

Biotechnical Faculty / FOOD SAFETY / GOOD MANUFACTURING PRACTICE IN FOOD PROCESSING

Course:	GOOD MANUFACTURING PRACTICE IN FOOD PROCESSING			
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exercises+Laboratory)
12396	Mandatory	2	5	2+1+0
Programs	FOOD SAFETY			
Prerequisites	Conditionality for other subjects: none			
Aims	The objectives of the course are: the application of the basic principles of good agricultural practice in animal husbandry, the organization of the production of health-safe food of animal origin, the development of prerequisite programs in the processing industry, the establishment of safety principles (HACCP system) in the industry of processing milk, meat, fish, honey, eggs, livestock food, fruit, vegetables, grains, developing methods in food safety control.			
Learning outcomes	Learning outcomes: After passing the exam, the student will know the basic principles of good agricultural practice in animal husbandry and plant production, risk factors in primary agricultural production, prerequisite programs in the processing industry, management of side products of animal and plant origin, HACCP system in the processing of products of animal and plant origin, food safety control methods.			
Lecturer / Teaching assistant	Name and surname of teachers and associates: prof. Mirjana Bojanić Rašović, Ph.D., Biotechnical faculty of University of Montenegro			
Methodology	Method of teaching and mastering the material: Lectures, practical exercises, independent work, doing homework, seminar work, colloquiums, consultations.			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Basic principles of good agricultural practice. Principles of good agricultural practice in the protection of soil, water and air.			
I week exercises	Hygienic assessment of land, water and air			
II week lectures	Principles of good agricultural practice in protecting the health and welfare of farm animals. Principles of good agricultural practice in plant health protection.			
II week exercises	Use of pesticides in accordance with good agricultural practice			
III week lectures	Management of by-products of animal origin			
III week exercises	Storage and use of manure in accordance with good agricultural practice			
IV week lectures	Organization of the production of health-safe food. Risk factors in primary agricultural production.			
IV week exercises	Disinfection, disinsection and pest control			
V week lectures	Prerequisite programs in the manufacturing industry. HACCP food safety system.			
V week exercises	HACCP food safety system			
VI week lectures	Colloquium I			
VI week exercises	HACCP food safety system			
VII week lectures	Corrective colloquium I			
VII week exercises	Field exercises			
VIII week lectures	HACCP system in milk production and processing			
VIII week exercises	Field exercises			
IX week lectures	HACCP system in the production and processing of meat, fish, honey, eggs			
IX week exercises	Presentation of homework			
X week lectures	HACCP system in the production of animal feed			
X week exercises	Presentation of homework			
XI week lectures	HACCP system in the production and processing of food of plant origin			
XI week exercises	Field exercises			
XII week lectures	HACCP system in the production of autochthonous products of animal and plant origin; Food safety			

	control methods. Genetically modified food
XII week exercises	Presentation and defense of the seminar paper
XIII week lectures	Colloquium II
XIII week exercises	Field exercises
XIV week lectures	Corrective colloquium II
XIV week exercises	Presentation of homework
XV week lectures	Presentation and defense of seminar work
XV week exercises	Presentation and defense of seminar work
Student workload	
Per week	Per semester
5 credits x 40/30=6 hours and 40 minuts 2 sat(a) theoretical classes 0 sat(a) practical classes 1 excercises 3 hour(s) i 40 minuts of independent work, including consultations	Classes and final exam: 6 hour(s) i 40 minuts x 16 =106 hour(s) i 40 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 6 hour(s) i 40 minuts x 2 =13 hour(s) i 20 minuts Total workload for the subject: 5 x 30=150 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 30 hour(s) i 0 minuts Workload structure: 106 hour(s) i 40 minuts (courses), 13 hour(s) i 20 minuts (preparation), 30 hour(s) i 0 minuts (additional work)
Student obligations	Certification of the semester and registration of grades, Supplementary classes and remedial exam period. Final exam
Consultations	Conditionality for other subjects: none
Literature	Literatura: Bojanić Rašović Mirjana (2023): Dobra poljoprivredna praksa, dobra proizvođačka praksa i principi bezbjednosti hrane (skripta); Zoohigijena i preventiva bolesti (2018), udžbenik, Univerzitet Crne Gore, prof. dr Mirjana Bojanić Rašović; Kodeks dobre poljoprivredne prakse, Crna Gora (2013); Načela dobre poljoprivredne prakse (2009), Zagreb; Primena HACCP u proizvodnji i distribuciji hrane, monografija (2007), Dr Larisa Jovanović, Dragana Pešić Mikulec, Ivan Pavlović, Beograd; Vodič za razvoj i primenu preduslovnih programa i principa HACCP u proizvodnji hrane (2009), Sava Bunčić, Beograd. Materijal sa predavanja, literaturu, kao i ispitna pitanja studenti dobijaju na prvom času nastave i dostupni su kod predmetnog nastavnika u štampanoj i elektronskoj formi. LITERATURE: BOJANIĆ RAŠOVIĆ MIRJANA (2023): GOOD AGRICULTURAL PRACTICE, GOOD PRODUCTION PRACTICE AND PRINCIPLES OF FOOD SAFETY (SCRIPT); ANIMAL HYGIENE AND DISEASE PREVENTION (2018), TEXTBOOK, UNIVERSITY OF MONTENEGRO, PROF. DR. MIRJANA BOJANIĆ RAŠOVIĆ; CODE OF GOOD AGRICULTURAL PRACTICE, MONTENEGRO (2013); PRINCIPLES OF GOOD AGRICULTURAL PRACTICE (2009), ZAGREB; APPLICATION OF HACCP IN FOOD PRODUCTION AND DISTRIBUTION, MONOGRAPH (2007), DR. LARISA JOVANOVIĆ, DRAGANA PEŠIĆ MIKULEC, IVAN PAVLOVIĆ, BELGRADE; GUIDE FOR THE DEVELOPMENT AND APPLICATION OF PREREQUISITE PROGRAMS AND PRINCIPLES OF HACCP IN FOOD PRODUCTION (2009), SAVA BUNČIĆ, BELGRADE. LECTURE MATERIAL, LITERATURE, AND EXAM QUESTIONS ARE GIVEN TO STUDENTS IN THE FIRST LESSON AND ARE AVAILABLE FROM THE SUBJECT TEACHER IN PRINTED AND ELECTRONIC FORM..
Examination methods	Forms of knowledge testing and assessment: Class activity up to 10 points (each colloquial lecture is valued at one point). One homework: up to 5 points Defense of the seminar paper: up to 15 points. Two colloquiums of 10 points each (up to 20 points in total). One colloquium consists of 10 questions. One question is worth one point. Final exam 50 points; It is taken orally by drawing a combination of three exam questions. A passing grade is obtained if 50 points are accumulated cumulatively. Grade: number of points: A (≥ 90 to 100 points); B (≥ 80 to < 90); C (≥ 70 to < 80); D (≥ 60 to < 70); E (≥ 50 to < 60); F < of 50
Special remarks	Number of ECTS credits: 5 Lesson fund: 2L + 1E
Comment	Program: Interdisciplinary master academic studies: FOOD SAFETY Subject

			status of subject: mandatory			
Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points