**BARCHELOR PROGRAM OF STUDY HORTICULTURE**

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| **1st year** |  |  |
| **SEMESTER I** |  |  |
| Code | Subject | **Credits** |
| **H.01.F.01** | **Mathematics and informatics** | **4** |
| **H.07.F.01** | **Genetics** | **3** |
| **H.06.F.01** | **Topography and cadastre** | **4** |
| **H.05.F.01** | **Microbiology** | **4** |
| **H.04.F.01** | **Pedology** | **4** |
| **H.03.F.01** | **Botany** | **5** |
| **H.02.F.01** | **Biochemistry** | **4** |
| **SEMESTER II** |  |  |
| **H.08.F.02** | **Botany** | **3** |
| **H.13.D.02** | **Agrochemistry** | **5** |
| **H.12.F.02** | **Genetics** | **3** |
| **H.11.D.02** | **Land improvement** | **4** |
| **H.10.D.02** | **Energy basis and horticultural machines** | **5** |
| **H.09.F.02** | **Biophysics agrometeorology** | **4** |
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**2nd year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| **H.01.F.03** | **Plant physiology** | **5** |
| **H.07.S.03** | **Vegetal biotechnologies** | **2** |
| **H.06.D.03** | **Arboriculture** | **5** |
| **H.05.S.03** | **Horticultural constructions** | **4** |
| **H.04.D.03** | **Phytopathology** | **4** |
| **H.03.D.03** | **Soil work management** | **4** |
| **H.02.D.03** | **Experimental technique** | **4** |
| **H.08.C.03** | **Communication** | **2** |
| **SEMESTER II** |  |  |
| **H.08.F.04** | **Plant Physiology** | **4** |
| **H.14.S.04** | **Vegetal biotechnologies** | **2** |
| **H.13.D.04** | **Agro-phytotechnolog** | **5** |
| **H.12.D.04** | **Landscape architecture** | **4** |
| **H.10.D.04** | **Entomology** | **5** |
| **H.10.F.04** | **Ecology and environmental protection** | **3** |

**3rd year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| **H.01.D.05** | **Vegetable growing** | **5** |
| **H.06.D.05** | **Accounting** | **3** |
| **H.05.D.05** | **Plant improvement** | **4** |
| **H.04.D.05** | **Floriculture** | **4** |
| **H.03.D.05** | **Viticulture** | **4** |
| **H.02.D.05** | **Fruit growing** | **5** |
| **SEMESTER II** |  |  |
| **H.07.D.06** | **Vegetable growing** | **4** |
| **H.12.D.06** | **Crop irrigation** | **2** |
| **H.11.D.06** | **Plant improvement** | **4** |
| **H.10.D.06** | **Floriculture** | **4** |
| **H.09.D.06** | **Viticulture** | **4** |
| **H.08.D.06** | **Fruit growing** | **4** |

**4 th year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| **H.01.S.07** | **Special vegetable growing** | **6** |
| **H.02.S.07** | **Pomology** | **6** |
| **H.03.S.07** | **Ampelography** | **5** |
| **H.04.S.07** | **Horticultural product technology** | **4** |
| **H.05.S.07** | **Oenology** | **5** |
| **H.06.D.07** | **Management and conservation of genetic resources** | **4** |
| **SEMESTER II** |  |  |
| **H.07.S.08** | **Special vegetable growing** | **3** |
| **H.12.S.08** | **Seed and propagating material production in horticultural plants** | **5** |
| **H.11.S.08** | **Oenology** | **4** |
| **H.10.S.08** | **Horticultural product technology** | **5** |
| **H.09.S.08** | **Ampelography** | **4** |
| **H.08.S.08** | **Pomology** | **3** |

**BARCHELOR PROGRAM OF STUDY GENETIC ENGINEERING**

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| **1st year** |  |  |
| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| IG.01.F.01 | Biochemistry | 5 |
| IG.06.D.01 | Raw matter used in biotechnologies | 4 |
| IG.05.F.01 | Chemistry | 5 |
| IG.04.F.01 | General microbiology | 5 |
| IG.03.F.01 | Botany | 5 |
| IG.02.F.01 | Mathematics and informatics | 4 |
| **SEMESTER II** |  |  |
| IG.07.F.02 | Botany | 4 |
| IG.13.C.01 | Organization norms in the biotechnology lab | 3 |
| IG.08.F.02 | Cell biology | 4 |
| IG.11.F.02 | Biophysics and agrometeorology | 3 |
| IG.10.D.02 | Analytical chemistry and instrumental analysis | 4 |
| IG.09.F.02 | Biostatistics | 4 |
| IG.12.F.02 | Ecology and environmental protection | 2 |

**2nd year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| IG.01.F.03 | Genetics | 6 |
| IG.02.F.03 | Physiology | 5 |
| IG.03.D.03 | Molecular biology | 5 |
| IG.04.S.03 | Applied microbiology | 4 |
| IG.05.D.03 | Experimental technique | 4 |
| IG.06.D.03 | Special enzymology | 4 |
| IG.07.C.03 | Communication | 2 |
| **SEMESTER II** |  |  |
| IG.08.F.04 | Genetics | 4 |
| IG.14.S.04 | Plant protection by biotechnological methods | 4 |
| IG.13.D.04 | General agriculture | 4 |
| IG.12.D.04 | Cell and tissue cultures | 4 |
| IG.11.D.04 | General biotechnology | 2 |
| IG.10.D.04 | Molecular biology | 4 |
| IG.09.F.04 | Physiology | 4 |

**3rd year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| IG.01.D.05 | Cell and tissue cultures | 5 |
| IG.06.S.05 | Virusology | 5 |
| IG.05.S.05 | Horticultural technologies | 4 |
| IG.04.S.05 | Quantitative genetics | 4 |
| IG.03.D.05 | Plant breeding | 4 |
| IG.02.D.05 | Genetic engineering | 6 |
| **SEMESTER II** |  |  |
| IG.07.D.06 | Genetic engineering | 5 |
| IG.12.S.06 | Industrial biotechnologies | 4 |
| IG.11.S.06 | Genetic resource management and conservation | 4 |
| IG.10.S.06 | Horticultural technologies | 4 |
| IG.09.S.06 | Quantitative genetics | 3 |
| IG.08.D.06 | Plant breeding | 4 |

**4 th year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| IG.01.S.07 | Industrial biotechnologies | 6 |
| IG.02.S.07 | Use of biotehnologies for creation and multiplication of cultivars | 6 |
| IG.03.D.07 | Molecular markers | 5 |
| IG.04.S.07 | Seed production and propagation material methodology | 5 |
| IG.05.C.07 | Accountancy and economic-financial analysis | 2 |
| **SEMESTER II** |  |  |
| IG.06.D.08 | Laboratory quality management | 5 |
| IG.09.S.08 | Bioinformatics | 4 |
| IG.08.D.08 | Micropropagation | 4 |
| IG.07.D.08 | Principles and techniques in genomics | 4 |
| IG.10.D.08 | Bioclimatiology and ecophysiology | 3 |

**BARCHELOR PROGRAM OF STUDY LANDSCAPING**

**1st year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| P.01.F.01 | Mathematics and informatics | 4 |
| P.07.F.01 | Plant physiology | 4 |
| P.06.F.01 | History of gardens and designed landscapes | 5 |
| P.05.F.01 | Descriptive and perspective geometry | 4 |
| P.04.F.01 | Drawing and graphic representations | 4 |
| P.03.F.01 | Pedology | 4 |
| P.02.F.01 | Botany | 3 |
| **SEMESTER II** |  |  |
| P.08.F.02 | Botany | 5 |
| P.13.D.02 | Agrochemistry | 4 |
| P.12.D.02 | Energy basis and horticultural machines | 4 |
| P.11.F.02 | History of gardens and designed landscapes | 3 |
| P.10.F.02 | Drawing and graphic representations | 4 |
| P.09.F.02 | Biophysics and agrometeorology | 4 |

**2nd year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| P.01.F.03 | Ecology and environment protection | 4 |
| P.09.C.03 | Communication | 3 |
| P.08.D.03 | Plant improvement | 2 |
| P.07.F.03 | Genetics | 2 |
| P.06.F.03 | Topography and cadaster | 3 |
| P.05.S.03 | Landscaping materials and constructions | 2 |
| P.04.S.03 | Landscape planning | 4 |
| P.03.F.03 | Dendrology | 4 |
| P.02.D.03 | Vegetal compositions in landscaping | 4 |
| **SEMESTER II** |  |
| P.10.F.04 | Dendrology | 4 |
| P.15.D.04 | Land improvement | 3 |
| P.14.S.04 | Lawns and meadows | 3 |
| P.13.S.04 | Landscaping materials and constructions | 3 |
| P.12.S.04 | Landscape planning | 3 |
| P.11.D.04 | Agrotechnology in landscaping | 4 |

**3rd year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| P.02.S.05 | Landscape management | 4 |
| P.13.D.05 | Landscape architecture | 4 |
| P.10.D.05 | Floriculture | 5 |
| P.07.S.05 | Urban planning and landscaping | 4 |
| P.05.S.05 | Computer-assisted design | 5 |
| P.03.S.05 | Landscaping computer programs | 5 |
| **SEMESTER II** |  |
| P.01.D.06 | Viticulture | 3 |
| P.12.D.06 | Vegetable growing | 4 |
| P.11.D.06 | Floriculture | 4 |
| P.09.D.06 | Fruit growing | 3 |
| P.08.S.06 | Urban planning and landscaping | 3 |
| P.06.S.06 | Computer-assisted design | 3 |
| P.04.S.06 | Embankments, roads and urban networks | 3 |

**4 th year**

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| **SEMESTER I** |  |  |
| **Code** | **Subject** | **Credits** |
| P.01.S.07 | Territorial and urban landscaping | 5 |
| P.07.D.07 | Modern technologies for ornamental species multiplication | 3 |
| P.06.D.07 | Utility and ornamental facilities | 4 |
| P.05.D.07 | Floral art | 4 |
| P.04.S.07 | Ornamental indoor plants | 4 |
| P.03.D.07 | Arboriculture | 4 |
| P.02.S.07 | Accounting | 3 |
| **SEMESTER II** |  |
| P.08.S.08 | Territorial and urban landscaping | 3 |
| P.15.C.08 | Agrarian law and legislation | 2 |
| P.14.D.08 | Landscape maintenance technique | 3 |
| P.13.S.08 | Landscaping technique | 4 |
| P.12.S.08 | 3D Modeling | 3 |
| P.11.S.08 | Landscape restoration and rehabilitation | 4 |
| P.10.D.08 | Entomology | 4 |
| P.09.D.08 | Phytopathology | 3 |

**BARCHELOR PROGRAM OF STUDY FORESTRY**

**1st year**

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| **SEMESTER I** |  | Credits |
| Code | **Subject** |  |
| S.01.F.01 | Botany | 6 |
| S.05.F.01 | Informatics | 2 |
| S.04.F.01 | Mathematics | 6 |
| S.03.F.01 | Topography | 6 |
| S.02.F.01 | Biochemistry | 6 |
| **SEMESTER II** |  |  |
| S.06.F.02 | Plant physiology | 6 |
| S.12.S.02 | Basics of forestry and the history of silviculture | 2 |
| S.11.F.02 | Biostatistics | 3 |
| S.10.F.02 | Meteorology and climatology | 3 |
| S.09.D.02 | Mechanics and resistance | 3 |
| S.08.F.02 | Pedology | 4 |
| S.07.F.02 | Botany | 3 |

**2nd year**

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| **SEMESTER I** |  | Credits |
| Code | **Subject** |  |
| S.01.D.03 | Dendrology | 5 |
| S.06.S.03 | Impact of climate change in forestry | 5 |
| S.05.S.03 | Agrotechny and herbology applications in forestry | 4 |
| S.04.F.03 | Engines and machines general course | 5 |
| S.03.F.03 | Ecology and environmental protection | 5 |
| S.02.D.03 | Dendrometry | 2 |
| S.07.C.03 | Communication | 2 |
| **SEMESTER II** |  |  |
| S.08.D.04 | Dendrology | 5 |
| S.14.S.04 | Biodiversity conservation | 4 |
| S.13.D.04 | Machines and equipment | 2 |
| S.12.D.04 | Photogrammetry | 3 |
| S.11.S.04 | Ethology | 4 |
| S.10.D.04 | Afforestation | 2 |
| S.09.D.04 | Forestry constructions | 4 |

**3rd year**

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| **SEMESTER I** |  | Credits |
| Code | **Subject** |  |
| S.01.D.05 | Silviculture | 4 |
| S.06.D.05 | Phytopathology | 5 |
| S.05.D.05 | Entomology | 5 |
| S.04.F.05 | Genetics | 6 |
| S.03.S.05 | Forest roads | 3 |
| S.02.D.05 | Forest stations | 3 |
| **SEMESTER II** |  |  |
| S.07.D.06 | Silviculture | 5 |
| S.08.S.06 | Torrent correction | 5 |
| S.09.D.06 | Wood exploitation | 4 |
| S.10.D.06 | Forest planning | 5 |
| S.11.S.06 | Forest improvement | 4 |
| S.12.D.06 | Entomology | 3 |

**4 th year**

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| **SEMESTER I** |  | Credits |
| Code | **Subject** |  |
| S.01.D.07 | Hunting and salmonid fauna | 5 |
| S.02.D.07 | Wood exploitation | 6 |
| S.03.D.07 | Wood processing | 5 |
| S.04.D.07 | Forestry products | 6 |
| S.05.S.07 | Torrent correction | 4 |
| S.06.D.07 | Forest economy | 4 |
| **SEMESTER II** |  |  |
| S.07.D.08 | Hunting and salmonid fauna | 4 |
| S.12.S.08 | Micropropagation | 5 |
| S.11.S.08 | Forest transportation | 2 |
| S.10.S.08 | Forestry mechanization | 4 |
| S.09.D.08 | Forest management | 4 |
| S.08.S.08 | Landscape architecture | 4 |

**BARCHELOR PROGRAM OF STUDY APPLIED LABORATORY SCIENCES**

**1st year**

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| **SEMESTER I** |  | Credits |
| Code | **Subject** |  |
| SLA.01.F.01 | Linear algebra, analytical and differential geometry  | 4 |
| SLA.02.F.01 | Biology  | 5 |
| SLA.03.F.01 | Probability theory and mathematical statistics 1  | 4 |
| SLA.04.F.01 | Applied informatics  | 4 |
| SLA.05.F.01 | Chemistry 1 | 4 |
| SLA.06.F.01 | Physics  | 4 |
| **SEMESTER II** |  |  |
| SLA.07.F.02 | Probability theory and mathematical statistics 2  | 4 |
| SLA.08.F.02 | Chemistry 2  | 5 |
| SLA.09.F.02 | Computer aided graphics  | 4 |
| SLA.10.D.02 | General microbiology  | 5 |
| SLA.11.D.02 | Analytical chemistry and instrumental analysis  | 5 |
| SLA.12.D.02 | Cell biology  | 4 |