

**R E P U B L I C O F M A C E D O N I A**  
**Ss. Cyril and Methodius University in Skopje**



**STUDY PROGRAMME OF HORTICULTURE AT FIRST  
CYCLE OF UNIVERSITY STUDIES**

**FACULTY OF AGRICULTURAL SCIENCES AND FOOD - SKOPJE**

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



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

**Skopje, July 2017**

## STUDY PROGRAMME – HORTICULTURE

### FIRST SEMESTER

| Order number   | Course   | Lectures load | Number of ECTS | Lecturer   |
|--|--|---------------|----------------|--|
| -compulsory courses  |  |               |                |  |
| 1.   | <b>Agrometeorology with Agroclimatology</b>              | 3+2+2         | 6              | Prof. Dr. Srebra Ilikj Popova                          |
| 2.   | <b>Agricultural Machinery in Horticulture Production</b> | 3+2+2         | 6              | Prof. Dr. Dragi Tanevski                               |
| 3.   | <b>Pedology</b>  | 3+2+2         | 6              | Prof. Dr. Tatjana Mitkova<br>Asst. Prof. Mile Markoski |
| -elective courses (the student elcts two other courses from the FASF list of courses from the 1 <sup>st</sup> semester besides the course in Sport and Health) |  |               |                |  |
| 4.   |  |               |                |  |
| 5.   |  |               |                |  |
|  | <b>Sport and Health (optional)</b>                       | 0+2           | -              | Faculty of Phisical Education, Sport and Health        |
|  | <b>Total</b>   |               | 30             |  |

### FASF list of elective courses for the 1<sup>st</sup> semester

| Course                     | Lectures load | Number of ECTS | Lecturer  |
|----------------------------|---------------|----------------|---|
| Chemistry                  | 3+2+2         | 6              | Prof. Dr. Biljana Petanovska Ilievska<br>Asst. Prof. Dr. Mirjana S. Jankulovska<br>Asst. Prof. Dr. Lenche Markovska |
| Biochemistry               | 3+2+2         | 6              | Prof. Dr. Zoran Popovski  |
| Human Resource Development | 3+2+2         | 6              | Prof. Dr. Dragi Dimitrievski  |
| Statistics                 | 3+2+2         | 6              | Prof. Dr. Dragan Gjoshevski<br>Asst. Prof. Dr. Ana Simonovska   |

### SECOND SEMESTER

| Order number  | Course   | Lectures load | Number of ECTS | Lecturer  |
|---|--|---------------|----------------|---|
| -compulsory courses   |  |               |                |   |
| 1.  | <b>Botany</b>  | 3+2+2         | 6              | Prof. Dr. Silvana Manasievska Simikj<br>Prof. Dr. Elizabeta Miskoska Milevska |
| 2.  | <b>Genetics</b>                                      | 3+2+2         | 6              | Prof. Dr. Sonja Ivanovska<br>Prof. Dr. Mirjana Jankulovska                    |
| 3.  | <b>Principles of Vegetable and Flower Production</b> | 3+2+2         | 6              | Asst. Prof. Dr. Zvezda Bogevska<br>Asst. Prof. Dr. Margarita Davitkovska      |
| -elective courses (the student elcts two other courses from the FASF list of courses from the 2 <sup>nd</sup> semester) |  |               |                |   |
| 4.  |  |               | 6              |   |
| 5.  |  |               | 6              |   |
| <b>Practical Education</b>  |  |               |                |   |
| -   | Practical Education                                  | 0+2           | -              |   |
|   | <b>Total</b>   |               | 30             |   |

FASF list of elective courses for the 2<sup>nd</sup> semester

| Course                           | Lectures load | Number of ECTS | Lecturer                              |
|----------------------------------|---------------|----------------|---------------------------------------|
| Ecology                          | 3+2+2         | 6              | Prof. Dr. Elizabeta Angelova          |
| Wild Edible and Poisonous Plants | 3+2+2         | 6              | Prof. Dr. Elizabeta Miskoska Milevska |
| Basics in Economics              | 3+2+2         | 6              | Asst. Prof. Dr. Emelj Tuna            |

**THIRD SEMESTER**

| Order number  | Course                                 | Lectures load | Number of ECTS | Lecturer                             |
|---|--|---------------|----------------|--------------------------------------|
| -compulsory courses   |  |               |                |                                      |
| 1.  | <b>Basics in Greenhouse Production</b> | 3+2+2         | 6              | Prof. Dr. Gordana Posimonova         |
| 2.  | <b>Plant physiology</b>                | 3+2+2         | 6              | Prof. Dr. Silvana Manasievska Simikj |
| 3.  | <b>Microbiology</b>                    | 3+2+2         | 6              | Prof. Dr. Olga Najdenovska           |
| -elective courses (the student elects one course from the FASF list of courses from the 3 <sup>rd</sup> semester) |  |               |                |                                      |
| 4.  |  |               | 6              |                                      |
| -elective courses (the student elects one course from the UKIM list of courses)                                   |  |               |                |                                      |
| 5.  |  |               | 6              |                                      |
|   | Total                                  |               | 30             |                                      |

FASF list of elective courses for the 3<sup>rd</sup> semester

| Course                               | Lectures load | Number of ECTS | Lecturer                           |
|--------------------------------------|---------------|----------------|------------------------------------|
| Amelioration with Erosion Protection | 3+2+2         | 6              | Prof. Dr. Marija Vukeljkj Shutoska |
| Agribusiness                         | 3+2+2         | 6              | Prof. Dr. Dragi Dimitrievski       |

**FOURTH SEMESTER**

| Order number  | Course                                   | Lectures load | Number of ECTS | Lecturer   |
|---|--|---------------|----------------|--|
| -compulsory courses   |  |               |                |  |
| 1.  | <b>Nutrition of Horticultural Plants</b> | 3+2+2         | 6              | Prof. Dr. Marina Stojanova                                   |
| 2.  | <b>Principles of Irrigation</b>          | 3+2+2         | 6              | Prof. Dr. Ordan Chukaliev<br>Prof. Dr. Vjekoslav Tanaskovikj |
| 3.  | <b>Grasslands</b>                        | 3+2+2         | 6              | Prof. Dr. Tatjana Prentovikj                                 |
| -elective courses (the student elects one course from the FASF list of courses from the 4 <sup>th</sup> semester) |  |               |                |  |
| 4.  |  |               | 6              |  |
| -elective courses (the student elects one course from the UKIM list of courses)                                   |  |               |                |  |
| 5.  |  |               | 6              |  |
| <b>Practical Education</b>  |  |               |                |  |
| -   | Practical Education                      | 0+2           |                |  |
|   | Total                                    |               | 30             |  |

FASF list of elective courses for the 4<sup>th</sup> semester

| Course                             | Lectures load | Number of ECTS | Lecturer                  |
|------------------------------------|---------------|----------------|---------------------------|
| Economics in Agriculture           | 3+2+2         | 6              | Prof. Dr. Jovan Azhderski |
| Principles of Livestock Production | 3+2+2         | 6              | Prof. Dr. Sreten Andonov  |

**FIFTH SEMESTER**

| Order number  | Course   | Lectures load | Number of ECTS | Lecturer   |
|---|--|---------------|----------------|--|
| -compulsory courses   |  |               |                |  |
| 1.  | <b>Biology and Propagation of Fruit Crops and Vine</b> | 3+2+2         | 6              | Prof. Dr. Tosho Arsov<br>Prof. Dr. Petar Hristov |
| 2.  | <b>Open Field Vegetable Production</b>                 | 3+2+2         | 6              | Prof. Dr. Rukie Agich                            |
| 3.  | <b>Park Landscape Architecture</b>                     | 3+2+2         | 6              | Prof. Dr. Margarita Davitkovska                  |
| -elective courses (the student elects one course from the FASF list of courses from the 5 <sup>th</sup> semester) |  |               |                |  |
| 4.  |  |               | 6              |  |
| -elective courses (the student elects one course from the UKIM list of courses)                                   |  |               |                |  |
| 5.  |  |               | 6              |  |
|   | Total  |               | 30             |  |

FASF list of elective courses for the 5<sup>th</sup> semester

| Course                            | Lectures load | Number of ECTS | Lecturer   |
|-----------------------------------|---------------|----------------|--|
| Fertirigation                     | 3+2+2         | 6              | Prof. Dr. Vjekoslav Tanaskovikj<br>Prof. Dr. Ordan Chukaliev |
| Rural Development                 | 3+2+2         | 6              | Prof. Dr. Jovan Azhderski                                    |
| Specialized Field Crop production | 3+2+2         | 6              | Prof. Dr. Zoran Dimov  |

**SIXT SEMESTER**

| Order number  | Course  | Lectures load | Number of ECTS | Lecturer   |
|---|---|---------------|----------------|--|
| -compulsory courses   |   |               |                |  |
| 1.  | <b>Phytopathology with Phytopharmacy</b>          | 3+2+2         | 6              | Prof. Dr. Rade Rusevski<br>Prof. Dr. Biljana Kuzmanovska |
| 2.  | <b>Outdoor Floriculture</b>                       | 3+2+2         | 6              | Asst. Prof. Dr. Margarita Davitkovska                    |
| 3.  | <b>Entomology with Integrated Pest Management</b> | 3+2+2         | 6              | Prof. Dr. Stanislava Lazarevska                          |
| -elective courses (the student elects one course from the FASF list of courses from the 6 <sup>th</sup> semester) |   |               |                |  |
| 4.  |   |               | 6              |  |
| -elective courses (the student elects one course from the UKIM list of courses)                                   |   |               |                |  |
| 5.  |   |               | 6              |  |
| <b>Practical Education</b>  |   |               |                |  |
| -   | Practical Education                               | 0+2           |                |  |
|   | Total   |               | 30             |  |

FASF list of elective courses for the 6<sup>th</sup> semester

| Course                      | Lectures load | Number of ECTS | Lecturer  |
|-----------------------------|---------------|----------------|---|
| Costs and Budgets           | 3+2+2         | 6              | Prof. Dr. Aleksandra Martinovska Stojcheska<br>Asst. Prof. Dr. Ivana Janeska Stamenkovska |
| Biodiversity in Agriculture | 3+2+2         | 6              | Prof. Dr. Sonja Ivanovska<br>Prof. Dr. Kocho Porchu                                       |

**MODUL: HORTICULTURE  
SEVENTH SEMESTER**

| Order number   | Course                              | Lectures load | Number of ECTS | Lecturer   |
|--|-------------------------------------|---------------|----------------|--|
| -compulsory courses  |                                     |               |                |  |
| 1.   | <b>Urban Horticulture</b>           | 3+2+2         | 6              | Asst. Prof. Dr. Zvezda Bogevska                            |
| 2.   | <b>Pomology I</b>                   | 3+2+2         | 6              | Prof. Dr. Bojan Popovski                                   |
| 3.   | <b>Contemporary Genetic Methods</b> | 3+2+2         | 6              | Prof. Dr. Sonja Ivanovska<br>Prof. Dr. Mirjana Jankulovska |
| -elective courses (the student elects two courses from the FASF list of courses from the 7 <sup>th</sup> semester) |                                     |               |                |  |
| 4.   |                                     |               |                |  |
| 5.   |                                     |               |                |  |
|  | Total                               |               | 30             |  |

FASF list of elective courses for the 7<sup>th</sup> semester

| Course   | Lectures load | Number of ECTS | Lecturer                              |
|--|---------------|----------------|---------------------------------------|
| Indoor Flowering Plants  | 3+2+2         | 6              | Asst. Prof. Dr. Margarita Davitkovska |
| Selection of plants  | 3+2+2         | 6              | Prof. Dr. Ljubomir Marinkovikj        |
| Greenhouse Vegetable Production                                    | 3+2+2         | 6              | Prof. Dr. Gordana Posimonova          |
| Harvesting and Post-Harvest Technologies of Vegetables and Flowers | 3+2+2         | 6              | Prof. Dr. Rukie Agich                 |

**EIGHT SEMESTER**

| Order number   | Course  | Lectures load | Number of ECTS | Lecturer                       |
|--|---|---------------|----------------|--------------------------------|
| -compulsory courses  |   |               |                |                                |
| 1.   | <b>Establishment and cultivation of vineyards</b> | 3+2+2         | 6              | Prof. Dr. Petar Hristov        |
| 2.   | <b>Establishment and cultivation of orchards</b>  | 3+2+2         | 6              | Prof. Dr. Marjan Kiprijanovski |
| 3.   | <b>Ampelography II</b>                            | 3+2+2         | 6              | Prof. Dr. Krum Boskov          |
| -elective courses (the student elects two courses from the FASF list of courses from the 8 <sup>th</sup> semester) |   |               |                |                                |
| 4.   |   |               | 6              |                                |
| 5.   |   |               | 6              |                                |
| <b>Practical Education</b>   |   |               |                |                                |
| -  | Practical Education                               | 0+2           |                |                                |
| <b>Graduation Thesis</b>   |   |               |                |                                |
| -  | <b>Graduation Thesis</b>                          | 0+3           | 5              |                                |
|  | Total   |               | 35             |                                |

FASF list of elective courses for the 8<sup>th</sup> semester

| Course   | Lectures load | Number of ECTS | Lecturer                        |
|--|---------------|----------------|---------------------------------|
| Medicinal and Aromatic Plants                          | 3+2+2         | 6              | Prof. Dr. Zoran Dimov           |
| Production of Vegetable and Flower Seeds and Seedlings | 3+2+2         | 6              | Prof. Dr. Rukie Agich           |
| Beekeeping and Pollination of Agricultural Crops       | 3+2+2         | 6              | Prof. Dr. Hrisula Kiprijanovska |
| Pomology II  | 3+2+2         | 6              | Prof. Dr. Bojan Popovski        |

**MODUL: VEGETABLE AND FLOWER PRODUCTION  
SEVENTH SEMESTER**

| Order number   | Course  | Lectures load | Number of ECTS | Lecturer                              |
|--|---|---------------|----------------|---------------------------------------|
| -compulsory courses  |   |               |                |                                       |
| 1.   | <b>Greenhouse Vegetable Production</b>                                    | 3+2+2         | 6              | Prof. Dr. Gordana Posimonova          |
| 2.   | <b>Indoor Flowering Plants</b>  | 3+2+2         | 6              | Asst. Prof. Dr. Margarita Davitkovska |
| 3.   | <b>Harvesting and Post-Harvest Technologies of Vegetables and Flowers</b> | 3+2+2         | 6              | Prof. Dr. Rukie Agich                 |
| -elective courses (the student elects two courses from the FASF list of courses from the 7 <sup>th</sup> semester) |   |               |                |                                       |
| 4.   |   |               |                |                                       |
| 5.   |   |               |                |                                       |
|  | Total   |               | 30             |                                       |

FASF list of elective courses for the 7<sup>th</sup> semester

| Course                       | Lectures load | Number of ECTS | Lecturer   |
|------------------------------|---------------|----------------|--|
| Contemporary Genetic Methods | 3+2+2         | 6              | Prof. Dr. Sonja Ivanovska<br>Prof. Dr. Mirjana Jankulovska |
| Selection of plants          | 3+2+2         | 6              | Prof. Dr. Ljubomir Marinkovikj                             |
| Fruit Crops                  | 3+2+2         | 6              | Prof. Dr. Tosho Arsov                                      |
| Table Grapes Production      | 3+2+2         | 6              | Prof. Dr. Krum Boshkov                                     |

**EIGHT SEMESTER**

| Order number   | Course  | Lectures load | Number of ECTS | Lecturer                        |
|--|---|---------------|----------------|---------------------------------|
| -compulsory courses  |   |               |                |                                 |
| 1.   | <b>Medicinal and Aromatic Plants</b>                          | 3+2+2         | 6              | Проф. д-р Зоран Димов           |
| 2.   | <b>Vegetables and Flower Standardization</b>                  | 3+2+2         | 6              | Asst. Prof. Dr. Zvezda Bogevska |
| 3.   | <b>Production of Vegetable and Flower Seeds and Seedlings</b> | 3+2+2         | 6              | Prof. Dr. Rukie Agich           |
| -elective courses (the student elects two courses from the FASF list of courses from the 8 <sup>th</sup> semester) |   |               |                |                                 |
| 4.   |   |               | 6              |                                 |
| 5.   |   |               | 6              |                                 |
| <b>Practical Education</b>   |   |               |                |                                 |
| -  | Practical Education   | 0+2           |                |                                 |
| <b>Graduation Thesis</b>   |   |               |                |                                 |
| -  | <b>Graduation Thesis</b>                                      | 0+3           | 5              |                                 |
|  | Total   |               | 35             |                                 |

FASF list of elective courses for the 8<sup>th</sup> semester

| Course                                     | Lectures load | Number of ECTS | Lecturer                       |
|--|---------------|----------------|--------------------------------|
| Establishment and cultivation of vineyards | 3+2+2         | 6              | Prof. Dr. Petar Hristov        |
| Establishment and cultivation of orchards  | 3+2+2         | 6              | Prof. Dr. Marjan Kiprijanovski |
| Fruit and Vegetable Processing             |               |                | Prof. Dr. Ljubica Karakashova  |
| Soil Degradation and Protection            | 3+2+2         | 6              | Prof. Dr. Tatjana Mitkova      |

