COURSE/MODULE DESCRIPTION (SYLLABUS)

1.	Course: **Glycobiology**
2.	Language of instruction: **English**
3.	Faculty: **Faculty of Biotechnology**
4.	Course/module code: **29-BT-S2-E2-EngGly**
5.	Course/module type (*mandatory* or *elective*): **mandatory**
6.	Programme: **Medical Biotechnology**
7.	Study cycle: **2nd cycle**
8.	Year: **1st**
9.	Semester *(autumn* or *spring):* **spring**
10.	Form of tuition and number of hours: **lecture, 15 hours**
11.	Name, Surname, academic title **Dorota MASZCZAK-SENECZKO, PhD**
12.	Initial requirements (knowledge, skills, social competences) regarding the course/module and its completion: **Knowledge of structure and function of proteins and carbohydrates, cell biology and immunology.**
13.	Objectives: **Acquiring the knowledge of the structure, biosynthesis and biological significance of glycoconjugates.**
14.	Content: **Types of glycoconjugates (glycoproteins, glycolipids, proteoglycans). Structure of glycoconjugates. Biosynthesis of glycoconjugates. Properties and biological significance of lectins. Biological significance of glycoconjugates. Glycosylation-related disorders.**

<table>
<tr><td>15.</td><td>Learning outcomes:
Students:
• provide qualitative and quantitative descriptions of complex biological phenomena and processes;
• possesses advanced knowledge of medical and biological sciences, namely biochemistry, biomedicine and molecular biology;
• efficiently make use of scientific literature in the field of biomedicine; read professional literature in English;
• understands the need for lifelong learning, inspire and organize the learning process for other people;
• understands the need for a systematic review of professional literature in order to broaden and deepen his or her knowledge.</td><td>Outcome symbols:
K_W01, K_W03
K_U02
K_K01, K_K05</td></tr>
<tr><td>16.</td><td colspan="2">Recommended literature:
• Essentials of Glycobiology, 3rd edition (2017), Cold Spring Harbor (NY) https://www.ncbi.nlm.nih.gov/books/NBK310274/</td></tr>
<tr><td>17.</td><td colspan="2">Methods of verification of the assumed learning outcomes:
written exam</td></tr>
<tr><td>18.</td><td colspan="2">Conditions of earning credits:
written exam</td></tr>
<tr><td rowspan="5">19.</td><td colspan="2">Student’s workload:</td></tr>
<tr><td>Activity</td><td>Number of hours for the activity</td></tr>
<tr><td>Hours of instruction (as stipulated in study programme) :
• lecture – 15 h
• consultations – 5 h</td><td>20 hours</td></tr>
<tr><td>Student’s own work
• preparing for the classes – 5 h
• reading the indicated literature – 5 h
• preparation for the exam – 15 h</td><td>25 hours</td></tr>
<tr><td>Total number of hours:</td><td>45 hours</td></tr>
<tr><td></td><td>Number of ECTS:</td><td>2 ECTS</td></tr>
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