

	<p>Department: Ecology, agronomy and aquaculture</p> <p>Study programme: The study of applied ecology in agriculture</p>
Description of the study programme	<p>The study of applied ecology in agriculture includes integrated and ecological approach, with emphasis on Mediterranean ecosystems. Focus is on ecology and management, not exploitation. Departmental philosophy is to promote and understand acceptable methods for food production while accounting for ecological balance, biodiversity and economical benefits, meanwhile keeping an eye on systems sustainability.</p> <p>Program in Applied ecology in Mediterranean agriculture is adapted to a three-year undergraduate study education system that includes ECTS credits. Undergraduate students from this program can directly continue their studies in other study programs in Croatia and/or EU countries, taking into consideration their respective requirements. Since study program is comparable with other undergraduate programs in the field of biotechnical sciences (Agronomy, Forestry, Food Technology and Biotechnology faculty at University of Zagreb and Agronomy faculty at University of Osijek), vertical mobility after graduation is ensured. Since teaching plan is made in collaboration with Agronomy Faculty, University of Perugia, Agronomy faculty Tuscia, University of Viterbo (Italy), State University in Utah, Veterinary Faculty, University of Zagreb, Agricultural faculty, University of Osijek, several of our courses are also taught there. This is primarily true for Universities in Perugia and Tuscia in Italy.</p> <p>After the completion of the study program students can seek employment in the following areas:</p> <ol style="list-style-type: none"> 1. Family farms 2. NGOs 3. Food processing and production companies. 4. Retail and wholesale companies. 5. Agricultural advising agencies, local and federal government.
Learning outcomes of the study programme	<ul style="list-style-type: none"> - application of the basic knowledge from the fields of biology (botany/zoology/ecology), pedology, chemistry, math, physics, and informatics in solving practical situations in agronomy production - use of applied research methods and acquired expertise in solving varied situations in the fields of plant production, plant ecology, animal husbandry, especially when applied to Mediterranean climatic zone - proficiency in the field and laboratory situations and use of skills from the areas of fruit, vegetable and fodder production - ability to conduct basic lab analysis in the areas of quality control, storage and usage of fruits and vegetables in fresh, pre-processed and processed form - ability to raise, keep and breed farm animals - rationally use and manage sustainable grasslands in Mediterranean ecosystems - offer practical and technical assistance in the fields of plant and animal ecology - be professional and ethical - manage farms based on the principles of economy, organizational management and entrepreneurship - continually improve expertise and stay current in the field - besides Croatian, possess active use of English language (courses will be

2. Name of the course	Biochemistry						
Number of ECTS credits	6	Manner of implementation of the study programme	L 4	E 0	S 1	Semester 2	
Description of the course	To obtain basic knowledge of structure and function of biological molecules, genetic information and metabolism in order to understand processes in living organisms and adaptation to ecological conditions						
Learning outcomes of the course	<ul style="list-style-type: none"> - Upon the completion of this course students will be able to: - identify and classify carbohydrates, fats, amino acids and nucleotides - Explain kinetics and mechanism of enzymatic reactions, membrane transport - Relate structure and function of nucleic acids and explain the flow of genetic information - Explain carbohydrate metabolism and fatty acid metabolism - Describe degradation of amino acids and urea cycle - Describe photosynthesis and biosynthesis of polysaccharides 						

2. Name of the course	Aquaculture						
Number of ECTS credits	4	Manner of implementation of the study programme	S 2	E 1	S 1	Semester 4	
Description of the course	The main objective of the course is to acquire theoretical and practical knowledge regarding controlled breeding of aquatic organisms. Students will become familiar with the latest technological aspects of aquaculture, including both freshwater and marine aquaculture in the world, with special emphasis on aquaculture in Europe, especially in countries of the Mediterranean and the Adriatic						
Learning outcomes of the course	<ul style="list-style-type: none"> - recognize the importance of aquaculture in state of the world fisheries - identify and respond to market demands in relation to the specifics of production and processing of aquatic organisms - gain knowledge of legislation relating to the possibility of growing of aquatic organisms - be familiar with main production processes in aquaculture 						

2. Name of the course	Bees and beekeeping						
Number of ECTS credits	4	Manner of implementation of the study programme	L 3	E 0	S 1	Semester 4	
Description of	This course will introduce students to the basics of biology and ecology of bees and beekeeping. They will earn technical skills in beekeeping for commercial						

