



## Bachelor's degree study programme: Biology and Genetics Faculty of Natural sciences

### Curriculum

| No.                          | Study course                                        | Course code | ECTS Credits |
|------------------------------|-----------------------------------------------------|-------------|--------------|
| <b>I Year, I Semester</b>    |                                                     |             |              |
| 1.                           | Mathematics                                         | MAT 1011    | 6            |
| 2.                           | General and Analytical Chemistry                    | BBKN2001    | 5            |
| 3.                           | General Biology                                     | BIO1001     | 4            |
| 4.                           | A and B group courses                               |             | 10           |
| 5.                           | Computer's literacy                                 | INF0203     | 4            |
| <b>Total:</b>                |                                                     |             | <b>29</b>    |
| <b>II Semester</b>           |                                                     |             |              |
| 1.                           | Organic and Bioorganic Chemistry                    | BBK2002     | 6            |
| 2.                           | Invertebrate Biology                                | BION2004    | 5            |
| 3.                           | Anatomy, Morphology and Systematics of Embriophytes | BIO1006     | 5            |
| 4.                           | General Physics                                     | FIZ1006     | 6            |
| 5.                           | Field Work in Plant Biology                         | BION1003    | 5            |
| 6.                           | A group courses                                     |             | 4            |
| <b>Total:</b>                |                                                     |             | <b>31</b>    |
| <b>II Year, III Semester</b> |                                                     |             |              |
| 1.                           | Algology and Mycology                               | BIO2012     | 4            |
| 2.                           | Biochemistry                                        | BBK3001     | 6            |
| 3.                           | Professional Language of Natural Sciences           | LGF2002     | 3            |
| 4.                           | Statistic in Environment and Biology                | MAT2012     | 6            |
| 5.                           | Vertebrate Biology                                  | BION3002    | 5            |
| 6.                           | A and B group courses                               |             | 8            |
| <b>Total:</b>                |                                                     |             | <b>32</b>    |
| <b>IV Semester</b>           |                                                     |             |              |
| 1.                           | Plant Ecophysiology                                 | GAB2002     | 6            |
| 2.                           | Field Work in Animal Biology                        | BION3007    | 5            |
| 3.                           | Human and Animals Morphophysiology                  | BIO2014     | 5            |
| 4.                           | General Genetics                                    | BIO3005     | 6            |
| 5.                           | Microbiology                                        | BIO2013     | 5            |



|                              |                                        |               |           |
|------------------------------|----------------------------------------|---------------|-----------|
| 6.                           | A group courses                        |               | 4         |
|                              |                                        | <b>Total:</b> | <b>31</b> |
| <b>III Year, V Semester</b>  |                                        |               |           |
| 1.                           | Evolution and Phylogeny                | BIO3024       | 4         |
| 2.                           | Animal Ecology                         | BION3009      | 5         |
| 3.                           | Biological research                    | BIO3030       | 5         |
| 4.                           | Term paper 1                           | BIO3008       | 3         |
| <b>Elective Courses (1)</b>  |                                        |               |           |
| 5.                           | Entomology                             | BIO3026       | 5         |
| 6.                           | Human Genetics                         | BIO3027       | 5         |
| 7.                           | A and B group courses                  |               | 8         |
|                              |                                        | <b>Total:</b> | <b>30</b> |
| <b>VI Semester</b>           |                                        |               |           |
| 1.                           | Biophysics                             | BION3006      | 5         |
| 2.                           | Biogeography                           | BIO3015       | 4         |
| 3.                           | Term paper 2                           | BIO4007       | 3         |
| 4.                           | Plant Ecology                          | BIO3025       | 5         |
| <b>Elective Courses (1)</b>  |                                        |               |           |
| 6.                           | Parasitology and Phytopathology        | BIO3029       | 5         |
|                              | Population and Ecology Genetics        | BIO3028       | 5         |
|                              | Ornithology                            | BIO3031       | 5         |
| 7.                           | Molecular Biology and Gene Engineering | BTC3010       | 5         |
|                              |                                        | <b>Total:</b> | <b>27</b> |
| <b>IV Year, VII Semester</b> |                                        |               |           |
| 1.                           | Cell biology                           | BBK4001       | 6         |
|                              | Developmental Biology                  | BIO4021       | 5         |
| 2.                           | Immunology                             | BIO4038       | 5         |
| 3.                           | Special biology practice               | BIO4011       | 5         |
| <b>Elective Courses (1)</b>  |                                        |               |           |
| 4.                           | Radiobiology                           | BIO4028       | 4         |
| 5.                           | Ecogenetotoxicology and Health         | BION4004      | 5         |
| 6.                           | Ichthyology and Aquaculture            | BIO4029       | 4         |
| 7.                           | Molecular Genetics                     | BIO4016       | 6         |
| 8.                           | Plants and Society                     | BIO4026       | 4         |
|                              |                                        | <b>Total:</b> | <b>29</b> |
| <b>VIII Semester</b>         |                                        |               |           |
| 1.                           | Bachelor Graduation Paper              | BENBBIO01     | 15        |
|                              | Basic Biotechnology and Bioinformatics | BIO4005       | 6         |
| 2.                           | Neurobiology                           | BIO4009       | 5         |
| <b>Elective Courses (1)</b>  |                                        |               |           |
|                              | Epigenetics                            | BIO4030       | 5         |
|                              | Ecosystems Analysis                    | BIO4027       | 4         |



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|  |                                 |               |            |
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|  |                                 | <b>Total:</b> | <b>31</b>  |
|  | <b>Total for the Programme:</b> |               | <b>240</b> |