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| Study Programme : BSc in Biology | | | |
| Degree level: Bachelor degree | | | |
| Course Title: PHYLOGENY OF ANIMALS | | | |
| Professor: Ivo Karaman, PhD; Desanka Kostić, PhD | | | |
| Required/Elective Course: Elective Course | | | |
| Number of ECTS: 5 | | | |
| Prerequisites: passing grade from the course Morphology and Systematics of Invertebrates | | | |
| Course Objective: Detailed knowledge of comparative morphological-anatomical, histological, cytological, and embryonic characteristics of Metazoans, which are important in phylogenetic analyses. Getting acquainted with historical and current hypotheses about phylogenetic position of Metazoans within Eukaryotes and about phylogenetic relations among animal phyla. Systematic overview of the main animal groups based on theory and methodology of phylogenetic systematics. | | | |
| Course Outcome: Acquiring broader theoretical knowledge about animal diversity and its phylogeny. | | | |
| Course Content: <i>Theoretical part</i> Phylogenesis – evolutionary history of animals. Historical overview of phylogenetic hypotheses and criteria for phylogenetic reconstructions. Fossil proofs of the origin of Metazoans. Comparative overview of morphological-anatomical, histological, cytological and embryonic characteristics of Metazoans. Protista – Protozoa, current classification and alternatives. The origin and position of Metazoans, phylogenetic overview. Parazoa, Diploblastica – The origin and phylogenetic relations within the phyla Porifera, Placozoa, Cnidaria, Myxozoa, and Ctenophora. Parenchymia, Gnathifera, Cycloneuralia, Cephalorhyncha – overview of the phyla and phylogenetic relations. Ecdysozoa – Panarthropoda. Mollusca; Trochozoa, Phoronozoa, and Bryozoa, the origin, overview of the phyla and phylogenetical relations. Gnathostomata – the origin and phylogenetic relations. The origin and phylogenetic relations of amphibians, reptiles, birds, and mammals. | | | |
| Reading List: 1. Kalezić, M., Tomović, L.J. (2005): Hordati, skripta. Biološki fakultet, Beograd. 2. Nielsen, (1995): Animal Evolution. Oxford Univ. Press, Oxford. 3. Rupert, E.E., Barnes, R.D. (1994): Invertebrate Zoology. Saunders Coll. Publ., Philadelphia. 4. Tomanović, Ž.: Sistematika i filogenija beskičmenjaka, autorizovana skripta. Biološki fakultet, Beograd. 5. Willmer, P.G. (1990): Invertebrate Relationships. Cambridge University Press, Cambridge. | | | |
| Total hours: | | | |
| Lectures: 2 | Practicals: | Other: 2 | Student research work: |
| Methods of instruction: Theoretical lectures – video presentations. Writing and presenting seminar papers on given or elected topics. | | | |
| Assessment (maximum number of points 100) | | | |
| Requirements | points | Final exam | points |
| Active participation in lectures | | Practical exam | 70 |
| Active participation in practicals | | Oral exam | |
| Test(s) or | | | |
| Pre-exam testing | 30 | | |