

**Building Capacity  
of Serbian Agricultural  
Education  
to Link with Society**



Tempus

**Izgradnja kapaciteta  
srpskog obrazovanja  
u oblasti poljoprivrede  
radi povezivanja sa društvom**

**Coordinator:  
University of Belgrade  
Faculty of Agriculture**

**Koordinator:  
Univerzitet u Beogradu  
Poljoprivredni fakultet**

## COURSE REGISTRATION FORM

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<b>University</b>	University of Belgrade, Faculty of Agriculture
<b>Course</b>	Freshwater crayfish aquaculture
<b>Target</b>	Agricultural Middle Schools
<b>Type</b>	online
<b>Duration</b>	1 day – 8 hours

### Description

The aim of this course is to popularize aquaculture of freshwater crayfish (FC) in Serbia. This area of aquaculture is highly developed in the world and in some countries it is one of the most important branches of animal husbandry. Meanwhile, in Serbia, people are completely unaware about possibility of rearing FC, even though as a country we have all the necessary conditions for it. I support the stand that introducing of this course to students in secondary vocational schools engaged in agriculture (SVSA) can bring benefit to students, to the society and to the country as a whole.

According to data of the Statistical Office of the Republic of Serbia and the Ministry of Agriculture and Environmental protection, the share of agriculture and aquaculture in the country's GDP is at the level of 14%, but with a huge potential to further increase this percentage in the next 10 years. Rearing of FC is relatively simple and very similar to rearing of fish, since the same objects and similar practices can be used for both fish farming and the rearing of FC. Although understated in Serbia, rearing of freshwater crustaceans represents a potential for profit, given that large markets exist in Western and Northern Europe (primarily France and Sweden), with a long tradition of consuming these animals. Aquaculture of FC could be easily conjoined with some of the following courses in SVSA: Animal Science, Livestock nutrition and Fish rearing (Aquaculture). This would enable acquiring basic knowledge about methods of FC rearing, and that would take no more than one to two teaching units. Some SVSA in their curriculum already have practical classes at fish farms, and they could easily organize students' pilot projects in small facilities where different species of FC could be reared.

Secondary aim of this course would be to try to change the traditional view of teachers when it comes to animal science (favoring of terrestrial animals) and presenting FC aquaculture as alternative to traditional livestock production. In addition to these facts, a number of species suitable for rearing in Serbia (as high as five) should not be ignored.

### Contents

The course will be divided into eight lessons and it is planned that one unit can be covered in one hour of teaching:



1. Biology of FC
2. The basic characteristics of commercially important species of FC
3. Water quality
4. Nutrition of FC
5. Diseases of FC
6. The technology of cultivation of FC
7. Artificial spawning
8. Facilities for FC rearing

Some facts about FC not present in the list of topics will be mentioned in these units: importance of FC aquaculture in Europe, rearing practices and markets in selected countries, behavior of FC, history of cultivation, as well as the introduction of alien species in Serbian rivers, streams and lakes.

### Objectives

1. Teachers at SVSA generally have only basic knowledge of biology of aquatic animals. That is why the greater part of the course will be committed to ensuring that participants gain knowledge on the morphology and physiology of FC in order to better understand these animals. A special aspect will be devoted to FC nutrition and diseases, since these two areas are crucial for the successful rearing, achieving desired growth and reducing mortality of FC.
2. Second objective of the course is that teachers at SVSA gain new knowledge about the water quality and optimal parameters for the cultivation of FC, as well as to understand the similarities between rearing FC and rearing fish.
3. Teachers should promote the development of aquaculture in Serbia during common work with students.

### Activities

1. Due to the fact that the course will be organized online (e-learning platform *Moodle*), a minimum of eight teaching units will be available to participants.
2. A forum for exchanging questions and experiences of all enrolled teachers will be available. Large amount of multimedia content (movies and pictures) will be placed on the online platform. This will help participants in understanding of FC life in the natural environment, catching and rearing of FC.

### Materials

No material is planned for this course.