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Faculty of Agriculture and Food-technology

University of Mostar

Zagreb,2019.

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General information about the PhD study program:

a) Title: Doctoral study program „Agriculture and environment protection”

b) Duration: 6 semester

c) Structure: 180 ECTS; 3 group of activities
- 1th group: lectures- 3 compulsory/obligatory and 7 elective courses,
- 2th group: research work
- 3th group: scientific work and external activities

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ECTS based study programs

- The APTF had started with ECTS based I cycle (6 semesters) study programs in academic 2004/05 year and with II cycle (4 semesters) study programs in academic 2008/09 year:
- I cycle study program
    1. Study program –general agriculture
    2. Study program –food technology
- III cycle study program
    1. Study program –plant production
    2. Study program –Phitopatology
    3. Study program –zootechnology
    4. Study program –vine and vineyard

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ECTS based study programs

- III cycle study program
  PhD in Agriculture and enviromental protection started in 2013/2014 academic year -(6 semester).
- 4 study programs:
  - Enviromental protection,
  - Agroeconomy,
  - Zootechnology and
  - Plant production

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Study cycles

Undergraduate study	→	**3 YEARS 180 ECTS**	→	**BACHELOR**
Graduated study	→	2 YEARS 120 ECTS	→	MASTER
Doctoral study	→	**3 YEARS 180 ECTS**	→	**PHD**

- 10.000 teaching staff
- 12.000 students

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History

- University of Mostar (SUM) pull the roots from old Franciscan theological school founded 1895 after that different higher school and Department were founded
- Officially the University of Mostar, founded in 1992
- In 1994 Faculty of Agriculture and Food-Technology was founded

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History

- Each year, 30-50 students received a Diploma Engineer of agriculture degree at the APTF, and there have been about 1300 students who graduated so far.

- In addition to undergraduate programs, the APTF also offers programs at Master of Science and Doctoral (Ph.D.) level. Postgraduate studies are organized for specialized areas depending on student interests. The postgraduate studies were organized in 2013/2014.

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Integration of the University

- Since October 2018, University of Mostar is an integrated University. The APTF as well as others faculties joined the University.
- University of Mostar has now 11 faculties, with about 12000 students.
- More than 1,000 teachers are involved in the teaching process, with more than 190 staff performing administrative, technical and auxiliary work.
- The University of Mostar is an accredited higher education institution which in June 2015 received an institutional accreditation from the Ministry of Education, Science, Culture and Sport of Herzegovina-Neretva Canton and in July of that same year it was registered in the State Register of Accredited Higher Education Institutions.
- In 2017, University of Mostar and its constituents THE UNIVERSITY OF MOSTAR IN BRIEF | A Concise Guide to the University 7 successfully passed accreditation process by the Agency for Science and Higher Education of the Republic of Croatia.

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Faculty of Agriculture and Food technology (APTF)

- **APTF** has 30 permanently employed staff
- Total number of student: 430
- Facilities: 2000m^2
- Experimental station; 50 ha, accompanied by infrastucture

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- **Dean**: dr.sc. Ivan Ostojić, izv.prof.
- **Vice-dean:**
- dr.sc. Anita Ivanković, izv.prof. vice dean for teaching process
- dr.sc. Adrijana Filipović, vice dean for international cooperation and science
- **Secretary of Faculty:** Ivana Božić, dipl. ioec.

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Phone: +387 36 337 102
Fax: + 387 36 337 105
E-mail: agronomski.fakultet@aptf.sum.ba
Web: www.aptf.sum.ba

WELCOME TO THE UNIVERSITY OF MOSTAR
https://www.youtube.com/watch?v=SexazsfGfLM

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Mission of the program

- PhD in „Agriculture and environmental protection", addressing the 3rd degree (Doctoral) study in the scientific area of agriculture, would enable students to earn highest academic degree - Ph.D.

- Through this program, which should be ended with doctoral dissertation, the students are expected to become researchers and experts in the field of plant production, environmental protection, agro economy and zoo technology, capable to give original contribution to scholarship or scientific knowledge, to exemplify the highest standards in the field of agriculture and to be of lasting value to the intellectual community.

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Structure of the program

By the law in Bosnia and Herzegovina doctoral study programs last 3 years (6 semesters) and are assigned with 180 ECTS.

During the first and second semester students will be prepared for the final thesis proposal through obligatory and selected modules and courses - (60 ECTS)

During the third and fourth semester students will have public defense of PhD concept of thesis and collect ECTS trough the research work (lab. Work, statistic, mobility, experiment etc.) - (40 ECTS)

During the fifth and sixth semester students will have other scientific activities (conference, paper publishing etc.) and final thesis defense - (80 ECTS)

Final thesis has to present original contribution to knowledge in the chosen research area.

Each student receive individual guidance by a mentor. Beyond the regular mentorships, student's progress are monitored by a PhD committee

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Structure of the program

Module	Obligatory Course title	Courses that focus on various disciplines in plant health
Enviromental scinece	Methodology of scientific work	Ecotoxicology and toxicology of pesticides Plant health Herbology Medical and aromatic plants Weed science Horticulture (selected chapter) Pomology (selected chapter) Vegetable (selected chapter) Technic systems in plat production
	Statistic in Environmental science	
	Environmental ecology	
Plant production	Methodology of scientific work	
	Statistic in plant production	
	Biochemistry and plant physiology	
Agroeconomy	Methodology of scientific work	
	Statistic in Agro-economy	
	Agro economy and rural development	
Zootechnology	Methodology of scientific work	
	Statistic in Zoo technology	
	Biochemistry and animal physiology	

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Structure of the program

- Elective modules of zootechnology: Contempory methods in animal selection; Health protection and animal welfare; Farming (selected chapters); Sheep and goat breeding (selected chapters); Pig breeding (selected chapters); harvesting and quality of animal products, molecular methods in zootechnics, freshwater fishing; mariculture; Objects and furnishings in the carpentry; technical systems for milk production; feeding domestic animals; renewable energy sources; beekeeping; ecological cattle breeding

- Elective Modules Of Agroeconomy: Agriculture Management; Selected Chapters From Microeconomics; Financial Management; Agriculture Economics; Sociology Of Agriculture And Rural Areas; Agromarketing; Agricultural Investments; Global Trade of Agricultural Products; The Market Of Agricultural Food Products; Management Of Natural Resources; Crop And Business Connection In Agrocomplex; Agricultural Policy of EU; Management Of agricultural property

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Structure of the program

- Elective modules of environmental science; Project Management; Biology And Water Chemistry; Pollution And Water Protection; Soil Protection; Pollution And Air Protection; Biological And Landscape Diversity; Geo-information System In Environmental Protection; Toxycology And Ecotoxicology Of Pesticides; Ecology Karst; Waste Management In Agriculture; Ecological Viticulture; Ecological Vegetable; Ecological Fruit Growing; Ecological Fisheries; Ecology Of Forests; Landscape Planning; Ecological Composting

- Elective Modules Of Plant Production; Biotechnology In Plant Production; Plant Genetic Resources; Fertilization; Sustainable Management Of Agricultural Land; Herbology; Aromatic And Medicinal Herbs; Vegetable; Fruit Growing: Viticulture And Winemaking; Weed Science; Plant Protection; Technical Systems In Plant Production; Land Reclamation; Horticulture

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Learning outcomes of the study program

- Entrants who complete the study will acquire the knowledge needed to perform complex tasks aimed at developing agriculture and environmental protection and will be trained to work on: scientific-research and development projects (employment at faculties, scientific institutes and other public institutions);
- Development and improvement of agriculture through bioregional use, increase fertility, remediation and land protection; raising the productivity of agricultural production and processing, taking into account the "field to table" quality assurance and food safety throughout the chain (institution development, entry into the register, advisory services, new labor

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Learning outcomes of the study program

- Students will be trained to work on:
- environmental quality control and inspection work (employment in control laboratories, and offices and districts of towns and counties);
- development of new technologies in agricultural production based on traditional products, development and planning of ecological agriculture, and production and processing of foodstuffs in an environmentally friendly way (employment in different manufacturing companies);
- design and development of environmentally friendly technologies, research that supports rural development, innovation in agriculture and the creation of additional income on farms and rural communities, and the improvement of traditional technologies that do not meet today's criteria in agricultural production and environmental protection

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Finale degree

- Upon completion of the postgraduate study "Agriculture and Environmental Protection", the academic degree of the Doctor of Science from the field of Biotechnical Sciences in the field of Agronomy is obtained.
- Branch is determine according to the chosen course of study (e.g. Doctor of Biotechnical Sciences from the scientific field of Agronomy, branch of economics, ecology and environmental protection, zoo technology or plant production)

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List of students with completed PhD thesis and those with PhD thesis in progress (approved topics)

- Around 15 student finished PhD by old study program
- Student finished PhD study; “Microbiological, physicochemical, and sensory characteristics of kefir produced from cow's and goat's milk during storage”; PhD student: Marija Jukić Grbavac, mr.sc.
- Students in final phase of PhD study: The Effect of Different Milk Substitutes on Product Outputs and Health Status of Calves; PhD student: Ivan Babić
- Students in final phase of PhD study: Influence of hydrocolomulation in the Neretva River basin on the formation of fish fauna and status of endemic salmonids; PhD student: Irena Rozić
- Students in final phase of PhD study: Influence of pectolytic enzymes on the polyphenol profile of the wines of Babica and Crljenak Kastela (Vitis vinifera L.) "; PhD student: Živko Skračić
- Students in final phase of PhD study: "Impact of propolis and zeolite on the health of lambs" PhD student: Perica Romić

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SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
Introduced III cycles of studying	Not enough student motivated to go to	Possibilities to make scientific research in Agro-Meditarenean filed	PhD diploma is mostly required for student involved in HEI or scientific research institutes
work in teaching and research positions in the field of agriculture	Not enough number of elective modules	More scholarship for PhD students	To much investing in PhD study and research work
to strengthen the research potential and to overcome the gap between the existing state and actual needs	No enough scientific project found by the local government	specialize research and skills on a specialized agricultural topic	

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