

MED 2001- Tissue Damage and Host Response

Course Name	Code	Semester	Type of course	Theory (hours)	Group work (hours)	ECTS
Tissue Damage and Host Response	MED 2001	III	Mandatory	25	45	5
Faculty, the educational program and education level	Faculty of Medicine, one-cycle Educational Program "Medicine"					
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Educational course format	LECTURE LABORATORY WORK IN GROUP					
Educational course volume	<p>Total: 150 hours, that includes: Contact hours: 75 h</p> <ol style="list-style-type: none"> Lecture – 25 h Laboratory -6 h Work in Group – 40 h Midterm Exam – 2 h Final Exam -2 h <p>Independent work – 75 h</p>					
Prerequisites	MED1003 - Cell, Tissue and Organ Systems					
The purpose (s) of tutorial course/modules	This course serves as an introduction to clinical sciences which aims to explain what kind of alterations in structure and functions of the body may manifest as disease. This block also aims to emphasize the importance of microbiological, pathologic, biochemical, genetic and other laboratory diagnostic tools and radiology and nuclear medicine imaging techniques used for the diagnosis of the diseases.					
Teaching and learning strategy	<p>Lectures will be conducted based on the application of verbal explanation method, demonstration-the method of visual presentation of the information.</p> <p>Laboratory work foresees doing experiments by the students themselves under the teacher's supervision that aims at elaboration of practical clinical skills; the students will</p>					

	<p>also analyze the obtained results.</p> <p>In order to develop the skills of making conclusions supported by the arguments the student during the group work, will defend and justify their opinions, when dealing with situation analysis, and analyze critically the situation created by their course mate. The students will also carry out the analysis of the clinical cases, interpret, classify, assess the data and make synthesis by means of connecting and confluencing of the components comprising the separate issues.</p> <p>When working on the project the student will use the method of working on the book. Besides he/she has to get familiarized with publications, process the literature, search for the additional material and present the project in slideshow format.</p>
<p>Assessment criteria</p>	<p>Maximum score- 100</p> <p>Midterm assessment -60</p> <ul style="list-style-type: none"> • Attendance on lectures - 10 score; • Activity on Laboratory – 10 score: • Activity on Group work -10 score • Project Preparation and Presentation -10 score • Midterm Exam – 20 scores <p>Laboratory Work is Assessed Based on the Following Criteria (maximum 10 scores)t):</p> <p>10-9 scores: Laboratory method is planned correctly, the usage of the laboratory equipment and devices by the student is accurate. The student is able to make method recording correctly, can easily identify the mistakes made and plan the way of correction. The student is able to analyze the method exercised and interpret the results. Laboratory work is carried out accurately and completely;</p> <p>8-7 scores: Laboratory method is planned correctly. The student reveals the relevant knowledge when applying laboratory equipment and devices. The student is able to make method recording correctly, easily identify the mistakes made and plan the way of correction, however, has difficulties in analyzing the results. Laboratory work is performed with minor faults.</p> <p>6-5 scores: Laboratory method is planned correctly. The student is not able to reveal the relevant knowledge when using the laboratory equipment since he/she makes minor mistakes when applying laboratory devices; The student can make method recording correctly but is not able to detect the mistakes made and experiences difficulties in looking for the ways of correction. Laboratory work is carried out with minor faults.</p> <p>4-3 scores: Minor mistakes are made in planning of the laboratory method; the student is not able to reveal the relevant knowledge when using laboratory equipment and devices, is able to make method recording correctly but is not able to detect the mistakes made and relevantly has difficulties in finding the way of correction. Laboratory work is carried out with essential faults.</p> <p>2-1 scores: Essential mistakes are made in planning laboratory method; the student is hardly familiar with the rules of usage of laboratory equipment and devices; the student is able to make method recording but is unable to detect the mistakes made and relevantly has difficulties in finding the ways of correction. Laboratory work is carried out with essential</p>

faults.

0 score: the student is absolutely unaware of laboratory method and equipment and devices. The task is not fulfilled.

Group Work are Assessed Based on the Following Criteria (maximum 10 point)

10 scores - Student has been able to present complete and thorough knowledge of the subject, a substantial amount of detailed and relevant information. Demonstrate considerable depth of understanding of the studied main and additional literature. Bring forward a balanced view of the main arguments on the issues.

9 scores - Student has been able to bring forward a consistent number of deductions on most of the topics tackled. make very good comments on the different perspectives on most of the issues. Demonstrates knowledge of the main readers.

8 scores - Student has been able to bring forward a consistent knowledge, Has properly developed terminology. Demonstrates knowledge of the main readers.

7 scores - Student has been able to present some factual information sufficiently linked with the topic. demonstrate a good understanding of the topics selected. make a good attempt to bring forward a balanced view of some arguments on the issues. Terminology is partially developed.

6 scores - Student has been able to make some good comments on the different perspectives on some of the issues. Make poor deductions on most of the topics tackled. analyse some causes and results of human interactivity related to the issues.

5 scores - Student has been able to demonstrate inconsistent comments on the different perspectives on some of the issues. Terminology is partially developed. Present mediocre level of knowledge. Make poor deductions.

4 scores - Student demonstrates general overview of the topics. Terminology is not developed. Information sufficiently linked with the topic. Demonstrate irrelevant understanding of the literature.

3 scores - Student demonstrates general/superficial and inconsistent knowledge of the subject. No sufficient knowledge of the literature.

2 scores - Student demonstrates general comments, no knowledge of the terminology, no consistency.

1 scores - Student demonstrates insufficient answer, not terminology awareness, chronologic manner of the answer, mostly wrong, no knowledge of literature.

0 scores: Student demonstrates not even elementary knowledge of the topics.

Presentation / Project Grading – Maximum 10 grades

1. Content - 1;
2. Problem outline - 1;
3. Review of the literature on the issue -1;
4. Research methods relevance with the research goals - 1;
5. Logical argumentation - 1;
6. Deductions accuracy and correlation with the main text - 1;
7. Visual and technical parts of the material - 1;
8. Reliability of the sources - 1;

	<p>9. Accuracy of the cited literature - 1; 10. Language and style accuracy- 1.</p> <p>Midterm Exam Is held in the written test form (test consists of 40 multiple-choice questions, each question is rated as 0.5 score).</p> <p>Students are admitted to the final examination, if they score no less than 51 scores through the midterm exam and final examinations.</p> <p>Final Exam – 40</p> <p>Is held in the written test form (test consists of 60 multiple-choice close questions, each question is rated as 0.5 scores and 10 open questions each question is rated as 1 score). Students have to score equal or more than 70% from final exam maximum score (40X70/100=28 maximum 28 scores from the overall 40) to pass the final examination. Credit will be given to the student if he has collected at minimum 51 scores out of 100. The students' assessment has to be done in the following way:</p> <p>Positive rate:</p> <ul style="list-style-type: none"> • (A) Excellent- 91 or more scores; • (B) Very Good- 81-90 scores; • (C) Good- 71-80 scores ; • (D) Satisfactory- 61-70 scores; • (E) Enough- 51-60 scores; <p>Negative rate:</p> <ul style="list-style-type: none"> • (FX) Failure - 41-50 scores, which means that a student needs to work more and independent and considerable further work is required to pass the exam once again to re-awarded; • (F) Fail - 40 scores or less, which means that the student's diligence is not sufficient and student has to learn the subject all over again. <p>Student can pass the additional exam during the same semester. The time interval between the final and the additional exams should be not less than 10 days.</p>
The basic literature	<ol style="list-style-type: none"> 1. Leslie P.Gartner James L.Hiatt. Color Atlas of Histology. Lippincott Williams&Wilkins, 5th edition. 2013; 2. Bruce Alberts, Alexander Johnson, Julian Levis, Martin Raff Keith Roberts Peter Walter. Molecular Biology of the Cell. Garland Science Taylor & Francis Group. 5th edition. 2008; 3. Richard S. Snell. Clinical Anatomy (An Illustrated review with Questions and explanations). Lippincott Williams&Wilkins, 4th edition. 2003; 4. David J.Dowsett, Patrick A.Kenny & R.Eugene Johnston. The Physics of Diagnostic Imaging. CRC Press Taylor&Francis Group. 2nd edition. 2006.
The auxiliary literature	<ol style="list-style-type: none"> 1. David Greenwood, Richard Slack, John Peutherer, Mike Barer. Medical Microbiology. A Guide to Microbial Infections: Pathogenesis, Immunity, Laboratory Diagnosis and Control. Seventh edition. Elsevier. 2007.

The tutorial/learning course content (week by week)

Week	Topics	Lecture (hour)	Work in group Appl. (hour)	Lab
	Introduction to pathology, microbiology and pharmacology; Introduction to the clinical laboratory: Organization, purposes and practice; Routes of Drug Administration	6	6	
	Cellular response to injury: degeneration, necrosis, apoptosis; cellular adaptation: hyperplasia, hypertrophy, atrophy and metaplasia; Introduction to clinical oncology	6	6	3
	Chemical mediators of inflammation; interpretation of laboratory results; neoplasia, wound care. Healing; wound care; dose effect relationship, factors that modify drug actions and drug interactions;	6	6	3
	Midterm Exam		2	
	Basics of virology and mycology; Chemical and Viral Carcinogenesis; Tumor kinetics and progression; Epidemiology, preventive medicine;	6	6	
	Sterilization and Disinfection	1	6	
	Cse point		6	
16-19	Final Exam		2	

Learning Outcomes

Criteria	Competences
Knowledge and understanding	<p>At the end of this course students will be able to:</p> <ul style="list-style-type: none"> explain the major mechanisms of cellular, tissue and organ damage and disorders; microbiological, pathologic, biochemical, genetic and other diagnostic tools and imaging techniques that are used for the diagnosis of the diseases and basic pharmacological principals will be covered; describe the effects and interactions of the drugs, pharmacokinetics and pharmacodynamics; describe the major groups of microbial pathogens; explain and perform wound care; major principles of epidemiology and preventive medicine; name the microorganisms causing infectious diseases and act considering importance of infectious diseases ; <p>understanding:</p> <ul style="list-style-type: none"> the importance of microorganisms in human life; genetic approaches which are important in diagnosis of disorders;

Ability of knowledge application	Will be able to: <ul style="list-style-type: none">• Mastered the skills needed to apply microbiologic, pathologic, biochemical, genetic and other laboratory diagnostic techniques• explain the importance of sterilization and disinfection for human health, remember the proper technique to use when necessary list the diagnostic tools and imaging techniques necessary for diagnosis and treatment of the disorders
Learning skills	Student can use study resources in consequence, can manage one's own learning process.