

Course title: ENDOCRINOLOGY

ECTS credit allocation (and other scores): 2.5

Semester: autumn

Level of study: ISCED-7 - second-cycle programmes (EQF-7)

Branch of science: Natural sciences

Language: Polish

Number of hours per semester: 45 h.

Course coordinator/ Department and e-mail: Aleksandra Kurzyńska; Department of Animal Anatomy and Physiology; aleksandra.kurzynska@uwm.edu.pl

Type of classes: classes and lectures

Substantive content

CLASSES: Laboratory classes: Utilization of rapid immunodiagnostic tests for determining selected hormones. Radioimmunoassay of protein and steroid hormone levels in plasma or culture media. Analysis of the structure of a selected endocrine organ. Case studies of selected endocrine disorders. Seminar classes: Discussion of selected endocrine disorders, modern methods for their detection and diagnosis based on the latest publications in scientific and popular science journals.

LECTURES: Basic concepts of endocrinology and the mechanism of hormone action. Regulatory loops. The hypothalamic-pituitary system: its hormones and associated diseases. Endocrine functions of the pancreas. Diabetes. Obesity and anorexia nervosa. Adrenal and thyroid hormones. Hormonal regulation of calcium-phosphate metabolism. Endocrine functions of the gonads. The role of the pineal gland.

LEARNING PURPOSE: Understanding hormone mechanisms, roles, and regulation in maintaining homeostasis; learning key physiological health indicators; applying methods to study physiological processes, interpret results, and present findings using professional literature.

On completion of the study programme the graduate will gain:

KNOWLEDGE: student defines physiological processes, describes body functions across levels (general, organ, tissue, cellular), identifies physiological indicators, knows hormone concentration techniques, and understands lab and biological material handling principles.

SKILLS: student analyzes physiological processes, identifies normal and abnormal parameters, conducts basic experiments, interprets data, evaluates information sources, prepares presentations independently, and works well in a group.

SOCIAL COMPETENCIES: student recognizes the need for ongoing learning, staying updated with professional literature, and follows workplace health and safety regulations.

Basic literature: 1.) Endocrinology. WebMD, 2011. Print. 2) Norris, David, and James A Carr. Vertebrate Endocrinology. Fifth edition. San Diego: Elsevier Science & Technology, 2013. Print.

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 47 h.

Student's independent work: 15.5 h.