

REPUBLIC OF MACEDONIA
Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE



STUDY PROGRAMMES AT SECOND CYCLE
UNIVERSITY'S STUDIES
-one year study programmes-

FACULTY OF AGRICULTURAL SCIENCES AND FOOD - SKOPJE

РЕПУБЛИКА МАКЕДОНИЈА
УНИВЕРЗИТЕТ „Св. КИРИЛ И МЕТОДИЈ“ ВО СКОПЈЕ
ФАКУЛТЕТ ЗА ЗЕМЈОДЕЛСКИ НАУКИ И ХРАНА-СКОПЈЕ



REPUBLIC OF MACEDONIA
UNIVERSITY "Ss. CYRIL AND METHODIUS" IN SKOPJE
FACULTY OF AGRICULTURAL SCIENCES AND FOOD-SKOPJE

Skopje, 2012

STUDY PROGRAMME: PLANT BIOTECHNOLOGY

TOTAL NUMBER OF COURSES IN THE STUDY PROGRAMME

Courses	Number	Structure
Compulsory	2	33.33
Elective courses from the Faculty list	3	50.00
Elective courses from the University list	1	16.67
Total	6	100.00

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
- compulsory courses				
1.	Metodology for Research and Presentation of the Results	Prof. Dr. Petre Ivanoski Prof. Dr. Petar Hristov Prof. Dr. Marjan Kiprijanovski Prof. Dr. Gjorgji Martinovski	75	5
2.	Biometry	Prof. Dr. Sonja Ivanovska Prof. Dr. Dragan Gjosevski	75	5
- elective courses (the student can choose three courses from the list 1)				
3.			75	6
4.			75	6
5.			75	6
- elective courses (the student can choose one course from the University list of courses)				
6.			30	2
Total in first semester			405	30

SECOND SEMESTER			No. of hours	ECTS
MASTER THESIS				30
Total in second semester				30
Total:				60

LIST 1. (Elective courses)

Courses	Professor	No. of hours	ECTS
Agro-ecology ¹	Prof. Dr. Zvonko Pacanoski	75	6
Grain Cereal Crops ^{1,6}	Prof. Dr. Goce Vasilevski	75	6
Systematics and Classification of Tobacco ¹	Prof. Dr. Zlatko Arsov	75	6
Fiber Crops ¹	Prof. Dr. Zoran Dimov	75	6
Grain Legume Crops ^{1, 6}	Prof. Dr. Dane Bosev	75	6
Oil Crops ¹	Prof. Dr. Zoran Dimov	75	6
Cultivation of Medicinal and Aromatic Plants ¹	Prof. Dr. Zoran Dimov	75	6
Evaluation and Treatment of Tobacco ¹	Prof. Dr. Zlatko Arsov	75	6
Grass and Forage Crops ¹	Prof. Dr. Petre Ivanoski	75	6
Plants for Production of Forage ^{1, 6}	Prof. Dr. Tatjana Prentovikj	75	6

Plant Physiology ^{1,3}	Prof. Dr. Marina Stojanova/Prof. Dr. Silvana Manasievska-Simich	75	6
Organic Production of Vegetable and Flower Crops ²	Prof. Dr. Rukie Agich	75	6
Soilless Cultivation ²	Prof. Dr. Gordana Popsimonova	75	6
Selected Technologies in Vegetable Crop Production ²	Prof. Dr. Gjorgji Martinovski	75	6
Selected Technologies in Flower Crop Production ²	Prof. Dr. Stefanka Hadji Pecova	75	6
Designing and Establishment of Orchards ³	Prof. Dr. Marjan Kiprijanovski	75	6
Technology of Storage and Confectioning of Fruits ³	Ass. Dr. Toso Arsov	75	6
Fruit Varieties ³	Ass. Dr. Bojan Popovski	75	6
Integrated and Organic Fruit Production ³	Prof. Dr. Marjan Kiprijanovski	75	6
Ecological Condition for Fruit Crops ³	Prof. Dr. Tatjana Mitkova/Prof. Dr. Srebra Ilikj Popova	75	6
Rootstocks in Fruit Production ³	Ass. Prof. Toso Arsov	75	6
Special Breeding in Fruit Production ³	Ass. Prof. Bojan Popovski	75	6
Molecular Methods in Genetics and Breeding ³	Prof. Dr. Ljupcho Jankulovski	75	6
Grapevine Production ⁴	Prof. Dr. Petar Hristov	75	6
Selection of Rootstocks and Grapevine Varieties ⁴	Prof. Dr. Zvonimir Bozinovich	75	6
Climate Zoning of Viticulture and Wine Region ⁴	Prof. Dr. Srebra Ilikj Popova / Ass. Dr. Klime Beleski	75	6
Forming of Vineyards ⁴	Prof. Dr. Petar Hristov	75	6
Processing of Grapevine ⁴	Prof. Dr. Mihail Petkov	75	6
Production, Packing and Storage of Table Grapes ⁴	Prof. Dr. Krum Boskov	75	6
Grapevine Breeding ⁴	Ass. Dr. Klime Beleski	75	6
Eco-viticulture ⁴	Prof. Dr. Krum Boskov	75	6
Applied Genetics ⁵	Prof. Dr. Cane Stojkovski	75	6
Breeding with Seed Production ⁵	Prof. Dr. Ljubomir Marinkovich	75	6
Molecular Methods in Genetics and Breeding ⁵	Prof. Dr. Ljupcho Jankuloski	75	6
Plant Genetic Engeneriing	Prof. Dr. Ljupcho Jankuloski	75	6
Tissue Culture ^{3,5}	Prof. Dr. Sonja Ivanovska	75	6
Use of Plant Genetic Resources ⁵	Prof. Dr. Sonja Ivanovska	75	6
Quantitative Genetics ⁵	Ass. Dr. Mirjana Jankulovska	75	6
Microbiology of Food ⁶	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Olga Najdenovska	75	6
Biochemistry of Food ⁶	Prof. Dr. Zoran Popovski	75	6
Bread Crops and other Ceral Crops ^{1,6}	Prof. Dr. Goce Vasileski	75	6
Industrial Plants for Production of Oil, Sugar and Alkaloids ⁶	Prof. Dr. Zoran Dimov	75	6
Evaluation of Tobacco Quality ⁶	Prof. Dr. Zlatko Arsov	75	6
Spicy and Aromatic Plants ⁶	Prof. Dr. Zoran Dimov	75	6
Technology of Milling Products ^{1,6}	Prof. Dr. Goce Vasileski	75	6
Technology of Oil and Sugar ⁶	Prof. Dr. Zoran Dimov	75	6
Technology of Malt and Beer ^{1,6}	Prof. Dr. Dane Bosev	75	6
Manipulation and Fermentation of Tobacco ⁶	Prof. Dr. Zlatko Arsov	75	6

Technology of Processing of Forage Crops ⁶	Prof. Dr. Tatjana Prentovikj	75	6
Technology of Tobacco Products ⁶	Prof. Dr. Zlatko Arsov	75	6
Grapevine Varieties for Wine Production ⁷	Prof. Dr. Zvonimir Bozinovich	75	6
Wine-chemistry ⁷	Prof. Dr. Mihail Petkov	75	6
Climate Zoning of Viticulture and Wine Region ⁷	Prof. Dr. Srebra Ilikj Popova / Ass. Dr. Klime Beleski	75	6
Production of Grapevine ⁷	Prof. Dr. Petar Hristov	75	6
Wine Production Technologies ⁷	Prof. Dr. Mihail Petkov	75	6
Production of Alcoholic Beverages ⁷	Prof. Dr. Krum Boskov	75	6
Sensor Evaluation of Wine ⁷	Prof. Dr. Zvonimir Bozinovich, Prof. Dr. Mihail Petkov	75	6
Winery Equipment ⁷	Prof. Dr. Zvonimir Bozinovich, Prof. Dr. Mihail Petkov	75	6
Quality Characteristics of Grapevine Raw Material ⁸	Prof. Dr. Petar Hristov	75	6
Fermentation of Grapevine Raw Material ⁸	Prof. Dr. Mihail Petkov	75	6
Fruit and Grain Alcoholic Beverages ⁸	Prof. Dr. Krum Boskov	75	6
Processing of Distillation Raw Material ⁸	Prof. Dr. Krum Boskov	75	6
Technological microbiology–selected chapters ^{7, 8}	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Olga Najdenovska	75	6
Distillation ⁸	Prof. Dr. Mihail Petkov	75	6
Analytical and Sensory Properties of Alcoholic Beverages ⁸	Prof. Dr. Zvonimir Bozinovikj, Prof. Dr. Mihail Petkov	75	6
Maturing of distillates ⁸	Prof. Dr. Krum Boskov	75	6
Grapevine Alcoholic Beverages ⁸	Prof. Dr. Zvonimir Bozinovikj	75	6
Agricultural Entomology and Zoology ^{1,2,3,4,5}	Prof. Dr. Stanislava Lazarevska Prof. Dr. Mile Postolovski	75	6
Agricultural Phytopathology ^{1,2,3,4,5}	Prof. Dr. Rade Rusevski Ass. Biljana Kuzmanovska	75	6
Advanced Herbology ^{1,2,3,4,5}	Ass. Dr. Zvonko Pacanoski	75	6
Integrated Pest Management ^{1,2,3,4,5}	Prof. Dr. Mile Postolovski Ass. Dr. Ljupcho Jankuloski	75	6

SUPERSCRIPTS ^{1,2,3,4,5,6,7} and ⁸ ARE RELATED TO APPROPRIATE GROUP OF ELECTIVE COURSES WITHIN THE MODULES:

1. FIELD CROP PRODUCTION
2. VEGETABLE AND FLOWER CROP PRODUCTION
3. FRUIT CROP PRODUCTION
4. VITICULTURE
5. PLANTS BREEDING AND SLECTION
6. PROCESSING OF FIELD CROPS
7. WINE PRODUCTION
8. PRODUCTION OF ALCOHOLIC BEVERAGES

STUDY PROGRAMME: ANIMAL BIOTECHNOLOGY

TOTAL NUMBER OF COURSES IN THE STUDY PROGRAMME

Courses	Number	Structure
Compulsory	4	50.00
Elective courses from the Faculty list	3	37.50
Elective courses from the University list	1	12.50
Total	8	100.00

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
-compulsory courses				
1.	Selected Chapters from Biochemistry and Molecular Biology	Ass. Prof. Blagica Dimitrievska Prof. Dr. Zoran Popovski	60	4
2.	Animal Health and Welfare- selected chapters	Prof. Dr. Metodija Trajchev	60	4
3.	Research methods	Prof. Dr. Vlado Vukovich	60	4
4.	Biometry	Prof. Dr. Sreten Andonov	60	4
-elective courses (the student can choose three courses from the list 1)				
5.			60	4
6.			60	4
7.			60	4
-elective courses (the student can choose one course from the University list of courses)				
8.			30	2
		Total in first semester	450	30

SECOND SEMESTER			No. of hours	ECTS
MASTER THESIS				30
Total in second semester				30
Total:				60

LIST 1. (Elective courses)

Courses	Professor	No. of hours	ECTS
Advanced Livestock Production–selected chapters	Prof. Dr. Vladimir Dzabirski Prof. Dr. Vlado Vukovich Prof. Dr. Gjoko Bunevski Prof. Dr. Dragoslav Kocevski	60	4
Animal Genomes ¹	Prof. Dr. Zoran Popovski	60	4
Techniques of Genetic Engineering ¹	Ass. Prof. Blagica Dimitrievska	60	4
Genetics and Selection-selected chapters ^{1,4,5,6,7,8,10-}	Prof. Dr. Vlado Vukovich Prof. Dr. Vladimir Dzabirski Prof. Dr. Gjoko Bunevski Prof. Dr. Sreten Andonov Prof. Dr. Hrisula Kiprijanovska Ass. Prof. Kocho Porchu	60	4
Estimation of Genetic Parameters ¹	Prof. Dr. Sreten Andonov	60	4
Applied Genetics ¹	Prof. Dr. Sonja Ivanovska	60	4
Experimental Methods in Animal Nutrition ²	Prof. Dr. Srecko Gjorgjijevski	60	4

Physiology of Animal Digestion ²	Prof. Dr. Zoran Popovski	60	4
Microbiology-selected chapters ²	Prof. Dr. Olga Najdenovska	60	4
Animal Nutrition Biotechnology ²	Prof. Dr. Srecko Gjorgjijevski	60	4
Etology and Stress in Animals ³	Prof. Dr. Metodija Trajchev	60	4
Pathogenicity, Pathogenesis and Immunology ³	Prof. Dr. Slavcho Mrenoshki	60	4
Morphological Parameters and Animal Welfare Assessment ³	Prof. Dr. Vlatko Ilieski	60	4
Biosecurity for Livestock Farms-selected chapters ^{3,4,5,6,7,8,10}	Prof. Dr. Metodija Trajchev	60	4
Breeding Programs–selected chapters ^{4,5,6,7,8}	Prof. Dr. Dragoslav Kocevski Prof. Dr. Vladimir Dzabirski Prof. Dr. Gjoko Bunevski Prof. Dr. Sreten Andonov Prof. Dr. Hrisula Kiprijanovska Ass. Prof. Kocho Porchu	60	4
Reproduction–selected chapters ^{3,4,5,6,7,8}	Prof. Dr. Dragoslav Kocevski Prof. Dr. Vlado Vukovich Prof. Dr. Vladimir Dzabirski Prof. Dr. Gjoko Bunevski Prof. Dr. Sreten Andonov Prof. Dr. Hrisula Kiprijanovska Ass. Prof. Kocho Porchu	60	4
Applied Nutrition-selected chapters ^{4,5,6,7,8,9}	Prof. Dr. Srecko Gjorgjijevski	60	4
Aqua eco Systems-selected chapters ⁹	Prof. Dr. Mirche Naumovski	60	4
Intensive Fishery Production-Selected Chapters ⁹	Prof. Dr. Mirche Naumovski	60	4
Transport of Fish and Roes ⁹	Prof. Dr. Vasil Kostov	60	4
Storage and Fish Processing ⁹	Ass. Prof. Katerina Belichovska	60	4
Technology of Honey Bee Breeding ¹⁰	Prof. Dr. Hrisula Kiprijanovska	60	4
Honey Plants ¹⁰	Prof. Dr. Zoran Dimov	60	4
Production of Bee Products ¹⁰	Prof. Dr. Hrisula Kiprijanovska	60	4
Dairy Processing Industry ^{3,4,5,6}	Prof. Dr. Sonja Srbinovska	60	4
Technology Processes in Meat Industry ^{3,4,5,6}	Prof. Dr. Zlatko Pejkovski	60	4
Plants for Forage Production ^{4,5,6}	Prof. Dr. Tatjana Prentovikj	60	4

SUPERSCRIPTS ^{1,2,3,4,5,6,7,8,9, 10} ARE RELATED TO APPROPRIATE GROUP OF ELECTIVE COURSES WITHIN THE MODULES:

- 1- GENETICS AND SELECTION
- 2- ANIMAL NUTRITION
- 3- MANAGEMENT OF ANIMAL HEALTH AND WELFARE
- 4- CATTLE PRODUCTION
- 5- SHEEP PRODUCTION
- 6- GOAT PRODUCTION
- 7- PIG PRODUCTION
- 8- POULTRY PRODUCTION
- 9- FISHERIES
- 10- BEE KEEPING

STUDY PROGRAMME: PROCESSING OF AGRICULTURAL PRODUCTS FROM ANIMAL ORIGIN

TOTAL NUMBER OF COURSES IN THE STUDY PROGRAMME

Courses	Number	Structure
Compulsory	4	50.00
Elective courses from the Faculty list	3	37.50
Elective courses from the University list	1	12.50
Total	8	100.00

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
COMPULSORY COURSES				
1.	Selected Chapters from Biochemistry and Molecular Biology	Ass. Prof. Blagica Dimitrievska Prof. Dr. Zoran Popovski	60	4
2.	Microbiology of Animal Products-selected chapters	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Olga Najdenovska	60	4
3.	Research Methods	Prof. Dr. Vlado Vukovich	60	4
4.	Biometry	Prof. Dr. Sreten Andonov	60	4
-elective courses (the student can choose three courses from the list 1)				
5.			60	4
6.			60	4
7.			60	4
-elective courses (the student can choose one course from the University list of courses)				
8.			30	2
Total in first semester			450	30

SECOND SEMESTER			No. of hours	ECTS
MASTER THESIS				30
Total in second semester				30
TOTAL:				60

LIST 1 (elective courses)

Courses	Professor	No. of hours	ECTS
Milk Chemistry and Physics ¹	Prof. Dr. Sonja Srbinovska	60	4
Dairy Processing Industry ¹	Prof. Dr. Sonja Srbinovska	60	4
Probiotics and Functional Properties of Milk and Dairy Products ¹	Prof. Dr. Sonja Srbinovska	60	4
Meat Structure and Characteristics ²	Prof. Dr. Zlatko Pejkovski	60	4
Technology Processes in Meat Industry ²	Prof. Dr. Zlatko Pejkovski	60	4
Technology of Ready to Eat Meals ²	Prof. Dr. Zlatko Pejkovski	60	4
Nutritional Biochemistry ³	Prof. Dr. Zoran Popovski	60	4

Applied Dietetics ³	Prof.Dr. Srecko Gjorgjievski	60	4
Nutritional Risks ³	Prof.Dr. Metodija Trajchev	60	4
Safety Principles for Food of Animal Origin ⁴	Prof. Dr. Sonja Srbinska Prof.Dr. Metodija Trajchev	60	4
Control and Legislation of Food from Animal Origin ⁴	Prof. Dr. Sonja Srbinska Prof.Dr. Metodija Trajchev	60	4
Molecular Methods for Animal Products ⁴	Ass. Prof. Blagica Dimitrievska	60	4

SUPERSCRIPTS ^{1,2,3,4} ARE RELATED TO APPROPRIATE GROUP OF ELECTIVE COURSES WITHIN THE MODULE:

- 1- MILK AND DAIRY PRODUCTS
- 2- MEAT AND MEAT PRODUCTS
- 3- NUTRITION AND CONTROL
- 4- CONTROL AND SAFETY OF FOOD OF ANIMAL ORIGIN

STUDY PROGRAMME: MANAGEMENT OF NATURAL RESOURCES AND ENVIRONMENT IN AGRICULTURE

TOTAL NUMBER OF COURSES IN THE STUDY PROGRAMME

Courses	Number	Structure
Compulsory	4	50.00
Elective courses from the Faculty list	3	37.50
Elective courses from the University list	1	12.50
Total	8	100.00

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
COMPULSORY COURSES				
1.	Genesis, Evolution and Soil Classification	Prof. Dr. Josif Mitrikeski Prof. Dr. Tatjana Mitkova	60	4
2.	Principles of Ecological Agriculture	Prof. Dr. Olga Najdenovska Prof. Dr. Elizabeta Angelova	60	4
3.	Plant Nutrition-selected chapters	Prof. Dr. Marina Stojanova	60	4
4.	Irrigation of Agricultural Crops-selected chapters	Prof. Dr. Ordan Chukaliev Ass. Prof. Vjekoslav Tanaskovikj	60	4
-elective courses (the student can choose three courses from the list 1)				
5.			60	4
6.			60	4
7.			60	4
-elective courses (the student can choose one course from the University list of courses)				
8.			30	2
Total in first semester			450	30

SECOND SEMESTER			No. of hours	ECTS
MASTER THESIS				30
Total in second semester				30
TOTAL:				60

LIST 1 (elective courses)

Courses	Professor	No. of hours	ECTS
Meliorative Pedology ¹	Prof. Dr. Josif Mitrikeski	60	4
Mineralogy and Fundamentals of Petrography ¹	Prof. Dr. Tatjana Mitkova Prof. Dr. Josif Mitrikeski	60	4
Exploitation, Degradation and Protection of Soils ¹	Prof. Dr. Tatjana Mitkova Prof. Dr. Josif Mitrikeski Prof. Dr. Ordan Chukaliev	60	4
Soil Microbiology-selected chapters ⁶	Prof. Dr. Olga Najdenovska	60	4
Biomonitoring of Environment ⁶	Prof. Dr. Olga Najdenovska	60	4
Sustainable Management of Soils ¹	Prof. Dr. Tatjana Mitkova	60	4

Water Quality ³	Prof. Dr. Ordan Chukaliev Ass. Prof. Vjekoslav Tanaskovikj	60	4
Marketing Environment and Social Responsibility ⁴	Prof. Dr. Nenad Georgiev	60	4
Bioremediation of Soils ¹	Prof. Dr. Tatjana Mitkova Prof. Dr. Olga Najdenovska Prof. Dr. Tatjana Prentovic	60	4
Ecosystems ⁴	Prof. Dr. Elizabeta Angelova	60	4
Environmental Microbiology ⁶	Prof. Dr. Olga Najdenovska	60	4
Interaction of Organisms ⁴	Prof. Dr. Elizabeta Angelova	60	4
Global Ecology ⁴	Prof. Dr. Elizabeta Angelova	60	4
Fertilizers ²	Prof. Dr. Marina Stojanova	60	4
Laboratory Techniques and Field Trials ²	Prof. Dr. Marina Stojanova	60	4
Soil Physics and Chemistry ¹	Prof. Dr. Tatjana Mitkova	60	4
Flood Management ⁵	Prof. Dr. Marija Vukelic Shutoska	60	4
GIS and RS in Agriculture ⁵	Prof. Dr. Marija Vukelic Shutoska	60	4
Information Technologies in Irrigation ³	Prof. Dr. Ordan Chukaliev Ass. Prof. Vjekoslav Tanaskovikj	60	4
Genesis, Evolution and Soil Classification ¹	Prof. Dr. Josif Mitrikeski	60	4
Soil Physics ¹	Prof. Dr. Tatjana Mitkova	60	4
Soil Chemistry ¹	Prof. Dr. Tatjana Mitkova	60	4
Soil Survey, Site Evaluation and Chemical Melioration ¹	Prof. Dr. Josif Mitrikeski	60	4
Biomonitoring of the Pollution in Agroecosystems ⁶	Prof. Dr. Olga Najdenovska	60	4
Management and Control of Pollution Sources in Agriculture ⁶	Prof. Dr. Olga Najdenovska	60	4
Energy ecosystems-selected chapters ⁴	Prof. Dr. Elizabeta Angelova	60	4
Principles of Ecological Agriculture ⁴	Prof. Dr. Elizabeta Angelova	60	4
Plants Nutrition-selected chapters ²	Prof. Dr. Marina Stojanova	60	4
Soil Fertility and Soil Agrochemical Mapping ²	Prof. Dr. Marina Stojanova	60	4
Plant Physiology ²	Prof. Dr. Marina Stojanova Prof. Dr. Silvana Manasievska Simich	60	4
Principles and Techniques of Fertilization ²	Prof. Dr. Kire Filipovski	60	4
Hydrotechnique-selected chapters ⁵	Prof. Dr. Marija Vukelic Shutoska	60	4
Drainage ⁵	Prof. Dr. Aco Gichev	60	4

Control of Erosion Processes in Agriculture ⁵	Prof. Dr. Aco Gichev	60	4
Waters Protection-selected chapters ⁵	Prof. Dr. Marija Vukelic Shutoska	60	4
Principles and Techniques of Irrigation ³	Prof. Dr. Ordan Chukaliev Assoc. Dr. Vjekoslav Tanaskovikj	60	4
Irrigation of Agricultural Crops ³	Prof. Dr. Ordan Chukaliev Assoc. Dr. Vjekoslav Tanaskovikj	60	4
Fertigation-selected chapters ³	Prof. Dr. Ordan Chukaliev Assoc. Dr. Vjekoslav Tanaskovikj	60	4

SUPERSCRIPTS ^{1,2,3,4,5} and ⁶ ARE RELATED TO APPROPRIATE GROUP OF ELECTIVE COURSES WITHIN THE MODULE:

1. SOIL SCIENCES
2. AGROCHEMISTRY
3. IRRIGATION
4. ECOLOGY
5. LAND RECLAMATION AND EROSION IN AGRICULTURE
6. SOURCES OF POLLUTION IN AGRICULTURE

STUDY PROGRAMME: FOOD QUALITY AND SAFETY

TOTAL NUMBER OF COURSES IN THE STUDY PROGRAMME

Courses	Number	Structure
Compulsory	2	25.00
Elective courses from the Faculty list	5	62.50
Elective courses from the University list	1	12.50
Total	8	100.00

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
- compulsory courses for study programme				
1.	Microbiological Hazards of Agricultural Products and Food - advanced chapters	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Metodija Trajchev	60	4
2.	Food Physical and Chemical Safety– advanced chapters	Prof. Dr. Biljana Petanovska Ilievska	60	4
-elective courses (the student can choose two courses from the list 1)				
3.			60	4
4.			60	4
-elective courses (the student can choose three courses from the list 2)				
5.			60	4
6.			60	4
7.			60	4
- elective courses (the student can choose one course from the University list of courses)				
8.			30	2
Total in first semester			450	30

SECOND SEMESTER			No. of hours	ECTS
MASTER THESIS				30
Total in second semester				30
Total:				60

LIST 1. (Elective courses)

Courses	Professor	No. of hours	ECTS
Biochemistry of the Microorganisms¹	Prof. Dr. Zoran Popovski Prof. Dr. Olga Najdenovska	60	4
Microbiology of Agricultural Products and Food¹	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Olga Najdenovska	60	4
Food Preservation²	Prof. Dr. Ljubica Karakashova Prof. Dr. Sonja Srbinovska	60	4
Control of Botanical Origin of Food^{2,3}	Prof. Dr. Silvana Manasievska Simich	60	4
Ethnobotany³	Prof. Dr. Silvana Manasievska Simich Prof. Dr. Icko Gorgovski	60	4
Fruit and Vegetable Processing-advance chapter⁴	Prof. Dr. Ljubica Karakashova	60	4
Quality of Processed Fruits and Vegetables⁴	Prof. Dr. Ljubica Karakashova	60	4

LIST 2. (Elective courses)

Courses	Professor	No. of hours	ECTS
Fermentative Microbiology ¹	Prof. Dr. Olga Najdenovska	60	4
Genetics and Selection of the Microorganisms ¹	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Olga Najdenovska	60	4
Microbiology of Soils and Waters ¹	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Olga Najdenovska	60	4
Enology-selected chapters ¹	Prof. Dr. Mihail Petkov	60	4
Dairy Processing Industry ¹	Prof. Dr. Sonja Srbinovska	60	4
Technology Processes in Meat Industry ¹	Prof. Dr. Zlatko Pejkovski	60	4
Fruit and Vegetable Processing–selected chapters ¹	Prof. Dr. Ljubica Karakashova	60	4
Food Quality and Safety Systems ²	Prof. Dr. Biljana Petanovska Ilievska	60	4
Food Quality and Safety Standards ²	Prof. Dr. Biljana Petanovska Ilievska	60	4
Food Additives ^{2,4}	Prof. Dr. Biljana Petanovska Ilievska	60	4
Fruit and Vegetable Storage ^{2,4}	Prof. Dr. Ljubica Karakashova Prof. Dr. Gorgi Martinovski	60	4
Management of Quality and Safety of Food–selected chapters ²	Prof. Dr. Jugoslav Ziberovski	60	4
Feed Quality and Safty Standards ²	Prof. Dr. Srecko Gorgievski	60	4
Sanitation and Hygiene in Food Processing–advanced chapters ²	Prof. Dr. Metodija Trajcev Prof. Dr. Pavle Sekulovski	60	4
Wild Edible Plants–selected chapters ³	Ass. Prof. Elizabeta Miskoska - Milevska	60	4
Plant Physiology ³	Prof. Dr. Silvana Manasievska Simich Prof. Dr. Marina Stojanovska	60	4
Natural Aromatic and Medicinal Raw Materials-selected chapters ³	Ass. Prof. Elizabeta Miskoska - Milevska	60	4
Fruit Crops ³	Ass. Prof. Tosho Arsov	60	4
Grain Cereal Crops ³	Prof. Dr. Goce Vasilevski	60	4
Grain Legume Crops ³	Prof. Dr. Dane Boshev	60	4
Vegetable Crops ³	Prof. Dr. Gorgi Martinovski	60	4
Autohtones Grapevine Varieties ³	Prof. Dr. Zvonko Bozinovik	60	4
Microbiology of Food ⁴	Prof. Dr. Jugoslav Ziberovski Prof. Dr. Olga Najdenovska	60	4
Wine and Alcoholic Beverages-selected chapters ⁴	Prof. Dr. Mihail Petkov	60	4
Special Vegetable Production-selected chapters ⁴	Prof. Dr. Gorgi Martinovski	60	4
Special Fruit Production– selected chapters ⁴	Ass. Prof. Bojan Popovski	60	4
Soil and Water Quality-advance chapter ⁴	Prof. Dr. Tatjana Mitkova Prof. Dr. Ordan Chukaliev	60	4
Biometry ^{1, 2, 3, 4}	Prof. Dr. Sonja Ivanovska Prof. Dr. Dragan Goshevski	60	4
Phytopharmacy ²	Prof. Dr. Mile Postolovski Prof. Dr. Rade Rusevski Ass. Prof. Zvonko Pacanovski	60	4

SUPERSCRIPTS ^{1,2,3,4,5} and ⁶ ARE RELATED TO APPROPRIATE GROUP OF ELECTIVE COURSES WITHIN THE MODULE:

1. MICROBIOLOGY
2. FOOD QUALITY AND SAFETY
3. ETHNOBOTANY
4. FRUIT AND VEGETABLE PROCESSING

STUDY PROGRAMME : PHYTOMEDICINE

TOTAL NUMBER OF COURSES IN THE STUDY PROGRAMME

Courses	Number	Structure
Compulsory	5	55.56
Elective courses from the Faculty list	3	33.33
Elective courses from the University list	1	11.11
Total	9	100.00

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
- compulsory courses for study programme				
1.	Agricultural Entomology and Zoology	Prof. Dr. Stanislava Lazarevska Prof. Dr. Mile Postolovski	60	4
2.	Agricultural Phytopathology	Prof. Dr. Rade Rusevski Ass. Prof. Biljana Kuzmanovska	60	4
3.	Advanced Herbology	Prof. Dr. Zvonko Pacanoski	60	4
4.	Phytopharmacy with Eco-Toxicology	Prof. Dr. Mile Postolovski Prof. Dr. Rade Rusevski Prof. Dr. Zvonko Pacanoski	60	4
5.	Integrated Pest Management	Prof. Dr. Mile Postolovski Prof. Dr. Ljubco Jankulovski	60	4
- elective courses (the student can choose three courses from the list 1)				
6.			60	4
7.			30	2
8.			30	2
- elective courses (the student can choose one course from the University list of courses)				
9.			30	2
Total in first semester			450	30

SECOND SEMESTER			No. of hours	ECTS
MASTER THESIS				30
Total in second semester				30
Total:				60

LIST 1. (Elective courses)

Courses	Professor	No. of hours	ECTS
Research Methods in Phytomedicine	Prof. Dr. Stanislava Lazarevska Prof. Dr. Rade Rusevski Prof. Dr. Zvonko Pacanoski	60	4
Biometry	Prof. Dr. Sonja Ivanovska	60	4
Agro-Ecology	Prof. Dr. Zvonko Pacanoski	30	2
Grain Cereal Crops	Prof. Dr. Goce Vasilevski	30	2
Plants for Production of Forage	Prof. Dr. Tatjana Prentovikj	30	2
Industrial Crops for Production of Oil, Sugar and Alkaloids	Prof. Dr. Zoran Dimov	30	2
Production of Tobacco and Seeds	Prof. Dr. Zlatko Arsov	30	2
Viticulture-selected chapters	Prof. Dr. Zvonimir Bozinovikj	30	2
Fruit Production-selected chapters	Prof. Dr. Marijan Kiprijanoski	30	2
Special Vegetable Production-selected chapters	Prof. Dr. Gjordji Martinovski	30	2

STUDY PROGRAMME: AGRICULTURAL MECHANIZATION

TOTAL NUMBER OF COURSES IN THE STUDY PROGRAMME

Courses	Number	Structure
Compulsory	3	50.00
Elective courses from the Faculty list	2	33.33
Elective courses from the University list	1	16.67
Total	6	100.00

MODULE: Mechanization in Plant Production

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
- compulsory courses				
1.	Engines and Tractors	Prof. Dr. Dragi Tanevski	75	5
2.	Mechanization-selected chapters	Ass. Prof. Ile Canev	75	5
3.	Exploitation of Agricultural Techniques	Prof. Dr. Zivko Davcev	75	5
-elective courses (the student can choose three courses from the list 1)				
3.			75	6
4.			75	6
5.			75	6
- elective courses (the student can choose one course from the University list of courses)				
6.			30	2
		Total in first semester	405	30

SECOND SEMESTER			No. of hours	ECTS
	MASTER THESIS			30
		Total in second semester		30
		Total:		60

MODULE: Mechanization in Animal Production

No.	Courses	Professor	No. of hours	ECTS
FIRST SEMESTER				
- compulsory courses				
1.	Machinery and Equipment in Livestock Production	Prof. Dr. Dragi Tanevski	75	5
2.	Machinery for Preparing of Animal Feed	Prof. Dr. Dragi Tanevski	75	5
3.	Automation in Agriculture Technique	Prof. Dr. Zivko Davcev	75	5
-elective courses (the student can choose three courses from the list 1)				
3.			75	6
4.			75	6
5.			75	6
- elective courses (the student can choose one course from the University list of courses)				
6.			30	2
Total in first semester			405	30

SECOND SEMESTER			No. of hours	ECTS
MASTER THESIS				30
Total in second semester				30
Total:				60

LIST 1. (Elective courses)

Courses	Teacher	No. of hours	ECTS
Processing Equipment	Ass. Prof. Ile Canev	75	6
Harvesting Machines-selected chapters ¹	Prof. Dr. Dragi Tanevski	75	6
Service and Reparation of Agricultural Techniques ¹	Prof. Dr. Zivko Davcev	75	6
Basics in Field Crop Production ¹	Prof. Dr. Zvonko Pacanoski	75	6
Viticulture-selected chapters ¹	Prof. Dr. Zvonimir Bozinovikj	75	6
Fruit Production-selected chapters ¹	Prof. Dr. Marjan Kiprijanovski	75	6
Soil Physics ¹	Prof. Dr. Tatjana Mitkova	75	6
Transport Equipment in Livestock Production ²	Prof. Dr. Dragi Tanevski	75	6
Exploitations of Agriculture Machinery in Livestock Production ²	Prof. Dr. Zivko Davcev	75	6
Livestock Production ²	Prof. Dr. Goko Bunevski	75	6
Plants for Production of Forage	Prof. Dr. Tatjana Prentovikj	75	6

SUPERSCRIPTS ¹ and ² ARE RELATED TO APPROPRIATE GROUP OF ELECTIVE COURSES WITHIN THE MODULE:

1. Mechanization in Plant Production
2. Mechanization in Animal Production