COURSE/MODULE DESCRIPTION (SYLLABUS)

1.	Course: **Protein posttranslational modifications in genome structure and stability**	
2.	Language of instruction: **English**	
3.	Faculty: **Faculty of Biotechnology**	
4.	Course code: **29-BT-S2-E3-PPMGSS**	
5.	Course/module type (*mandatory* or *elective*): **mandatory**	
6.	Programme: **Medical Biotechnology**	
7.	Study cycle: **2nd cycle**	
8.	Year: **2nd**	
9.	Semester *(autumn* or *spring)* **autumn**	
10.	Form of tuition and number of hours: **Lecture, 15 h**	
11.	Name, Surname, academic title: **Dorota DZIADKOWIEC, PhD**	
12.	Initial requirements (knowledge, skills, social competences) regarding the course/module and its completion: **Students should have basic knowledge of biochemistry and cell biology.**	
13.	Objectives: **To gain knowledge on the structure of chromatin in pro- and eukaryotic organisms with the emphasis on the role of protein posttranslational modifications in the regulation of crucial processes in the cell.**	
14.	Content **Comparison of chromatin structure in pro- and eukaryotic cells; description of different types of posttranslational modifications of histones and other chromatin proteins (methylation, acetylation, ubiquitylation, SUMOylation); description of processes regulated by these modification (chromatin movement, heterochromatin formation, replication, transcription, DNA repair).**	
15.	Learning outcomes:	Outcome symbols:

	<u>Knowledge:</u> • possess advanced knowledge of biochemistry, and cell biology; • possess in-depth knowledge of biochemistry, genetics and cell biology essential in understanding relationships and interrelations in biological systems. **<u>Skills:</u>** • efficiently makes use of scientific literature in the field of biomedicine and biochemistry; reads professional literature in English; • has ability to critically analyze and select data obtained from literature and electronic resources, to get information on cell biology processes. **<u>social competences:</u>** • understands the need for a systematic review of professional literature in order to broaden and deepen the knowledge.	K1_W03, K1_W04 K1_U02, K1_U03 K1_K05
16.	Recommended literature: **Scientific articles provided by the lecturer.**	
17.	Methods of verification of the assumed learning outcomes: **written test**	
18.	Conditions of earning credits: **presence during lectures, positive grade on written test**	
19.	Student's workload:	
	Activity	Number of hours for the activity
	Hours of instruction (as stipulated in study programme) : • lecture	15 h
	Student's own work: • preparation for lecture • preparation for test	10 h
	Total number of hours:	**25 h**
	Number of ECTS:	**2 ECTS**