SYLLABUS – A COURSE DESCRIPTION

I. General informaion

1. Course name: **Study visits in modern biotechnological laboratories**
2. Course code: **01-BTA_STUDYVISIT**
3. Course type (compulsory or optional): **optional**
4. Study programme name: **Biotechnology**
5. Cycle of studies (1st or 2nd cycle of studies or full master's programme): **2nd cycle of studies**
6. Educational profile (general academic profile or practical profile): **general academic profile**
7. Year of studies (if relevant): **II**
8. Type of classes and number of contact hours (e.g. lectures: 15 hours; practical classes: 30 hours):

   practical classes: 10 hours
9. Number of ECTS credits: **1**
10. Name, surname, academic degree/title of the course lecturer/other teaching staff:

    dr hab. Katarzyna Raczyńska, doracz@amu.edu.pl
11. Language of classes: **English**
12. Online learning – yes (partly – online / fully – online) / no: **no**

II. Detailed information

1. Course aim (aims)

   1. Getting knowledge about strategy for research study in modern biotechnological companies.
   2. Getting knowledge about strategy for development in modern biotechnological companies.
   3. Getting knowledge about the laws and rules of ethics concerning biotechnological and biomedical research in enterprises,
   4. Getting knowledge about protection of personal data, intellectual and industrial property rights.

   Biotechnology companies such as Future Synthesis, MNM Diagnostics and Laboratorium Badań i Rozwoju genXone SA have agreed to accept students for study visits

2. Pre-requisites in terms of knowledge, skills and social competences (if relevant)

   Basic knowledge of the research study in modern biotechnological companies and the industrial property regulations**.**

3. Course learning outcomes (EU) in terms of knowledge, skills and social competences and their reference to study programme learning outcomes (EK)

Course learning outcome symbol (EU)	On successful completion of this course, a student will be able to:	Reference to study programme learning outcomes (EK)
EU_01	know general safety procedures according to BHP rules, in biotechnological laboratory	BT_W08, BT_K05
EU_02	know strategy for research study in modern biotechnological companies	BT_W01, BT_W02, BT_W03, BT_W05, BT_W06, BT_W07, BT_U01, BT_U02, BT_U03, BT_U06, BT_K01, BT_K02, BT_K06
EU_03	know strategy for development in modern biotechnological companies	BT_W01, BT_W02, BT_W05, BT_W07, BT_W08, BT_U02, BT_U03, BT_U07, BT_K03, BT_K06
EU_04	know the laws and rules of ethics concerning biotechnological and	BT_W08, BT_U05, BT_K05

	biomedical research in enterprises and biomaterials, and know how to protect personal data, intellectual and industrial property rights	
EU_05	know how to develop enterprise and innovation in his/her work as professionals, in response to the society and economy needs	BT_W01, BT_W06, BT_W07, BT_U01, BT_U02, BT_U03, BT_U06, BT_U07, BT_K01, BT_K02, BT_K03, BT_K04, BT_K06

4. Learning content with reference to course learning outcomes (EU)

Course learning content	Course learning outcome symbol (EU)
Safe work in biotechnological laboratory	EU_01
Research study in modern biotechnological company	EU_02, EU_05
Strategy for development in modern biotechnological company	EU_03, EU_05
Laws and rules of ethics concerning biotechnological and biomedical research in enterprises, protection of personal data, intellectual and industrial property rights	EU_04

5. Reading list

III. Additional information

1. Teaching and learning methods and activities to enable students to achieve the intended course learning outcomes (please indicate the appropriate methods and activities with a tick or/and suggest different methods)

Teaching and learning methods and activities	
Lecture with a multimedia presentation	
Interactive lecture	
Problem – based lecture	
Discussions	X
Text-based work	
Case study work	
Problem-based learning	
Educational simulation/game	
Task – solving learning (eg. calculation, artistic, practical tasks)	
Experiential work	X
Laboratory work	
Scientific inquiry method	
Workshop method	
Project work	
Demonstration and observation	X
Sound and/or video demonstration	
Creative methods (eg. brainstorming, SWOT analysis, decision tree method, snowball technique, concept maps)	
Group work	

2. Assessment methods to test if learning outcomes have been achieved (please indicate with a tick the appropriate methods for each LO or/and suggest different methods)

Assessment methods	Course learning outcome symbol				
	EU_1	EU_2	EU_3	EU_4	EU_5

Written exam					
Oral exam					
Open book exam					
Written test					
Oral test					
Multiple choice test					
Project					
Essay					
Report	X	X	X	X	X
Individual presentation					
Practical exam (performance observation)					
Portfolio					

3. Student workload and ECTS credits

Activity types	Mean number of hours spent on each activity type
Contact hours with the teacher as specified in the study programme	10
Preparation for classes	5
Reading for classes	
Essay / report / presentation / demonstration preparation, etc.	5
Project preparation	
Term paper preparation	
Exam preparation	
Total hours	20
Total ECTS credits for the course	1

4. Assessment criteria according to AMU in Poznan grade system

Very good (bdb; 5,0): excellent at theoretical and practical level
Good plus (+db; 4,5): excellent at theoretical level, very good at the practical level
Good (db; 4,0): good at theoretical and practical level
Satisfactory plus (+dst; 3,5): good enough at theoretical and practical level, however, with some failings
Satisfactory (dst; 3,0): good enough at theoretical and practical level, however, with many failings
Unsatisfactory (ndst; 2,0): knowledge not enough both at theoretical and practical level