



UNIVERSITATEA DE ȘTIINȚE AGRONOMICE
ȘI MEDICINĂ VETERINARĂ DIN BUCUREȘTI

Course Catalog



2017/2018

FACULTIES



Faculty of Agriculture



Faculty of Horticulture



Faculty of Animal Productions
Engineering and Management



Faculty of Veterinary Medicine



Faculty of Land Reclamation and
Environmental Engineering



Faculty of Biotechnologies



Faculty of Management, Economic Engineering
in Agriculture and Rural Development

CONTENT

I. BACHELOR PROGRAMS	7
1. Faculty of Agriculture	8
1.1. Agriculture	9
1.2. Biology	13
1.3. Silviculture	16
2. Faculty of Horticulture	20
2.1. Horticulture	21
2.2. Landscape architecture	25
3. Faculty of Animal Productions Engineering and Management	29
3.1. Animal Science	30
3.2. Fishery and aquaculture	34
3.3. Technology of agricultural products processing	37
3.4. Hunting	41
3.5. Consumer and Environment Protection	44
4. Faculty of Veterinary Medicine	48
4.1. Veterinary Medicine	49
4.2. Control and Expertise of Food Products	58
5. Faculty of Land Reclamation and Environmental Engineering	62
5.1. Land reclamation and rural development	63

5.2. Engineering and environmental protection in agriculture	67
5.3. Land measurement and cadastre	71
5.4. Civil engineering and management	75
6. Faculty of Biotechnologies	79
6.1. Agricultural Biotechnologies	80
6.2. Food Biotechnologies	84
6.3. Veterinary Medicine Biotechnologies	88
7. Faculty of Management, Economic Engineering in Agriculture and Rural Development	92
7.1. Engineering and Management in Public Food Supply and Agrotourism	93
7.2. Economic Engineering in Agriculture	97
II. MASTER PROGRAMS	100
1. Faculty of Agriculture	102
1.1. Sustainable agriculture	103
1.2. Agricultural consultancy	105
1.3. Land Resources Management and Expertise	107
1.4. Protection of agroecosystems and phytosanitary expertise	109

2. Faculty of Horticulture	111
2.1. Integrated technologies for obtaining and utilization of horticultural products	112
2.2. Biodiversity conservation management	113
2.3. Ecological horticulture	114
2.4. Advanced technologies, management and marketing in viticulture and winemaking	115
3. Faculty of Animal Productions Engineering and Management	116
3.1. Food products biosecurity	117
3.2. Entrepreneurism in animal productions	118
3.3. Special technologies in food industry	119
3.4. Food safety and biosecurity	120
4. Faculty of Veterinary Medicine	121
4.1. Inspection and expert survey of the organic food products of Halal and Kosher food products	122
4.2. Agricultural and processed food products expert survey	123
5. Faculty of Land Reclamation and Environmental Engineering	124
5.1. Environmental protection and engineering in rural areas	125
5.2. Geomatics for environmental engineering	127
5.3. Investment and management in ecosystems	129

6. Faculty of Biotechnologies	131
6.1. Biotechnologies in the pharmaceutical industry	132
6.2. Environmental biotechnology	133
6.3. Biotechnology and food safety	134
6.4. Biotechnology and entrepreneurship	135
7. Faculty of Management, Economic Engineering in Agriculture and Rural Development	136
7.1. Management in Agritourism and Public Food Supply	137
7.2. Quality and Innovation Management in the Agrifood Domain	138
7.3. Agribusiness	139
7.4. Management and rural development	140
7.5. Management of rural hospitality industry	141
7.6. Farm Management and Agribusiness Development	142
7.7. Management and internal audit	143

BACHELOR PROGRAMS





FACULTY
OF
AGRICULTURE



Specialization:

AGRICULTURE, 4 years, 240 ECTS - field of study: Agronomy

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Mathematics and statistics	I	3
2	Biochemistry	I	5
3	Biophysics and agrometeorology	I	6
4	Topography and technical drawing	I	5
5	Tractors and agricultural machinery	I & II	5 & 5
6	Botany	I & II	4 & 4
7	Computer science	II	3
8	Land cadastre	II	5
9	Soil science	II	5
10	Ecology and environmental protection	II	4
11	Foreign Language: English/French (O)	I & II	2 & 2
12	Physical training and sports (F)	I & II	1 & 1
13	Tractor driving (F)	II	4
14	Communication (F)	II	2
15	Practical training Mechanization; Technological	II	2





Specialization:

AGRICULTURE, 4 years, 240 ECTS - field of study: Agronomy

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Soil science	I	5
2	Tractors agricultural machinery	I	4
3	Plant physiology	I	6
4	Genetics	I & II	5 & 4
5	Entomology	I & II	5 & 4
6	Phytopathology	I & II	5 & 4
7	Agrochemistry	II	4
8	Agrotechnics	II	4
9	Rural economy	II	4
10	Microbiology/Soil biology (O)	II	2
11	Physical training and sports (F)	I	1
12	Foreign Language: English/French (F)	I & II	2 & 2
13	Practical training *Soil science; Plant protection; Agrotechnics; Agrochemistry; Mechanization	II	4





Specialization:

AGRICULTURE, 4 years, 240 ECTS - field of study: Agronomy

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Agrochemistry	I	4
2	Agrotechnics	I	4
3	Experimental techniques	I	4
4	Land reclamation	I	4
5	Field crop production	I & II	4 & 4
6	Horticultural technologies	I & II	6 & 4
7	Grassland and fodder crops	II	4
8	Plant breeding and seed production	II	4
9	Book-keeping and economic administration	II	4
10	Agricultural consultancy	II	4
11	Quality classification of agricultural lands/Soil erosion control (O)	I	4
12	Sociology/Human resources management (O)	II	2
13	Practical training *Agrotechnics; Field crop production; Vegetable growing; Viticulture; Fruit growing	II	4





Specialization:

AGRICULTURE, 4 years, 240 ECTS - field of study: Agronomy

4thd year of study			
No.	Subject	Semester	No. of ECTS
1	Grassland and fodder crops	I	5
2	Plant breeding and seed production	I	4
3	Agricultural products conditioning and storage	I	5
4	Animal husbandry	I & II	4 & 4
5	Field crop production	I & II	5 & 6
6	Management	I & II	5 & 4
7	Crop irrigation	II	4
8	Marketing	II	4
9	Agricultural expertise/Ecological agriculture (O)	I	2
11	Cereal and technical crop processing/Medicinal and aromatic plants (O)	II	2
12	Practical training - Elaboration of BSc graduation thesis	II	6





Specialization:

BIOLOGY, 3 years, 180 ECTS - field of study: Biology

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Inorganic Chemistry	I	4
2	Organic Chemistry	II	4
3	Biostatistics	I	4
4	Cell Organisation	I	5
5	Human Anatomy	I	5
6	Zoology of Invertebrates	I	6
7	Animal Histology and Embryology	II	5
8	Plant Morphology and Anatomy	II	6
9	Zoology of Vertebrates	II	6
10	Biophysics	II	4
11	Soil science/Geology and paleontology (O)	I	4
12	Foreign Language: English/French (O)	I & II	2 & 2
13	Physical Training and Sports (F)	I & II	2 & 2
14	Computer operating (F)	I	2
15	Practical training in Biology	II	3





Specialization:

BIOLOGY, 3 years, 180 ECTS - field of study: Biology

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Biochemistry	I	5
2	Systematic Botany	I	5
3	Comparative Anatomy	I	5
4	General ecology	I	5
5	Genetics	I & II	5 & 4
6	Cell biology	II	4
7	Plant physiology	II	4
8	Animal and Human Physiology	II	4
9	Biodiversity Conservation	II	4
10	Evolutionism	II	4
11	Soil biology/Experimental techniques (O)	I	3
12	Foreign Language: English/French (O)	I & II	2 & 2
13	Physical Training and Sports (F)	I & II	2 & 2
14	Management of Natural Environment (F)	I	2
15	Practical training - Botany; Zoology	II	4





Specialization:

BIOLOGY, 3 years, 180 ECTS - field of study: Biology

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Microbiology	I	5
2	Parasitology	I	5
3	Immunology	I	5
4	Phytocenology	I	5
5	Entomology	II	4
6	Phytopatology	II	4
7	Medicinal Plants	II	4
8	Plant development biology/ Plant Ecophysiology (O)	I	4
9	Genetics and plant breeding/Genetics and animal breeding (O)	I	4
10	Quality of Agricultural Products/Agricultural ecotechnics (O)	II	4
11	Ethology/Ornithology (O)	II	4
12	Algology/Hydrobiology (O)	II	4
13	Medical biochemistry (F)	I	4
14	Bioethics (F)	I	4
15	Collecting and Preservation of Didactical Materials (F)	II	4
16	Practical training for Elaboration of BSc graduation thesis	II	4
17	Elaboration of BSc graduation thesis	I & II	2 & 2





Specialization:

SILVICULTURE, 4 years, 240 ECTS - field of study: Silviculture

1st year of study			
No.	Subject	Semester	No. of ECTS/
1	Higher mathematics	I	4
2	Biostatistics	II	4
3	Descriptive geometry and technical drawing	I	4
4	Forestry computer science elements	II	4
5	Biochemistry	I	4
6	Soil science	II	4
7	Geology and geomorphology	I	4
8	Forest meteorology and climatology	I	4
9	Botany	I	4
10	Plant physiology	II	4
11	Topography with elements of geodesy	I & II	4 & 3
12	Dendrology	II	4
13	Foreign Language: English/French (O)	I & II	2 & 2
14	Zoology/Microbiologie (O)	II	2
15	Physical education and sport (F)	I & II	1 & 1
16	Practical training *Botany; Topography	II	3





Specialization:

SILVICULTURE, 4 years, 240 ECTS - field of study: Silviculture

2nd year of study			
No.	Subject	Semester	No. of ECTS/
1	Introduction to machines	I	2
2	Mechanics and strength of materials	I	4
3	Cynegetic fauna and population management	II	4
4	Forest buildings	II	3
5	General ecology	I	4
6	Forest phytopathology	I	5
7	Forest entomology	II	4
8	Dendrology	I	4
9	Forest resorts	II	3
10	Genetics and tree breeding	II	4
11	Dendrometry	I & II	5 & 3
12	Soil science	I	4
13	Forestry	II	4
14	General agriculture	I	4
15	Physical education and sport (F)	I & II	1 & 1
16	Foreign Language: English/French (F)	I & II	2 & 2
17	Practical training *Dendrology; Soil Science; Dendrometry)	II	3





Specialization:

SILVICULTURE, 4 years, 240 ECTS - field of study: Silviculture

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Forestry	I	5
2	Forestry transport	I	5
3	Genetics and tree breeding	I	4
4	Forestation	I & II	4 & 4
5	Forest planning	I & II	4 & 4
6	Forest exploitation	I & II	4 & 4
7	Mechanization in forestry	II	2
8	Torrent control	II	4
9	Photogrammetry, teledetection and GIS in forestry	I & II	4 & 4
10	Landscape architecture	II	3
11	Land cadastre/Fitosociology (O)	II	2
12	Practical training *Forestation; Forestry; Forest planning	II	3





Specialization:

SILVICULTURE, 4 years, 240 ECTS - field of study: Silviculture

4th year of study			
No.	Subject	Semester	No. of ECTS/
1	Forest Improvement	I	6
2	Forest Products	I	5
3	Torrent Control	I	5
4	Forestry Management and Forestry Economy	I	4
5	Trout Culture	I	4
6	Agroforestry systems	I	4
7	Forestry Law and Legislation	II	4
8	Study of Wood	I	4
9	Communication and Public Relations	II	4
10	Desertification and Land Degradation Control	II	6
11	Biodiversity Conservation and Protected Areas/ Forest environment software (O)	I	2
12	Wood Processing Technology/Book-keeping (O)	II	2
13	Practical training - Elaboration of BSc graduation thesis	II	15





FACULTY
OF
HORTICULTURE



Specialization:

HORTICULTURE, 4 years, 240 ECTS - field of study: Horticulture

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Basics of horticulture	I	4
2	Mathematics and informatics	II	3
3	Horticultural botany	I & II	5 & 5
4	Biochemistry	I	5
5	Energetic basis and horticultural machine units	I & II	5 & 4
6	Pedology	I	5
7	Agrometeorology	I	4
8	Agrochemistry	II	4
9	Agrophytotechny	II	4
10	Genetics	II	4
11	Physical education	I & II	2 & 2
12	Foreign language (O)	I & II	2 & 2
13	Practical training	II	4





Specialization:

HORTICULTURE, 4 years, 240 ECTS - field of study: Horticulture

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Plant physiology	I & II	6 & 4
2	Entomology	II	6
3	Phytopathology	I	6
4	Topography	I	2
5	Accountancy	II	4
6	Ornamental arboriculture	I & II	5 & 4
7	Floriculture	I & II	5 & 6
8	Experimental technique	I	2
9	Ecology and environmental protection	I	2
10	Physical education	I & II	2 & 2
11	Foreign language (O)	I & II	2 & 2
12	Practical training	I I	4





Specialization:

HORTICULTURE, 4 years, 240 ECTS - field of study: Horticulture

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	General vegetable growing	I & II	5 & 4
2	General fruit growing	I & II	5 & 4
3	General viticulture	I & II	5 & 5
4	Landscape architecture	I	4
5	Land reclamation	II	3
6	Ampelography	I & II	2 & 4
7	Horticultural plants micro-multiplication	I	4
8	Floral art	II	3
9	Agricultural communitarian policy	I	3
10	Marketing	I	2
11	Legislation (O)	II	2
12	Diploma project design methodology	II	1
13	Practical training	II	4





Specialization:

HORTICULTURE, 4 years, 240 ECTS - field of study: Horticulture

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Oenology	I & II	5 & 5
2	Technology of horticultural products	I & II	5 & 5
3	Special vegetable growing	I & II	5 & 5
4	Pomology	I & II	4 & 6
5	Horticultural plant breeding	I & II	2 & 4
6	Management	I	4
7	Horticultural Soilless crops	II	3
8	Insurances and reinsurances	I	3
9	Quality management of horticultural products	I	2
10	Practical training and diploma project completion	II	2





Specialization:

LANDSCAPE ARCHITECTURE, 4 years, 240 ECTS - field of study: Horticulture

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Descriptive geometry and perspective	I	5
2	Botany	I & II	5 & 3
3	Mathematics	II	3
4	Plant physiology	I	2
5	Pedology	II	2
6	Drawing and graphics	I & II	6 & 3
7	Geography of landscapes	II	2
8	Landscape architecture	I & II	10 & 10
9	History of architecture and of fine arts	I	2
10	Physical education	I & II	2 & 2
11	Foreign languages (O)	I & II	2 & 2
12	Practical training	II	4





Specialization:

LANDSCAPE ARCHITECTURE, 4 years, 240 ECTS - field of study: Horticulture

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Ecology and Environment protection	I & II	5 & 3
2	Arboriculture II	I & II	4 & 4
3	Designing green spaces	I & II	6 & 6
4	Art history and landscape gardens	I	5
5	Entomology and Fitopatology	II	3
6	Design and building materials	I & II	5 & 4
7	Graphics assisted by computer	I & II	3 & 3
8	Physical education	I & II	1 & 1
9	Foreign language (O)	I & II	2 & 2
10	Practical training *Ecology; Arboriculture; Speciality	II	4





Specialization:

LANDSCAPE ARCHITECTURE, 4 years, 240 ECTS - field of study: Horticulture

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Topography	I	3
2	Floriculture I	II	4
3	Energy base and landscape engineering works	I	2
4	The technique of landscape works	I & II	4 & 4
5	Restoration, preservation and protection in landscaping	II	4
6	The planning of the Territorial Landscape	II	8
7	Construction and utility networks	I & II	6 & 3
8	Urban planning and landscape planning / Planning and protection of rural localities	I	9
9	Urban Sociology / Rural Anthropology	I	3
10	Computer Aided Design / GIS	I & II	3 & 3
11	Practical training	II	4





Specialization:

LANDSCAPE ARCHITECTURE, 4 years, 240 ECTS - field of study: Horticulture

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Integrated landscape design and green cadastre	I & II	9 & 9
2	Land improvement and earthworks	I & II	4 & 4
3	Fitopatology and Entomology	I	2
4	Vegetable crops, Pomiculture and Viticulture	I & II	5 & 4
5	Management and marketing	I & II	3 & 3
6	Flowers and plants for vegetable and walls of green terraces	I & II	5 & 4
7	Urban vegetation management / Nature reserves and Landscape Management (O)	I	2
8	Accountancy / General economy (O)	II	2
9	Practice for drafting license work	II	4





FACULTY
OF
ANIMAL PRODUCTIONS
ENGINEERING AND
MANAGEMENT



Specialization:

ANIMAL SCIENCE, 4 years, 240 ECTS - field of study: Animal Science

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Anatomy, histology, embryology	I & II	6 & 4
2	Biochemistry	I & II	6 & 4
3	Mathematics	I	4
4	Introduction to animal science	I	3
5	Rationalization and labour protection	I	3
6	Ecology and environmental protection	I	4
7	(English, French, German, Spanish, Italian) language	I & II	2 & 2
8	Physical training and spor	I & II	2 & 2
9	Biostatistics	II	3
10	General agriculture	II	3
11	Animal physiology	II	3
12	General microbiology	II	3
13	Civil engineering	II	2
14	Practical training	II	4





Specialization:

ANIMAL SCIENCE, 4 years, 240 ECTS - field of study: Animal Science

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Genetics	I & II	5 & 5
2	Animal physiology	I	6
3	Reproduction biology and pathology	I & II	5 & 4
4	Machines and equipments	I & II	3 & 3
5	Animal feed	I	4
6	Zootechnical hygiene	I	3
7	Animals behaviour (O I)	I	4
8	Sanitary-veterinary techniques (O I)	I & II	4
9	Apiculture	II	5
10	Pisciculture	II	5
11	Biotechnologies in animal nutrition (O II)	II	4
12	Reproduction biotechniques and biotechnologies (O II)	II	4
13	(English, French, German, Spanish, Italian) language (F)	I & II	2 & 2
14	Physical training and sport (F)	I & II	2 & 2
15	Toxic plants and medicinal hubs (F)	I	3
16	Practical training	II	4





Specialization:

ANIMAL SCIENCE, 4 years, 240 ECTS - field of study: Animal Science

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Animals amelioration	I & II	6 & 3
2	Animals feeding and nutrition	I & II	6 & 4
3	Sericicultură	I	5
4	Rabbit-breeding, fur animals and game	I	5
5	Animal pathology	I	4
6	Mixed feed (O I)	I	4
7	Feed quality control (O I)	I	4
8	Technology of horses breeding	II	5
9	Technology of pigs breeding	II	5
10	Technology of sheep and goats breeding	II	5
11	Equitation and horse sports (O II)	II	4
12	Cynology (O II)	II	4
13	Practical training	II	4





Specialization:

ANIMAL SCIENCE, 4 years, 240 ECTS - field of study: Animal Science

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Technology of beef breeding	I & II	6 & 4
2	Technology of pigs breeding	I	5
3	Technology of poultry breeding	I & II	6 & 4
4	Technology of sheep and goats breeding	I	5
5	Management	I & II	4 & 4
6	Experimental techniques (O I)	I	4
7	Amelioration programs (O I)	I	4
8	Technology of animal origin products	II	4
9	Marketing	II	3
10	Accountancy	II	3
11	Buffaloes breeding (O II)	II	4
12	Palmipeds breeding (O II)	II	4
13	Practical training	II	4





Specialization:

FISHERY AND AQUACULTURE, 4 years, 240 ECTS - field of study: Animal Science

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Ichtyologie	I & II	6 & 4
2	Genetics	I	5
3	Topography and cartography	I & II	6 & 4
4	Improvements and constructions in aquaculture	I	5
5	Hidrobiology	I & II	4 & 4
6	Machines and equipments	I	4
7	Aquatic organisms physiology	I	4
8	Aquatic animals reproduction	II	4
9	Ichtiopathology	II	3
10	Conservation and biodiversity (O)	II	3
11	Practical training	II	4





Specialization:

FISHERY AND AQUACULTURE, 4 years, 240 ECTS - field of study: Animal Science

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Fish amelioration	I	5
2	Aquatic animals nutrition and alimentation	I	6
3	Special aquaculture	I & II	4 & 6
4	Carp breeding	I	6
5	Sturgeon breeding	I	5
6	Combined compound (O)	I	4
7	Fishing fund exploitation in natural and artificial tanks	II	5
8	Salmon breeding	II	5
9	Fishing tools and fishing technique	II	6
10	Aquaculture superintensive (O)	II	4
11	Practical training	II	4





Specialization:

FISHERY AND AQUACULTURE, 4 years, 240 ECTS - field of study: Animal Science

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Animal science	I & II	6 & 5
2	Productions processing in aquaculture	I & II	6 & 5
3	Aquatic products quality check	I	6
4	Management	I & II	6 & 5
5	Sports and entertainment fishing (O)	I	6
6	Marketing	II	4
7	Accountancy	II	3
8	Toxicology (O)	II	5
9	Practical training	II	3





Specialization:

TECHNOLOGY OF AGRICULTURAL PRODUCTS PROCESSING, 4 years, 240

ECTS - field of study: Food products engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Anatomy, histology, embryology	I & II	6 & 4
2	Inorganic chemistry	I	4
3	Organic chemistry	II	4
4	Analytical chemistry	I	5
5	Mathematics	I	4
6	Biostatistics	II	3
7	Rationalization and labour protection	I	3
8	General agriculture	II	3
9	Physiology	II	3
10	General microbiology	II	3
11	Civil engineering	II	2
12	Ecology and environmental protection	I	4
13	Foreign languages	I & II	2 & 2
14	Physical training and sport	I & II	2 & 2
15	Practical training	II	4





Specialization:

TECHNOLOGY OF AGRICULTURAL PRODUCTS PROCESSING, 4 years, 240

ECTS - field of study: Food products engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Biochemistry	I & II	6 & 4
2	General technologies in alimentary industry	I	6
3	Machines in alimentary industry	I & II	6 & 3
4	Microbiology of alimentary products	I	6
5	Operations and machines in alimentary industry	I & II	6 & 3
6	Physical and colloidal chemistry	II	5
7	Food chemistry	II	6
8	Agricultural alimentary raw materials	II	5
9	(English, French, German, Spanish, Italian) language (F)	I & II	2 & 2
10	Physical training and sport (F)	I & II	2 & 2
11	Practical training	II	4





Specialization:

TECHNOLOGY OF AGRICULTURAL PRODUCTS PROCESSING, 4 years, 240

ECTS - field of study: Food products engineering

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Technology of milk and dairy products	I & II	6 & 6
2	Technology of meat and meat products	I & II	6 & 6
3	Cooling and air-conditioning equipments in alimentary industry	I & II	3 & 3
4	Extractive and fermentative technologies	I	5
5	Technology of milling and bakery	I	5
6	Food additives	I	5
7	Technology of poultry products	II	5
8	Technology of fish products	II	3
9	Agro-alimentary enterprises hygiene	II	3
10	Catering (F)	I	5
11	Practical training	II	4





Specialization:

TECHNOLOGY OF AGRICULTURAL PRODUCTS PROCESSING, 4 years, 240

ECTS - field of study: Food products engineering

4th year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Human nutrition	I	6
2	Animal alimentary products control	I & II	5 & 3
3	Apicultural products technologies	I	5
4	Management	I & II	5 & 4
5	Techniques of agro-alimentary preservation	I & II	4 & 3
6	Food biotechnologies (O I)	I	5
7	Biotechnology product recycling waste (O I)	I	5
8	Toxicology	II	4
9	Wrappings and desing	II	4
10	Marketing	II	3
11	Accountancy	II	3
12	Food products traceability (O II)	II	3
13	Special technologies in food industry (O II)	II	3
14	Practical training	II	3





Specialization:

HUNTING, 4 years, 240 ECTS - field of study: Forestry

2nd year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Genetics	I & II	5 & 5
2	Animal physiology	I	6
3	Game and salmons fauna	I & II	6 & 5
4	Topography and cartography	I	6
5	Hunting and salmon breeding equipments	I & II	3 & 3
6	Animals behaviour (O I)	I	4
7	Wild animals reproduction	II	5
8	Cynology	II	4
9	Beekeeping (O II)	II	4
10	(English, French, German, Spanish, Italian) language	I & II	2 & 2
11	Physical training and sport	I & II	2 & 2
12	Practical training	II	4





Specialization:

HUNTING, 4 years, 240 ECTS - field of study: Forestry

3rd year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Forestry	I	6
2	Animals feeding and nutrition	I & II	6 & 4
3	Hunting area arranging	I & II	5 & 4
4	Forests exploitation	I	6
5	Machines and equipments	I	3
6	Ichthyology (O I)	I	4
7	Fishing stock exploitation in natural and man-made basins	II	5
8	Salmon farming	II	5
9	Biodiversity and environment preservation	II	4
10	Ichthyology (O II)	II	4
11	Practical training	II	4





Specialization:

HUNTING, 4 years, 240 ECTS - field of study: Forestry

4th year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Animal science	I & II	5 & 5
2	Wild fauna pathology	I	5
3	Intensive game breeding	I & II	5 & 5
4	Game meat processing technology	I	5
5	Management	I & II	5 & 5
6	Fishing and hunting laws (O I)	I	5
7	Marketing	II	4
8	Accountancy	II	3
9	Game evaluation techniques (O II)	II	5
10	Practical training	II	3





Specialization:

CONSUMER AND ENVIRONMENT PROTECTION, 4 years, 240 ECTS - field of study: Food Products Engineering

1st year of study			
No	Subject	Semester	No of ECTS
1	Applied physics	I	4
2	Inorganic and analytical Chemistry	I	6
3	Ecology and environmental protection	I	4
4	Human food psychology	I	4
5	Applied informatics and computer graphics	I	4
6	Mathematics	I	4
7	Biostatistics	II	5
8	Organic chemistry	II	5
9	General microbiology	II	4
10	Electrical engineering elements	II	4
11	Mechanical engineering elements	II	4
12	Foreign languages	I & II	2 & 2
13	Physical training and sport	I & II	2 & 2
14	Practical training	II	4
15	Standards for work security technics and protection against fires (F)	I	4
16	Documentation techniques (F)	II	3
17	Eco-innovatory food optimization (F)	II	4





Specialization:

CONSUMER AND ENVIRONMENT PROTECTION, 4 years, 240 ECTS - field of study: Food Products Engineering

2nd year of study			
No	Subject	Semester	No of ECTS
1	Biochemistry	I & II	5 & 5
2	Machines in food industry	I & II	5 & 3
3	Operations in the food industry	I & II	5 & 3
4	Agricultural food raw materials	I	5
5	Microbiology of food products	I	4
6	Environment quality and atmosphere	I	2
7	Physical and colloidal chemistry	II	4
8	Food chemistry	II	4
9	General technologies in food industry	II	4
10	Practical training	II	4
11	Water resources and their protection (O)	I	4
12	Atmosphere and soil pollution sources (O)	I	4
13	Community law (O)	II	3
14	Public security and order (O)	II	3
15	Foreign languages (F)	I & II	2 & 2
16	Physical training and sport (F)	I & II	2 & 2
17	Colloids in food industry (F)	I	3
18	Corrosion and anti-corrosion protection	II	3





Specialization:

CONSUMER AND ENVIRONMENT PROTECTION, 4 years, 240 ECTS - field of study: Food Products Engineering

3rd year of study			
No	Subject	Semester	No of ECTS
1	Vegetal food products technology	I & II	5 & 5
2	Animal food products technology	I & II	5 & 5
3	Consumer protection in Romania and in the European Union	I	4
4	Environmental factors research technologies	I	3
5	Law and policies of environment and consumer protection	I	4
6	Additives and ingredients in food industry	I	5
7	Human nutrition principles	II	5
8	Food products innocuity	II	4
9	Food authentication and counterfeits detection	II	2
10	Checking methods and techniques in consumer protection	II	2
11	Practical training	II	4
12	Food biotechnologies (O)	I	4
13	Waste products recycling biotechnologies (O)	I	4
14	Pollutants and their impact on the consumer and the environment (O)	II	3
15	Radiation sources and protection techniques (O)	II	3
16	Integrated productive sources in food industry (F)	I	4
17	Eco-innovatory food optimization (F)	II	4





Specialization:

CONSUMER AND ENVIRONMENT PROTECTION, 4 years, 240 ECTS - field of study: Food Products Engineering

4th year of study			
No	Subject	Semester	No of ECTS
1	Food products quality control	I & II	5 & 5
2	Food products curing principles and methods	I & II	4 & 4
3	Food products technology	I	3
4	Food safety in consumer protection	I	5
5	Sensorial analyses	I	5
6	Wrappings and design	II	4
7	Food products traceability	II	3
8	Management	I & II	4 & 4
9	Marketing	II	3
10	Practical training	II	3
11	Biodiversity management (O)	I	4
12	Protection factors in food and environment industry (O)	I	4
13	Effective control methods in consumer protection (O)	II	4
14	Food safety policies and strategies (O)	II	4
15	Food products administration (F)	I	4
16	Optimization of a food industry specific productive structure (F)	II	4
17	Developing and providing project license	II	10
18	Corrosion and anti-corrosion protection	II	3





FACULTY
OF
VETERINARY MEDICINE



Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

1st year of study			
No	Subject	Semester	No of ECTS
1	Anatomy 1, 2	I & II	5 & 4
2	Histology and Embriology 1, 2	I & II	4 & 4
3	Chemistry	I	4
4	Biochemistry 1	II	4
5	Animal biology	I	4
6	Genetics	I	4
7	Animal nutrition and Agronomy	II	4
8	Physics	I	3
9	Applied Mathematics in Biological Sciences	I	3
10	Plant biology	II	1
11	Rural Economy	II	1
12	Foreign Languages 1,2	I & II	2 & 2
13	Physical training and sport	II	2
14	History of veterinary medicine (O)	II	2
15	Scientific Information, Methods and Techniques of Documenta- tion (O)	II	2
16	Quality Management of Teaching in Veterinary Medicine (O)	II	1
17	Development of Professional Abilities and Career Orientation (O)	II	1
18	Extramural Practical Activities 1		6
19	European Institutions and EU Legislation (F)	I	2
20	Anatomy of Romanian Game Species (F)	II	2





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine

Bachelor and Master studies Programs in: Romanian language; English; French

2nd year of study			
No	Subject	Semester	No of ECTS
1	Anatomy 3,4	I & II	5 & 4
2	Biochemistry 2	I	4
3	Microbiology 1,2	I & II	4 & 5
4	Physiology 1, 2	I & II	4 & 4
5	Physiopathology 1,2	I & II	4 & 4
6	Animal Breeding	II	4
7	Animal Productions 1	II	4
8	Animal Nutrition and Agronomy 2	I	4
9	Physical training and sport 2	I	2
10	Techniques of Molecular Biology Applied in Veterinary Medicine (O)	II	2
11	Laboratory Management of Veterinary Field and Food Safety (O)	II	2
12	Extramural Practical Activities 2		6
13	Pet Breeding (F)	II	2
14	Functional Investigations (F)	I	2
15	Medicine of Laboratory Animals (F)	II	2
16	Foreign Languages 3,4 (F)	I & II	1 & 1
17	Clinical Anatomy* (F)	I	2





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

3rd year of study			
No	Subject	Semester	No of ECTS
1	Animal productions 2	I	4
2	Immunology	I	4
3	Epidemiology	II	3
4	Veterinary hygiene and environmental protection	I	4
5	Welfare and animal protection	II	4
6	Parasitology, Parasitic Disease and Clinical Lectures on Species 1	II	4
7	Etology	I	1
8	Anesthesiology	II	4
9	Semiotics 1,2	I & II	4 & 4
10	Pathology 1	I & II	4 & 4
11	Pharmacology 1	I & II	4 & 4
12	Dermatology (O)	I	3
13	Cytopatological Diagnosis (O)	I	3
14	Extramural Practical Activities 3		5
15	Taxidermy (F)	I	2
16	Foodstuff Microbiology* (F)	I	2





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

4th year of study			
No	Subject	Semester	No of ECTS
1	Internal Medicine and Clinical Lectures on Species 1,2	I & II	4 & 4
2	Surgery and Clinical Lecture on Species 1	II	4
3	Infectious Disease, Preventive Medicine and Clinical Lectures on Species 1,2	I & II	4 & 4
4	Veterinary State Medicine and Public Health	I	1
5	Reproduction	I	4
6	Obstetrics	II	4
7	Propaedeutics	I	4
8	Food Hygiene and Technology 1	II	4
9	Toxicology 1,2	I & II	4 & 4
10	Parasitology, Parasitic Diseases and Clinical Lectures on Species 2,3	I & II	4 & 4
11	Oncology/Medicine of aquatic animals and aquaculture (O)	I	4
12	Extramural Practical Activities 4		5
13	Experimental Medicine* (F)	I	2
14	Exotic Pathology/Biotechnologies in Reproduction (F)	I	2
15	Cardiology (F)	II	2
16	Micotoxicology (F)	I	2
17	Diseases of Nutritional and Metabolic Adaptation* (F)	II	2
18	Experimental Surgery*/ Health of Bees and Silkworms (F)	II	2





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

5th year of study			
No	Subject	Semester	No of ECTS
1	Internal medicine disorders and clinics 3, 4	I & II	5 & 4
2	Surgery and Clinical Lectures on Species 2,3	I & II	5 & 4
3	Infectious Disease, Preventive Medicine and Clinical Lectures on Species 3,4	I & II	4 & 5
4	Reproduction Disorders and Clinical Lectures on Species 1,2	I & II	4 & 5
5	Food Hygiene and Technology 2	I	3
6	Inspection and Control of Foodstuffs of Animal Origin 1,2	I & II	4 & 4
7	Radiology and Diagnostic Imaging 1,2	I & II	2 & 2
8	Emergencies in Veterinary Medicine	II	2
9	Management of Food Safety (O)	II	2
10	Orthopedics and Hoof Dressing (O)	II	2
11	Management of Scientific Research Activity (O)	II	2
12	Extramural Practical Activities 5		5
13	Alternative Therapies (F)	II	2
14	Emerging and Re-emerging Zoonotic Diseases (F)	I	2
15	Immunopathology (F)	I	2
16	Clinical Haematology (F)	II	2
17	Neuropathology* (F)	I	2
18	Nephrology-Urology* (F)	II	2





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

Master specialization: Management of Livestock Diseases/Clinical Lectures

6th year of study			
No	Subject	Semester	No of ECTS
1	Forensic Pathology and Diagnostic Necropsy 1,2	I & II	4 & 3
2	Pharmacy	I	3
3	Deontology	I	2
4	Legislation in veterinary medicine	II	2
5	Therapeutics	II	3
6	Practical Works in Units for Slaughtering and Processing of Food-stuffs	II	3
7	Extramural practical activities 6		12
8	Health management of livestock (F)	II	2
9	Experimental parasitology (F)	II	2
10	Wrapping and Labeling of Foodstuffs of Animal Origin*(F)	I	2
	Management of Livestock Diseases / Clinical Lectures (Master degree – Optional Module)		
11	Management of swine diseases 1,2	I & II	5 & 5
12	Management of avian diseases 1,2	I & II	4 & 5
13	Management of ruminant diseases 1,2	I & II	4 & 5





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

Master specialization: Management of Diseases of Pets, Sport and Exotic Animals /
Clinical Lectures

6th year of study			
No	Subject	Semester	No of ECTS
1	Forensic Pathology and Diagnostic Necropsy 1,2	I & II	4 & 3
2	Pharmacy	I	3
3	Deontology	I	2
4	Legislation in veterinary medicine	II	2
5	Therapeutics	II	3
6	Practical Works in Units for Slaughtering and Processing of Food-stuffs	II	3
7	Extramural practical activities 6		12
8	Health management of livestock (F)	II	2
9	Experimental parasitology (F)	II	2
10	Wrapping and Labeling of Foodstuffs of Animal Origin*(F)	I	2
	Management of Diseases of Pets, Sport and Exotic Animals / Clinical Lectures (Master degree – Optional Module)		
11	Management of equine diseases 1,2	I & II	4 & 5
12	Management of canine and feline diseases 1,2	I & II	5 & 5
13	Management of diseases of zoo-captive and nature reserve animals 1,2	I & II	4 & 5





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

Master specialization: Management of Animal Husbandry and Welfare; Management of Foodstuff Quality and Safety

6th year of study			
No	Subject	Semester	No of ECTS
1	Forensic Pathology and Diagnostic Necropsy 1,2	I & II	4 & 3
2	Pharmacy	I	3
3	Deontology	I	2
4	Legislation in veterinary medicine	II	2
5	Therapeutics	II	3
6	Practical Works in Units for Slaughtering and Processing of Food-stuffs	II	3
7	Extramural practical activities 6		12
8	Health management of livestock (F)	II	2
9	Experimental parasitology (F)	II	2
10	Wrapping and Labeling of Foodstuffs of Animal Origin*(F)	I	2
	Management of Animal Husbandry and Welfare; Management of Foodstuff Quality and Safety (Master degree – Optional Module)		
11	Management of animal husbandry 1,2	I & II	4 & 5
12	Management of animal welfare 1,2	I & II	4 & 5
13	Inspection and control in units specialized in obtaining and processing of foodstuffs of animal origin 1,2	I & II	5 & 5





Specialization:

VETERINARY MEDICINE, 6 years, 360 ECTS - field of study: Veterinary Medicine
Bachelor and Master studies Programs in: Romanian language; English; French

Master specialization: Emergencies in Animal Medicine

6th year of study			
No	Subject	Semester	No of ECTS
1	Forensic Pathology and Diagnostic Necropsy 1,2	I & II	4 & 3
2	Pharmacy	I	3
3	Deontology	I	2
4	Legislation in veterinary medicine	II	2
5	Therapeutics	II	3
6	Practical Works in Units for Slaughtering and Processing of Foodstuffs	II	3
7	Extramural practical activities 6		12
8	Health management of livestock (F)	II	2
9	Experimental parasitology (F)	II	2
10	Wrapping and Labeling of Foodstuffs of Animal Origin*(F)	I	2
	Emergencies in Animal Medicine (Master degree – Optional Module)		
11	Emergencies in pets 1,2	I & II	5 & 5
12	Emergencies in livestock 1,2	I & II	4 & 5
13	Emergencies in wildlife, exotics, nature reserve and zoo-captive animals 1,2	I & II	4 & 5





Specialization:

CONTROL AND EXPERTISE OF FOOD PRODUCTS, 4 years, 240 ECTS - field of study: Food products engineering

1st year of study			
No	Subject	Semester	No of ECTS
1	Chemistry	I & I I	5 & 5
2	General microbiology	I	5
3	Mechanical engineering	II	4
4	Electrical engineering and electrotechnics	II	4
5	Special Maths	I	5
6	Physics	I & II	5 & 4
7	Ecology and environmental protection	II	4
8	Theory of probabilities and mathematical statistics	II	3
9	Physical training and sport	I & II	3 & 3
10	Foreign languages*	I & II	3 & 3
11	Enzymatic and immunological analyze methods of food (O)	I	4
12	Ethics in food industry (O)	I	4
13	Statistical food control (F)	I	3
14	Vegetal biology (F)	II	3
15	Animal biology(F)	II	3





Specialization:

CONTROL AND EXPERTISE OF FOOD PRODUCTS, 4 years, 240 ECTS - field of study: Food products engineering

2nd year of study			
No	Subject	Semester	No of ECTS
1	Biochemistry	I & II	5 & 4
2	Technology for obtaining vegetal products	I & II	5 & 4
3	The psychology of human nutrition	II	3
4	Technologies for obtaining milk and meat	I & II	5 & 4
5	Technologies for obtaining fish food products and game	II	3
6	Technologies for obtaining hen products	I	4
7	Technologies for obtaining bee products	II	3
8	Technologies for obtaining beverages	I	4
9	Innocuity and contaminants in foodstuff 1	I	4
10	Computer science	II	3
11	Extramural training activity		3
12	Physical training and sport	I & II	1 & 1
13	Vegetal raw material s(O)	I	3
14	Animal morphopathology (O)	I	3
15	Vegetal pathology (O)	II	3
16	Genetically modified organisms (O)	II	3
17	Foreign languages *** (F)	I & II	2 & 2
18	Molecular biology techniques (F)	II	3





Specialization:

CONTROL AND EXPERTISE OF FOOD PRODUCTS, 4 years, 240 ECTS - field of study: Food products engineering

3rd year of study			
No	Subject	Semester	No of ECTS
1	Innocuity of foodstuff 2	II	4
2	Hygiene of food industry units	II	4
3	General technologies in food industry	I & II	5 & 4
4	Foodstuff preservation principles and methods	I & II	4 & 2
5	Procedures in food industry	I	5
6	Equipment and instalations in food industry	II	4
7	Food biotechnology	I & II	4 & 2
8	Computer aided design	I	4
9	Principles of human nutrition	II	4
10	Sensory analysis	I	4
11	Extramural training activity		3
12	Parasitic zoonotic diseases (O)	I	4
13	Food safety management (O)	I	4
14	Infectious zoonotic diseases (O)	II	3
15	Drug residues in food products (O)	II	3
16	Biostatistics (F)	II	2
17	Foreign languages *** (F)	I & II	2 & 2





Specialization:

CONTROL AND EXPERTISE OF FOOD PRODUCTS, 4 years, 240 ECTS - field of study: Food products engineering

4th year of study			
No	Subject	Semester	No of ECTS
1	Quality control of animal origin food products	I & II	4 & 5
2	Quality control of vegetal origin food products	I & II	4 & 5
3	Food rheology	I	5
4	Agri-food expertise	I & II	4 & 5
5	Marketing	I	5
6	Management	II	4
7	Legislation and consumer protection	II	4
8	Packaging and design in food industry	I	5
9	Practical training for finalize the graduation thesis	II	4
10	Politics and global strategies of food safety (O)	I	3
11	Chemical residues in food products (O)	I	3
12	Science of commodities and working control methods for consumer protection (O)	II	3
13	Additives and ingredients in food industry (O)	II	3
14	Organizing food control laboratory (F)	I	2
15	Sampling and collecting samples (F)	I	2
16	Applied statistics in food industry (F)	II	3





FACULTY
OF
LAND RECLAMATION
AND
ENVIRONMENTAL ENGINEERING



Specialization:

LAND RECLAMATION AND RURAL DEVELOPMENT, 4 years, 240 ECTS - field of study: Civil engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Linear algebra, analytical and differential geometry	I	4
2	Computer science	I	4
3	Physics	I	4
4	Descriptive geometry and design	I	4
5	General course in land reclamation	I	5
6	Mathematical analysis	I & II	5 & 4
7	Physical education	I & II	2 & 1
8	Numerical analysis	II	4
9	Infographics I	II	1
10	Chemistry	II	3
11	Building materials	II	4
12	Mechanics	II	3
13	Introduction to topography	II	4
14	Practical training - Infographics; Land reclamation; Introduction to topography	II	4
15	Foreign languages - English/ French/ German/ Italian/ Spanish (O)	I & II	2 & 2
16	Philosophy (F)	I	2

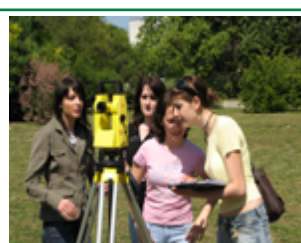




Specialization:

LAND RECLAMATION AND RURAL DEVELOPMENT, 4 years, 240 ECTS - field of study: Civil engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Differential equations	I	5
2	Infographics II	I	2
3	Meteorology and climatology	I	4
4	Electrotechnics	I	3
5	Fluid mechanics	I	5
6	Introduction to soil science, soil improvement	I	4
7	Strength of materials	I & II	3 & 4
8	Geotechnics and foundations I	II	4
9	Hydraulics	II	4
10	Hydrology and hydrogeology	II	3
11	Introduction to agriculture	II	2
12	Theory of statics	II	4
13	Geographic information systems	II	4
14	Practical training - Introduction to agriculture, Introduction to soil science, soil improvement, Hydraulics	II	3
15	Land reclamation machinery and equipment I/Topographic engineering I (O)	I	4
16	Communication techniques II/Introduction to economics II (O)	II	2





Specialization:

LAND RECLAMATION AND RURAL DEVELOPMENT, 4 years, 240 ECTS - field of study: Civil engineering

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Waterway civil engineering	I	2
	Waterway civil engineering - project	I	2
2	Water management	I	4
3	Rural constructions	I	2
	Rural constructions - project	I	2
4	Geotechnics and foundations II	I	2
	Geotechnics and foundations II - project	I	2
5	Hydrotechnical works	I & II	4 & 2
	Hydrotechnical works - project	II	2
6	Pumps and pumping systems	I & II	4 & 2
	Pumps and pumping systems - project	II	2
7	Reinforced concrete	I & II	4 & 2
	Reinforced concrete - project	II	2
8	Irrigations I	II	4
9	Drainage I	II	4
10	Soil erosion control I	II	4
11	Practical Training – Constructions and technologies; Land reclamation	II	3
12	Internal auditing I / Sociology (O)	I	2
13	Civil engineering legislation II / Project management II (O)	II	3





Specialization:

LAND RECLAMATION AND RURAL DEVELOPMENT, 4 years, 240 ECTS - field of study: Civil engineering

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Irrigations II Irrigations II - project	I	3
		I	2
2	Drainage II Drainage II - project	I	3
		I	2
3	Soil erosion control II Soil erosion control II - project	I	3
		I	2
4	Public roads Public roads - project	I	3
		I	2
5	Water supplies and sewerage Water supplies and sewerage - project	I & II	4 & 3
		II	2
6	Land reclamation technologies Land reclamation technologies - project	I & II	3 & 3
		II	2
7	Land reclamation management	I & II	3 & 2
8	Rural development	II	3
9	Land reclamation facility operation	II	3
10	Database management systems I; Introduction to environmental protection I (O)	II	3
11	Remote sensing of environment and agriculture II Risk assessment (O)	II	3
12	Environmental legislation for land reclamation works III; European culture, civilization and institutions III (O)	II	2
13	Practical training - Completion of the graduation paper	II	4
14	Foreign languages - English/ French/ German/ Italian/ Spanish (F)	I	4
15	Graduation examination	II	10





Specialization:

ENGINEERING AND ENVIRONMENTAL PROTECTION IN AGRICULTURE,

4 years, 240 ECTS - field of study: Environmental engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Linear algebra, analytical and differential geometry	I	4
2	Computer science	I	4
3	Environmental physics	I	3
4	Descriptive geometry and design	I	3
5	Environmental chemistry	I	4
6	Ecology	I	4
7	Mathematical analysis	I & II	4 & 4
8	Physical education	I & II	2 & 1
9	Numerical analysis	II	4
10	Computer-assisted design	II	1
11	Environmental biochemistry	II	3
12	Building materials	II	4
13	Mechanics	II	3
14	Microbiology	II	4
15	Practical training - Computer-assisted design; Ecology; Environmental biochemistry	II	4
16	Foreign languages - English/ French/ German/ Italian/ Spanish (O)	I & II	2 & 2
17	Philosophy (F)	I	2





Specialization:

ENGINEERING AND ENVIRONMENTAL PROTECTION IN AGRICULTURE,

4 years, 240 ECTS - field of study: Environmental engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Differential equations	I	4
2	Agrochemistry	I	3
3	Meteorology and climatology	I	4
4	Water and soil biology	I	3
5	Fluid mechanics	I	5
6	Introduction to soil science, soil improvement	I	4
7	Water, soil and air pollution	I	5
8	Introduction to civil engineering	I & II	2 & 3
9	Geology and geotechnics	II	4
10	Hydraulics	II	4
11	Hydrology and hydrogeology	II	4
12	Introduction to topography	II	4
13	Introduction to agriculture	II	2
14	Land and water ecosystem protection	II	3
15	Practical training Computer-assisted design; Hydraulics; Laboratory analysis	II	4
16	Introduction to economics I; Communication techniques I (O)	II	2





Specialization:

ENGINEERING AND ENVIRONMENTAL PROTECTION IN AGRICULTURE,

4 years, 240 ECTS - field of study: Environmental engineering

3rd year of study			
No.	Subject	Semester	No. of ECTS
3	Watershed morphology	I	2
	Watershed morphology - project	I	2
4	Water management	I	5
5	Environmental protection equipment	I	5
6	Wetland reclamation	I	2
	Wetland reclamation - project	I	2
8	Renewable energy sources	I	4
9	Land reclamation	I & II	4 & 2
	Land reclamation - project	II	2
10	Geographic information systems	II	3
11	Hydrotechnical works	II	4
12	Water treatment technologies	II	2
	Water treatment technologies - project	II	2
13	Pollutant dispersion	II	4
14	Monitoring environmental factors	II	4
15	Practical training – Work technologies in environmental engineering; Civil engineering	II	4
16	Sociology I; Project Management I (O)	I	4
17	Organic waste management II; Ecotoxicology II (O)	II	3





Specialization:

ENGINEERING AND ENVIRONMENTAL PROTECTION IN AGRICULTURE,

4 years, 240 ECTS - field of study: Environmental engineering

4th year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Rural development	I	4
2	Wastewater treatment technologies	I	2
	Wastewater treatment technologies - project	I	2
3	Work technologies in environmental engineering	I	4
4	Investigation tools and methods for environmental pollution	I	4
5	Waste management	I	2
	Waste management - project	I	2
6	Soil erosion	I & II	5 & 3
	Soil erosion - project	II	2
7	Environmental impact assessment and auditing	I & II	5 & 3
	Environmental impact assessment and auditing - project	II	2
8	Environmental system management	II	3
9	Database management systems	II	3
10	Environmental protection by hydro-amelioration works I; Environmental protection by sustainable agriculture (O)	II	3
11	Remote sensing of environment and agriculture II; Risk assessment (O)	II	3
12	European culture, civilization and institutions III; Environmental policies and legislation III (O)	II	3
13	Practical training - Graduation project; Completion of the graduation paper	II	5
14	Foreign languages - English/ French/ German/ Italian/ Spanish (F)	I	4
15	Graduation examination	II	10





Specialization:

LAND MEASUREMENT AND CADASTRE, 4 years, 240 ECTS - field of study:

Geodesic engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Computer science	I	4
2	Physics	I	4
3	Descriptive geometry and design	I	4
4	Measurement tools and methods	I & II	5 & 4
5	Linear algebra, analytical and differential geometry	I & II	5 & 3
6	Mathematical analysis	I & II	4 & 4
7	Physical education	I & II	2 & 1
8	Numerical analysis	II	4
9	Infographics I	II	1
10	Introduction to physical geodesy I	II	4
11	Cartographic drawing	II	4
12	Practical training - Topography	II	3
13	Foreign Languages -English/French/German/Italian/Spanish (O)	I & II	2 & 2
14	Philosophy (F)	I	2



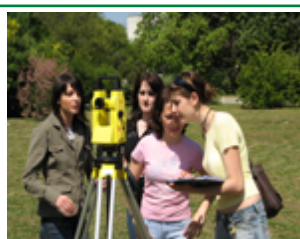


Specialization:

LAND MEASUREMENT AND CADASTRE, 4 years, 240 ECTS - field of study:

Geodesic engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Differential equations	I	2
2	Geometric principles applied to photogrammetry	I	5
3	Introduction to physical geodesy II	I	4
4	Infographics II	I	2
5	Geographic information systems I	I & II	5 & 4
6	Introduction to topography Introduction to topography - project	I & II	4 & 2
		II	2
7	Introduction to electromagnetic distance measurements	I & II	4 & 4
8	Measurement compensation and statistics	I & II	4 & 4
9	Analytical photogrammetry	II	2
10	Hydrology and hydrogeology	II	3
11	Introduction to civil engineering	II	3
12	Practical Training – Photogrammetry; GIS; Introduction to topography	II	4
13	Introduction to economics I; Communication techniques (O)	II	2





Specialization:

LAND MEASUREMENT AND CADASTRE, 4 years, 240 ECTS - field of study:

Geodesic engineering

3rd year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Stereophotogrammetry and photointerpretation	I	4
2	Cartographic projections I	I	4
3	Database management systems	I	4
4	Geographic information systems II	I	4
5	Land reclamation	I	4
6	Cadastre Cadastre - project	I & II	5 & 2
		II	2
7	Mathematical geodesy Mathematical geodesy - project	I & II	5 & 2
		II	2
8	Topographic engineering	II	4
9	Cartographic modelling	II	4
10	Hydrotechnical works	II	3
11	Practical Training - Topographic engineering; Cadastre	II	3
12	Accounting I; Sociology I (O)	II	2
13	Land management and appraisal II; Cartographic projection II (O)	II	3
14	Introduction to environmental protection III; Building deformation monitoring III	II	3



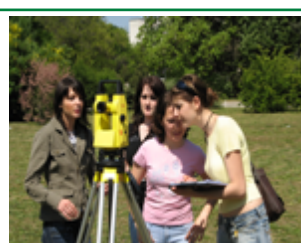


Specialization:

LAND MEASUREMENT AND CADASTRE, 4 years, 240 ECTS - field of study:

Geodesic engineering

4th year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Special topographic levelling	I	2
	Special topographic levelling - project	I	2
2	Remote sensing	I	5
3	Public roads	I	4
4	Earth observation programmes and applications	II	3
5	Valuation of land and fixed assets	II	3
6	Management of cadastral works	I	4
7	Spatial databases	II	3
8	Land measurement laws and regulations	II	3
9	Project management	II	2
10	Sonar, lidar and lase scan	II	2
11	Spatial geodesy techniques	I	5
12	Radar technologies	I	4
13	Specialized information systems I; Automation of cadastral works I (O)	I & II	4 & 4
14	Practical training - Graduation project; Completion of the graduation paper	II	10
15	Foreign Languages – English/French/German/Italian/Spanish (F)	I	4
16	Graduation examination	II	10





Specialization:

CIVIL ENGINEERING AND MANAGEMENT, 4 years, 240 ECTS - field of study:
Management and Engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Linear algebra, analytical and differential geometry	I	4
2	Applied informatics	I	4
3	Physics	I	4
4	Descriptive geometry and design	I	4
5	Introduction to economics	I	5
6	Mathematical analysis I, II	I & II	5 & 4
7	Physical education I, II	I & II	2 & 1
8	Numerical analysis	II	4
9	Infographics I	II	1
10	Chemistry	II	3
11	Building materials	II	4
12	Mechanics	II	3
13	Introduction to topography	II	4
14	Practical training - Infographics; Introduction to topography	II	4
15	Foreign languages - English / French/ German / Italian / Spanish(O)	I & II	2 & 2
16	Philosophy (F)	I	2





Specialization:

CIVIL ENGINEERING AND MANAGEMENT, 4 years, 240 ECTS - field of study:
Management and Engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Differential equations	I	3
2	Infographics II	I	2
3	Enterprise accounting	I	4
4	Civil engineering machinery and equipment	I	4
5	Fluid mechanics	I	4
6	Strength of materials I, II	I & II	4 & 4
7	Internal auditing	II	4
8	Geotechnics and foundations I	II	3
9	Theory of statics	II	4
10	Marketing	II	3
11	Laws and legislation	II	4
12	Hydrology and hydrogeology; Hydraulics (O)	II	4
13	Geographic information systems; Topographic engineering I (O)	I	4
14	Finance and credit; Financial economic analysis (O)	I	5
15	Practical training - Constructions; Economics	II	4
16	Bulding history (F)	I	2
17	Introduction to architecture	II	4





Specialization:

CIVIL ENGINEERING AND MANAGEMENT, 4 years, 240 ECTS - field of study:
Management and Engineering

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Rural constructions Rural constructions - project	I	2
		I	2
2	Geotechnics and foundations II Geotechnics and foundations II - project	I	2
		I	2
3	Hydrotechnical works Hydrotechnical works - project	I & II	4 & 2
		II	2
4	Land reclamation Land reclamation - project	II	2
		II	2
5	Reinforced concrete Reinforced concrete - project	I & II	4 & 2
		II	2
6	Civil engineering legislation I, II	I & II	4 & 3
7	Construction dynamics	I	4
8	Offers, prices and estimates I	II	4
9	Practical Training – Economics	II	3
10	Introduction to environmental protection; Sociology (O)	II	4
11	Financial and strategic management I, II; Project management I, II (O)	I & II	2 & 4
12	Waterway civil engineering; Water management (O)	I	4
13	Profit and managerial decision-making (F)	I	4
14	Computer assisted design (F)	II	4





Specialization:

CIVIL ENGINEERING AND MANAGEMENT, 4 years, 240 ECTS - field of study:
Management and Engineering

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Water supplies and sewerage Water supplies and sewerage - project	I	3
		I	2
2	Roads Roads - project	I	3
		I	2
3	Civil engineering works technology	I	4
4	Operational research	I	4
5	Construction management Construction management - project	I & II	4 & 3
		II	2
6	Building installations Building installations - project	II	3
		II	2
7	Insurance and reinsurance	II	3
8	Quality engineering	II	3
9	Database management systems	II	3
10	Offers, prices and estimates I	I	4
11	Construction economics	II	3
12	Quality management	I	4
13	Human resources management; International management (O)	II	3
14	Practical training - Graduation paper; Completion of the graduation paper	II	5
15	Foreign languages - English/French/German/Italian/Spanish (F)	I	4
16	Building reliability	I	4
17	Graduation examination	II	10





FACULTY
OF
BIOTECHNOLOGIES



Specialization:

AGRICULTURAL BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:
Biotechnologies

1st year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Mathematics and biostatistics	I & II	5 & 4
2	Biophysics	I	5
3	General microbiology	I & II	5 & 4
4	Chemistry	I & II	5 & 4
5	Cell biology	I	5
6	PC operating	I & II	3 & 4
7	Analytical chemistry and instrumental analysis	II	4
8	Engineering fundamentals	II	3
9	Transfer phenomena	II	3
10	Practice stage	II	2
11	Foreign languages (English/French) (O)	I & II	2 & 2
12	Physical education (F)	I & II	1 & 1





Specialization:

AGRICULTURAL BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:

Biotechnologies

2nd year of study			
No. Nr.	Subject	Semester	No. of ECTS
1	Biochemistry	I & II	5 & 4
2	Genetics	I	5
3	General biotechnology and biotechnology installations	I & II	4 & 4
4	Food safety and human nutrition	I	4
5	Ecology and environmental protection	I	5
6	Molecular biology	II	4
7	Cell and tissues cultures	II	4
8	General enzymology	II	5
9	Toxicology	I	2
10	Practice stage (3 weeks x 30h/week)	II	3
11	Botany and plant physiology/Anatomy and animal physiology (O)	I & II	3 & 4
12	Foreign languages (English/French) (O)	I & II	2 & 2
13	Physical education (F)	I & II	1 & 1





Specialization:

AGRICULTURAL BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:

Biotechnologies

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Fermentation biotechnologies	I & II	5 & 4
2	Genetic engineering	I	5
3	Genetically modified organisms	II	4
4	General agriculture	I & II	4 & 4
5	Special enzymology	I	5
6	Refrigeration techniques	II	4
7	Biotechnology in plant protection	I & II	4 & 4
8	Experimental research and design	II	4
9	Technologies for raw materials processing	I	4
10	Practice stage (3 weeks x 30h/week)	II	3
11	Feed biotechnologies/Biotechnologies in aquaculture and apiculture (O)	I	3
12	Applied informatics in biotechnologies/Bioprocesses modelling (O)	II	3
13	Foreign languages (F)	I & II	2 & 2





Specialization:

AGRICULTURAL BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:

Biotechnologies

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Biotechnologies for plant breeding	I & II	5 & 3
2	Conditioning and preservation of products	I & II	4 & 4
3	Biotechnologies in fruit growing and viticulture	I	5
4	Quality control for biotechnological products	I	5
5	Technologies for animal raw material processing	I	4
6	Accounting and economic-financial analysis	I	4
7	Biotechnologies in vegetable growing and ornamental plant production	II	4
8	Biotechnologies for recycling residual products	II	3
9	Legislation and bioethics	II	2
10	Management and marketing of biotechnological products	II	3
11	Quality management	II	5
12	Practical stage	II	8
13	Laboratory diagnosis of plant diseases/ Biotechnologies for obtaining phytotherapeutic products (O)	I	3
14	Foreign languages (F)	I & II	2 & 2





Specialization:

FOOD BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study: Biotechnologies

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Mathematics and biostatistics	I & II	5 & 4
2	Biophysics	I	5
3	General microbiology	I & II	5 & 4
4	Chemistry	I & II	5 & 4
5	Cell biology	I	5
6	PC operating	I & II	3 & 4
7	Analytical chemistry and instrumental analysis	II	4
8	Engineering fundamentals	II	3
9	Transfer phenomena	II	3
10	Practice stage (1 week x 30h)	II	2
11	Foreign languages (English/French) (O)	I & II	2 & 2
12	Physical education (F)	I & II	1 & 1





Specialization:

FOOD BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study: Biotechnologies

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Biochemistry	I & II	5 & 4
2	Genetics	I	5
3	General biotechnology and biotechnology installations	I & II	4 & 4
4	Food safety and human nutrition	I	4
5	Ecology and environmental protection	I	5
6	Molecular biology	II	4
7	Cell and tissues cultures	II	4
8	General enzymology	II	5
9	Toxicology	I	2
10	Practice stage (3 weeks x 30h/week)	II	3
11	Botany and plant physiology/Anatomy and animal physiology (O)	I & II	3 & 4
12	Foreign languages (English/French) (O)	I & II	2 & 2
13	Physical education (F)	I & II	1 & 1





Specialization:

FOOD BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study: Biotechnologies

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Food biotechnologies	I & II	5 & 4
2	Genetic engineering	I	5
3	Genetically modified organisms	II	4
4	Food microbiology	I	5
5	Special enzymology	I	5
6	Raw materials for food industry	I	5
7	Food chemistry	I	5
8	Refrigeration technologies	II	4
9	Experimental research and design	II	4
10	Raw materials processing technologies	II	4
11	Practice stage (3 weeks x 30h/week)	II	3
12	Biotechnology of enzymes and proteins/Industrial biotechnology (O)	II	4
13	Applied informatics in biotechnologies/Modeling of biotechnological processes (O)	II	3
14	Foreign languages (F)	I & II	2 & 2
15	Extractive technologies in the food industry (F)	I	2





Specialization:

FOOD BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study: Biotechnologies

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Design of biotechnological installations plants	I	5
2	Fermentative technologies	I	4
3	Conditioning and preservation of products	I & II	4 & 4
4	Quality control for biotechnological products	I	5
5	Additives and ingredients for the food industry	I	4
6	Accounting and economic-financial analysis	I	4
7	Biotechnologies for recycling of residual products	II	4
8	Legislation and bioethics	II	2
9	Management and marketing of biotechnological products	II	3
10	Quality management	II	3
11	Practice stage (4 weeks x 30h/week) for degree thesis preparation	II	8
12	Agro-food processing/Valorisation of by-products from the food industry (O)	I & II	4 & 3
13	Biotechnologies for starter cultures in the food industry/ Biotechnologies for dyes, flavourings and vitamins (O)	II	3
14	Foreign students (F)	I & II	2 & 2
15	Management of food hygiene (F)	II	2





Specialization:

VETERINARY MEDICINE BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:
Biotechnologies

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Mathematics and biostatistics	I & II	5 & 4
2	Biophysics	I	5
3	General microbiology	I & II	5 & 4
4	Chemistry	I & II	5 & 4
5	Cell biology	I	5
6	PC operating	I & II	3 & 4
7	Analytical chemistry and instrumental analysis	II	4
8	Engineering fundamentals	II	3
9	Transfer phenomena	II	3
10	Practice stage (1 week x 30h)	II	2
11	Foreign languages (English/French) (O)	I & II	2 & 2
12	Physical education (F)	I & II	1 & 1





Specialization:

VETERINARY MEDICINE BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:
Biotechnologies

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Biochemistry	I & II	5 & 4
2	Genetics	I	5
3	General biotechnology and biotechnology installations	I & II	4 & 4
4	Food safety and human nutrition	I	4
5	Ecology and environmental protection	I	5
6	Molecular biology	II	4
7	Cell and tissues cultures	II	4
8	General enzymology	II	5
9	Toxicology	I	2
10	Practice stage (3 weeks x 30h/week)	II	3
11	Botany and plant physiology/Anatomy and animal physiology (O)	I & II	3 & 4
12	Foreign languages (English/French) (O)	I & II	2 & 2
13	Physical education (F)	I & II	1 & 1





Specialization:

VETERINARY MEDICINE BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:
Biotechnologies

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	Pharmaceutical biotechnologies	I & II	5 & 4
2	Genetic engineering	I	5
3	Genetically modified organisms	II	5
4	Medical microbiology	I & II	4 & 4
5	Special enzymology	I	5
6	Imunology	I	4
7	Vaccinology	I	4
8	Cell pathology	II	4
9	Refrigeration technologies	II	4
10	Experimental research and design	II	4
11	Practice stage (3 weeks x 30h/week)	II	3
12	General parasitology and semiology/Medical micology (O)	I	3
13	Applied informatics in biotechnologies/Bioprocesses modelling (O)	II	2
14	Foreign languages (F)	I & II	2 & 2





Specialization:

VETERINARY MEDICINE BIOTECHNOLOGIES, 4 years, 240 ECTS - field of study:
Biotechnologies

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Pharmacology and pharmacodynamics	I	4
2	Conditioning and preservation of products	I & II	4 & 4
3	Animal pathology	I & II	5 & 3
4	Quality control for biotechnological products	I	5
5	Laboratory diagnosis	I	5
6	Accounting and economic-financial analysis	I	4
7	Reproduction biotechnologies	II	4
8	Legislation and bioethics	II	2
9	Management and marketing of biotechnological products	II	3
10	Quality management	II	3
11	Practical stage (4 weeks x 30h/week) for degree thesis preparation	II	8
12	Biotechnological therapeutic products/Biotechnologies for recycling residual products (O)	II	3
13	Industrial pharmaceutical technologies/Bioconversions and biotransformations (O)	I	3
14	Biotechnologies for obtaining and preserving fodder (F)	I	3





FACULTY
OF
MANAGEMENT,
ECONOMIC ENGINEERING IN
AGRICULTURE AND RURAL
DEVELOPMENT



Specialization:

ENGINEERING AND MANAGEMENT IN PUBLIC FOOD SUPPLY AND

AGROTOURISM, 4 years, 240 ECTS - field of study: Engineering and management in agriculture and rural development

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Mathematics, Statistics and Econometrics (1, 2)	I & II	4 & 4
2	IT studies (1, 2)	I & II	4 & 4
3	Agrotourist constructions/Civil engineering	I	4
4	Botany, Physiology and Food Microbiology	I & II	4 & 4
5	Topography, Land Survey and Mechanical Drawing	I	4
6	Business English (1, 2)	I & II	2 & 2
7	General Economics and Economic Doctrines (1, 2)	I & II	3 & 3
8	Communication and Public Relations	II	3
9	Foreign Language (O) (1, 2)	I & II	2 & 2
10	Agrotechniques	II	4
12	Physical Education	I & II	2 & 2
13	EU Cultural Integration (F)	I	3
14	Philosophy (F)	I	2
15	Engineering Topography (F)	II	4
16	Computer Assisted Design (F)	II	4
17	Practical Training	II	3





Specialization:

ENGINEERING AND MANAGEMENT IN PUBLIC FOOD SUPPLY AND AGROTOURISM, 4 years, 240 ECTS - field of study: Engineering and management in agriculture and rural development

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Agricultural Technologies	I & II	4 & 4
2	Agricultural Produce Preservation and Processing Technologies	II	4
3	Rural Sociology	I	4
4	Business English (3, 4)	I & II	2 & 2
5	Technological Devices	I	4
6	Marketing in Public Food Supply and Agrotourism	I & II	4 & 4
7	Food Technology and Service Techniques	II	4
8	Rural Economy	I	4
9	Forestry and Forest Products	II	4
10	Food Biochemistry and Nutrition Principles	I	3
11	Foreign Language (O) (3, 4)	I & II	2 & 2
12	Agrotourist Land Improvement/ Ecology and Ecotourism (O)	II	4
13	Physical Education (F)	I & II	2 & 2
14	Elements of Romanian History (F)	I	3
15	Oenological Routes (F)	II	3
16	Teledetection and Geographic Information Systems (F)	II	4
17	Land Organisation and Evaluation (F)	I	4
18	Practical Training	II	5





Specialization:

ENGINEERING AND MANAGEMENT IN PUBLIC FOOD SUPPLY AND

AGROTOURISM, 4 years, 240 ECTS - field of study: Engineering and management in agriculture and rural development

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	General Management	I	4
2	Tourist Geography and Romania's Agrotourist Resources	I & II	3 & 3
3	Accounting	I & II	4 & 4
4	Business English (5,6)	I & II	2 & 2
5	Consumer's Protection	II	3
6	Management and Economic-Financial Analysis of the Public Food Supply and Agrotourist Units	I & II	4 & 3
7	Public Food Supply and Agrotourism Legislation	II	3
8	Macroeconomy and Economy of Public Food Supply and Agrotourism	I & II	4 & 3
9	Costs, Prices and Tariffs in Agriculture	II	3
10	Integration, institutions and European funds	I	3
11	Community Agricultural Policies; Consulting (O)	I	3
12	Investment Efficiency in Public Food Supply and Agrotourism; Agrotourism Services (O)	II	3
13	Ethnography (F)	I	3
14	Cynegetics (F)	II	2
15	Sensory Analysis of Agrofood Products (F)	I	3
16	Elements of Landscape Architecture (F)	II	3
17	Practical Training	I & II	3 & 3





Specialization:

ENGINEERING AND MANAGEMENT IN PUBLIC FOOD SUPPLY AND

AGROTOURISM, 4 years, 240 ECTS - field of study: Engineering and management in agriculture and rural development

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Human Resources Management in Public Food Supply and Agrotourism	I	4
2	Insurance and Re-insurance in Public Food Supply and Agrotourist Units	I	4
3	Simulated Business	I	3
4	Agricultural Systems Modelling	I	4
5	Project Management	I	4
6	Management of Services Quality in Public Food Supply and Agrotourism	I	4
7	Sustainable Rural Development	I	3
8	Financing and Crediting in Public Food Supply and Agrotourism; Environmental Management (O)	I	3
9	Business Management	II	5
10	Negotiation Techniques	II	5
11	Science of Commodities	II	5
12	International Tourism and Agrotourism (F)	I	3
13	Medicinal and Meliferous Plants (F)	I	3
14	Practical Training and Diploma Thesis Elaboration	II	15





Specialization:

ECONOMIC ENGINEERING IN AGRICULTURE, 4 years, 240 ECTS - field of study:
Engineering and management in agriculture and rural development

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Mathematical Analysis	I	4
2	Economic Statistics	II	4
3	IT Studies	I	5
4	Computer Programming and Programming Languages	II	4
5	Physics	II	4
6	Soil Sciences, Agrotechnics and Mecanization (1, 2)	I & II	4 & 4
7	Economics Basics (1, 2)	I & II	4 & 4
8	Botany, Physiology and Microbiology of Plants	I	4
9	Topography, Land Survey and Mechanical Drawing	II	4
10	Business English (1, 2)	I & II	2 & 2
11	French/Italian/ Spanish Language (1, 2)(O)	I & II	2 & 2
12	Computer Aided Graphics	I	2
13	Physical Education	I & II	2 & 2
14	History of Culture (F)	I	2
15	Production Systems Theory (F)	II	2
16	Engineering Topography (F)	II	6
17	Practical Training		3





Specialization:

ECONOMIC ENGINEERING IN AGRICULTURE, 4 years, 240 ECTS - field of study:
Engineering and management in agriculture and rural development

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Agricultural Technologies (1, 2)	I & II	6 & 4
2	Agricultural Products Preservation and Processing Technologies	II	4
3	Agrochemistry and Phytosanitary Protection	I	5
4	Business English (3, 4)	I & II	2 & 2
5	Macroeconomics	II	4
6	Operational Researches and Computer Aided Design	II	3
7	Communication and Public Relations	I	2
8	Foreign Language (3, 4)	I & II	2 & 2
9	Linear Algebra; Operational research (O)	I	4
10	Microeconomics; Banking Operations (O)	II	4
11	Communication and Public Relations; Insurance and Reinsurance (O)	I	4
12	Rural Sociology; Philosophy (O)	II	3
13	Ecology and Environmental Protection/Chemistry (O)	II	3
14	Agricultural Biotechnologies; Agricultural Constructions; Civil Engineering (O)	II	3
15	Physical Education (F)	I & II	2 & 2
16	Logistics (F)	II	2
17	Organization and Evaluation of Land (F)	I	4
18	Teledetection and Geographic Information Systems (F)	II	4
19	Practical Training	I & II	3 & 2





Specialization:

ECONOMIC ENGINEERING IN AGRICULTURE, 4 years, 240 ECTS - field of study:
Engineering and management in agriculture and rural development

3rd year of study			
No.	Subject	Semester	No. of ECTS
1	General and Strategic Management	I	5
2	Rural Economics	I	4
3	Business English (5, 6)	I & II	2 & 2
4	Accounting	I	4
5	Managerial Accounting and Informatics	II	4
6	Costs, Prices and Tariffs in Agriculture	II	4
7	Technico-Economic Analysis/ Production Management	I & II	4 & 4
8	Marketing	I	4
9	Agromarketing	II	4
10	Human resources management	II	3
11	Sustainable Development; Environmental Management (O)	I	5
12	Forestry; Leadership (O)	II	4
13	Financial Management; Investment Efficiency (O)	II	3
14	Simulated Enterprise	II	3
15	Renewable Resources Management (F)	I	4
16	Commodity and Value Stock Exchange (F)	I	3
17	Agritourism (F)	II	3
18	Practical Training	I & II	4 & 4





Specialization:

ECONOMIC ENGINEERING IN AGRICULTURE, 4 years, 240 ECTS - field of study:
Engineering and management in agriculture and rural development

4th year of study			
No.	Subject	Semester	No. of ECTS
1	Rural Development	I	4
2	Simulated enterprise	I	3
3	Quality Management	I	4
4	Modelling and Simulation	I	4
5	Commercial Law	II	3
6	Institutions and European Integration; Consulting (O)	I	3
7	Negotiation Techniques	II	4
8	Project Management	I	4
9	Agrifood Economics	II	4
10	Common Agricultural Policies	I	4
11	Domestic and International Trade	I	4
12	Brokerage/ Business Management (O)	II	4
13	Community Projects (F)	I	2
14	Practical Training and Diploma Thesis Elaboration	II	15



MASTER PROGRAMS





FACULTY
OF
AGRICULTURE



Specialization:

SUSTAINABLE AGRICULTURE, 2 years, 120 ECTS - field of study: Agronomy

1st year of study			
No	Subject	Semester	No of ECTS
1	Agricultural ecosystems	I	4
2	Yield formation and evaluation	I	4
3	Sustainable use of land resources	I	4
4	Alternative energy resources in agriculture	I	4
5	Environmental protection in agriculture	I	4
6	Integrated technologies in crop production	I & II	6 & 6
7	Principles and rules of fertilization	II	4
8	Tillage systems	II	4
9	Alternative crops	II	4
10	Agrosilvopastoral systems	II	4
11	Techniques for storage and processing of agricultural products	II	4
12	Resources management in agricultural systems/Climate change impact in agriculture (O)	I	4
13	Sustainable development strategies/ Institutional relations and consultancy (O)	II	2
14	Specialised practical training	II	2





Specialization:

SUSTAINABLE AGRICULTURE, 2 years, 120 ECTS - field of study: Agronomy

2nd year of study			
No	Subject	Semester	No of ECTS
1	Weed management in sustainable agriculture	I	4
2	Disease management in sustainable agriculture	I	4
3	Pest management in sustainable agriculture	I	4
4	Animal husbandry systems in sustainable agriculture	I	5
5	Agribusiness	I	4
6	Project development and management	I	4
7	Quality and traceability of agricultural products	I	5
8	Specialised practical training and research activity; Elaboration of MSc dissertation thesis	II	30





Specialization:

AGRICULTURAL CONSULTANCY, 2 years, 120 ECTS - field of study: Agronomy

1st year of study			
No	Subject	Semester	No of ECTS
1	Basics of agricultural consultancy	I	6
2	Current issues in agricultural and rural environment	I	4
3	Human resource management in agriculture	I	4
4	Organic waste management	I	4
5	Risk management in agriculture	I	3
6	Advanced agricultural technologies	I & II	6 & 6
7	Working methods in agricultural consultancy	II	6
8	Communication strategies in consultancy	II	4
9	Financial and ensurance sources in agriculture	II	3
10	Farm management	II	3
11	Land resource expertise	II	3
12	Technical and material resource management in agriculture/ Research, innovation and technological transfer (O)	I	3
13	The environment and natural resources/ Biological material in crop production (O)	II	3
14	Specialised practical training	II	2





Specialization:

AGRICULTURAL CONSULTANCY, 2 years, 120 ECTS - field of study: Agronomy

2nd year of study			
No	Subject	Semester	No of ECTS
1	Plant nutrition diagnosis and fertilization strategies	I	3
2	Multifunctional use of agricultural, forestry and pasture systems	I	4
3	Integrated pest management	I	6
4	Expertise and evaluation of yield formation	I	6
5	Project development and management	I	4
6	Quality management of yield and agricultural products	I	4
7	Agricultural marketing methods and techniques	I	3
8	Specialised practical training and research activity; Elaboration of MSc dissertation thesis	II	30





Specialization:

LAND RESOURCES MANAGEMENT AND EXPERTISE, 2 years, 120 ECTS - field of study: Agronomy

1st year of study			
No	Subject	Semester	No of ECTS
1	Soil biology with basics of biodiversity and soil diversity	I	4
2	Project development and management for sustainable rural development	I	4
3	Equipments and field and laboratory agrochemical tests for diagnosis of plant nutritional status	I	6
4	Pollution of soils and agricultural production	I	4
5	Ecological rehabilitation of degraded soils	I	4
6	Modelling in soil science	I & II	4 & 6
7	Land cadastre and GIS	II	4
8	Principles of ecological agriculture	II	4
9	Experimental methods	II	5
10	Agricultural land urban waste management	II	5
11	Soil conservation systems/ Computer science (O)	I	4
12	Remote sensing in agriculture/ Romanian and European legislation on land resources (O)	II	4
13	Specialised practical training	II	2





Specialization:

LAND RESOURCES MANAGEMENT AND EXPERTISE, 2 years, 120 ECTS - field of study: Agronomy

2nd year of study			
No	Subject	Semester	No of ECTS
1	Diagnosis and modelling of yield formation	I	4
2	Soil resource management	I	4
3	Chemical protection and residual effects of pesticides	I	4
4	Principles of growing and maintaining of soil fertility	I	5
5	Non-conventional techniques and technological design in agriculture	I	5
6	Monitoring of environmental factors	I	4
7	Land resources evaluation and expertise	I	4
8	Specialised practical training and research activity; Elaboration of MSc dissertation thesis	II	30





Specialization:

PROTECTION OF AGROECOSYSTEMS AND PHYTOSANITARY EXPERTISE,

2 years, 120 ECTS - field of study: Agronomy

1st year of study			
No	Subject	Semester	No of ECTS
1	Agroecosystem biodiversity	I	5
2	Agroecosystem pathogens	I	8
3	Agroecosystem pests	I	8
4	Agroecosystem pathogen epidemiology	I	3
5	Agroecosystem pest epidemiology	I	3
6	Agroecosystem pathogen ecology	II	3
7	Agroecosystem pest ecology	II	3
8	Phytopharmacy, ecotoxicology and treatment rationalization	II	4
9	Disease prognosis and warning systems and phytosanitary quarantine	II	3
10	Pest prognosis and warning systems and phytosanitary quarantine	II	3
11	Integrated management control of agroecosystem pathogens	II	6
12	Integrated management control of agroecosystem pests	II	6
13	Specific equipment and techniques for plant protection laboratories/Disinfection, pest control, deratization (O)	I	3
14	Specialised practical training	II	2





Specialization:

PROTECTION OF AGROECOSYSTEMS AND PHYTOSANITARY EXPERTISE,

2 years, 120 ECTS - field of study: Agronomy

2nd year of study			
No	Subject	Semester	No of ECTS
1	Plant resistance to biotic stress factors	I	4
2	Disease control in ecological agriculture systems	I	5
3	Pest control in ecological agriculture systems	I	5
4	Disease control and phytosanitary expertise	I	4
5	Disease control and phytosanitary expertise - project	I	2
6	Pest control and phytosanitary expertise	I	4
7	Pest control and phytosanitary expertise - project	I	2
8	Legislation in agroecosystem protection	I	4
9	Specialised practical training and research activity; Elaboration of MSc dissertation thesis	II	30





FACULTY
OF
HORTICULTURE



Specialization:

INTEGRATED TECHNOLOGIES FOR OBTAINING AND UTILIZATION OF HORTICULTURAL PRODUCTS, 2 years, 120 ECTS - field of study: Horticulture

1st year of study			
No	Subject	Semester	No of ECTS
1	European policy regarding the production, certification and use of unpolluted horticultural products	I	4
2	Implementation of quality management systems in integrated horticulture	I	5
3	Quality standards for unpolluted horticultural products	I	5
4	Integrated horticulture and ecosystems protection	I & II	6 & 7
5	Quality control seedlings horticultural	I & II	5 & 6
6	Integration of technologies in vegetable crops	I & II	5 & 6
7	Pollution Prevention and Control horticultural products	II	7
8	Projects management/ Legislation horticultural product quality and environmental protection (O)	II	4
2nd year of study			
1	Integrated technologies in orchards	I	8
2	Integrated technologies vineyards	I	8
3	Integrated technologies floricultural crops	I	7
4	Integrated technologies in ornamental arboriculture	I	7
5	Practice and scientific research	II	20
6	Elaboration of dissertation thesis	II	10





Specialization:

BIODIVERSITY CONSERVATION MANAGEMENT, 2 years, 120 ECTS - field of study: Horticulture

1st year of study			
No	Subject	Semester	No of ECTS
1	Phytosociology and phytogeography	I & II	5 & 5
2	Biotic and abiotic stress in plants	I & II	5 & 5
3	Modern techniques for evaluation of biodiversity	I	6
4	Biodiversity conservation of horticultural species	I & II	5 & 5
5	Environmental and landscape management	I	5
6	Useful substances from plants	II	5
7	Protected areas	II	5
8	Identification and propagation of valuable genotypes	II	5
9	The dynamics of natural ecosystems (O)	I	4
2nd year of study			
1	Biodiversity conservation of horticultural species	I	6
2	Identification and propagation of valuable genotypes	I	6
3	Permaculture	I	5
4	Management of crop systems in sustainable agriculture	I	5
5	Legislation in biodiversity conservation	I	4
6	Projects management (O)	I	4
7	Practical training and scientifically research	II	20
8	Elaboration of dissertation	II	10





Specialization:

ECOLOGICAL HORTICULTURE, 2 years, 120 ECTS - field of study: Horticulture

1st year of study			
No	Subject	Semester	No of ECTS
1	Technical systems for organic horticulture	I	8
2	Organic fruit growing	I	6
3	Organic vegetable growing	I & II	6 & 6
4	Medicinal and aromatic plants, cultivated and from spontaneous flora	I & II	5 & 5
5	European and national legislation in biodiversity conservation	I	5
6	Ecophysiology	II	5
7	Edible ornamentals grown organically	II	5
8	Conversion, certification and inspection of organic farms	II	5
9	Projects management (O)	II	4
2nd year of study			
1	Organic viticulture	I	8
2	Processing technologies of organic horticultural products	I	6
3	Management of organic horticultural farms	I	5
4	Organic germplasm sources	I	4
5	Biointensive cultivation systems in ecological horticulture	I	5
6	Eco concept in urban landscape (O)	I	2
7	Practical training and scientifically research	II	20
8	Elaboration of dissertation	II	10





Specialization:

ADVANCED TECHNOLOGIES, MANAGEMENT AND MARKETING IN VITICULTURE AND WINEMAKING, 2 years, 120 ECTS - field of study: Horticulture

1st year of study			
No	Subject	Semester	No of ECTS
1	Enology I: Chemistry and sensory analysis of wines	I	7
2	Viticulture I: Principles and alternative techniques for the cultivation of grapevine	I	6
3	Enology II: Modern winemaking technologies	I	7
4	Enology III: Microbiology, hygiene in winemaking and quality of vine and wine products	I	6
5	Management of the vine and wine company	I	4
6	Viticulture II: The concept of "terroir" in viticulture	II	6
7	Enology IV: Theoretical and practical aspects of the stabilization and conditioning of wines	II	6
8	Viticulture III: Vine and wine geography	II	6
9	The system of total quality management on the vine and wine channel	II	6
10	Strategies for the communication and promotion of the image of wine	II	6
2nd year of study			
1	Aspects of the storage, packing and labeling of wines	I	5
2	Vine and wine legislation	I	4
3	Technique of wine presentation and sensory analysis	I	4
4	Organization of business in the field of wine. Marketing on the channel of wine	I	5
5	Wine, nutrition and gastronomy – tradition and health	I	8
6	Project management – Preparation for thesis	I	4
7	Practical activities – scientific research & Documentation, preparation of the thesis	II	20 & 10





FACULTY
OF
ANIMAL PRODUCTIONS
ENGINEERING AND
MANAGEMENT



Specialization:

FOOD PRODUCTS BIOSECURITY, 2 years, 120 ECTS - field of study: Food Products Engineering

1st year of study			
No	Subject	Semester	No of ECTS
1	Economic and law strategies in animal breeding and food safety	I	5
2	Public health and food safety	I	6
3	Food quality and safety providing by controlling technological flows automatization	I	6
4	Further chemical, microbiological and toxicological procedures of food control and analysis	I	6
5	Extra products used in food industry technological processes	I	7
6	Biosecurity within milk production field	II	8
7	Biosecurity within meat production field	II	8
8	Biosecurity within beekeeping field	II	7
9	Biosecurity within fish and game field	II	7
2nd year of study			
1	Food quality and safety providing in meat processing	I	7
2	Food quality and safety providing in milk processing	I	7
3	Biosecurity within poultry field	I	10
4	Biosecurity and quality providing within vegetal products field	I	6
5	Training stage	II	10
6	Scientific research activity	II	20
7	Elaboration of the dissertation	II	10





Specialization:

ENTREPRENEURISM IN ANIMAL PRODUCTIONS 2 years, 120 ECTS - field of study: Animal Science

1st year of study			
No	Subject	Semester	No of ECTS
1	Entrepreneurism development within animal production	I	6
2	Check and survey within animal production	I	6
3	Check and survey within animal production	I	6
4	Leading and pattern-making techniques within animal production	I	4
5	Project management	II	4
6	Reproduction planning within animals breeding	II	6
7	Wastes management within animal productions	II	4
8	Cattle farms design and development	I & II	8 & 8
9	Poultry farms development and design	II	8
2nd year of study			
1	Poultry farms development and design	I	8
2	Sheep farms development and design	I	7
3	Pigs farms development and design	I	7
4	Alternative zootechnical farms development and design	I	8
5	Training stage	II	10
6	Scientific research activity	II	20





Specialization:

SPECIAL TECHNOLOGIES IN FOOD INDUSTRY, 2 years, 120 ECTS - field of study: Food Products Engineering

1st year of study			
No	Subject	Semester	No of ECTS
1	Modern analysis techniques in food industry	I	8
2	Food products science of commodities	II	8
3	Quality statistical check	II	8
4	Food products quality management	I & II	8 & 8
5	Modern technologies of ensuring stability and innocuity to food products	II	8
6	Food products authentication and expertise	I & II	6 & 6
2nd year of study			
1	Sensory food products characteristics estimation		4
2	EU laws concerning aliments quality		3
3	Techniques of modeling and leading processes in alimentary industry		4
4	Products design and promotion in food industry		4
5	Documentary and research activities		15
6	Elaboration of the dissertation		10





Specialization:

FOOD SAFETY AND BIOSECURITY, 2 years, 120 ECTS - field of study: Food Products Engineering - program in English (*starting from 2018/2019 academic year)

1st year of study			
No	Subject	Semester	No of ECTS
1	Food safety policy and global food system	I	6
2	Advanced applications of food safety systems principles	I	8
3	Public health and food safety	I	8
4	Advanced chemical, microbiological and toxicological control and analysis of food	I	8
5	Risk assessment for food	II	7
6	Additional products used in technological processes in the food industry	II	7
7	Biosecurity producing raw materials of vegetable origin	II	8
8	Biosecurity producing raw materials of animal origin	II	8
2nd year of study			
1	Quality assurance and food safety for products of animal origin	I	12
2	Quality assurance and food safety for products of vegetable origin	I	12
3	Good manufacturing practices (GMP) in food processing	I	6
4	Practical activity	II	10
5	Scientific research activity	II	20
6	Elaboration of the dissertation	II	10





FACULTY
OF
VETERINARY MEDICINE



Specialization:

INSPECTION AND EXPERT SURVEY OF THE ORGANIC FOOD PRODUCTS OF HALAL AND KOSHER FOOD PRODUCTS, 2 years, 120 ECTS - field of study: Food Products Engineering

1st year of study			
No	Subject	Semester	No of ECTS
1	Novel methods and techniques of analytical chemistry used in agricultural and processed food products inspection and expert survey	I	8
2	Biochemical processes affecting the food quality	I	8
3	Establishing the origin of the food raw materials by molecular biology techniques	I	8
4	Organic farming history and bioethics	I	6
5	Modern technologies for processing plant-based source food products	II	8
6	Modern technologies for processing animal source food products	II	8
7	Religious precepts in Halal and Kosher certification	II	7
8	Processing technologies for organic food, for Halal and Kosher food	II	7
2nd year of study			
1	Morpho-anatomical expert survey of animals in Halal and Kosher slaughter systems	I	8
2	Inspection and expert survey of organic food products	I	8
3	Inspection and expert survey of Halal and Kosher food products	I	8
4	Concept of organic agriculture and IFOAM standard	I	6
5	Packaging and marketing of organic products	II	8
6	Organic products legislation	II	8
7	Practical activities	II	6
8	Scientific research activity/Carrying out the final thesis	II	8





Specialization:

AGRICULTURAL AND PROCESSED FOOD PRODUCTS EXPERT SURVEY,

2 years, 120 ECTS - field of study: Food Products Engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Morpho-anatomical expert survey of slaughtered animals	I	8
2	Inspection and expert survey of natural pigments and coloring agents	I	8
3	Biochemical processes affecting the food quality	I	8
4	Agricultural and processed food products expert survey legislation	I & II	6 & 6
5	Authentication and certification of food products	II	8
6	Novel methods and techniques of analytical chemistry used in agricultural and processed food products inspection and expert survey	II	8
7	Novel methods and techniques of molecular biology used in agricultural and processed food products inspection and expert survey	II	8
2nd year of study			
1	Milk and dairy products expert survey	I	8
2	Meat and meat products expert survey	I	8
3	Expert survey of bee products, of fish and aquatic products	I	7
4	Plant-based food expert survey	I	7
5	Expert survey of poultry meat, of eggs and game	II	6
6	Food products quality, safety and security	II	8
7	Practical activities	II	8
8	Scientific research activity / Carrying out the final thesis	II	8





FACULTY
OF
LAND RECLAMATION
AND
ENVIRONMENTAL ENGINEERING



Specialization:

ENVIRONMENTAL PROTECTION AND ENGINEERING IN RURAL AREAS,

2 years, 120 ECTS - field of study: Environmental Engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Policy and strategies for integrated rural development	I	6
2	Mathematical models for risk factors assessment	I	6
3	Utilization of renewable energy resources	I	6
4	Flood protection	II	8
5	Integrated technologies of horticultural ecosystem management	II	8
6	Internal auditing	II	6
7	Technology of outside cities arrangement (module III)/ Reliability of environmental protection works (module III) (O)	II	8
8	Integrated monitoring of environmental factors and processes (module I)/ Advanced effluent treatment (module I) (O)	I	6
9	Integrated water resources management (module II)/ Solutions to natural and artificial slope stabilization (module II) (O)	I	6





Specialization:

ENVIRONMENTAL PROTECTION AND ENGINEERING IN RURAL AREAS,

2 years, 120 ECTS - field of study: Environmental Engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Heavy-metal pollution control and expertise	I	6
2	Anti-earthquake measures	I	6
3	Environmental auditing	II	4
4	Rural waste recycling and valorization	II	5
5	Rehabilitation of degraded agricultural lands	II	5
6	EU legislation for environmental protection and rural development	II	3
7	Practical research and documentation for dissertation	II	5
8	Final activities for dissertation	II	5
9	Land management information systems (module II)/ Layout techniques and technologies for engineering works (module II) (O)	I	6
10	Environmental effects of land reclamation works (module III)/ Automatic functioning of land reclamation systems (module III) (O)	I	7
11	Special foundations (module I)/ Remote control and monitoring of rural areas (module I) (O)	II	3
12	Dissertation defense	II	10





Specialization:

GEOMATICS FOR ENVIRONMENTAL ENGINEERING, 2 years, 120 ECTS - field of study: Environmental Engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	European environmental directives	I	7
2	Climate changes - causes and effects	I	8
3	Environmental law	I	7
4	GIS systems design	I & II	8 & 6
5	Risk, hazard and vulnerability	II	6
6	Photointerpretation and 3D thematic cartography	II	6
7	Geodetic astronomy/ European fund for the environment (O)	II	6
8	Statistical territory/ Landscape analysis and management (O)	II	6
9	English language (F)	I & II	2 & 2
10	Modern techniques of research and drafting reports and scientific papers (F)	I & II	3 & 3





Specialization:

GEOMATICS FOR ENVIRONMENTAL ENGINEERING, 2 years, 120 ECTS - field of study: Environmental Engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	Sustainable management of soil and water resources	I	6
2	Environmental geospatial applications	I	7
3	Ecological mapping and applications	I	7
4	Structure measures impact on the environment	I	6
5	Practical research and documentation for dissertation	II	15
6	Final activities for dissertation	II	15
7	Environmental agreements, approvals and authorizations/ Expertise for the environmental quality (O)	I	4
8	English language (F)	I	2
9	Modern techniques of research and drafting reports and scientific papers (F)	I	3
10	Dissertation defense	II	10





Specialization:

INVESTMENT AND MANAGEMENT IN ECOSYSTEMS, 2 years, 120 ECTS - field of study: Management and Engineering

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Systemic ecology and climate change	I	7
2	Biotechnology and sustainable industries	I	7
3	Land spatial organization, geospatial database	I	5
	Land spatial organization, geospatial database - project	I	4
4	Basics of investment management projects	I	7
5	Statistical territory	II	6
6	Capitalization of ecosystems and human habits	II	6
7	Strategies, policies and development of regional programs	II	5
	Strategies, policies and development of regional programs - project	II	4
8	Investment- financing and technical cooperation in the investment process	II	5
	Investment- financing and technical cooperation in the investment process - project	II	4
9	English language (F)	I & II	2 & 2
10	Modern techniques of reasearch and drafting reports and scientific papers (F)	I & II	3 & 3





Specialization:

INVESTMENT AND MANAGEMENT IN ECOSYSTEMS, 2 years, 120 ECTS - field of study: Management and Engineering

2nd year of study			
No.	Subject	Semester	No. of ECTS
1	National and international law for environmental resources	I	7
2	Conception, design, implementation and management of investment projects	I	5
	Conception, design, implementation and management of investment projects - project	I	4
3	Performance and risk evaluation of investment projects	I	7
4	Programs and projects audit	I	7
5	Practical research and documentation for dissertation	II	15
6	Final activities for dissertation	II	15
7	Dissertation defense	II	10
8	English language (F)	I	2
9	Modern techniques of research and drafting reports and scientific papers (F)	I	3





FACULTY
OF
BIOTECHNOLOGIES

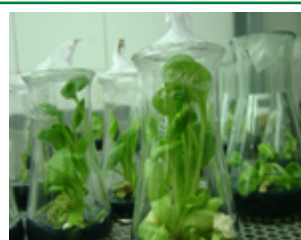


Specialization:

BIOTECHNOLOGIES IN THE PHARMACEUTICAL INDUSTRY, 2 years,

120 ECTS - field of study: Biotechnologies

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Medicinal herbs. Obtaining and conditions of admissibility	I	8
2	Biotechnologies for obtaining biologically active molecules	I	8
3	Biogenic substances obtained by plant biotechnology	I	7
4	Elaboration and obtaining of conventional pharmaceutical forms	I	7
5	Analytical bioseparations	II	7
6	Industrial extraction and separation processes	II	7
7	Preformulation and formulation of drug systems	II	8
8	Molecular biology applied in the pharmaceutical industry	II	8
2nd year of study			
1	Microbiological control of pharmaceutical processes and products	I	8
2	Entrepreneurship in Biotechnologies: strategies, legislation, industrial property	I	7
3	Colloidal transport and drug delivery systems/ Vectors for the transport of bioactive compounds	I	8
4	GMP and GLP rules/Modeling bioprocesses	I	7
5	Biotechnologies in cosmetics industry	II	6
6	Physicochemical and biopharmaceutical control of the drug/ Methods of investigation in drug development	II	6
7	Scientific research and dissertation thesis elaboration	II	18
8	Drug design (F)	I	2
9	Datebases for pharmaceutical biotechnologies (F)	I	3
10	Pharmacology and toxicology (F)	II	3
11	Project management (F)	II	3





Specialization:

ENVIRONMENTAL BIOTECHNOLOGY, 2 years, 120 ECTS - field of study:
Biotechnologies

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Molecular biology applied in environmental protection	I	8
2	Environmental chemistry and biochemistry	I	8
3	Environmental microbiology	I	7
4	Biokinetics and bioreactors	I	7
5	Applied ecotoxicology	II	6
6	Environmental policies and legislation	II	5
7	Membrane techniques	II	8
8	Waste water biotechnologies and biofilters	II	8
2nd year of study			
1	Biotechnological valorisation of renewable resources	I	8
2	Bioremediation of polluted soils/Phytoremediation	I	8
3	Microbial biotechnology applied in sustainable agriculture/ Microbiological degradation of pollutants	I	7
4	Environmental quality monitoring and control system	I	7
5	Environmental impact assesment/Management and environmental audit	II	6
6	Integrated waste management	II	6
7	Scientific research and dissertation thesis elaboration	II	18
8	English language (F)	I	2
9	Entrepreneurship in Biotechnologies: strategies, legislation, industrial property (F)	I	3
10	Communication techniques (F)	II	2
11	Applied biostatistics and specialized IT programs (F)	II	3





Specialization:

BIOTECHNOLOGY AND FOOD SAFETY, 2 years, 120 ECTS - field of study:

Biotechnologies

1st year of study			
No.	Subject	Semester	No. of ECTS
1	New trends in food microbiology	I	8
2	Basics of quality assurance in the food industry	I	7
3	Food toxicology and modern analytical methods	I	8
4	Unitary processes and equipment in food industry	I	7
5	Modern processing technologies	II	7
6	Modern methods of detecting pathogens and genetically modified organisms in food	II	8
7	Senzorial analysis and food safety	II	7
8	Nutrition and health	II	8
2nd year of study			
1	Biotechnologies for obtaining natural ingredients for the food industry	I	8
2	Modern technologies for food packing and preservation	I	7
3	Hygiene and sanitation in food industry	I	7
4	Scientific research and dissertation thesis elaboration	II	18
5	Safety from primary production/Traceability on food chain (O)	I	8
6	Food falsification and protection strategies/ Design and development of new food products (O)	II	6
7	Behavior and consumer protection of food products/ Communication techniques (O)	II	6
8	Project management (F)	I	2
9	Entrepreneurship in Biotechnologies: strategies, legislation, industrial property (F)	I	3
10	English language (F)	I	2
11	Applied biostatistics and specialized IT programs (F)	II	3





Specialization:

BIOTEHNOLOGY AND ENTREPRENEURSHIP, 2 years, 120 ECTS - field of study: Biotechnologies - program in English (*starting from 2018/2019 academic year)

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Applied Biochemistry and Enzymology	I	8
2	Applied Microbiology	I	8
3	Advanced Molecular Biology	I	8
4	Communication and Leadership	I	6
5	Advanced Agricultural Biotechnology	II	8
6	Advances in Food Biotechnology	II	8
7	Pharmaceutical Biotechnology and Health Care	II	8
8	Good laboratory and manufacturing practice in industrial biotechnology	II	6
2nd year of study			
1	Entrepreneurship in Biotechnology - Starting-up, Management and Marketing	I	6
2	Risks' and Quality Management	I	6
3	Project Management	I	6
4	Digital Tools for BioEntrepreneurs	I	6
5	Individual training and Internship (10 weeks x 20 hours)	II	20
6	Elaboration of dissertation paper (4 weeks x 30 hours)	II	10
7	Intellectual property management / Human Resources Management	II	6





FACULTY
OF
MANAGEMENT,
ECONOMIC ENGINEERING IN
AGRICULTURE AND RURAL
DEVELOPMENT



Specialization:

MANAGEMENT IN AGRITOURISM AND PUBLIC FOOD SUPPLY, 2 years, 120 ECTS - field of study: Engineering and management in agriculture and rural development

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Strategic Management and Project Logs	I	5
2	Services Marketing/Environment Law (O)	I	5
3	Services Economics	I	5
4	Communication and Negotiation in Business	I	5
5	Diagnosis and Evaluation of Public Food Supply and Agritourism	I	5
6	Building projects	I	5
7	Thorough Methods of Management	II	5
8	Risk Management	II	5
9	Tourist Territory Reclamation	II	5
10	Programme management	II	5
11	Financial Management of Public Food Supply and Agritourism	II	5
12	Agritourist Resources Management	II	5
2nd year of study			
1	Quality Management	I	5
2	Authorisation and Control in Public Food Supply and Agritourism	I	5
3	Restaurants Technology	I	5
4	Rural Sociology/Economics, Expertise and Environment Control (O)	I	5
5	Tourism Investments Management	I	5
6	Travel Agency Management	I	5
7	Speciality practice	II	10
8	Research and dissertation writing & Dissertation defence	II	10 & 10





Specialization:

QUALITY AND INNOVATION MANAGEMENT IN THE AGRIFOOD DOMAIN,

2 years, 120 ECTS - field of study: Engineering and management in agriculture and rural development

1st year of study			
No.	Subject	Semester	No. of ECTS
1	General Characteristic of Products	I	5
2	New Production Techniques	I	5
3	The Agri-food Chain	I	5
4	Agri-food Economics	I	5
5	Food Legislation	I	5
6	Production Process Principles	I	5
7	Qualitative and Quantitative Marketing	II	6
8	New Quality Assessment Techniques	II	6
9	Production Logistics	II	6
10	Machines and Equipment in the Food Industry	II	6
11	Packaging Techniques	II	6
2nd year of study			
1	Marketing Strategy	I	5
2	Total Quality Management	I	5
3	Techniques for Food Safety	I	5
4	Human Resources Management	I	5
5	Project Planning	I	5
6	Informatics and Statistical Notions	I	5
7	Speciality practice	II	10
8	Research and dissertation writing & Dissertation defence	II	10 & 10





Specialization:

AGRIBUSINESS, 2 years, 120 ECTS - field of study: Engineering and management in agriculture and rural development

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Business Management	I	5
2	The Technic and Economy of Production	I	5
3	Control and Administration of the Agricultural Units	I	5
4	Informatics and Statistical Notions	I	5
5	Sustainable Technologies in Agriculture	I	5
6	Models of Development in Agricultural Farms Evaluation and Accounting (O)	I	5
7	Agricultural Policies	II	5
8	Marketing Strategy	II	5
9	Planning Unit	II	5
10	Management of the Environment	II	5
11	Rural and Regional Development Concepts	II	5
12	Agricultural Management Consulting	II	5
2nd year of study			
1	Project Planning	I	5
2	Domestic and International Trade	I	5
3	Sustainable Energies	I	5
4	Quality Management	I	5
5	Community Projects	I	5
6	Business English	I	5
7	Speciality practice	II	10
8	Research and dissertation writing & Dissertation defence	II	10 & 10





Specialization:

MANAGEMENT AND RURAL DEVELOPMENT, 2 years, 120 ECTS - field of study:
Engineering and management in agriculture and rural development

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Informatics and Statistical Notions	I	5
2	Agricultural and Food Policies	I	5
3	European Union Institutions	I	5
4	Business English	I	5
5	Marketing Services in Agriculture	I	5
6	Computer Assisted Design	I	5
7	Integrated Land Improvement	II	5
8	Rural Space Management	II	5
9	Theories and Strategies for Environmental Protection	II	5
10	Environmental Restoration and Conservation Management	II	5
11	Consulting	II	5
12	Public Finances/ Applied sociology (O)	II	5
2nd year of study			
1	Project Planning	I	5
2	Rural Development Legislation	I	5
3	Environmental Economics	I	5
4	Applied Sociology	I	5
5	Rural and Regional Development Management	I	5
6	Community Projects	I	5
7	Speciality practice	II	10
8	Research and dissertation writing & Dissertation defence	II	10 & 10





Specialization:

MANAGEMENT OF RURAL HOSPITALITY INDUSTRY, 2 years, 120 ECTS - field of study: Engineering and management in agriculture and rural development- program in English (*starting from 2018/2019)

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Strategic Management and Project Portfolios	I	5
2	Management of rural tourism resources	I	5
3	Economics of Services	I	5
4	Communication and Negotiation in Business	I	5
5	Diagnosis and evaluation of rural tourism and public alimentation units	I	5
6	Tourism arrangement of the territory	I	5
7	Depth Methods of Administration	II	5
8	Risk Management	II	5
9	Construction Projects	II	5
10	Program(s) Management	II	5
11	Financial management of tourist units	II	5
12	Services Marketing	II	5
2nd year of study			
1	Quality Management	I	5
2	Authorization and Control in Public Food Service and Tourism	I	5
3	Restaurant Technology	I	5
4	Rural Sociology/ Economics, Expertise and Environment Control (O)	I	5
5	Investment management in tourism	I	5
6	Travel Agency Management	I	5
7	Specialized Internship	II	10
8	Research and dissertation writing & Dissertation defence	II	10 & 10





Specialization:

FARM MANAGEMENT AND AGRIBUSINESS DEVELOPMENT, 2 years, 120 ECTS - field of study: Engineering and management in agriculture and rural development- program in English (*starting from 2018/2019)

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Business Management	I	5
2	Technique and Economy of Production	I	5
3	Control and Administration of Agricultural Units	I	5
4	Systems management unit	I	5
5	Sustainable Technologies in Agriculture	I	5
6	Development Models for Agricultural Holdings/ Evaluation and Accounting (O)	I	5
7	Agricultural Policies	II	5
8	Marketing Strategies	II	5
9	Unit Planning	II	5
10	Environmental Management	II	5
11	Rural and Regional Development Concepts	II	5
12	Project Planning	II	5
2nd year of study			
1	Agricultural Management Consultancy	I	5
2	Domestic and International Trade	I	5
3	Sustainable Energy	I	5
4	Quality Management	I	5
5	Community Projects	I	5
6	Specialized Internship	II	10
7	Research and Dissertation Preparation	II	10
8	Research and dissertation writing & Dissertation defence	II	10 & 10






Specialization:

MANAGEMENT AND INTERNAL AUDIT, 2 years, 120 ECTS - field of study:


Engineering and management in agriculture and rural development

1st year of study			
No.	Subject	Semester	No. of ECTS
1	Performance Management	I	6
2	Managerial Accounting	I	6
3	Quality Management	I	6
4	Corporate Governance - Concepts and Risk Management	I	6
5	Internal Audit – Concepts and Planning	I	6
6	Corporate Governance - Managerial Internal Control Systems	II	6
7	Internal Audit – Risk Evaluation	II	6
8	IT Systems in Company Management	II	6
9	Public Finances	II	6
10	Public Acquisitions Procedures	II	6
2nd year of study			
1	Project Planning	I	6
2	Business Law	I	6
3	Internal Audit - conducting missions, case studies	I	6
4	European Public Policies	I	6
5	Technical and Economic Diagnosis and Business Evaluation	I	6
6	Speciality practice	II	10
7	Research and dissertation writing	II	10
8	Dissertation defence	II	10





"A university for life and agriculture
through top quality education and
research"



Contact us

For any further information, we are all here:

Prof. Dr. Florin Stănică
Vice-Rector for Students Relations and
International Relations
florin.stanica@usamv.ro
Tel.: +40 (21) 318 25 64
Fax: +40 (21) 318 28 88

International Relations Office:

Dr. Ecaterina Ștefan
Head of the International Relations Office &
Erasmus+ Coordinator
ecaterina.stefan@agral.usamv.ro
Tel.: +40 (21) 318 25 64
Fax: +40 (21) 318 28 88

Cristiana Grosu
International Relations Officer
cristiana.grosu@usamv.ro
Tel.: +40 (21) 318 25 64
Fax: +40 (21) 318 28 88



Bd. Mărăști nr. 59, Sector 1, București, 011464

Tel: +40 (21) 318 25 64

Fax: +40 (21) 318 28 88

Email: post@info.usamv.ro

Web: www.usamv.ro