

DESCRIPTION OF THE COURSE OF STUDY

Course code	0511-2BIO-BC11-H	
Name of the course in	Polish	Histologia
	English	Histology

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	Biology
1.2. Mode of study	Full time
1.3. Level of study	Bachelor study
1.4. Profile of study*	General academic
1.5. Person/s preparing the course description	Associate professor Aleksander Szczurkowski PhD, DSc. university professor
1.6. Contact	aleksander.szczurkowski@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Language of instruction	English
2.2. Prerequisites*	Secondary school-leaving examination in biology at the advanced level

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	Lectures: 20, Classes: 30	
3.2. Place of classes	Practical: courses in teaching rooms of the UJK	
3.3. Form of assessment	Exam: theoretical and practical	
3.4. Teaching methods	Lectures, practical classes in laboratories, discussions	
3.5. Bibliography	Required reading	<ol style="list-style-type: none"> 1. Textbook of Histology, 5th Edition, Elsevier 2021. Author: Leslie P. Gartner 2. Junqueira's Basic Histology Text & Atlas, 14th Edition McGraw Hill Education 2016
	Further reading	<ol style="list-style-type: none"> 1. Wheater's Functional Histology, 6th Edition Elsevier 2013 2. Human histology 5th Edition Elsevier 2020. Authors: Lowe James S., Anderson Peter G., Anderson Susan I.

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

<p>4.1. Course objectives (<i>including form of classes</i>)- within the course the student should:</p> <p>C1. know general division of human tissues, their origin, and functions - lectures</p> <p>C2. learn the competency in describing histological construction of systems and organs with special emphasis on the morphological elements which constitute the basis for their actions – lectures</p> <p>C3. understand basic principles of research methods used in histology - classes</p> <p>C4. be able to distinguish human tissues and cell types of characteristics for given organs and tissues - classes</p>	
<p>4.2. Detailed syllabus (<i>including form of classes</i>) – within the course the student should:</p> <p>Lectures</p> <ol style="list-style-type: none"> 1. Characteristic features of epithelial cells. Specializations of the apical cell surface. Renewal of tissue. 2. General structure and function of connective tissue. Embryonic connective tissue. Connective tissue cells. Connective tissue proper. Connective tissue fibres. Extracellular matrix. Types of connective tissue 3. Adipose tissue: white adipose tissue and brown adipose tissue. 4. Cartilage: hyaline cartilage, elastic cartilage, and fibrocartilage. Cartilage formation, growth and repair. 5. Bone: bone cells, bone matrix, type of bone. Osteogenesis. Bone remodelling and repair. Biologic mineralization and matrix vesicles. Metabolic aspects of bone. 6. Blood: composition of plasma, blood cells. Formation of blood cells. Bone marrow. 7. Overview and classification of muscle. Skeletal, cardiac, and smooth muscle. Regeneration of muscle tissue. <p>Composition of nerve tissue. Neurons. Glial cells and neuronal activity. Myelin. Organisation of the peripheral and central nervous system</p> <p>(including e-learning)</p> <ol style="list-style-type: none"> 1. 2. 	

Classes

1. Rules of Procedure of histological laboratory and the basis of histological techniques
2. Epithelium – practical classes in laboratory
3. Connective tissue - practical classes in laboratory
4. Muscles - practical classes in laboratory
5. Nervous tissue - practical classes in laboratory
6. Histological structure of organs

(including e-learning)

- 1.
- 2.

Others

- 1.
- 2.

(including e-learning)

- 1.
- 2.

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4.3 Intended learning outcomes

Code	A student, who passed the course	Relation to learning outcomes
within the scope of KNOWLEDGE:		
...W01	Knows anatomical, histological terminology in English;	BIO1A
...W02	Knows basic cellular structures and their functional specifications	BIO1A
...W03	Knows microarchitecture of tissues, extracellular matrix, and organs.	BIO1A
within the scope of ABILITIES:		
...U01	Operates the optical microscope	BIO1A
...U02	Recognizes histological structures of organs, tissues, cells, and cellular structures on the optical or histological microscope images, makes descriptions and interprets the structure and relations between the structure and the function;	BIO1A
...U03	Uses anatomical, histological terminology both in written and oral communication;	BIO1A
within the scope of SOCIAL COMPETENCE:		
...K01		
...		

4.4. Methods of assessment of the intended learning outcomes

Teaching outcomes (code)	Method of assessment (+/-)																				
	Exam written*			Test*			Project*			Effort in class*			Self-study*			Group work*			Others* e.g. standardized test used in e-learning		
	Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes		
	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...
...W01	+			+	+																
...W02	+			+	+																
...W03	+			+	+																
...U01	+			+	+																
...U2	+			+	+																
...U3	+			+	+																
...K01																					
...																					

*delete as appropriate

4.5. Criteria of assessment of the intended learning outcomes		
Form of classes	Grade	Criterion of assessment
lecture (L) (including e-learning)	3	Learning programme content on the basic level, replies chaotic, leading questions necessary 61% 68%
	3,5	Learning programme content on the basic level, answers systematized, requires assistance from the teacher 69%-76%
	4	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations 77%-84%
	4,5	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations 85%-92%
	5	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information 93%-100%
classes (C)* (including e-learning)	3	Obtaining 61%-68% correct answers at colloquium test
	3,5	Obtaining 69%-76% correct answers at colloquium test
	4	Obtaining 77%-84% correct answers at colloquium test
	4,5	Obtaining 85%-92% correct answers at colloquium test
	5	Obtaining 93%-100% correct answers at colloquium test
others (...)* (including e-learning)	3	
	3,5	
	4	
	4,5	
	5	

5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

Category	Student's workload	
	Full-time studies	Extramural studies
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/	52	
Participation in lectures*	20	
Participation in classes, seminars, laboratories*	30	
Preparation in the exam/ final test*	2	
Others (please specify e.g. e-learning)*		
INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/	23	
Preparation for the lecture*		
Preparation for the classes, seminars, laboratories*	2	
Preparation for the exam/test*	20	
Gathering materials for the project/Internet query*		
Preparation of multimedia presentation		
Others *		
TOTAL NUMBER OF HOURS	75	
ECTS credits for the course of study	3	

**delete as appropriate*

Accepted for execution (date and legible signatures of the teachers running the course in the given academic year)

Associate professor Aleksander Szczurkowski PhD, DSc. university professor

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