

---

Course title: TAXONOMY AND DIVERSITY OF VERTEBRATES

ECTS credit allocation (and other scores): 3

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Natural sciences

Language: English

Number of hours per semester: 45

Course coordinator/ Department and e-mail: Alicja Boroń/Department of Zoology; alibo@uwm.edu.pl

Type of classes: classes and lectures

---

#### Substantive content

**CLASSES:** Comparative characteristics of functional morphology of selected extant Vertebrata taxa as Craniata including hagfish (Myxini) and vertebrates (Vertebrata) ranging from jawless fishes - lampreys (Agnatha), ray-finned bony fishes (Actinopterygii), cartilaginous fishes (Chondrichthyes), lobe-finned fishes (Sarcopterygii), amphibians (Amphibia), reptiles (Reptilia), birds (Aves) and mammals (Mammalia). Diversity of selected groups of vertebrates. Practical use of taxonomical features including some aspects of animal biology in the description and classification of selected vertebrate groups occurring in Poland and in the world.

**LECTURES:** Taxonomy, phylogeny and classification as a part of biological systematics. Organizing and interpreting information about Vertebrata to illustrate evolutionary relationships within and among the main taxa, and adaptations that permit species to inhabit different environments. Using the selected taxa to illustrate concepts in evolution, systematics including taxonomy based on characteristic morphological and other feature, phylogeny and classification. Diversity of vertebrates at the genetic, species and ecosystem level, and ways to its protection.

**Learning purpose:** Understanding the principles of Vertebrata taxonomy, acquiring knowledge of the features and diversity of selected taxa.

---

On completion of the study programme the graduate will gain:

**Knowledge:** Knowledge of scientific explanations regarding taxonomy, distribution and diversity of Vertebrates

**Skills:** Indicating appropriate taxonomic features of Vertebrates and the ability to describe their diversity

**Social Competencies:** Awareness of the threats and the need to protect animal diversity, and constant increase of knowledge in this area

---

**Basic literature:** Liem K., Bemis W., Walker W.F. 2000. Functional Anatomy of the Vertebrates: An Evolutionary Perspective. Cengage Learning, 3<sup>rd</sup> edition.

**Supplementary literature:** Kardong K.V. 2018. Vertebrates: Comparative Anatomy, Function, Evolution. McGraw-Hill Education, 8<sup>th</sup> edition (or earlier).

---

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 47

Student's independent work: 28