

Course title: BIOCHEMISTRY (NURSING)

ECTS credit allocation (and other scores): 1 point

Semester: spring

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

Branch of science: Medical and health sciences

Language: English

Number of hours per semester: 30 hours in total (5 – classes, 20- lectures, 5 - self-study)

Course coordinator/ Department and e-mail: Ewa Fiedorowicz, Department of Biochemistry,
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Type of classes: classes and lectures

Substantive content

CLASSES: Topics of laboratory classes: Examination of the absorption spectrum of hemoglobin and its derivatives (analysis of the spectra of carboxyhemoglobin, methemoglobin, oxyhemoglobin, deoxyhemoglobin); Determination of selected diagnostic parameters (glucose, cholesterol, and HDL) in blood serum.

LECTURES: The role of biochemistry in medicine. The role of water and buffer systems in the human body. Structure and function of transport proteins: hemoglobin and myoglobin. The basic characteristics and function of enzymes, the role of diagnostic enzymes. The characteristics and functions of catabolic and anabolic pathways in the cells of the human body. Biochemistry of selected metabolic diseases.

Learning purpose: Understanding the biochemical functioning of the human body by describing of the metabolic pathways and enzyme activities.

On completion of the study programme the graduate will gain:

Knowledge: Characteristics and integration of metabolic processes (anabolism and catabolism) in the human body

Skills: Laboratory analysis of selected diagnostic parameters.

Social Competencies: Ability to cooperate in a group and share knowledge. Developing self-education through the ability to use various sources of knowledge.

Basic literature: Harvey, R. A., & Ferrier, D. R. Lippincott's illustrated reviews: Biochemistry.

Supplementary literature: none

The allocated number of ECTS points consists of: 1 ECTS point = 25-30 hours of student's work

Contact hours with an academic teacher: Fridays, 9:30- 11:00 am

Student's independent work: The student prepares report and description on the assigned issue.