

DESCRIPTION OF THE COURSE OF STUDY

Course code	0912-7LEK-C5.11-LL	
Name of the course in	Polish	<i>FAKULTET - Interpretacja badań laboratoryjnych</i>
	English	Elective- Interpretation of laboratory results

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

1.1. Field of study	medicine
1.2. Mode of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study*	practical
1.5. Specialization*	lack
1.6. Unit running the course of study	Faculty of Medicine and Health Sciences UJK
1.7. Person/s preparing the course description	mgr Agnieszka Piechowska
1.8. Person responsible for the course of study	mgr Agnieszka Piechowska
1.9. Contact	apiechowska@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Affiliation with the module	Facultative
2.2. Language of instruction	English
2.3. Semesters in which the course of study is offered	6-12 semesters of study
2.4. Prerequisites*	Implementation of learning outcomes in the field of knowledge, skills and competences from previous years of study

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	lecture – 15 h, classes – 20 h	
3.2. Place of classes	Lectures and classes in the teaching rooms of UJK	
3.3. Form of assessment	Lecture – E, Classes – Zo (credit with grade)	
3.4. Teaching methods	Informative lecture with the usage of multimedia techniques. Classes using activation techniques.	
3.5. Bibliography	Required reading	<ol style="list-style-type: none"> Marshall M. J., Lapsley M., Day A., Clinical Chemistry, ELSEVIER 2017 Wallach J., Interpretation of Diagnostic Tests, Wolters Kluwer 2014
	Further reading	<ol style="list-style-type: none"> Scott M. G., Gronowski A. M., Eby Ch. S., Tietz's Applied Laboratory Medicine, Wiley 2007 McCann S., Foa R., Smith O., Conneally E., Haematology – Clinical Cases Uncovered, Wiley Blackwell 2009

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED TEACHING OUTCOMES

<p>4.1 Course objectives (including form of classes)</p> <p><i>C1. Acquiring the skills of proper selection of laboratory tests together with their interpretation in chronic diseases</i></p> <p><i>C2. The ability to choose the right laboratory tests depending on the clinical condition and age of the patient</i></p> <p><i>C3 Knowledge of laboratory parameters critical values that determine urgent therapeutic intervention</i></p>
<p>4.2 Detailed syllabus (including form of classes)</p> <p>LECTURES:</p> <ol style="list-style-type: none"> <i>The role of diagnostics tests in the diagnostics process</i> <i>The result of the laboratory test as a tool for physician information</i> <i>The impact of non-laboratory factors on the results of laboratory tests</i> <i>The impact of drugs on laboratory result</i> <i>Interpretation process of the laboratory test result - reference point, diagnostic value of laboratory tests</i> <i>Point-of-care tests –advantages & disadvantages</i> <p>CLASSES:</p> <ol style="list-style-type: none"> <i>Laboratory diagnostics of selected haematopoietic diseases</i> <i>Laboratory tests in haemostasis - haemorrhagic disorders, thromboembolic disorders, anticoagulant therapies</i>

3. Selection of laboratory tests in the diagnosis of liver, pancreas other gastrointestinal diseases
4. Laboratory diagnosis of cardiovascular diseases
5. Interpretation of laboratory tests in selected metabolic disorders – glucose disorders, dyslipidemias
6. Urinary system - selection of laboratory tests in urinary tract and kidney disorders
7. Interpretation of laboratory tests in hormonal disorders
8. Diagnosis and monitoring of cancer diseases - laboratory diagnostics
9. Interpretation of laboratory test results in water-electrolyte, acid-base balance and mineral disorders
10. Emergency laboratory tests

4.3 Education outcomes in the discipline

Code	A student, who passed the course	Relation to teaching outcomes
within the scope of KNOWLEDGE:		
...W01	knows theoretical and practical foundations for laboratory diagnostics;	E.W38
...W02	knows theoretical and practical foundations for laboratory diagnostics; knows the specificity of laboratory tests results in pediatric and geriatric patients; knows the role and methods used in medical rehabilitation; knows and understands the causes, symptoms, diagnosis and principles of therapeutic and prophylactic procedures in most common bacterial, viral and parasitic diseases, fungal infections, including pneumococcal infections, viral hepatitis, acquired immunodeficiency AIDS, sepsis and hospital infections;	E.W30, E.W31, E.W32
...W03	knows the types of biological materials used in laboratory diagnosis and the rules for the collection of research material; knows theoretical and practical foundations for laboratory diagnostics; knows and understands the capabilities and limitations of laboratory tests in emergency situations;	E.W37, E.W38, E.W39
...W04	lists indications for the implementation of monitoring therapy;	E.W.39, E.W40
...W05	knows the basic principles of diagnostic poisoning.	C.W45
...W06	knows the basis of early detection of cancer and principles of screening in oncology;	E.W24, E.W32, GW02
within the scope of ABILITIES:		
...U01	plans diagnostic, therapeutic and preventive procedures;	E.U16
...U02	interprets laboratory tests/results and identifies the reasons for deviations;	E.U24
...U03	performs differential diagnosis of the most common diseases in adults and children; recognizes states of a direct threat to life; interprets laboratory tests/results and identifies the reasons for deviations	E.U12, EU14, E.U24
...U04	interprets laboratory tests/results and identifies the reasons for deviations, collects samples of material used in laboratory diagnostics; performs basic medical procedures and treatments, including: a) measurement of body temperature, pulse measurement, non-invasive blood pressure measurement, b) monitoring of vital signs using a cardio-monitor or pulse oximetry, c) spirometry, oxygen therapy, assisted and control mode ventilation d) introduction of the oropharyngeal tube, e) intravenous injection, intramuscular and subcutaneous injections, cannulation of peripheral veins, collection of peripheral venous blood, collection of arterial blood, collection arterialized capillary blood, f) collecting swabs from the nose, throat and skin, puncture of pleural cavity, g) catheterization of the urinary bladder in women and men, nasogastric intubation, gastric lavage, enema, h) standard electrocardiogram along with its interpretation, cardioversion and defibrillation of the heart, i) simple test strips and measuring the concentration of glucose in the blood; complies with the aseptic and antiseptic rules;	E.U24, E.U28, E.U29, F.U3
within the scope of SOCIAL COMPETENCE:		
...K01	Understands the principles of cooperation between a doctor, nurse, diagnostic laboratory staff, health promotion specialist and specialist health care management in the screening program	G.U2, G.U6
...K02	Develops the need for self-study and teamwork	D.U16

4.4. Methods of assessment of the intended teaching outcomes

Teaching outcomes (code)	Method of assessment (+/-)																				
	Exam oral/written*			Test*			Project*			Effort in class*			Self-study*			Group work*			Others*		
	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	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...W04	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...W05	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...W06	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...U01	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...U02	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...U03	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...U04	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...K01	+	+		-	-		-	-		-	+		-	-		-	-		-	-	
...K02	+	+		-	-		-	-		-	+		-	-		-	-		-	-	

*delete as appropriate

4.5. Criteria of assessment of the intended teaching outcomes		
Form of classes	Grade	Criterion of assessment
lecture (L)	3	Class attendance, active participation. He mastered the program content at the basic level. He has no ability to combine individual groups of issues into logical strings. Credit for the indicated grade.
	3,5	Class attendance, active participation. Presents knowledge after orientation. Credit for the grade.
	4	Class attendance, active participation. He mastered the content of the program at a satisfactory level, presents knowledge quite independently. He can apply it in typical situations. Credit for the grade.
	4,5	Class attendance, active participation. He mastered the full range of program content, presents statements based on knowledge. Is able to analyze and interpret critically information. Credit for the indicated grade.
	5	Class attendance, active participation. He mastered the full range of program content, presents statements based on knowledge. Is able to analyze and interpret critically information. It presents the ability to combine the information presented into logical strings. Credit for the grade.
classes (C)*	3	Student has the knowledge and skills listed in point 4.3 within a sufficient range of 61 - 68% of the points from final credit
	3,5	Student has the knowledge and skills listed in point 4.3 within a sufficient range of 69 - 76% of the points from final credit
	4	Student has the knowledge and skills listed in point 4.3 within a sufficient range of 77 - 84% of the points from final credit
	4,5	Student has the knowledge and skills listed in point 4.3 within a sufficient range of 85 - 92% of the points from final credit
	5	Student has the knowledge and skills listed in point 4.3 within a sufficient range of 93 - 100% of the points from final credit

5 BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

Category	Student's workload
	Full-time studies
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/	35
Participation in lectures*	15
Participation in classes, seminars, laboratories*	20
Preparation in the exam/ final test*	
Others*	
INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/	15
Preparation for the lecture*	5
Preparation for the classes, seminars, laboratories*	10
Preparation for the exam/test*	
Gathering materials for the project/Internet query*	
Preparation of multimedia presentation	
Others (please specify e.g. e-learning)*	
TOTAL NUMBER OF HOURS	50

ECTS credits for the course of study	2
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**delete as appropriate*

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

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