Chapter 5: Ecosystems and aquatic organisms adaptation</b> 5.1 Freshwater ecosystems and biodiversity 5.2 Coral reef ecosystem and biodiversity 5.3 Mangrove ecosystem and biodiversity	6		Students read in advance: +Reference [3]: read the text at pp 614-620 for osmoregulation in bony fish
	<b>Chapter 6: Live food production for aquaculture</b>  6.1 Biology of algae and zooplankton 6.2 Production processes of live food	6		Students read in advance: + reference [2]: read pp 128-135 for brine shrimp culture +Reference [3]: read the text at pp 520-524 on microalgae culture; pp 1037-1043 for zooplankton culture

ON BEHALF OF RECTOR  
DEAN OF COLLEGE



Vũ Ngọc Út

Can Tho, 30/08/2022  
HEAD OF DEPARTMENT

Huỳnh Trường Giang