

**1. INFORMATION OF COURSE AND LECTURER**

- 1.1. Course name and code: General aspects of aquaculture
- 1.2. Course specification: 3 Cred. (Theory: 22; Assignment: 8; Practice: 8), 60 hours (T: 22; A: 8; P: 8)
- 1.3. Prerequisites courses: General biology, chemistry and biochemistry.
- 1.4. Responsible Department:
- 1.5. Information of lecturer:

Name: Prof. Patrick Sorgeloos  
Email: [patrick.sorgeloos@ugent.be](mailto:patrick.sorgeloos@ugent.be)

Co-teaching lecturer:

Name : Prof. Nguyen Anh Tuan Email: [tuants@ctu.edu.vn](mailto:tuants@ctu.edu.vn)

**2. COURSE DESCRIPTION**

- General introduction to aquaculture: description of production principles for the most important groups/species.
- Skills for proper scientific communication in aquaculture are offered.
- An excursion to aquaculture farms and research institutes is included.

**3. COURSE EXPECTED LEARNING OUTCOMES**

- *Theoretically:*The student is able to show general knowledge about aquaculture; what are the main advantages and disadvantages of cultivation.
  - The student has an overview of species being cultured, production systems existing and production techniques and technologies being applied
  - The student is able to explain why some species are successfully cultivated and what bottlenecks are in development of aquaculture; what are tendencies within global aquaculture.

*Practically:*

- The student has insight into functioning of aquaculture facilities
- The student is able to scientifically communicate on aquaculture related topics

**4. COURSE CONTENTS**

Chapters	Hours (T/A/P)
<p><b>Chapter 1: INTRODUCTION – Terrestrial versus aquatic production</b></p> <p><i>This chapter will provide knowledge.....</i></p> <ul style="list-style-type: none"> <li>1.1. Main differences between both types of food production: advantages/disadvantages of aquatic versus terrestrial farming</li> <li>1.2. fisheries versus aquaculture as aquatic food sources</li> <li>1.3. status of and future perspectives of fisheries production</li> </ul>	2/0/0

<p><b>Chapter 2: History of aquaculture</b></p> <p><i>This chapter will provide knowledge on the evolution of aquaculture from an artisanal activity that started over 2000 years ago to modern farming techniques based on knowledge of the biology of the species and adaptation of techniques from terrestrial farming practices</i></p>	2/0/0
<p><b>Chapter 3: Live food used in aquaculture</b></p> <p><i>This chapter will provide knowledge on culture techniques and use in fish and shellfish hatcheries of</i></p> <p><i>3.1. micro algae</i></p> <p><i>3.2. rotifers</i></p> <p><i>3.3. brine shrimp Artemia</i></p> <p><i>3.4. cladocerans</i></p> <p><i>3.5. copepods</i></p>	4/0/0
<p><b>Chapter 4: Macro and Micro algae culture</b></p> <p><i>This chapter will provide overview of</i></p> <p><i>4.1. species groups being cultured</i></p> <p><i>4.2. production systems and techniques</i></p> <p><i>4.3. commercial uses</i></p>	3/0/0
<p><b>Chapter 5: Finfish culture</b></p> <p><i>This chapter will provide overview of</i></p> <p><i>5.1. species groups being cultured</i></p> <p><i>5.2. production systems and techniques</i></p> <p><i>5.3. commercial uses</i></p>	4/0/0
<p><b>Chapter 6: Mollusc culture</b></p> <p><i>This chapter will provide overview of</i></p> <p><i>6.1. species groups being cultured</i></p> <p><i>6.2. production systems and techniques</i></p> <p><i>6.3. commercial uses</i></p>	3/0/0

<p><b>Chapter 7: Crustacean farming</b></p> <p><i>This chapter will provide overview of</i></p> <p><i>7.1. species groups being cultured</i></p> <p><i>7.2. production systems and techniques</i></p> <p><i>7.3. commercial uses</i></p> <p><b>Chapter 8: One-day excursion to aquaculture farms</b></p> <p><b>Chapter 9: Scientific communication skills in aquaculture research</b></p>	<p>4/0/0</p> <p>0/0/8</p> <p>0/8/0</p>
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## **5. TEACHING METHODS AND ASSESSMENT**

### **5.1. Teaching methods:**

Theory lectures based on powerpoint presentations.

### **5.2. Assessment methods:**

written and oral exam

## **6. READING REFERENCES**

[1] Principles of aquaculture by Stickney, R. R. – 1994. ISBN 0-471-57856-8

Encyclopedia of aquaculture by Stickney, R. R. – 2000. ISBN 0-471-29101-3

*Date:*

**Lecturer**