Basic information about the subject (independent of the cycle)

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| **Module name** | **Introduction to Evolutionary Biology** |
| Erasmus code |  |
| ISCED code |  |
| Language of instruction | English |
| Website |  |
| Prerequisites | None. Introductory course. |
| ECTS points hour equivalents | **Contact hours (work with an academic teacher)**: **30**  **Total number of hours with an academic teacher: 60**   **Non-contact hours (students' own work): 60**  **Total number of non-contact hours: 60**  **Total number of ECTS points for the module: 4 ECTS** |
| Educational outcomes verification methods | Multiple choice test |
| Description | The module covers the knowledge in the area of evolutionary biology and its connections with cognitive science. Students will have an opportunity to understand main research methods, fields of interests, and some unsolved problems of evolutionary biology. Special emphasis will be put on the evolution of nervous system, sense organs and social behaviour – topics of particular importance for every cognitive scientist. |
| Reading list | 1) Bergstrom, C.T., Dugatkin, L.A. (2012). Evolution  2) Herron, J.C., Freeman, S. (2014). Evolutionary Analysis  3) Cowen, R. (2013). History of Life  4) Glaeser G., Paulus, H.F. (2015). The Evolution of the Eye  5) Dial, K.P., Shubin, N., Brainerd, E.L. (2015). Great Transformations in Vertebrate Evolution |
| Educational outcomes | **KNOWLEDGE**  Student will acquire a detailed insight into the main research areas of evolutionary biology, with particular reference to the evolution of nervous system, sense organs, and social behaviour.  Student will gain a knowledge of scientific terminology in the field of evolutionary biology, genetics and neurobiology.  **SKILLS**  Student is able to apply biological knowledge to the description of cognitive processes on genetic, organismal and populational level.  Student can identify the common misconceptions regarding the process of evolution.  **ATTITUDES**  Student seeks to deepen his/her knowledge of evolutionary biology by reading scientific journals and books, as well as discussing various evolutionary topics with the teacher and peers. |
| Practice | None |

Information about classes in the cycle

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| Website |  |
| Educational outcomes verification methods | Multiple choice test |
| Comments |  |
| Reading list | 1) Bergstrom, C.T., Dugatkin, L.A. (2012). Evolution  2) Herron, J.C., Freeman, S. (2014). Evolutionary Analysis  3) Cowen, R. (2013). History of Life  4) Glaeser G., Paulus, H.F. (2015). The Evolution of the Eye  5) Dial, K.P., Shubin, N., Brainerd, E.L. (2015). Great Transformations in Vertebrate Evolution |
| Educational outcomes | **KNOWLEDGE**  The student will acquire a detailed insight into the main research areas of evolutionary biology, with particular reference to the evolution of nervous system, sense organs, and social behaviour.  The student will gain a knowledge of scientific terminology in the field of evolutionary biology, genetics and neurobiology.  **SKILLS**  The student is able to apply biological knowledge to the description of cognitive processes on genetic, organismal and populational level.  The student can identify the common misconceptions regarding the process of evolution.  **ATTITUDES**  The student seeks to deepen his/her knowledge of evolutionary biology by reading scientific journals and books, as well as discussing various evolutionary topics with the teacher and peers. |
| A list of topics | 1) An outline of evolutionary thinking  2) The pattern of evolution  3) Evolution by natural selection  4) Evolutionary trees  5) Types of speciation  6) The sources of genetic variation. Mutations  7) Migration, drift and non-random mating  8) Sexual selection  9) History of life on Earth I  10) History of life on Earth II  11) The evolution of sense organs  12) The evolution of nervous system  13) The evolution of social behaviour  14) Human evolution  15) The science of evolutionary medicine |
| Teaching methods | Lecture |
| Assessment methods | Multiple choice test |