Study programme: Vegetable growing - 4 YEAR STUDY PROGRAMME
DIPLOMA: Graduated agricultural engineer – Vegetable grower, Baccalaureat (NQF VI A)

General programme for the first three years is identical for all study programme

CODE	VII SEMESTER – FOURTH YEAR			
	COURSE	**Credits**	**Classes**	**Total**
2ZF111612	Special vegetable growing	8	3+2+2	216
2ZF111712	Vegetable growing in greenhouses	8	3+2+2	216
2ZF111812	Plant breeding and seed production in vegetable growing	6	2+2+1	156
	Faculty elective course	4	2+1+1	120
	Faculty elective course	4	2+1+1	120
Вкупно:		30	12+8+7	828
CODE	**VIII SEMESTER – FOURTH YEAR**			
	COURSE	**Credits**	**Classes**	**Total**
2ZF111912	Biotechnology and biosafety	6	2+2+1	156
2ZF100312	Plant protection in vegetable growing	6	2+2+1	156
	University elective course	6	2+2+1	156
	Faculty elective course	4	2+1+1	120
Graduation thesis		8	0+0+8	192
Total:		30	8+7+12	780

CODE	***Faculty elective courses VII semester***			
2ZF112012	Seedling production	4	2+1+1	120
2ZF112112	Floriculture	4	2+1+1	120
2ZF112212	Practical work in the vegetable growing	4	2+1+1	120
2ZF120612	Vegetable processing	4	2+1+1	120
	Faculty elective course VIII semester			
2MF103712	Quality management	4	2+1+1	120
2ZF106012	Farm management	4	2+1+1	120

Code	***University elective courses VII semester and VIII semester***			
UGD102212	Fundamentals of Tourism	6	2+2+1	156
UGD102312	Earth Sciences	6	2+2+1	156
UGD102412	Physics	6	2+2+1	156
UGD102512	Biology	6	2+2+1	156
UGD102612	Health care	6	2+2+1	156
UGD102012	History of Art	6	2+2+1	156
UGD102112	National history	6	2+2+1	156

Appendix No.3	**Syllabus for the first, second and third cycle of study**					
1.	**Course title**	Special vegetable growing				
2.	**Course code**	2ZF111612				
3.	**Study programme:**	Vegetable growing – Four year study				
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production				
5.	**Level of study (first, second, third cycle)**	First cycle				
6.	**Academic year / semester**	Fourth year/ seventh semester	7.	Number of ECTS credits	8	
8.	**Professor**	Ass. prof. Ph.D Milan Georgievski				
9.	**Preconditions for course enrollment**	/				
10.	**Goals of the course programme:** Acquiring knowledge of special vegetable growing.					
11.	**Content of the course programme:** **Content of the lectures**: 1. Task and purpose of the case, the centres of origin of vegetable species. 2. Classification of vegetable species (botanical classification, classification by the length of the life cycle, classification according to plant organs which are used as food. 3. Root crops (carrots, parsley, parsnips, dill, beets, radish, turnips, black root, white root). 4. Bulbous vegetables (onion, garlic, leek, scarf, winter onions). 5. Tuber vegetables (potato, sweet potato, Jerusalem artichoke). 6, 7 and 8. Leafy vegetables (cabbage, leafy cabbage, kale, alabash, cauliflower, broccoli, Brussels sprouts, Chinese and Peking cabbage, chicory salad, spinach). 9, 10 and 11. Fruit vegetable (tomato, pepper, eggplant, watermelon, cucumber, pumpkin, tea, peas, green beans, broad beans, sugar corn). 12. Perennial kinds of vegetables (horseradish, artichoke, zealous). **Content of the exercises**: Practical knowledge of the morphology of the species included in the theoretical part of teaching. Field exercises. Introducing the concrete application of agro - technical measures in the cultivation of certain crops.					
12.	**Methods of study:** Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.					
13.	**Total amount of available time**	216 hours				
14.	**Distribution of the available time**	3+2+2				
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	3		
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	2		
16.	**Other forms of activities**	16.1.	Team projects	/		
		16.2.	Individual projects	1		
		16.3.	Individual study	1		
17.	**Forms of assessment**					
	17.1.	Exams (mid-term exams, exam, electronic testing)		70		

		Successfully implemented lab / theoretical exercises	10
	17.2.	Project activities (oral and written presentation)	10
	17.3.	Other forms of studying activities	10
18.	**Criteria for assessment (points / grade)**	to 50 points	5(five) (F)
		from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**	60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**	Macedonian	
21.	**Method of monitoring the quality of instruction**	Self-evaluation, periodical tests for the students, survey.	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Бранка Лазић и сор.	Повртарство	Универзитет у Новом Саду Полопривредни факултет	1998
2.	Лазар Алаџајков	Специјално градинарство	Универзитет „Кирил и Методиј“ - Скопје	1966
3.	Jovan Todorović, Branka Lazić, Ilija Komljenović	Ratarsko-povrtarski priračnik	Laktaši	2003

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.	Даниел Јанкуловски	Пиперка и патлиџан (монографија)	Скопје	1997
2.	Д. Симонов	Диња и лубеница (монографија)	Скопје	1995
3.	Д. Симонов	Кромид, лук и праз (монографија)	Скопје	1992

Appendix No.3	**Syllabus for the first, second and third cycle of study**					
1.	**Course title**	Vegetable growing in greenhouses				
2.	**Course code**	2ZF120612				
3.	**Study programme:**	Vegetable growing – Four year study				
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production				
5.	**Level of study (first, second, third cycle)**	First cycle				
6.	**Academic year / semester**	Fourth year/ seventh semester	7.	Number of ECTS credits	8	
8.	**Professor**	Ass. prof. Milan Georgievski, Ph.D				
9.	**Preconditions for course enrollment**	/				
10.	**Goals of the course programme:** Acquiring knowledge about the technology and technique of vegetable production in greenhouses.					
11.	**Content of the course programme**: **Content of the lectures**: 1. Importance and purpose of production in greenhouses. 2. Types of greenhouses. 3. Place for growing plants in greenhouses. 4. Place and organization of the greenhouse. 5. Growing conditions and their regulation (heat, light, water, air relative humidity, air and soil). 6. Sowing and planting. 7. Seedling production and seeding. 8. General measures of care in greenhouses. 9. Opportunities for using greenhouses. 10. Vegetable production in protected areas (tomato, pepper, eggplant, young potatoes). 11. Cucumber, watermelon, salad, leafy chicory, spinach, onion, garlic, leek, winter onion.12. Cabbage, Chinese cabbage, cauliflower, broccoli, parsley, radish, beet, carrot, green beans). **Content of the exercises:** Construction of glasshouse, heating ways. Protected beds and greenhouses, parts, dimensions, calculation of the necessary elements for the production of hot beds. Schedule of protected areas, charging beds. Field exercises. Introducing the concrete application of technical measures in the cultivation of certain crops, preparation for production in greenhouses, monitoring the process of finishing and packing vegetables. Visiting refrigerated warehouses and storage facilities for vegetables.					
12.	**Methods of study:** Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.					
13.	**Total amount of available time**	216 hours				
14.	**Distribution of the available time**	3 + 2 + 2				
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	3		
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	2		
16.	**Other forms of activities**	16.1.	Team projects	/		
		16.2.	Individual projects	1		

		16.3.	Individual study	1

17.	**Forms of assessment**		
	17.1.	Exams (mid-term exams, exam, electronic testing)	70
		Successfully implemented lab / theoretical exercises	10
	17.2.	Project activities (oral and written presentation)	10
	17.3.	Other forms of studying activities	10

18.	**Criteria for assessment (points / grade)**	to 50 points	5(five) (F)
		from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**	60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**	Macedonian	
21.	**Method of monitoring the quality of instruction**	Self-evaluation	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Бранка Лазић	Повртарство	Универзитет у Новом Саду Пољопривредни факултет	1998
2.	Mihal Đurovka i sar.	Proizvodnja povrća i cveća u zaštićenom prostoru	Универзитет у Новом Саду Пољопривредни факултет	2005
3.	Бранка Лазиќ и др.	Заштитени простори Авторизирани предавања	Скопје	2007

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.	Branka Lazić I sar.	Povrće iz plastenika	Универзитет у Новом Саду Пољопривредни факултет	2001
2.	Ružica Lešići dr.	Povrće iz vlastitog vrta	Nakladni zavod Znanje, Zagreb	1987

				(treče izmenjeno i dopunjeno izdanje).		
		3.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**				
1.	**Course title**	Plant breeding and seed production in vegetable growing			
2.	**Course code**	2ZF111812			
3.	**Study programme:**	Vegetable growing – Four year study			
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production			
5.	**Level of study (first, second, third cycle)**	First cycle			
6.	**Academic year / semester**	Fourth year/ seventh semester	7.	Number of ECTS credits	6
8.	**Professor**	Ass. prof. Dragica Spasova, Ph.D			
9.	**Preconditions for course enrollment**	/			
10.	**Goals of the course programme:** The course aims at applying acquired knowledge of plant genetics and selection in the selection for the creation of new varieties and hybrids in certain vegetable crops, propagation and maintenance through seed production per individual methods in separate crops.				
11.	**Content of the course programme:** **Content of the lectures:** Methods for selection of natural and local populations: Autogamous, xenogamous and crops that have vegetative reproduction. Methods for the creation of new genotypes in certain vegetables: bulbous vegetables, cabbage vegetables, root vegetables, fruit vegetables (fam. Solanaceae and fam. Cucurbitacea). Procedure with hybrid offspring. Application of heterozys in certain vegetables. Application of Biotechnology in the selection. Seed production in certain vegetables (category of seed, field control, processing, storage and warehousing). Methods for determining the quality of the seed. **Content of the exercises**: Field selection of elite plants and their laboratory analysis. Methods of selecting among different plant species. Examination field (a technique of planning, setting up field, varietal experiments and statistical processing of the results). Introduction to methods of testing quality properties of seeds for vegetables.				
12.	**Methods of study**: Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.				
13.	**Total amount of available time**	156 hours			
14.	**Distribution of the available time**	2+2+1			
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	2	
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	2	

16.	**Other forms of activities**	16.1.	Team projects	/
		16.2.	Individual projects	0,5
		16.3.	Individual study	0,5

17.	**Forms of assessment**		
	17.1.	Exams (mid-term exams, exam, electronic testing)	70
		Successfully implemented lab / theoretical exercises	10
	17.2.	Project activities (oral and written presentation)	10
	17.3.	Other forms of studying activities	10

18.	**Criteria for assessment (points / grade)**	to 50 points	5(five) (F)
		from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**	60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**	Macedonian	
21.	**Method of monitoring the quality of instruction**	Self-evaluation	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Верица Илиева	Општа селекција, учебник	УГД-Штип	2012
2.	Драгица Спасова	Селекција и семепроизводство - Интерна скрипта за студентите од Земјоделски факултет	УГД-Штип	2011
3.	Beljo, J.	Oplemenjivanje bilja	Agronomski fakultet – Mostar	2006
4.	Цветанка Најчевска	Селекција на растенијата со семепроизводство (практикум)	УКИМ, Земјоделски факултет. Скопје	1997

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.	Мартинčић, J., Козумплик, В.	Оплемењивање биља, Загреб.	Poljoprivredni fakultet -Osijek,	1996

					Agronomski fakultet - Zagreb	
		2.	Marić, M. Miodrag	Semenarstvo	Izdavačka kuća DRAGANIĆ, Beograd	2005
		3.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**					
1.	**Course title**	Seedling production				
2.	**Course code**	2ZF112012				
3.	**Study programme:**	Vegetable growing – Four year study				
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production				
5.	**Level of study (first, second, third cycle)**	First cycle				
6.	**Academic year / semester**	Fourth year/ seventh semester	7.	Number of ECTS credits	4	
8.	**Professor**	Ass. prof. Milan Georgievski, Ph.D				
9.	**Preconditions for course enrollment**	/				
10.	**Goals of the course programme:** The students acquire knowledge in the area of seedling production.					
11.	**Content of the course programme:** **Content of the lectures:** Familiarization with seedling production, the place for seedling production (in open field and in greenhouses), conditions for growing seedling (temperature, light, water, relative humidity of air and soil, air and soil), ways of seedling production (conventional and in containers), preparation of mixture for seedling production, time of sowing and sowing and care of seedlings, tempering and seeding. **Content of the exercises**: Practical acquaintance with the ways of seedling production, establishment categories and quality of seedlings, field exercises, visiting facilities for seedling manufacturing.					
12.	**Methods of study**: Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.					
13.	**Total amount of available time**	120 hours				
14.	**Distribution of the available time**	2+1+1				
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	2		
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	1		
16.	**Other forms of activities**	16.1.	Team projects	/		
		16.2.	Individual projects	0,5		

		16.3.	Individual study	0,5

17.	**Forms of assessment**		
	17.1.	Exams (mid-term exams, exam, electronic testing)	70
		Successfully implemented lab / theoretical exercises	10
	17.2.	Project activities (oral and written presentation)	10
	17.3.	Other forms of studying activities	10

18.	**Criteria for assessment (points / grade)**	to 50 points	5(five) (F)
		from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**	60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**	Macedonian	
21.	**Method of monitoring the quality of instruction**	Self-evaluation	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Mihal Đurovka i dr.	Proizvodnja povrća i cveća u zaštićenom prostoru	Универзитет у Новом Саду Пољопривредни факултет	2005
2.	Бранка Лазић и др.	Повртарство	Универзитет у Новом Саду Пољопривредни факултет	1998
3.				

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.				
2.				
3.				

Appendix No.3	Syllabus for the first, second and third cycle of study					
1.	**Course title**	Floriculture				
2.	**Course code**	2ZF112112				
3.	**Study programme:**	Vegetable growing – Four year study				
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production				
5.	**Level of study (first, second, third cycle)**	First cycle				
6.	**Academic year / semester**	Fourth year/ seventh semester	7.	Number of ECTS credits	4	
8.	**Professor**	Ass. prof. Milan Georgievski, Ph.D				
9.	**Preconditions for course enrollment**	/				
10.	**Goals of the course programme:** Acquiring knowledge in the field of floriculture.					
11.	**Content of the course programme:** **Content of the lectures**: 1. Origin of floral crops (geographical and biological). Decorative features of cultures (stem, leaf flower). 2 and 3. Growing conditions (light, heat, humidity, and soil, water and soil). 4, 5, 6, 7 and 8. Flowering crops on open field (annual, biannual, perennial). 9. Reproduction. 10, 11 and 12. Flower indoors crops (potted species – leaf-decorative, flower – decorative and floral crops for engraved flower). **Content of the exercises:** Practical acquiring of the production systems. Botanical classification of the crops. Common characteristics. Ways of reproduction. Practical exercises. Visiting organisations that produce flower crops.					
12.	**Methods of study:** Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.					
13.	**Total amount of available time**	120 hours				
14.	**Distribution of the available time**	2 +1 +1				
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	2		
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	1		
16.	**Other forms of activities**	16.1.	Team projects	/		
		16.2.	Individual projects	0,5		
		16.3.	Individual study	0,5		
17.	**Forms of assessment**					
	17.1.	Exams (mid-term exams, exam, electronic testing)		70		
		Successfully implemented lab / theoretical exercises		10		
	17.2.	Project activities (oral and written presentation)		10		
	17.3.	Other forms of studying activities		10		
18.		to 50 points		5(five) (F)		

	Criteria for assessment (points / grade)	from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**	60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**	Macedonian	
21.	**Method of monitoring the quality of instruction**	Self-evaluation	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Mihal Đurovka i dr.	Proizvodnja povrća I cveća u zaštićenom prostoru	Univerzitet u Novom Sadu Poljoprivredni fakultet	2005
2.	Зорка Дренић	Цвећарство	Завод за уџбенике и наставна средства - Београд	1988
3.	Стефанка Хаџи Пецова и Маргарита Димовска	Цвеќаство на отворено (скрипта)	Универзитет „Св. Кирил и методиј“ Факултет за земјоделски науки и храна - Скопје	

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.	Dole, J.; Willkins	„Floriculture, Principles and Practice“	Prentice Hall	1999
2.	LLOYD, C. RICE, G.	Garden Flovers from seed.	Renguin Books London (England)	1997
3.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**				
1.	**Course title**	Practical work in the vegetable growing			
2.	**Course code**	2ZF112212			
3.	**Study programme:**	Vegetable growing – Four year study			
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production			
5.	**Level of study (first, second, third cycle)**	First cycle			
6.	**Academic year / semester**	Fourth year/ seventh semester	7.	Number of ECTS credits	4
8.	**Professor**	Ass. prof. Milan Georgievski, Ph.D			
9.	**Preconditions for course enrollment**	/			
10.	**Goals of the course programme:** Familiarization with the specific requirements for growth, development and fertility, and their agro-technical measures that enable the achievement of high quality and yield as well as the basis for achieving favorable economic effects, but also environmental protection.				
11.	**Content of the course programme:** **Content of the lectures:** students will be practically familiar with: the general agro-technical measures applied in gardening (specificity vegetable production grown on a flat surface, ridges and furrows, beds, and low high beds and beams). Sowing and planting (before sawing treating seed). Special agro-technical measures (seedling production, irrigation, frost protection mulching, protection against high temperatures and winds). Specific agro-technical measures that apply only to certain kinds or only in some varieties in frame type. Vintage packaging and transport. Storing vegetables (dug ditch, overhead ditch, warehouse and cold storage). Rank and organization of protected garden. General measures of care in a protected garden. **Content of the exercises:** visiting organizations that produce vegetables, visit the ransom centres and cold storage.				
12.	**Methods of study:** Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.				
13.	**Total amount of available time**	120 hours			
14.	**Distribution of the available time**	2 +1 +1			
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	2	
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	1	
16.	**Other forms of activities**	16.1.	Team projects	/	
		16.2.	Individual projects	0,5	
		16.3.	Individual study	0,5	

17.	**Forms of assessment**			
	17.1.	Exams (mid-term exams, exam, electronic testing)		70
		Successfully implemented lab / theoretical exercises		10
	17.2.	Project activities (oral and written presentation)		10
	17.3.	Other forms of studying activities		10
18.	**Criteria for assessment (points / grade)**		to 50 points	5(five) (F)
			from 51 to 60 points	6(six) (E)
			from 61 to 70 points	7(seven) (D)
			from 71 to 80 points	8(eight) (C)
			from 81 to 90 points	9(nine) (B)
			from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**		60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**		Macedonian	
21.	**Method of monitoring the quality of instruction**		Self-evaluation	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Mihal Đurovka i dr.	Proizvodnja povrća I cveća u zaštićenom prostoru	Univerzitet u Novom Sadu Poljoprivredni fakultet	2005
2.	Бранка Лазић и др.	Повртарство	Универзитет у Новом Саду Пољопривредни факултет	1998

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.				
2.				
3.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**					
1.	**Course title**	Vegetable processing				
2.	**Course code**	2ZF120612				
3.	**Study programme:**	Vegetable growing – Four year study				
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production				
5.	**Level of study (first, second, third cycle)**	First cycle				
6.	**Academic year / semester**	Fourth year/ eight semester	7.	Number of ECTS credits	4	
8.	**Professor**	Ass. prof. Milan Georgievski, Ph.D				
9.	**Preconditions for course enrollment**	/				
10.	**Goals of the course programme:** Students are introduced with the latest technological procedures for processing and canning vegetables.					
11.	**Content of the course programme:** **Content of the lectures** Opening introduction to teaching discipline. Processes that occur after harvest (breathing evaporative, maturation and over maturation. Darkening of the fruits and their processing (ferment, no ferment and microbiological). Aids and resources (water, means of acidification, means of strengthening and spices). Preparatory works for canning (reception of the raw material, storage, grading, washing, blanching, blending, clarification, and filtration). Preservatives (organic and inorganic). Principles of conservation (biotic, abiotic and anabiotic). Packaging. Processed vegetables (tomato juice concentrate), thermally canned vegetables (peas, green beans), marinade, biologically canned vegetables, dried and frozen vegetables. **Content of the exercises**: Preparation of medium rehearsal of vegetables. Determination of total soluble solids, sugars, total acids, pH, vitamin C, pectin substances, tannin substances, proteins, fats, cellulose, starch, ferments, salt, hardness and alkalinity of the water. Making a yield of finished products. Visiting organizations for vegetable processing.					
12.	**Methods of study:** Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.					
13.	**Total amount of available time**	120 hours				
14.	**Distribution of the available time**	2 +1 +1				
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	2		
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	1		
16.	**Other forms of activities**	16.1.	Team projects	/		
		16.2.	Individual projects	0,5		
		16.3.	Individual study	0,5		
17.	**Forms of assessment**					

	17.1.	Exams (mid-term exams, exam, electronic testing)	70
		Successfully implemented lab / theoretical exercises	10
	17.2.	Project activities (oral and written presentation)	10
	17.3.	Other forms of studying activities	10

18.	**Criteria for assessment (points / grade)**	to 50 points	5(five) (F)
		from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**	60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**	Macedonian	
21.	**Method of monitoring the quality of instruction**	Self-evaluation	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	В. Црнчевиќ	Преработка на овошје и зеленчук	Скопје	1977
2.	В. Црнчевиќ	Теоријске основе конзервирање воча и поврћа.	Београд	1973
3.	Љубисављевић	Воће, поврће, пећурке и прераЂевине	Београд	1989

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.				
2.				
3.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**					
1.	Course title	**Biotechnology and biosafety**				
2.	Course code	2ZF111912				
3.	Study programme**:**	Gardening, 4 year study programme				
4.	Organizers of the study programme (faculty, institute, group)	University “Goce Delcev”- Stip. Faculty of Agriculture				
5.	Level of study (first, second, third cycle)	First cycle				
6.	Academic year / semester	Fourth/seven 2012/13	7.	Number of ECTS credits	6	
8.	Professor	Prof. Liljana Koleva Gudeva, Ph.D				
9.	Preconditions for course enrollment	No				
10.	Goals of the course programme: Biotechnology and biosafety have important role in genetic engineering and the use of methods invitro conditions. The course aims to familiarize students with theoretical and practical knowledge about the power of biotechnological lmethods in plant biotechnology and the application of methods of plantcells and tissues cultures at invitro conditions.					
11.	Content of the course programme: **Theoretical part of the coursecontent:** 1. Introduction. Agricultural biotechnology 2. Environmental aspects of biotechnology 3. Biodiversity-concept, importance and role 4.Technology transfer 5. Biosafety 6.Definition, meaning and stages of micropropagation 7.Free of viruses plant material 8.Methods for getting haploids and dihaploids 9.Protoplasts 10.Genetic transformations 11.Genebanks 12.Importance and power of agricultural biotechnology **Contents of exercises (practical and laboratory):** 1. Laboratory for plant biotechnology - equipment and space 2. Sterilization equipment operation and plant material 3. Preparation of nutrient solutions and growth regulators. 4. Preparation of nutrient medium 5. Incubation a seeds on basal medium 6.Isolation of initial explants7. Meristem culture 8.Micropropagation 9 - 12. Invitro cultures of plant tissues and organs.					
12.	Methods of study: Lectures, Laboratory exercises, e-learning, individual and team projects, consultations.					
13.	Total amount of available time	156 hours				
14.	Distribution of the available time	2 +2 +1				
15.	Forms of teaching activities	15.1.	Lectures - theoretical training	2		
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	2		
16.	Other forms of activities	16.1.	Team projects			
		16.2.	Individual projects	0,5		
		16.3.	Individual study	0,5		
17.	Forms of assessment					
	17.1.	Exams (mid-term exams, exam, electronic testing)	70			
	17.2.	Project activities (oral and written presentation)	10			

	17.3.	Other forms of studying activities	20
18.	Criteria for assessment (points / grade)	to 50 points	5(five) (F)
		from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	Condition for getting a signature and taking the final exam	60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	Language in which classes are conducted	Macedonian	
21.	Method of monitoring the quality of instruction	Self-evaluation	

22. Literature

Compulsory literature

	Ordinal number	Author	Title	Publisher	Year
22.1.	1.	George E.F.	Plant Propagation by tissue culture	Edingtin Wilts, England	1996
	2.	Liljana Koleva Gudeva	Plant Phisiology	UGD Stip	2012
	3.				

Additional literature

	Ordinal number	Author	Title	Publisher	Year
22.2.	1.	Bruss Alberst, at all.	Molecular Biology of the cell	Garland Science, NY USA	2002
	2.				
	3.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**				
1.	**Course title**	Plant protection in vegetable growing			
2.	**Course code**	2ZF100312			
3.	**Study programme:**	Vegetable growing – Four year study			
4.	**Organizers of the study programme (faculty, institute, group)**	University “GoceDelcev”- Stip, Faculty of Agriculture, Department for Plant production			
5.	**Level of study (first, second, third cycle)**	First cycle			
6.	**Academic year / semester**	Fourth year/ seventh semester	7.	Number of ECTS credits	8

8.	**Professor**		Ass. prof. Ph.D Dusan Spasov	
9.	**Preconditions for course enrollment**		/	
10.	**Goals of the course programme:** Aim of this course is to enable students to familiarize with the most important diseases, pests and weeds in vegetable crops and their suppression.			
11.	**Content of the course programme**: **Content of the lectures**: 1. Introduction to the most important diseases, pests and weeds in vegetable crops. 2. Protection systems in vegetables. 3. Diseases of vegetables that are transmitted by seed and their eradication. 4. Polyphagous pests of vegetable crops. 5. Potato protection against diseases, pests and weeds. 6. Protection of the fruit vegetables against diseases, pests and weeds. 7. Protection of the cabbage crops from diseases, pests and weeds. 8. Leafy vegetables protection against diseases, pests and weeds. 9. Protection of the leguminous vegetable crops from diseases, pests and weeds. 10. Protection of the bulbous vegetables against diseases, pests and weeds. 11. Protection of the root vegetables against diseases, pests and weeds. 12. Protection of vegetables grown in greenhouses from diseases, pests and weeds. **Content of the exercises:** 1. Selection of products and methods of application of plant protection products. 2. Disease symptoms in vegetables that are transmitted by seed and their eradication. 3. Means for treating seed. 4. Determination of the polyphagous pests of vegetable crops. 5. Key to the identification of diseases and pests of potatoes. 6. Key for identification of diseases and pests of fruit vegetable. 7. Key for the identification of diseases and pests of cabbage vegetable crops. 8. Key to the identification of diseases and pests of leafy vegetables. 9. Key for the identification of diseases and pests of leguminous vegetables. 10. Key to identifying diseases and pests of bulbous vegetable. 11. Key to identifying diseases and pests of root vegetables. 12. Programme for protection vegetables from diseases, pests and weeds grown in greenhouses.			
12.	**Methods of study:** Lectures, theoretical and practical exercises, consultations, making independent seminar work; learning home; exam preparatory classes and mid-term tests.			
13.	**Total amount of available time**		180 hours	
14.	**Distribution of the available time**		2+2+1	
15.	**Forms of teaching activities**	15.1.	Lectures - theoretical training	2
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	2
16.	**Other forms of activities**	16.1.	Team projects	/
		16.2.	Individual projects	1
		16.3.	Individual study	/
17.	**Forms of assessment**			
	17.1.	Exams (mid-term exams, exam, electronic testing)		70
	17.2.	Project activities (oral and written presentation)		10
	17.3.	Other forms of studying activities		20
18.	**Criteria for assessment (points / grade)**		to 50 points	5(five) (F)
			from 51 to 60 points	6(six) (E)

		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	**Condition for getting a signature and taking the final exam**	/ 60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	**Language in which classes are conducted**	Macedonian	
21.	**Method of monitoring the quality of instruction**	Self-evaluation	

22. **Literature**

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Доц. Д-р Душан Спасов Асс. М-р Билјана Атанасова	Заштита на градинарски култури – Интерна скрипта	УГД-Штип	2010
2.	Доц. Д-р Душан Спасов Асс. М-р Билјана Атанасова	Интерен практикум по Заштита на градинарски култури	УГД-Штип	2010
3.				

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.	M. Maceljski, B. Cvjetković, Z. Ostojić, J. Igrc Barčić, N. Pagliarini, Lj, Oštrec, K. Barić, I. Čizmić	Štetočinje povrća – s opsežnim prikazom zaštite povrća od štetnika, uzročnika bolesti i korova	Zrinski Čakovec	2004
2.	Prof. dr. Milan Maceljski, Prof. dr. Bogdan Cvjetković, Prof.dr. Jasminka Igrc Barčić, Prof. dr. Zvonimir Ostojić	Priručnik iz zaštite bilja	Zavod za zaštitu bilja u poljoprivredi i šumarstvu Republike Hrvatske	1997
3.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**					
1.	Course title	**Quality Management**				
2.	Course code	2MF103712				
3.	Study programme**:**	**QUALITY CONTROL**				
4.	Organizers of the study programme (faculty, institute, group)	University “Goce Delcev”- Stip, Faculty of Agriculture				
5.	Level of study (first, second, third cycle)	First cycle				
6.	Academic year / semester	Fourth year / VIII semester	7.	Number of ECTS credits	4	
8.	Professor	Prof. Sasa Mitrev, Ph.D				
9.	Preconditions for course enrollment	No				
10.	Goals of the course programme: Quality management in the modern organization. Customer loyalty. Creating competitive market organizations. Role, importance and implementation of the ISO9001 family of standards					
11.	Content of the course programme: 1. Introduction to quality management (quality as a strategic goal and utility organizations for competitiveness). 2. Quality management system (general requirements relating to the ISO9001:2008 Quality Management System). 3. Management responsibility (item 5 of the standard ISO 9001:2008). 4. Resource management (item 6 of the standard ISO 9001:2008). 5. Conversion product (item 7.1, 7.2 and 7.3 of the standard ISO 9001:2008). 6. Realization of the product (see section 7.4, 7.5 and 7.6 of the standard ISO 9001:2008). 7. Measurement, analysis and improvement (item 8 of the standard ISO 9001:2008). 8. Introduction to ISO17025, the competence of testing and calibration laboratories. 9. Introduction to ISO27001, Information Security Management Systems. 10. Introduction to ISO14001, Environmental Management. 11. Introducing standard OHSAS 18001 health and safety management. 12. Introduction to ISO 22000 Food Safety Management System.					
12.	Methods of study: lessons, exams					
13.	Total amount of available time	120 hours				
14.	Distribution of the available time	2+1+1				
15.	Forms of teaching activities	15.1.	Lectures - theoretical training	2		
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork	1		
16.	Other forms of activities	16.1.	Team projects			
		16.2.	Individual projects	1		
		16.3	Individual study			
17.	Forms of assessment					
	17.1	Exams (mid-term exams, exam, electronic testing)		70		

	17.2	Project activities (oral and written presentation)	10
	17.3	Other forms of studying activities	20

18.	Criteria for assessment (points / grade)	to 50 points	5(five) (F)
		from 51 to 60 points	6(six) (E)
		from 61 to 70 points	7(seven) (D)
		from 71 to 80 points	8(eight) (C)
		from 81 to 90 points	9(nine) (B)
		from 91 to 100 points	10(ten) (A)
19.	Condition for getting a signature and taking the final exam	/ 60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	Language in which classes are conducted	Macedonian	
21.	Method of monitoring the quality of instruction	Self-evaluation	

22. Literature

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Institute of accreditation of Republic of Macedonia	Quality managementsystems-Requirements(ISOEN ISO 9001:2008)	IARM	
2.	Hrvoje Skoko	Quality management	Sinergija, Zagreb, Croatia	2000
3.	David Hoyle	Quality Systems Handbook (4th edition)	Butterworth-Heinemann, A member of the Reed Elsevier plc group	2001

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.	Institute of accreditation of Republic of Macedonia	ISO 17025, ISO 27001, ISO 14001, ISO 22000, ISO 18001	IARM	2010
2.				

Appendix No.3	**Syllabus for the first, second and third cycle of study**				
1.	Course title	**Farm Management**			
2.	Course code	2ZF102512			
3.	Study programme**:**	Agromanagement, 4 year study programme			
4.	Organizers of the study programme (faculty, institute, group)	University “GoceDelcev”- Stip. Faculty of agriculture - Stip			
5.	Level of study (first, second, third cycle)	First cycle			
6.	Academic year / semester	IV year/ VIII semester	7.	Number of ECTS credits	4
8.	Professor	assi. Prof. Elenica Sofijanova, Ph.D			
9.	Preconditions for course enrollment	/			
10.	Goals of the course programme: The course aims is to present students with introductory observations on the importance of farm management through managerial functions of planning, job analysis, recruitment, selection, training and development, as well as measuring the performance of management by developing basic management skills.				
11.	Content of the course programme: A) Contents of lectures: 1. Farm management in the twenty-first century; 2. Measuring the performance of management; 3. Economic principles-choice of production levels; 4. Whole farm planning, cash flow budget 5. Farm business organization and yield; 6. Dealing with risk and uncertainty, investment analysis; 7. Obtaining resources for capital management and use of credits; 8. Control and use of land; 9. Human resource management and planning of the agricultural labor force; 10. Improving management capacity 11. Rules and regulations for agricultural labour; 12. Management of self development, SWOT-analysis. B) Contents of exercises: 1. Management in agriculture 2. Accounting records and comparative analysis; 3. Study of economic farm unit; 4. Planning profitability, cash flow and capital investment evaluation (practical examples); 5. Human resource planning and mechanization; 6. Sources of funding-balance sheet and income statement; 7. Tax-practice examples; 8. Marketing (examples); 9. European Union –Farm Management; 10. Agricultural marketing organizations; 11. Cereal markets-examples; 12. Live stock markets, examples;				
12.	Methods of study: Lectures, theoretical and practical exercises, consultations; making independent seminar work; learning home; exam preparatory classes and mid-term tests: consultation.				
13.	Total amount of available time	120 hours			
14.	Distribution of the available time	2 +1 +1			
15.	Forms of teaching activities	15.1.	Lectures - theoretical training		2
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork		1
16.	Other forms of activities	16.1.	Team projects		0.5
		16.2.	Individual projects		0.5
		16.3.	Individual study		/

17.	Forms of assessment			
	17.1.	Exams (mid-term exams, exam, electronic testing)		70
	17.2.	Project activities (oral and written presentation)		10
	17.3.	Other forms of studying activities		20
18.	Criteria for assessment (points / grade)		to 50 points	5(five) (F)
			from 51 to 60 points	6(six) (E)
			from 61 to 70 points	7(seven) (D)
			from 71 to 80 points	8(eight) (C)
			from 81 to 90 points	9(nine) (B)
			from 91 to 100 points	10(ten) (A)
19.	Condition for getting a signature and taking the final exam		/ 60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions	
20.	Language in which classes are conducted		Macedonian	
21.	Method of monitoring the quality of instruction		Self-evaluation, periodic tests for students, questionnaires	

22. Literature

22.1. Compulsory literature

Ordinal number	Author	Title	Publisher	Year
1.	Donald D. Kay, William M.Edvards, Ratricia A. Daffy	Farm Management (VI edition)	Publishing CenterTRI	2009
2.	Jonathan Turner, MartinTaylor	Applied Farm Management (Second Edition)	Publishing CenterTRI	2010
3.	Gareth Jones, Jennifer George	Modern Management	ISPPI, Skopje	2009

22.2. Additional literature

Ordinal number	Author	Title	Publisher	Year
1.	Biljana Bogičevik	Human Resource Management	Belgrade	2004
2.	Lioyd Byars, Leslie Rue	Human Resource Management	McGraw-Hill	2006

UNIVERSITY ELECTIVE COURSES - *Fourth year of study*

Appendix No.3	**Syllabus for the first, second and third cycle of study**	
1.	**Title of the Course**	**Fundamentals of Tourism**
2.	**Code**	**UGD102212**
3.	**Study Programme**	**Tourism**

4.	**Organizer of the study programme (unit or institute, Faculty, department)**	University Goce Delcev-Stip Faculty of Tourism and Business Logistics Department of Gevgelija			
5.	**Cycle (first, second and third cycle)**	First cycle			
6.	**Academic year / semester**	I / I	**7.**	**Number of credits**	8
8.	**Professor (s)**	Zlatko Jakovlev PhD			
9.	**Preconditions for course enrollment**	Enrolled in first year studies			
10.	**Goals of the course programme:**The objectives are scientific and practical, scientific refers to the acquisition of theoretical knowledge of students about the basics of tourism, and the practical application of scientific knowledge in the hospitality practice.				
11.	**Content of the course programme:** Introduction 1. Theoretical and methodological approach to the study of tourism(subject, tasks, goals and methods of tourism studies) 2. Aspects of the scientific study of tourism 3. Theoretical understanding of the concept of tourism 4. Practical importance of defining tourism 5. Tourism and analog appear 6. Socio-economic conditionality tourism 7. Theoretical views on the emergence of tourism 8. Tourist need 9. Factors of tourism 10. Tourism functions 11. Tourism values 12. Tourist destination 13. Tourist attractions and activities 14. Types of tourism 15. Tourist regulation 16. Tourist differential 17. Tourist futurology				
12.	**Methods of study::** Lectures, tutorials and laboratory exercises				
13.	**Total available time**	216 hours			
14.	**Distribution of available time**	3 + 2 + 2 / per week			
15.	**Forms of teaching / learning activities**	**15.1.**	**lectures / theoretical - contact teaching, e-teaching**	3 hours	
		15.2.	**theoretical and practical exercises, e-exams, preparation of independent seminar work**	2 hours	
16.	**Other forms of activities**	**16.1.**	**Project tasks**	1 hours	
		16.2.	**Individual tasks**	1 hours	
		16.3.	**Home learning**	1 hours	
17.	**Forms of assessment**				

	17.1.	**Tests / oral exams**				0-20 points
	17.2.	**Seminars (paper / project - presentation: written and/or oral)**				10 points
	17.3.	**Activity and participation**				20 points
18.	**Criteria for assessment (points/grade)**		up 50 points	5	(five)	(F)
			51 to 60 points	6	(six)	(E)
			61 to 70 points	7	(seven)	(D)
			71 to 80 points	8	(eight)	(C)
			81 to 90 points	9	(nine)	(B)
			91 to 100 points	10	(ten)	(A)
19.	**Condition for getting a signature and taking the final exam**		60% success from all activities before exam i.e 42 points from two mid-term tests, seminar attendance of lectures and exercises			
20.	**Language in which classes are conducted**		Macedonian language			
21.	**Method of monitoring the quality of teaching**		Self-evaluation			

Appendix No.3	**Subject programme from first cycle studies**				
1.	Course title	**BIOLOGY**			
2.	Course code	UGD102512			
3.	Study programme**:**	University elective subject			
4.	Organizers of the study programme (faculty, institute, group)	Faculty of Agriculture Department of Plant Protection			
5.	Level of study (first, second, third cycle)	First cycle			
6.	Academic year / semester	Second / forth Third / sixth	7.	Number of ECTS credits	6
8.	Professor	Ass. prof. Liljana Koleva Gudeva			
9.	Preconditions for course enrollment	No			
10.	Goals of the course programme: Gaining fundamental knowledge in biology which is necessary for understanding of life and life processes. Gaining of wide knowledge about the living organisms, cell structure, biological systems, as well as understanding of reproduction. Development of proper attitude to the each own health and health of other humans. Understanding of principles of inheritance. Implementation of gained knowledge.				
11.	**Content of the course programme:** 1. Biology as science of living organisms 2. The cell and cell structural elements 3. Nucleic acids				

	4. Cell cycle 5. Reproduction 6. Basics of genetics 7. Plant cytology 8. Classification of basic types of animal tissues 9. Plant tissues 10. Anatomy, morphology and physiology of plants 11. Anatomy and physiology of animals 12. Phylogenic and taxonomy of life organisms				
12.	Methods of study: research work; work in small groups; individual learning; practical classes; project work; discussion; debate; individual tasks				
13.	Total amount of available time		156 hours		
14.	Distribution of the available time		2 +2 +1		
15.	Forms of teaching activities	15.1.	Lectures - theoretical training		2 hours/week
		15.2.	Practice (laboratory, auditory), workshops, outreach and teamwork		2 hours/week
16.	Other forms of activities	16.1.	Team projects		-
		16.2.	Individual projects		1 hour/week
		16.3.	Individual study		-
17.	Forms of assessment				
	17.1.	Exams (mid-term exams, exam, electronic testing)			70
	17.2.	Project activities (oral and written presentation)			10
	17.3.	Other forms of studying activities			20
18.	Criteria for assessment (points / grade)		to 50 points		5 (five) (F)
			from 51 to 60 points		6 (six) (E)
			from 61 to 70 points		7 (seven) (D)
			from 71 to 80 points		8 (eight) (C)
			from 81 to 90 points		9 (nine) (B)
			from 91 to 100 points		10 (ten) (A)
19.	Condition for getting a signature and taking the final exam		/ 60% of term activities or minimum 42 points from 2 mid-term exams, project activities and attending to lectures and discussions		
20.	Language in which classes are conducted		Macedonian		
21.	Method of monitoring the quality of instruction		Self-evaluation		
22.	Literature				
	22.1.	Compulsory literature			
		Ordinal number	Author	Title	Publisher	Year

		1.	Ass. Prof. Liljana Koleva Gudeva	Cell biology	Authorized lessons	2009
		2.	Ass. Prof. Liljana Koleva Gudeva	Plant Physiology	GDU - Stip	2010
	22.2.	Additional literature				
		Ordinal number	Author	Title	Publisher	Year
		1.	Prof. Jordanka Dimova	Phisiology	UKIM - Skopje	2000

Appendix No.3	Subject programme from the first, second and third cycle studies				
1.	Title of the subject	**NATIONAL HISTORY**			
2.	Code	**UGD102112**			
3.	Stady programmeme	First cycle / University selective course			
4.	Organization of the study programme (unit or institute, department, department)	History and archeology			
5.	Level of study (first, second, third cycle)	First cycle			
6.	Academic year / semester	1/2	7.	Number of ECTS credits	5
8.	Professor	Prof. Kiril Cackov PhD			
9.	Preconditions for course enrollment	Subscribed 2 semester			
10.	- Goals for the course programme: - Students to gain a thorough knowledge of history; - For students to develop critical thinking as a basis for scientific interpretation of human society; - Formation - education as the highest human value; - Training of young researchers and promoting multiculturalism in the Republic. Macedonia - Formation of aesthetic, patriotic and moral values and develop a sense of belonging to their country; - Study of the contents of important historical phenomena, processes and moments from antiquity to the independence of the Republic of Macedonia.				
11.	Content of the course programme: Subject of history, historiography and auxiliary sciences Creating Ancient Macedonian state Culture and religion of Ancient Macedonia Settlement of the Slavs in the Balkans and in Macedonia The spread of Christianity and literature in Macedonian Slavs Bogomil Movement Byzantine rule in Macedonia Macedonian liberation wars against the Byzantine Empire Independent rulers Average Falling Macedonia under Serbian rule				

	Macedonia under Ottoman rule Resistance against Turkish rule in Macedonia (Mariovo rebellion and insurrection Skanderbeg) Cultural, educational and religious life of the population in Macedonia Liberation wars in the second half of the 19th century Foreign propaganda and the consequences of their actions Macedonia during the eastern crisis The emergence and growth of the Macedonian national revolutionary movement Liberation movement of the late 19th century Ilinden Uprising in Macedonia in 1903 Consequences of the Ilinden Uprising Macedonia after the Ilinden Uprising Continuation of revolutionary activity and the outbreak of the Young Turk revolution in the 19th and 20th century Cultural and national development in the 19th and 20th century Macedonia during the Balkan Wars of 1912/13 First Macedonia during the First World War 1914-1918 Second Macedonia in the period between the two World Wars in the Kingdom of SHS and the Kingdom of Yugoslavia Third Second World War and the Anti-Fascist War in Macedonia 1941-1943 Anti-Fascist War 1944-1945 Historical significance of the Anti Macedonia after the Second World War 1944-1953 Macedonia in the period 1953-1991 Restoration Ohrid arheiposkopija as Macedonian Orthodox Church The collapse of the Yugoslav federation and the independence of Macedonia in 1991			
12.	Methods of study: Oral Power Point presentation • Lectures • Presentations • Seminars on topics of extra-curricular content • Analysis of text / film / theater / literary works and so on. • Debate and discussion • Analysis of the philosophical problems / problematic learning • Individual assignments (homework, individual presentations, etc.). Own research (internet, bibliography, library, media, etc.)..			
13.	Total available time - 152			
14.	Distribution of available time 2+2+1			
15.	Forms of teaching activities	15.1	Lectures - theory	2 hours
		15.2	Exercises (laboratory auditoriski), seminars, teamwork	2 hours
16.	Other forms of activities	16.1	Project tasks	hours
		16.2	independent tasks	1 hour
		16.3	Home learning	hours

17.	Forms of assessment	Combined (currently writing and oral final exam)			
	17.1	tests	credits 40		
	17.2	Seminar paper / project (presentation: written and oral)	credits 10		
	17.3	Activity and participation	credits20		
18.	Criteria for assessment (points / grade)		from 50 stitch	5 (five) (F)	
			From 51 to 60	6 (six) (E)	
			from 61 to 70	7 (seven) (D)	
			from 71 to 80	8 (eight) (C)	
			од 81 до 90	9 (nine) (B)	
			From 91to 100	10 (ten) (A)	
19.	Condition for getting a signature and taking the final exam		Minimum of 42 points from current activities		
20.	Language of instruction		Macedonian		
21.	Method of monitoring the quality of teaching		Supporting student self-evaluation and evaluation		
22.	literature				
	22.1	compulsory literature			
		.	Author	Title	Publisher	Year
		1.		Историја на Македонскиот народ, т. 1-3,	Институт за национална историја	1969,1998,199,2002
		2.	- д-р Александар Стојановски. д-р Иван Кантарџиев, д-р Данчо Зографски, д-р Михаило Апостолски	Историја на Македонскиот народ		1988
		3.	Велјановски, Н.	Македонија 1945-1991- пат до независноста	ИНИ	2002
	22.2	Additional literature			