

Study Programme : BSc in Biology			
Degree level: Bachelor degree			
Course Title: COMPARATIVE ANATOMY AND SYSTEMATICS OF THE CHORDATES			
Professor: Desanka Kostić, PhD			
Required/Elective Course: Required Course			
Number of ECTS: 8			
Prerequisites: /			
Course Objective: Student will be acquainted with basic terms they will be using during the course, embryo development of vertebrates, general characteristics of chordate phylum, with comparative display of the systems of organs of various vertebrate classes. Furthermore, the goal of the course is familiarization with the structure and systematic of subphylum Tunicata and Acrania, and then with the systematic and origin of vertebrates (subphylum Vertebrata).			
Course Outcome: Students will attain the level of knowledge needed for their required courses: Histology with embryology, Comparative physiology of animals, as well as for related elective courses.			
Course Content: <i>Theoretical part</i> The general organization of chordate phylum; Basic functions and processes of ontogenetic development of chordates; Systems of organs: Body cover - structure, derivatives; Skeletal system – exoskeleton, endoskeleton, heterotopic skeleton; Muscle system – somatic, visceral and skin musculature; Nervous system – central and peripheral; Senses – general and specialized somatic and visceral; Digestion system – oral cavity, frontal and lateral bowel, annex glands; respiratory system – branchial bowel, branchiae, swimming bladder, lungs; System for circulation of body fluids; Excretory system; Genital system; Endocrine glands; Systemic categories and classification of phylum Chordata, and subphyla Tunicata and Acrania; Classification of subphylum Vertebrata: superclass Agnatha (class Cyclostomata); superclass Gnathostomata (classes: Chondrichthyes, Osteichthyes, Amphibia; Reptilia, Aves, Mammalia) – body organization, incidence, the way of life; The origin of vertebrates <i>Practical part</i> Members of subphylum Tunicata and Acrania; The skin of vertebrates (fish, amphibians, mammals), skin derivatives; Axial skeleton – vertebrae of fish, frog, snake, bird, mammal, ribs, sternum; Skeleton of the extremities (frog, bird, mammal); Skeleton of the head (bird, mammal); Muscular system (frog); Bowel, respiratory, excretory, genital, blood systems (dissection of fish, frog, bird, rat); Nervous system (medullar nerves of a frog, brain of a rat); Senses (structure of an eye); Determination of vertebrates			
Reading List: Kostić, D. (2005): Osnovi uporedne anatomije i sistematike hordata. Skripta. Studio Veris. Novi Sad. Kostić, D. (2006): Praktikum iz uporedne anatomije i sistematike hordata. Skripta. Studio Veris. Novi Sad.			
Total hours:			
Lectures: 3	Practicals: 4	Other:	Student research work:
Methods of instruction: <i>Theoretical classes:</i> Oral presentation with the aid of the most up to date technology, active participation of students <i>Practical classes:</i> Microscopy, the use of osteologic collections, dissections			
Assessment (maximum number of points 100)			
Requirements	points	Final exam	points
Active participation in lectures	5	Practical exam	15
Active participation in practicals	5	Oral exam	15
Test(s) or	60		
Pre-exam testing			