

**REPUBLIC OF NORTH MACEDONIA
GOCE DELCEV UNIVERSITY
FACULTY OF AGRICULTURE**



STUDY PROGRAMME PHYTOMEDICINE

**Study programme: PHYTOMEDICINE – 4 YEAR STUDY PROGRAMME
DIPLOMA: BSc PLANT PROTECTION**

Study programme, I year, I semester

Code	Course	Credits	Classes	Total
2ZF105117	Chemistry	8	3+2+2	240
2ZF110117	Basic of plant production	8	3+2+2	240
2FI110112	Computer science	6	2+2+1	180
	Elective faculty course 1-1	4	2+1+1	120
	Elective faculty course 1-2	4	2+1+1	120
UGD102717	Sport and recreation*	*	0+0+2	*
Total:		30	12+8+9	900

List Nb.1-1 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF105717	Meteorology	4	2+1+1	120
2	2ZF110717	Agroecology	4	2+1+1	120

List Nb.1-2 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF130217	Biostatistic	4	2+1+1	120
2	4FF100817	English language A2.1	4	2+1+1	120

Study programme, I year, II semester

Code	Course	Credits	Classes	Total
2ZF110417	Botanic	8	3+2+2	240
2ZF105517	Pedology	6	2+2+1	180
2ZF106917	Basic concept of biochemistry	6	2+2+1	180
	One Elective (university) course II	4	0+0+1	120
	One Elective (faculty) course 2-1	4	2+1+1	120
2ZF130117	Practical work*	2	0+0+2	60
Total:		30	10+6+9	900

List Nb.2-1 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF140117	Calculation	4	2+1+1	120
2	2ZF135117	Rural development	4	2+1+1	120

Study programme, II year, III semester

Code	Course	Credits	Classes	Total
2ZF105617	Mechanisation	8	3+2+2	240
2ZF114417	Plant physiology	8	3+2+2	240
2ZF110517	Genetics	6	2+2+1	180
	Elective faculty course	4	2+1+1	120
	Elective faculty course	4	2+1+1	120
Total:		30	12+8+7	900

List Nb. 3-1 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF115217	Viticulture	4	2+1+1	120
2	2ZF110817	Grain plants	4	2+1+1	120

List Nb. 3-2 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF110917	Industrial plants	4	2+1+1	120
2	2ZF111017	Tobacco and tobacco processing	4	2+1+1	120

Study programme, II year, IV semester

Code	Course	Credits	Classes	Total
2ZF110617	Plant breeding and seed production	8	3+2+2	240
2ZF120217	Microbiology	6	2+2+1	180
2ZF105217	Agrochemistry and plant nutrition	6	2+2+1	180
	One Elective (university) course II	4	0+0+1	120
	One Elective (faculty) course I	4	2+1+1	120
2ZF130117	Practical work*	2	0+0+2	60
Total:		30	9+7+8	900

List Nb. 4 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF112817	Fruith growing	4	2+1+1	120
2	2ZF111117	Vegetable growing	4	2+1+1	120

Study programme, III year, V semester

Code	Course	Credits	Classes	Total
2ZF100517	Basic entomology	8	3+2+2	240
2ZF100117	Basic phytopathology	8	3+2+2	240
2ZF120117	Livestock breeding	6	2+2+1	180
	Elective faculty course	4	2+1+1	120
	Elective faculty course	4	2+1+1	120
Вкупно:		30	12+8+7	900

List Nb. 5-1 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF110217	Tuber plants	4	2+1+1	120
2	2ZF111317	Fodder plants	4	2+1+1	120

List Nb.5-1 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF111217	Alternative plants	4	2+1+1	120
2	2ZF111417	Decorative plants	4	2+1+1	120

Study programme, III year, VI semester

Code	Course	Credits	Classes	Total
2ZF110317	Organic production	8	3+2+2	240
2ZF105417	Agromenagement	6	2+2+1	180
2ZF105317	Melioration and irrigation	6	2+2+1	180
	One Elective (university) course II	4	0+0+4	120
	One Elective (faculty) course I	4	2+1+1	120
2ZF130117	Practical work*	2	0+0+2	60
Total:		30	9+7+11	900

List Nb.6 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF120317	Anatomy and physiology of animals	4	2+1+1	120
2	2ZF120817	Process technology	4	2+1+1	120

Study programme, IV year, VII semester

Code	Course	Credits	Classes	Total
2ZF100617	Special entomology	8	3+2+2	240
2ZF101017	Micology	8	3+2+2	240
2ZF101117	Bacteriology	6	2+2+1	180
	Elective faculty course	4	2+1+1	120
	Elective faculty course	4	2+1+1	120
Total:		30	12+8+7	900

List Nb. 7-1 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF101417	Nemathology	4	2+1+1	120
2	2ZF101517	Phytopharmacy	4	2+1+1	120

List Nb. 7-2 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF101617	Anatomy and physiology of diases plants	4	2+1+1	120
2	2ZF101717	Plant resistance	4	2+1+1	120

Study programme, IV year, VIII semester

Code	Course	Credits	Classes	Total
2ZF101217	Virology	6	2+2+1	180
2ZF101317	Herbology	6	2+2+1	180
	One Elective (university) course II	4	0+0+4	120
	One Elective (faculty) course I	4	2+1+1	120
2ZF107017	<i>Practical work in plant protection</i>	4	0+0+4	120
Diplom work:		6	0+0+6	180
Total:		30	6+6+17	900

List Nb. 8 Elective (Faculty) courses (chose just 1 course)

Nb.	Code	Course	Credits	Classes	Total
1	2ZF121417	Quality control	4	2+1+1	120
2	2ZF102017	Biological protection	4	2+1+1	120

LIST OF UNIVERSITY COURSE

Code	LIST OF UNIVERSITY COURSE II, IV, VI and VIII semester			
	COURSE	Credits	Classes	Total
UGD100117	Macedonian literature and culture	4	0+0+4	120
UGD100217	Macedonian language and spelling	4	0+0+4	120
UGD100317	Ethics	4	0+0+4	120
UGD100417	History of Macedonia	4	0+0+4	120
UGD100517	Copyright	4	0+0+4	120
UGD100617	Tolerance and conflict resolution	4	0+0+4	120
UGD100717	Business Systems	4	0+0+4	120
UGD100817	Tourism industry	4	0+0+4	120
UGD100917	Entrepreneurship and Innovation	4	0+0+4	120
UGD101017	Management of self-development and behavior	4	0+0+4	120
UGD101117	Business Economics	4	0+0+4	120
UGD101217	Choral singing	4	0+0+4	120
UGD101317	Music and art	4	0+0+4	120
UGD101417	An Introduction to Film History	4	0+0+4	120
UGD101517	Dramaturgy	4	0+0+4	120
UGD101617	Basics of drawing	4	0+0+4	120
UGD101717	History of classical painting	4	0+0+4	120
UGD101817	Health promotion	4	0+0+4	120
UGD101917	Oral health and hygiene	4	0+0+4	120
UGD102017	Precious and semiprecious minerals	4	0+0+4	120
UGD102117	Earth science	4	0+0+4	120
UGD102217	Wildlife Science	4	0+0+4	120
UGD102317	Environmental Protection	4	0+0+4	120
UGD102417	Intelligent electronic components and devices	4	0+0+4	120
UGD102517	Experiment planning	4	0+0+4	120
UGD102617	History of clothing	4	0+0+4	120
UGD102717	Management and quality control	4	0+0+4	120
UGD102817	Computer sciences	4	0+0+4	120
UGD102917	Programming Basics	4	0+0+4	120

*

SELECTION OF UNIVERSITY ELECTIVES

Selection of university electives is based on the "*first reported first served*" principle. The maximum number of students in a group who can attend one university elective is 120. One professor can have a maximum of two groups of students. Up to two teachers may be engaged in one university elective course.

SPECIFIC DESCRIPTORS

Study programme: **Phytomedicinae**

Cycle of qualification: **I cycle, 240 ECTS, VI A**

Type of descriptor	Description
Knowledge and understanding	<ul style="list-style-type: none">- Demonstrate knowledge and understanding in the field of plant protection against diseases, pests and weeds.- Demonstrate knowledge and understanding of plant protection in different production systems (conventional, integral, organic and sustainable production).- Demonstrates knowledge of biological and environmental factors and their impact on phytopharmaceuticals.- Acquire adequate knowledge of the most important pathogens in crops, symptoms that are caused by various causes, protection measures in certain crops or groups of crops.- Demonstrate understanding and detailed knowledge of the specificities and application of particular groups of plant protection agents.
Apply theoretical and practical knowledge	<ul style="list-style-type: none">- Apply theoretical and practical knowledge and understanding in the field of agricultural production protection.- Demonstrate skills in phytopharmaceutical management in different agricultural production systems.- Perform control, monitoring and preservation of the agri-environmental environment with proper and detailed approach to the production process, managing quality, quantity and hygiene in production.- Identify, analyze and solve production problems related to primary plant protection.
Appraisal ability	<ul style="list-style-type: none">- They reasonably reason in making appropriate plant protection conclusions in different production systems.- Estimate the damage caused to production as a result of various factors affecting it.- Ability to evaluate both theoretically and practically the problems of chemical and biological control in crop production.
Communication skills	<ul style="list-style-type: none">- Connect ideas, problems and solutions from different segments in the protection of agricultural production.- Present and propose modern trends in the production and trade of agricultural products.- Explain expert, argumentative and acceptable ideas, attitudes, technologies and solutions and results to the professional and non-professional public.- Take responsibility for teamwork, personal and / or group responsibility when presenting teamwork results.
Skills of learning	<ul style="list-style-type: none">- Continuous improvement of one's own skills through direct communication and cooperation with the broader expert and scientific public in the field of phytomedicine.- Identifying the need for further studies with a higher degree of autonomy.- Demonstrate autonomy in the presentation of knowledge.

RECTOR Prof. d-r Blazo Boev	blazo.boev@ugd.edu.mk	032/550002
DEAN Prof. d-r Ljupco Mihajlov	ljupco.mihajlov@ugd.edu.mk	032/550618
VICE DEAN FOR SCIENCES Ass. Prof. Emilija Arsov	emilija.arsov@ugd.edu.mk	032/550616
PROFESSORS		
Full professors		
Prof. d-r Sasa Mitrev	sasa.mitrev@ugd.edu.mk	032/550610
Prof. d-r Liljana Koleva Gudeva	liljana.gudeva@ugd.edu.mk	032/550627
Prof. d-r Risto Kukutanov	risto.kukutanov@ugd.edu.mk	032/550626
Prof. d-r Ljupco Mihajlov	ljupco.mihajlov@ugd.edu.mk	032/550618
Prof. d-r Verica Ilieva	verica.ilieva@ugd.edu.mk	032/550621
Prof. d-r Rubin Gulaboski	rubin.gulaboski@ugd.edu.mk	032/550641
Prof. d-r Violeta Dimovska	violeta.dimovska@ugd.edu.mk	032/550170
Prof. d-r Aco Kuzelov	aco.kuzelov@ugd.edu.mk	032/550605
Prof. d-r Dusan Spasov	dusan.spasov@ugd.edu.mk	032/550624
Prof. d-r Dragica Spasova	dragica.spasova@ugd.edu.mk	032/550628
Prof. d-r Mite Ilievski	mite.ilievski@ugd.edu.mk	032/550629
Associated professors		
Prof. d-r Violeta Ivanova Petropulos	violeta.ivanova@ugd.edu.mk	032/550639
Prof. d-r Fidanka Trajkova	fidanka.trajkova@ugd.edu.mk	032/550631
Prof. d-r Fidanka Ilieva	fidanka.ilieva@ugd.edu.mk	032/550620
Prof. d-r Sanja Kostadinovik Velickovska	sanja.kostadinovik@ugd.edu.mk	032/550640
Prof. d-r Georgi Asenov Micev	georgi_asenov.micev@ugd.edu.mk	/
Assistant professors		
Ass. prof. Emilija Arsov	emilija.arsov@ugd.edu.mk	032/550616
Ass. prof. Biljana Balabanova	biljana.balabanova@ugd.edu.mk	032/550612
Ass. prof. Natalija Markova Ruzdik	natalija.markova@ugd.edu.mk	032/550615
Ass. prof. Biljana Kovacevik	biljana.kovacevik@ugd.edu.mk	032/550611
Ass. prof. Daniela Dimovska	daniela.dimovska@ugd.edu.mk	/
d-r Biljana Atanasova (associated researcher)	biljana.atanasova@ugd.edu.mk	032/550630
Laborants UNILAB laboratory		
MSc Vesna Zajkova Panova	vesna.zajkova@ugd.edu.mk	032/550572
MSc Elizabeta Karakaseva	elizabeta.karakaseva@ugd.edu.mk	032/550586
MSc Julijana Arsova	julijana.arsova@ugd.edu.mk	032/550716
Valentina Rangelovik	valentina.rangelovik@ugd.edu.mk	032/550586
Dragana Gicev	dragana.gicev@ugd.edu.mk	032/550716
Administration UNILAB laboratory		
Angela Bikova	angela.bikova@ugd.edu.mk	032/550623
Secretary at Faculty of Agriculture		
Elizabeta Davitkovska Barbareeva	elizabeta.barbareeva@ugd.edu.mk	032/550600
CONTACT FOR STUDENT ADMINISTRATIVE QUESTION		
Teaching center in Stip		
Ivan Josifov	ivan.josifov@ugd.edu.mk	032/550071
Teaching center in Kavadarci		
Zorica Gorgieva	zorica.gorgieva@ugd.edu.mk	032/550253
Teaching center in Strumica		
Anica Udovalieva	anica.udovalieva@ugd.edu.mk	032/550250
Teaching center in Prilep		
Natasa Madzoska	natasa.madzoska@ugd.edu.mk	032/550774



<http://zf.ugd.edu.mk/index.php/mk/>

<http://cmus.ugd.edu.mk/faculties-departements.html>