

UNIVERSITY OF PRISHTINA
FACULTY OF AGRICULTURE AND VETERINARY



"HAXHI ZEKA" UNIVERSITY - PEJA
FACULTY OF AGRIBUSINESS



MASTER STUDY PROGRAM
URBAN AGRICULTURE

Prishtina, May 2020

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1. INTRODUCTION

Study program Msc. (120 ECTS) “Urban Agriculture” was developed within the Erasmus Plus BUGI project and is based on the experiences of SWUAS University in Germany, University of Bologna in Italy, University of Ljubljana in Slovenia, University of Sarajevo, that is the BUGI coordinator and Mostar in Bosnia and Herzegovina and the University DG in Montenegro. Programs Msc. is a joint program of the University of Prishtina, Faculty of Agriculture and Veterinary Medicine and the University of Peja, Faculty of Agribusiness, accredited by the Kosovo Accreditation Agency.

This study program at the master level is interdisciplinary and aims to promote the internationalization of the teaching process and provide flexibility and mobility of learning. In doing so, the project will increase capacity, sustainability and attractiveness by diversifying employment opportunities and social inclusion. The project will contribute to increasing student employment and developing new networks and alternative food supply chains. The results of this scientific research program will increase urban sustainability and the development of a green economy in Kosovo.

1.1 A brief overview of the institutions that implement master study program

The Faculty of Agriculture and Veterinary (FAV) was founded on August 26, 1973, as a result of the increasing needs for educated people with superior qualifications in agriculture. Within the Faculty of Agriculture in Pristina were integrated other institutions such as Peja Biotechnical Institute, Agricultural Nursery located in Peja, Livestock and Veterinary Institute with headquarters in Pristina, Institute for Economy and Development located in Fushe Kosova and Community Service Joint Working headquartered in Pristina. With this began the research and the implementation of research results in practice. In the beginning, the number of enrolled students was small, but later on, due to the great interest and demand for such study, the Faculty of Agriculture was required to increase the number of students’ enrolled in the study programs offered by this faculty.

Thus, in the coming academic years 1983/84, 300 students were registered, who continued study in subsequent years. This dynamic of students’ enrolment was responding more to the needs of agricomplex then to Kosovo, though Faculty of Agriculture has not had sufficient infrastructure for the enrolled number of students. In the study program of General Agronomy 14 generations were graduated, while in the academic year 1988/89 three additional study programs were introduced: Field crop, Pomology-Viticulture and Livestock.

In 2001, the Senate of University of Prishtina approved study plans based on the Bologna Declaration for Bachelor and Master Degree.

Faculty of agribusiness (FA) is the academic unit of the Public University "Haxhi Zeka" Peja since 2012, as a public institution of higher education. FA currently organizes and develops advanced level studies by enabling new professional and scientific cadres. The laboratories are of regional and European level with good conditions and other spaces that are linked to the university library. At present, the spaces are adequate and sufficient to withstand the actual number of students. FA currently is implementing two bachelor study programs, plant production technology and Agro environment and agro ecology and a master study program Food technology.

1.2 Academic staff involved in master study program Urban Agriculture

Twenty four (24) professors and teaching assistants are involved in the teaching process from the University of Prishtina and university Haxhi Zeka in Peja. Aside from teaching, professors are involved in the implementation of basic development and applied research projects, and actively participating in professional collaboration events.

2. PROGRAM EVALUATION

The Urban Agriculture study program will operate within the organizational structure of the Faculty of Agriculture and Veterinary (FAV) with the involvement of the staff and some of premises of Faculty of Agribusinesses from Peja. The content of educational program will enable students to acquire a solid base of knowledge and practices in the field of urban agriculture, providing students with sufficient knowledge of individual and collective work in urban agriculture management, and enabling creation of realistic concepts for a sustainable rural development, solving concrete problems in practice in the field of urban agriculture.

2.1 PUBLIC MISSION AND INSTITUTIONAL OBJECTIVES

The mission of the new study program Urban Agriculture is to transfer the new knowledge and competencies to future agribusiness experts, to produce graduates with strong-core urban agriculture practice and to equip young graduates with analytical skills to understand the current economic issues facing agribusiness companies. The study program Urban Agriculture has a long-term vision of fulfilling the mission to create a perspective for the younger generation by modernizing and reforming the education system in line with labor market requirements in Kosovo as well as regional and European integration in the field of Urban Agriculture.

Objective of the study program

The overall objective of the study program in Urban Agriculture is to educate and to prepare students for the scientific and research work in the field of Urban Agriculture. Students are required to learn to utilize contemporary scientific literature in order to gain the necessary knowledge to determine direction of the research. Students are required to learn how to set a scientific hypothesis, plan and conduct research, select adequate research methods, and interpretation of research results with critical analyses, and logical conclusions. After completing the study program, graduates will become experts with enhanced knowledge and competencies for scientific and research in Urban Agriculture field.

The specific objective of the study program in Urban Agriculture is to raise the quality of teaching in order to gradually improve the quality of education and research aiming to provide better educational opportunities for students.

Another specific objective of the study program Urban Agriculture is cooperation with partners in various projects with other universities at home and abroad. The focus remains the continuation of the promotion of interdisciplinary cooperation within Faculty of Agriculture and Veterinary (FAV) between the academic units of the University of Prishtina, local, regional, European and wider inter-university cooperation. Since the Urban Agriculture study program is a hard work of partners from the ERASMUS Plus Project, the cooperation between partners will help development of adequate teaching methods and practical work through the support of partner Universities from Bosnia and Herzegovina, Montenegro, and EU Universities from Germany, Italy and Slovenia.

The main objective of the curriculum

The curriculum of the study program Urban Agriculture is based on the expertise and experience of the University of Bologna (UNIBO) in Italy, South-Westphalia University of Applied Sciences (SWUAS) in Germany and University of Ljubljana (UL) in Slovenia and contains a list and structure of compulsory and elective modules with their descriptions. Knowledge gained through the study program Urban Agriculture enables students the application of knowledge and skills acquired during studies to successfully solve complex problems in new or unknown environments, particularly in the scientific field of Urban Agriculture.

3. THE JUSTIFICATION OF THE STUDY PROGRAM URBAN AGRICULTURE

Small agriculture holdings are one of the main features of agricultural production in Kosovo. The average farm size is relatively small (≤ 1.5 ha-72%) and usually phragmentized into many plots, on average up to 7 plots. These labor intense micro-farms are characterized by small financial inputs and low level of mechanization, resulting in low yields. One of the main features of agricultural family holdings is a high share of elderly persons working farm. Existing agricultural models fail to attract young people. Besides economical benefit, small scale farms have important social role for rural and urban households in fresh food production for self-consumption.

The agricultural production surplus is sold to small traditional shops or at the open green markets utilizing short food supply chains. Most of those agricultural households are located at sub-urban or peri-urban, formerly industrial areas. Those, by the definition urban agricultural households (UA), economically depend to urban areas and city dwellers. Most cities have great difficulties (infrastructural, environmental, urban planning, etc) to cope with development and are unable to create sufficient formal employment opportunities for the poor.

In Kosovo youth unemployment rate (54%) and poverty rate are high (35%). The urban poverty rate is close to the overall rural rate and even higher when towns, other than the capital city, are compared to rural areas. Poverty is one the main reason for urban migration. Urban sprawl threatens to continue, along with depopulation and land abandonment in rural areas, especially in the mountains.

The percentage of agricultural land in some urban areas is with greater potential for Urban Agriculture (UA). In close proximity of markets and urban infrastructure, by utilizing IC technologies, urban surplus like organic waste and alternative short food supply chains, UA small scale farms could be cornerstones of green economy in Kosovo agriculture. UA principles to exploit small plots could have significant economical impact on agricultural household in rural areas as well.

While introducing intensive agricultural production based on IC technologies, online monitoring and sale, to existing agricultural household, agriculture would attract young people in rural areas by providing same economical benefits and comforts of life as in city. All this suggests that this emerging agricultural production has high economic potential, but at the same time it requires a very specific new skills that are related more with social competences (cross cultural communication, social inclusiveness etc) and social role of agriculture (poverty reduction, keeping population in rural areas, increase of quality of life etc) than with pure technological skills. It means this economic

activity is based on new modern “green” business concept and it is both; (smart) work and (new types of) knowledge intensive.

In the same time process of modernization and “internationalization at home” are a part of the Kosovo’s higher education missions. Existing curriculums are strictly related to the agricultural field of study rather than interdisciplinary, thus failing to attract students with different backgrounds and providing specialized skills (e.g. students with ICT faculty bachelor diploma and master diploma in agriculture-specialized in IC technologies in agriculture).

Therefore, new master study curriculum in the field of UA will:

Increase capacity, visibility, attractiveness and improve positioning in educational and labor markets by developing new master study curriculum. These will enable to discuss issues related to sustainable agriculture, green economy, transfer information and knowledge fostering economical development. New modern teaching/learning environments accompanied with appropriate transferable, competence, entrepreneurial skills will strengthen students’ employability, but also their capability to contribute to active citizenship.

Enhance sustainable agriculture, urban sustainability and green economy development proposing innovative, revenue oriented approaches to agricultural production which could have positive impact for poverty reduction, self employment, biodiversity, ecology and food carbon footprint.

This curriculum will address the issues of graduates employability, learning flexibility, internationalization, cooperation with entrepreneurial sector, urban sustainability, unemployed youth and urban poor.

Sustainable agriculture utilizing green economy concepts is interlinked with a number of challenges in the long-term sustainable development of Europe such as 2020 Strategy for smart, sustainable and inclusive growth, sustainable agriculture and rural development policy - agricultural development.

4. EDUCATIONAL PROCESS CONTENT

The Master level study program Urban Agriculture (UA) will be implemented through lectures, exercises, consultations, and study visits of professors and successful national entrepreneurs and from abroad, student participation in research projects as well as through presentations of seminar papers. This is a two year study program and is divided into fourth semesters. Students attend lectures and exercises in compulsory and elective subjects. All subjects are lectured in one semester. The engaged academic staff uses a variety of teaching methods that contribute not only to the preparation of students for Urban Agriculture profession, but also to equip students with necessary skills and knowledge for further studies and employment.

The staffs involved in teaching in this department is committed to improve and advance teaching methods, through participation in training and taking lessons and practices from advanced international experiences. This will be achieved through building professional cooperation with partner universities in Germany, Italy, Slovenia, B&H and other prestigious universities, and though following the development policies proclaimed by the Kosovo government. Students' participation in lectures and exercises is mandatory and represents a primary condition for successfully passing the course.

For successful completion of the studies, students are required to adhere to the regulations for the studies of the FAV as well as the regulations on the rights and obligations of students and teachers. To this end, students should cooperate closely with the course professor, who will, depending on the course, also arrange the exercises according to the requirements of the study program.

The module passing assessment is based on continuous evaluation, which essentially implies midterm test, paper presentations and final exams. Each module must be completed satisfying the requirements presented in the syllabus of the module. The detailed plan of the structure of compulsory and elective modules, their organization and the credits obtained for each module are given in the section describing the curriculum for each subject.

The proposed list of all subjects for reaccreditation process of the Master level study program in Urban Agriculture is presented in the following table below.

THE SYLLABUS OF THE PROGRAMME “URBAN AGRICULTURE”

Master level, 120 ECTS

Year I						
Semester I			SST			
No.	C/E	Subjects	L	T	ECTS	Lecturer
1	C	Urban agriculture: introduction, history and evolution	2	2	5	
2	C	Urban food system	2	2	5	
3	C	Entrepreneurship and urban demands	2	2	5	
4	C	Urban Ecology	2	1	4	
5	C	Precision agriculture and smart food production	2	1	4	
6	C	Experimental Statistics	2	1	4	
7	C	Research Methodology	2	1	3	
Total			14	10	30	
Semester II						
1	C	Processing of fruits and vegetables	2	2	6	
2	C	Urban horticulture production	2	2	6	
3	C	Technology and engineering in urban environment	2	2	6	
	E	Planning and urban design	1	1	3	
	E	Cultivation of aromatic and medicinal plants	1	1	3	
	E	Information science and communication	1	1	3	
	E	Urban beekeeping	1	1	3	
	E	Plant protection in urban agriculture	1	1	3	
	E	Urban agriculture production systems	1	1	3	
Total			10	10	30	
Semester III						
		Problem Based Learning (PBL)				
	C	Tree architecture (PBL)	2	2	6	
	C	Food processing for urban gardeners (PBL)	2	2	6	
	C	Urban vegetable gardening (PBL)	2	2	6	
	C	Internship	4	6	12	
Total			10	10	30	
Semester IV						
	C	Master Theses			30	
Total					30	
Explanation for acronyms used: ; C-compulsory subjects'-E- elective subjects; SST-load in hours per week; L-Lectures; T- Exercises; ECTS Credit Transfer System in Europe						

(PBL challenges students to learn through engagement in a real problem. It develops both problem solving strategies and disciplinary knowledge bases and skills by placing students in the active role of problem-solvers)

5. STUDY FORM, STRUCTURE, DURATION AND ACADEMIC DEGREE TITLE

The Master Studies in Urban Agriculture have duration of 2 years, respectively 4 semesters. The study program envisages practical work in the laboratory and in the field, therefore it accepts only the enrolment of full-time students. Since the distance learning system was established during the Erasmus Plus BUGI project implementation, in these studies will be applied the method of distance learning (E-learning).

Students who graduate in master studies Urban Agriculture must pass the final exam which consists of a public discussion, is evaluated by a committee of professors, write a Master thesis in an experimental activity and receive the degree of Master in Urban Agriculture. The master thesis will deal with an original study conducted by the student, will follow the structure of a scientific report and coherent with the educational goals of the Master course in Urban Agriculture. All activities related to the final exam will be supervised by a mentor / researcher. The modalities for admission and completion of the final exam are set out in the Regulation for Master studies in agricultural sciences of the University of Prishtina, which is available on the website of the Faculty.

6. INFRASTRUCTURE AND RESOURCES

6.1 DIDACTIC EXPERIMENTAL FARM

The FAV owns a didactic experimental farm, which is located nearby Faculty. This farm is used by students to perform the practical part of education program in different areas of agriculture and conducting scientific research activities. Farm covers an area of about 8.50 ha within which are the stables for the breeding of different species of animals, feed preservation storage, storage for agricultural mechanization, greenhouse for cultivation of vegetables and land for practical work (pesticide use) with different crops for the students and research work.

The building spaces allocated for the UA study program provides solid conditions for the development of this study program. Investment financial policies are regulated at higher levels of the management including the level of the academic unit and the University. However, the aspect for guaranteeing the basic infrastructure and operational expenditure for the program is included within the budget of the UP, which

is allocated by the Assembly of Kosovo with the budget law as well as with the revenues generated by the institution.

The basic work programs, such as Microsoft Office programs, and different software's are used in this curriculum and the University through its IT Officers offers these programs licensed for use in the subjects needed.

For the UA study program there is a new modern greenhouse installed where can be held many practical classes and also developed master theses. This greenhouse was distributed form the Erasmus Plus project Western Balkans Urban Agriculture Initiative (BUGI).

Basic and supporting literature is stated in the syllabus of each subject and as such is accessible to students by the professors at the beginning of each course.

7. Student questionnaire

Dear student,

Here are a few questions related to some aspects of the semester in Urban Agriculture Course that have been just completed. You are invited to fill this questionnaire which is completely anonymous.

Thanks for your help in improving the current course.

Question 1: How do you evaluate the different kinds of knowledge and skills or motivations acquired during the past semester?

(Mark the answer 1 insufficient; 5 excellent; - Intermediate marks are related to intermediate evaluation).

Knowledge and skills	1	2	3	4	5
Theoretical knowledge					
Practical knowledge and skills					
Use of information and communication technologies (i.e. computers, internet and relevant computer software's)					
Teamwork skills					
Autonomy during work					
On-field practical problem solving ability					
Other, please specify (below) and evaluate (1-5, as above)					

Question 2: How do you evaluate different educational aspects of the current semester at your University?

(Mark the answer 1- insufficient; 5 excellent) - Intermediate points are related to intermediate evaluation.

Educational aspects - 1	1	2	3	4	5
Teacher's quality (teaching capacity, preparation, adequacy of the teaching dispensed with the ECTS)					
Quality of theoretical and practical contents					
Consistency of the contents with the educational objectives					
Amount of ECTS assigned to each discipline					
Quality of teaching material supplied/recommended by the teachers					
Quality of support structures (classrooms, laboratories, libraries, etc.)					
Other, please specify (below) and evaluate (1-5, as above)					
Other, please specify and evaluate (1-5, as above)					

Question 3: According to your opinion, how could the Master Course in Plant Medicine be improved in your University?

(Mark the answer 1-totally disagree; 5- totally agree) - Intermediate points are related to intermediate evaluation.

Educational aspects - 2	1	2	3	4	5
More field work					
More practical assignments and homework					
More laboratory work					
More time devoted to statistical and other computer programs and internet					
More relationships with international partners					
More work experiences (stage) at external companies					

Question 4: In your opinion, is the current didactical organization well arranged in order to optimize the student work to acquire knowledge, skills and the master degree? *(Mark the answer 1-totally disagree; 5- totally agree) - Intermediate points are related to intermediate evaluation.*

Didactical organization	1	2	3	4	5
Lesson calendar					
Exam calendar					
Other, please specify and evaluate (1-5, as above)					