University of Zagreb Faculty of Agriculture
Svetošimunska cesta 25, 10000 Zagreb
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Aquaculture (188836)

Course coordinator

Assoc. Prof. Daniel Matulić, PhD

Course description

The objectives of the course are to acquire modern theoretical and practical knowledge of aquaculture; to understand the current status and importance of aquaculture in global fisheries; to establish the professional background on applicable production in the function of creation of new, conservation of existing and utilization of unexploited natural assets related to aquaculture; to adopt basic knowledge for further studies in professional and doctoral studies; to adopt appropriate skills to perform responsible tasks within the profession.

ECTS: **6.00**

E-learning: **L1**

Teaching hours: 60
Lectures: 16
Practicum: 32
Seminar: 12

Grading

Sufficient (2): 66 -75 %
Good (3): 76 -85 %
Very good (4): 86 -93 %
Excellent (5): 94 -100 %

Lecturer

- Prof. Tea Tomljanović, PhD
- Asst. Prof. Marina Tomić Maksan, PhD
- Assoc. Prof. Daniel Matulić, PhD
- Prof. Ana Gavrilović, PhD

Associate teacher for exercises

- Prof. Tea Tomljanović, PhD
- Asst. Prof. Marina Tomić Maksan, PhD
- Assoc. Prof. Daniel Matulić, PhD
- Prof. Ana Gavrilović, PhD

Associate teacher for seminars

- Prof. Tea Tomljanović, PhD
- Asst. Prof. Marina Tomić Maksan, PhD
- Assoc. Prof. Daniel Matulić, PhD
- Prof. Ana Gavrilović, PhD

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Type of course

- Graduate studies / MS Courses taught in English (Elective course, 2 semester, 1 year)

General competencies

No additional competence are required for the course.

Types of instruction

- Lectures
- Other forms of group or individual learning
- Laboratory practice/exercises
- Field work
- Seminars
- Exercises

Learning outcomes

Learning outcome	Evaluation methods
Identify the natural, productive and economic features of aquaculture	
Analyze the specific problems of cost-effective and environmentally friendly aquaculture, solve them in new situations based on the synthesis of acquired knowledge and skills	
Use achieved skills of theoretical and practical learning in the acquisition of new knowledge from aquaculture	
Identify important events in this domain and present them in the media and publicity	

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Weekly class schedule

1. Introduction to aquaculture as a function in food production.
2. Introduction to warm water fish rearing; categorization and characteristics; methods and technologies for rearing carp and other fish species in warm water aquaculture; rearing of juvenile fish and consumer categories.
3. Introduction to cold water fish rearing; categorization and characteristics; methods and technologies for spawning trout and other fish species in cold water aquaculture; rearing juveniles and consumer categories
4. Introduction to marine fish rearing; categorization and characteristics; methods and technologies for spawning sea bass and gilthead sea bream; rearing juvenile fish and consumer categories
5. Getting acquainted with freshwater aquaculture on site; visiting the farm and hatchery for cold water fish.
6. Getting acquainted with freshwater aquaculture on site; visiting farm and hatchery for warm water fishes
7. Getting to know marine aquaculture on site; visiting the farm and hatchery for marine fishes
8. The basics of freshwater fish as pets; technology, aquarium setup, health and care.
9. Introduction to aquaculture marketing; benefits, materials, and methods
10. Introduction to shellfish aquaculture with emphasis on shellfish mussel and oyster technology
11. Introduction of other fish species and organisms in aquaculture; basic characteristics of fish meat quality, processing, and use; market and trade of aquatic organisms
12. Data collection for seminar papers
13. Writing seminars, collecting and processing scientific literature
14. Writing seminars, collecting and processing scientific literature
15. Presentation

Obligatory literature

1. Tidwel, J.H. (2012): Aquaculture Production Systems. Wiley-Blackwell. Oxford, UK
2. Stickney R.R., (editor) (2000): Encyclopedia of Aquaculture. John Wiley & Sons, New York
3. SOFIA: State of World Fisheries and Aquaculture, FAO

Recommended literature

1. Available scientific papers in journals: Aquaculture, Aquaculture Research, Aquaculture International