



Sveučilište u Rijeci • Fakultet dentalne medicine  
University of Rijeka • Faculty of Dental Medicine

**Course: Pathology**

**Course Coordinator: Prof.dr. Gordana Đorđević**

**Department: Department of Pathology**

**Study program: Integrated Undergraduate and Graduate University Study of Dental Medicine**

**Study year: 2<sup>rd</sup>**

**Academic year: 2021/22**

## SYLLABUS

### Course information (brief course description, general guidelines)

**Pathology** is a compulsory course of the Integrated Undergraduate and Graduate University Study of Dental Medicine in English. The course lasts 6 weeks (120 hours) and is worth 10 ECTS credits. The course is held at the Department of Pathology of the Faculty of Medicine in Rijeka.

**The aim** of the course is to learn about the morphological and structural changes of the human body in various through topographic and systematic anatomy. The aim of the course is to learn about the morphological and structural changes of the human body in various diseases through topographic and systematic pathological anatomy and pathohistology.

#### **Course content:**

The Basic Pathology course introduces students to the principles, pathophysiologic mechanisms and gross and microscopic pathology of the Cell as a Unit of Health and Disease, Inflammation and Repair, Hemodynamic Disorders, Thromboembolism, and Shock, Diseases of the Immune System, Neoplasia, Genetic and Pediatric Diseases, Environmental and Nutritional Diseases, General Pathology of Infectious Diseases. These principles of basic pathology are then further applied, developed and integrated into the subsequent pathology organ system course, through didactic lectures in organ system pathology, case reports to review classical examples of surgical specimens, emphasizing clinic-pathologic correlation especially on oral cavity and teeth tissue diseases.. The course includes lectures, laboratories, and microscopic tutorials. The histological specimens are presented in the form of virtual teaching. Microscopic examination of the tissue includes a review of standard histological as well as slides colored with special techniques. The macroscopic examination of the tissue is performed in the laboratory of the Department of Pathology, on the samples exhibited in the exercise room of the Institute and during the autopsy. Students participate in clinical pathological discussions about autopsy and laboratory work at the institute that is part of daily routine work. During the course the student acquires knowledge and skills in the application of nomenclature of pathological entities and diseases. The acquired knowledge and skills should provide a better understanding of the causes and mechanisms of the disease required for accurate diagnosis.

**Instruction**

The course is composed of 50 hours of lectures, 40 hours of seminars and 30 hours of practicals, a total of 120 hours. A student is obliged to regularly attend all forms of instruction. Moreover, preparation for the course content, which is going to be discussed during seminars and practicals, is obligatory. Continuous assessment will be carried out during seminars and practicals. During the course 4 mandatory written and 2 mandatory oral and practical exams will be conducted. At the end of the course the final exam is a written testing.

**Assigned reading:**

Robbins Basic Pathology 10th Edition Authors: Vinay Kumar Abul Abbas Jon Aster Elsevier 2017, ISBN: 9780323353175

<http://mikromed.uniri.hr>: Virtual pathology; Atlas iz patologije, Katedra za patologiju, Medicinski fakultet u Rijeci ;

To enhance the meaning of the lectures, the student is expected to read the pertinent text material prior to the lecture.

**Optional / additional reading:**

- 1.GPS – General Pathology Synopsis (Pathology Self-Assessment question's Handbook)
  - 2.SPS – Systemic Pathology Synopsis (Systemic Pathology Self-assessment question's Handbook).
  - 3.Web –online content microscopic and macroscopic content <http://mikromed.hr>
- Patologija. I. Damjanov, S. Seiwerth, S. Jukić, M. Nola. Peto, prerađeno i dopunjeno izdanje, Medicinska naklada, Zagreb 2018.

**Course teaching plan:****List of lectures (with titles and description):****GENERAL PATHOLOGY**

**L1,2** Cellular Pathology: An Introduction to Pathology, An Overview of Cellular Pathology

Cell damage: Reversible and irreversible

Learning outcomes:

Students will be able to:

1. Define all forms of cell damage.
2. Compare the reversible and irreversible cell damage.
3. Describe all forms of cellular adaptation and differentiate between them.
4. Define the role of apoptosis in physiological and pathological conditions.

**L3,4** Inflammation: Introduction, inflammation division, inflammatory cells, chemical inflammation mediators Inflammation: Outbreak of inflammation, healing, classical and systemic signs of inflammation

Learning outcomes:

Students will learn to

1. Define inflammation.
2. Specify inflammation types.
3. explain the morphological forms of inflammation.
4. describe course of acute and chronic inflammation

**L5 Hemodynamic disorders: edema, dehydration, hyperemia and congestion, bleeding, shock**

Learning outcomes:

Students have to

1. Define edema, describe and explain mechanisms of edema formation and its clinical features.
2. Define hyperemia and congestion and explain pathogenesis.
3. Define Thrombosis with predisposing factors for the creation of a thrombus, to list the different types of thromb and their morphology, and indicate possible complications
4. Define an infarct, classification, explain the pathophysiology, pathohistological and clinical features.
5. Define, classify and explain different stages of shock. List and describe morphological and clinical features

**L6 Neoplasm 1**

Learning outcomes:

Students have to

1. Define the term of neoplasms and histogenic classification of neoplasms.
2. Describe the principles of nomenclature and classification of neoplasms based on macroscopic and histopathological structure
3. Describe the typical features of benign and malignant neoplasms.
4. Describe growth patterns and types of tumor metastasis.
5. Explain the principles on which the clinical and histological grading of neoplasms is based.

**L7 Neoplasm 2**

Molecular Biology in Diagnosis of Diseases: Methodology, Application in Neoplasm Diagnosis

Learning outcomes:

Students will learn to.

1. Describe carcinogenesis processes.
2. Identify substances (carcinogens) that are associated with cancer.
3. Identify viruses associated with carcinogenesis.
4. Analyze Viral Carcinogenesis Mechanisms on Human Papilloma Virus (HPV) Example.
5. Explain the effect of oncogenes in cell growth and proliferation control.
6. Describe the action of tumor-suppressor genes.
7. Identify hereditary and somatic remodeling in genomes - tumor growth promoters.

**L8 Autoimmune diseases**

Learning outcomes:

Students will learn to

1. classify autoimmune diseases with examples of hypersensitivity reactions.
2. Explain mechanism of transplantation reaction.
3. Identify the most important features of Systemic Erythematous lupus, Sjögren syndrome and Systemic sclerosis.
4. Classify immunodeficient states.
5. Explain mechanism of the acquired immune deficiency syndrome.
6. Describe the characteristics of amyloidosis, classify amyloidosis.

**L9 Developmental and genetic diseases**

Learning outcomes:

Students will be able to

1. List and recognize environmental teratogenes.
2. Describe chromosomal disorders (frequency and types of most common )
3. Describe and determine the origin and causes of numerical and structural chromosomal disorders.
4. Cytogenetic and screening tests in prenatal diagnosis.
6. Classify and describe genetic disorders inherited by Mendel's (autosomal dominant, autosomal recessive and sexually-inherited inherited diseases).
7. classify and describe the morphological characteristics of the most common genetic syndrome with atypical inheritance (caused by repeated triplets, mitochondrial gene mutations, imprinting disorders).
8. Classify and describe the morphological characteristics of diseases caused by polygenic inheritance

#### **L10** General pathology of infectious diseases

### **SYSTEMIC PATHOLOGY**

#### **L11** Blood vessel diseases

Learning outcomes:

Students will be able to

1. Define Arteriosclerosis, Classify
2. Define and explain atherosclerosis pathogenesis, classify and report complications
3. Define vasculitis, classify vasculitis, state the causes, and explain vasculitis pathogenesis.

#### **L12** Ischemic heart disease, Rheumatic heart disease

Learning outcomes:

Students will be able to

1. Define and classify ischemic heart disease, epidemiological data and known causes of risk factors of ischemic heart disease.
2. Define and classify angina pectoris, state the causes and describe the morphological and clinical characteristics of angina pectoris.
3. Define and classify myocardial infarction, describe and recognize macroscopic and microscopic morphological characteristics of myocardial infarction,
4. Explain the correlation between coronary thrombosis and localization of the infarct, describe, recognize and explain complications of the infarction and correlation with the clinical status.
4. Define chronic ischemic heart disease and severe cardiac death with epidemiological characteristics, causes and clinics, describe morphological characteristics
5. Define rheumatic fever and rheumatoid heart disease, provide epidemiological data, explain pathogenesis, describe their morphological macroscopic and microscopic changes, cite complications and their association with clinical outcome.

#### **L13** Hematopathology:

Learning outcomes:

Students will learn to

1. Define and classify anemias
2. Classify white blood cell disease
3. Describe methods in the diagnosis of white blood cells neoplasms.
4. Bleeding disorders

**L14 Head and neck pathology and Respiratory system**Learning outcomes:

Students will learn to

1. Define and classify inflammations and tumors of pharyngs and laryngs
2. Define and classify restrictive/obstructive lung diseases, include epidemiological data, causes, explain the disease pathogenesis, describe morphological changes and clinical status .
3. Define and classify vascular lung diseases

**L15 Lung tumors**Learning outcomes:

- Classify lung and pleural tumors, indicate epidemiological data, causes, risk factors, describe macroscopic morphological characteristics, and explain the relationship to the clinical picture.
3. Define and classify neuroendocrine lung tumors, describe morphological and clinical features.

**L16 Gastrointestinal Tract**Learning outcomes:

Students will learn to

1. List and define esophageal inflammation, esophageal tumors
2. List and define gastric and duodenal ulcerative disease, gastric tumors
3. Define infectious enterocolitis, ulcerative colitis, Crohn's disease
4. Morphological characteristics of colon adenoma, colorectal carcinoma

**L17 Kidney: glomerular, tubular and interstitial diseases, kidney tumors**Learning outcomes:

Students will be able to

1. Classify and describe congenital urinary tract anomalies,
2. Classify cystic kidney disease.
3. Classify glomerular and tubulointerstitial diseases.
4. Classify obstructive diseases of urotract with emphasis on urolithiasis..
5. Classify kidney tumors (tumors of the origin of kidney tubules, urotelial, Wilms tumor).
6. describe inflammatory diseases of the bladder and urethra, and tumors

**L18 Female Genital System:**Learning outcomes:

Students will learn about the:

1. etiology, pathogenesis and pathology of cervical neoplasms
2. etiopathogenesis, pathology, classification and clinical correlation of endometrial hyperplasia and cancer
3. classification and pathology of ovarian neoplasms with differential diagnosis to ovarian cysts

**L19 Endocrine System**Learning outcomes:

Students will be able to :

1. classify and describe endocrine gland function disorders.
- 2 specify thyroid function disorders and explain etiopathogenesis and morphology of goitre and thyroiditis.
3. Specify and describe thyroid neoplasms.
4. specify adrenal gland tumors.

**L20 Brest diseases**

Learning outcomes:

Students will be able to :

1. recognize breast inflammation, fibrocystic changes, to apply acquired knowledge by emphasizing clinical importance of fibrocystic changes and proliferative breast disease and the risk of developing breast cancer.
2. Classify and describe breast tumors and specify the prognostic factors of breast cancer.
3. Describe and explain gynecomastia and men's breast cancer.

**L 21 Skin**

Learning outcomes:

Students will be able to

1. Describe benign / malignant epithelial skin lesions
2. Describe benign / malignant pigmented lesions
3. Describe immune disorders of the skin
4. correlate skin and oral cavity diseases

**L22 Central Nervous System,**

Learning outcomes:

Students will be able to

1. Describe the etiology and pathology of brain edema, types of edema
2. Describe the morphological characteristics of cerebrovascular diseases in relation to the etiology
3. Describe morphological changes in brain trauma
4. Classify tumors of central and peripheral nervous system
5. List demyelinating diseases and neurodegenerative disorders

**ORAL CAVITY PATHOLOGY**

**L23 Oral cavity:** terminology ,developmental, inflammatory / reactive lesions, infections

Learning outcomes:

Students will be able to

1. Define and classify oral cavity development disorders, teeth anomalies
2. Define and classify inflammatory / reactive lesions and to connect with macroscopic and microscopic appearance
3. Classify and define pathogenesis and morphological characteristics of odontogenic/ nonodontogenic cysts

**L24 Oral cavity:** oral manifestations of systemic diseases

Learning outcomes:

Students will be able to

Define pathogenesis, morphology and complications of periodontal inflammatory disease

1. Indicate oral manifestations in systemic autoimmune diseases
2. Indicate oral manifestations in endocrine and metabolic diseases
3. Indicate oral manifestations in various malignant conditions
4. Indicate oral manifestations in poisoning and hypovitaminosis

**L25** Bone system, joints and soft tissue pathology with emphasis on the oral cavity, jaws and teeth tumors and precancerous conditions

Learning outcomes:

Students will be able to:

1. Define and classify tumors and precancerous conditions and tumor-like lesions
2. Connect with macroscopic and microscopic appearance
3. Connect with clinical manifestations
4. Classify odontogenic and neodontogenic tumors

**L26** Inflammation and tumors of the salivary glands

Learning outcomes:

Students will be able to

1. Define and classify inflammation, tumors and tumor-like lesions of salivary glands

**List of seminars:**

**GENERAL PATHOLOGY**

**S1** Cellular Adjustment, Metabolic disorders

**S2** Irreversible cell damage

**S3** Acute inflammation, morphological forms of acute inflammation

**S4** Chronic inflammation, morphological forms of chronic inflammation

**S5** Thrombosis, embolism, infarction

**S6** Neoplasms I: clinical and pathological classification and tumor names, tumor biology

**S7** Neoplasms II: carcinogenesis, clinical signs, laboratory diagnostics

**S8** Environmental Diseases (Smoking, Alcoholism, Physical Agents Damage)

**SYSTEMIC PATHOLOGY**

**S9** Cytogenetic tests in prenatal diagnosis, screening tests from maternal serum, diseases caused by polygenic inheritance

**S10** Mucosal infections

**S11** Diseases of endocard, endocardial valves, myocardial and pericardial diseases, hypertensive heart disease, pulmonary heart disease

**S12** Hematopathology, anemia, disorders of the basal hematopoietic cell, myelodysplastic syndrome

**S13** Tumors of upper respiratory tract, pleura and mediastinum

**S14** Liver, circulatory disorders, viral hepatitis and toxic damage and cirrhosis of the liver, liver tumors

Biliary system, pancreas, inflammation and tumors

**S15** Male Genital System Pathology

**S16** Ovarian and oviduct Diseases, Gestational Trophoblastic Disease

**S17** Tumors of the central and peripheral nervous system

**ORAL CAVITY PATHOLOGY**

**S18** Terminology and morphology of pathological changes of the oral cavity

**S19** Oral manifestations in endocrine and metabolic diseases, various tumor conditions, poisoning and hypovitaminosis

**S20** Tumors of the oral cavity and premalignant lesions in a clinically pathological correlation  
**S21** Salivary gland diseases, odontogenic cysts and tumors

**List of exercises with description:**

Exercises will be held at the Department of Pathology. Students should study the theory before coming to practicals. It is obligatory to wear a lab coat to exercises. Practical provide further information and practice needed for the interpretation of gross and microscopic changes in various organs and their correlation with clinical, radiologic and laboratory tests. Emphasis will be placed on pathogenetic mechanisms and the importance of correlating pathologic changes with clinical cases, images and laboratory or autopsy findings especially those located in oral cavity. Teacher is facilitator, discussing and clarifying difficult points, defining terminology, and motivating active student's involvement in practicals. The histological specimens are presented in the form of virtual teaching. Microscopic examination of the tissue includes a review of scanned standard histological specimens. The macroscopic examination of the organs and tissue is performed during the daily work in the laboratory of the Department of Pathology, on the samples exhibited in the exercise room of the Institute and during the autopsy. Latin diagnoses of pathological changes studied in macroscopic and microscopic examination are listed.

**GENERAL PATHOLOGY**

**E1** Cellular Pathology :Cellular Adaptations,cellular accumulations: virtual microscopy,  
Macroscopic examination

Atrophia cyanotica hepatis,

Hypertrophia myocardii

Hyperplasia glandularis prostatae

Metaplasia squamosa

Metamorphosis adiposa hepatis

Anthraxis pulmonis

Haemochromatosis

**E2** irreversible cell damage: virtual microscopy, macroscopic examination

Infarctus myocardii recens

Encephalomalacia

Tuberculosis caseosa pulmonis

Microcalcificationes placentae

Infarctus anaemicus placentae

Steatonecrosis

**E3** Inflammation: Acute inflammation, morphological forms of acute inflammation: virtual  
microscopy, macroscopic examination

Pericarditis fibrinosa

Pneumonia abscedens and pleuritis fibrinosa

Appendicitis acuta suppurativa phlegmonosa

**E4** Chronic inflammation, morphological forms of chronic inflammation: virtual microscopy,  
macroscopic examination

Sialoadenitis chronica suppurativa

Sarcoidosis lymphonodi

Granuloma corporis alieni

lymphadenitis granulomatosa - bolet major ogreba granulationes



**E5** hemodynamic disorders: virtual microscopy, macroscopic examination

Cyanosis et oedem pulmonum

Induratio cyanotica pulmonum

Necrosis haemorrhagica centralis hepatis

Thromboembolia arteriae pulmonalis cum infarctus haemorrhagicus pulmonis

Embolia adiposa pulmonis

infarctus anaemicus renis

**E6** Neoplasia I: virtual microscopy, macroscopic examination

Papiloma linguae

Cystadenoma serosum ovarii

Teratoma

Adenoma pleomorphe

Carcinoma schirrosum

Carcinoma anaplasticum

**E7** Neoplasia II: virtual microscopy, macroscopic examination

Adenocarcinoma

Adenoma tubulare

Leiomyoma

Leiomyosarcoma

Morbus bowen

Carcinoma planocellulare

Adenocarcinoma metastaticum lymphonodi

Adenocarcinoma metastaticum hepatis

Lymphangiosis carcinomatosa

**E8** Neoplasia III: Clinical Characteristics, Laboratory Diagnostics Laboratory Methods

**E9** Amyloidosis

Amyloidosis renis

Amyloidosis hepatis

Tophi urici

**E10** Immunofluorescence in diagnosis of immuno mediated diseases

**E11** Diagnostic and predictive tools for Brest carcinoma

**E12** The role of cytology in diagnosing the disease

## **ORAL CAVITY PATHOLOGY**

**E13** Diseases of the oral cavity (cysts, and tumor like lesions)

Granuloma gigantocellulare

Granuloma pyogenicum

Cysta follicularis

Cysta radicularis

Ulcus linguae

**E13** Autoimmune disease of oral cavity

Pemphigus vulgaris

**E14** tumors of the oral cavity ,jaws and teeth, premalignant lesions in a clinically pathological correlation- virtual pathology slides

Ameloblastoma

Carcinoma planocellulare baseos oris

Dysplasia fibrosa  
Tumor gigantocellularis ossis  
Fibroma  
Haemangioma cavernosum

**E15** Salivary gland diseases, odontogenic cysts and tumors  
Carcinoma adenoides cysticum  
Cystadenoma lymphomatosum papillare  
Mucocoele

**E16** Autopsy (discussion and repetition)  
**E17** Laboratory Diagnostics Laboratory Methods

Practicals in systemic pathology (**P**)  
Practical knowledge includes identification, description and explanation of macroscopic specimens from the Atlas, samples exhibited in the exercise room of the Institute and are performed during the seminars.

**Students' obligations:**

All forms of teaching are compulsory and student attendance at lectures, seminars and exercises will be conducted accordingly. Student has not fulfilled his / her obligations prescribed by the study program if he / she did not attend more than 30% of teaching hours of all forms of teaching (lectures, seminars or exercises) according to the Rulebook on Student Assessment at the Faculty of Medicine in Rijeka, class: 003-05/18-02/07, reg 2170-24-01-18-1.

**Grading:**

Student grading is conducted according to the current Ordinance on Studies of the University of Rijeka

Students' performance will be evaluated during class and at the final exam. Out of a total of 100% of marks, during the class the student can achieve a maximum of 70% of marks, and at the final exam a maximum of 30% of marks.

I. Achievement during the class (maximum 70% of marks):

During the class the following are evaluated:

1. Seminar independent work is evaluated in the maximum assessment point amount of 5%, ie the minimum 2% according to the table:

Marks in seminas	points (maximum 5)
4,5 - 5,0	5
3,5 - 4,4	4
2,5 - 3,4	3
2,0 - 2,4	2

2. Students' knowledge will be monitored and graded during the course, as well as upon completion of certain units in the form of two written checks (tests: part I and part II). Acquired knowledge with two written examinations (maximum 70% of marks):

part I - General pathology test (50 questions) and part II – Systemic pathology test (50 questions).

Tests in general pathology, part I, can achieve a maximum of overall 32% of assessment points, and test in systemic pathology, part II, a maximum of 33% of assessment points, ie a maximum total of 65% of assessment points, as follows in the tables:

Part I	
Correct Answers	Points
49 – 50	32
47 – 48	31
45 – 46	30
43 – 44	29
41 – 42	28
39 – 40	27
37 – 38	26
35 – 36	25
33 – 34	24
31 – 32	23
29 – 30	22
27 – 28	21
25 – 26	20
24	19
23	18
22	17
21	16.5
20	16

Part II	
Correct Answers	Points
49 – 50	33
47 – 48	32
45 – 46	31
43 – 44	30
41 – 42	29
39 – 40	28
37 – 38	27
35 – 36	26
33 – 34	25
31 – 32	24
29 – 30	23
27 – 28	22
25 – 26	21
24	20
23	19
22	18
21	17.5
20	17

In addition to regular proficiency tests, remedial tests will be organized for each test (part I and part II) for those students who have failed to earn points (insufficient academic achievement or failure to attend the exam for justified reasons) and students who want to improve the number of points gained by passing regular partial courses, in which case the number of points earned on the remedial will be counted as the final result.

## II. Final exam in Pathology (maximum 30% of marks):

Only students who have fulfilled the following requirements can take the final exam:

1. have duly completed the course
2. have achieved a **minimum of 35% mark**, ie 50% or more mark, out of the maximum 70% mark that could be obtained during the course through continuous monitoring and evaluation of students.

Students who have earned a total of 0 to 49.9% of grades during the course of all forms of knowledge assessment, which could be obtained during the course through continuous monitoring and evaluation of students, are graded F (unsuccessful), cannot earn ECTS credits and must re-enroll in the course.

The final exam is conducted in oral form and includes the examination of theoretical knowledge in general and systemic pathology and the recognition of micro and macro preparations.

Each of the three parts of the final exam (theory, macro, micro) can achieve a minimum of 5 to a maximum of 10 points.

Exam score	Points
4,6 – 5,0	<b>10</b>
4,1 – 4,5	<b>9</b>
3,6 – 4,0	<b>8</b>
3,1 – 3,5	<b>7</b>
2,5 – 3,0	<b>6</b>
2,0 – 2,4	<b>5</b>

The final grade from the course is determined on the basis of the final success according to the table:

Total points	Final grade
90 - 100% (A)	<b>Excellent (5)</b>
75 - 89,9 % (B)	<b>Very good (4)</b>
60 - 74,9% (C)	<b>Good (3)</b>
50 - 59,9% (D)	<b>Sufficient (2)</b>

**COURSE SCHEDULE (for academic year 2021/2022)**

**Legend: L- lectures, S- seminars and E- exercises**  
**LR- Lecture room**

**ER- exercise room**

**LIB-Library of Department of Pathology, Medical faculty Rijeka:**

<b>Date</b>	<b>Lectures</b>	<b>Seminars -practical exercise</b> <b>Practicals include macroscopic specimens from the Atlas, samples exhibited in the exercise room of the Institute AND VIRTUAL PATHOLOGY.</b>	<b>Teacher / associate</b>
<b>GENERAL PATHOLOGY</b>			
11.04.2022.	(8,15-11,30)) LIB L1,2 Cellular Pathology: An Introduction to Pathology, An Overview of Cellular Pathology Cell damage: Reversible and irreversible	S1 Cellular Adjustment, Metabolic accumulations S2. Irreversible cell damage (11,30-14,30) ER E1,2 (15,15-18,15) ER	Prof. Gordana Đorđević Prof. Elvira Mustać
12.04.2022.	L3 (8,15-10,00)) - predavaonica  Inflammation: Introduction, inflammation division, inflammatory cells, chemical inflammation mediators Inflammation:	S3. Acute inflammation, morphological forms of acute inflammation (11,15-13,00) ER  E3 Acute inflammation (13,15-15,00) ER	Prof. Gordana Đorđević Prof. Elvira Mustać
13.04.2022.	(8,15-10,00) LIB L4 Inflammation: Outcome of inflammation, healing, signs of inflammation (local and systemic)	S4 Chronic inflammation, morphological forms of chronic inflammation (11,15-13,00) ER  E4 - Chronic inflammation (13,15-15,00) ER	Assoc.prof. Koviljka Matušić Asst. Prof Emina Babarović
14.04.2022.	L5 (8,15-10,00) -LIB Hemodynamic disorders: edema, dehydration, hyperemia and congestion, bleeding, shock	S5 Thrombosis, embolism, infarction (11,15-13,00) - ER E5 Thrombosis, embolism, infarction (13,15-15,00) -ER	Asst. Prof. Ita Hadžisejdić  Asst. Prof Emina Babarović
19.04.2022.	L6 (8,15-10,00) -LIB Neoplasm 1 neoplasms and histogenic classification of neoplasms; the principles of nomenclature and classification of neoplasms; benign and malignant neoplasms, growth patterns and types of tumor metastasis	S6 Neoplasms: clinical and pathological classification and tumor names, tumor biology (11,15-13,00) - ER  E6,7 Neoplasia I; II: (13,15-16,30) - ER	Assist. Prof Emina Babarović  Asst. Prof Ita Hadžisejdić
20.04.2022.	(8,15-10,00) LIB L7 Neoplasm 2 Molecular Biology in Diagnosis of Diseases: Methodology, Application in Neoplasm Diagnosis LIB	S7 Neoplasms: carcinogenesis, clinical signs, laboratory diagnostics (11,15-13,00) - ER E8 Neoplasia III: Clinical Characteristics, Laboratory Diagnostics Laboratory Methods (13,15-15,00) - ER	Asst. Prof Ita Hadžisejdić Prof. Gordana Đorđević
21.04.2022.	L8 Autoimmune diseases LIB	E9. Amyloidosis ER (11,15-13,00)	Prof. Gordana Đorđević

	(8,15-10,00)	S8. Environmental Diseases (Smoking, Alcoholism, Physical Agents Damage) ER (13,15-15,00)	Asst Prof. Irena Seili Bekafigo
22. 04.2022.	L9. Developmental and genetic diseases LIB (8,15-10,00)	S9 Cytogenetic tests in prenatal diagnosis, screening tests from maternal serum, diseases caused by polygenic inheritance ER (11,15-13,00)	Prof dr. sc. Elvira Mustać Asst Prof. Ita Hadžisejdić
25.04.2022	<b>TEST GENERAL PATHOLOGY</b> <b>25. 04.2015(11,15-12,15) - LR</b>	<b>PRACTICAL EXAM : VIRTUAL PATHOLOGY AND ATLAS 14,00-16,00</b>	
<b>SYSTEMIC PATHOLOGY.</b>		<b>P-Practicals include MACROSCOPIC SPECIMENS from the Atlas, samples exhibited in the exercise room of the Institute and are performed during the seminars</b>	
26.04.2015.	L10. Blood vessel diseases(8,15- 10,00)LIB	S/P10 Diseases of endocard, , myocardial and pericardial inflammation, hypertensive heart disease, pulmonary heart disease ER	Prof. Gordana Đorđević Asst Prof. Emina Babarović
27.04.2022.	(8,15-10,00) L11. Ischemic heart disease, Rheumatic heart disease, summary of heart failure LIB  L12 - Hematopathology: ER anemia, leukemia / lymphoma 11,15-13)	S/P11 Hematopathology, anemia, disorders of the basal hematopoietic cell, myelodysplastic syndrome-ER (13,15-15,00)	Asst Prof. Ita Hadžisejdić Assoc Prof. Koviljka Matušan-Ilijaš
28.04.2022.	L13 Head and neck pathology and Respiratory system( 8,15-10,00) Inflammation, obstructive and restrictive and vascular diseases LIB L14 Lung tumors (11,15-13,00)	S/P12 Tumors of upper respiratory tract, pleura and mediastinum ER 13,15-15,00	Prof. Ksenija Jurinović Dr.sc.Christophe Štemberger
02.05.2022.	(8,15-10,00) L15 Pathology of gastrointestinal system LIB	S/P13 (11,15-14,00) Liver, circulatory disorders, viral hepatitis and toxic damage and cirrhosis of the liver, liver tumors Biliary system, pancreas, inflammation and tumors ER	Prof. Dražen Kovač Asst Prof. Dora Fučkar Čupić
03.05.2022.	(8,15-10,00) L16. Kidney: glomerular, tubular and interstitial diseases, kidney tumors LIB	S/P14. Male Genital System: ER(10,15-13,00) E10 Immunofluorescence in diagnosis of immuno mediated diseases EM(13,15-15,00)	Prof dr.sc. Gordana Đorđević
04.05.2022.	L17 Female Genital System LIB(8,15- 10,00) L18 Endocrine System ER (13,15-15,00)	S/P15. Ovarian and oviduct Diseases, Gestational Trophoblastic Disease ER (11,15-12,00)	Prof. Senija Eminović Prof. Elvira Mustać
05.05.2022.	L19. Brest diseases LIB (8,15-10,00)	E11. Diagnostic and predictive tools for Brest carcinoma (1 hour) ER (11,15-12,00) E12. The role of cytology in diagnosing the disease (3 hours) ER (12,15-15,00)	Prof. Elvira Mustać Asst Prof. Seili Bekafigo Asst Prof. Vrdoljak Mozetič

09.05.2022.	L 20. Skin LIB(8,15-10,00) L21. Central Nervous System, ER (13,15-15,00)	S/16.Tumors of the central and peripheral nervous system ( 11.15- 13.00) ER	Prof Gordana Zamolo Asst Prof.Emina Babarović Prof. Senija Eminović
10. 05.2022.	Autopsy room and ER or LIB)	E13 Autopsy ( discussion and repetition)(10.00-13.00)	Prof. Gordana Đorđević
<b>13.05.2022.</b>	<b>TEST SYSTEMIC PATHOLOGY</b>		
16. 05. 2022.	L22. Oral cavity: developmental, inflammatory / reactive lesions, infections LIB	S17. Terminology and morphology of pathological changes of the oral cavity ER E14. Diseases of the oral cavity – virtual pathology slides ER	Asst Prof. Andrea Dekanić. Prof.dr.sc. Ksenija Jurinović Prof.dr.sc. Gordana Zamolo
17.05.2022.	L23. Oral cavity: oral manifestations of systemic diseases especially autoimmune LIB	S18. Oral manifestations in endocrine and metabolic diseases, various tumor conditions, poisoning and hypovitaminosis ER E15. Autoimmune disease of oral cavity (virtual pathology slide)ER	Asst Prof.Andrea Dekanić, Prof. Ksenija Jurinović, Prof. Gordana Đorđević
18.05.2022.	L24. Bone system, joints and soft tissue pathology with emphasis on the Oral cavity, jaws and teeth tumors and precancerous conditions LIB	S19. Tumors of the oral cavity and premalignant lesions in a clinically pathological correlation ER E16 Tumors of the oral cavity ,Jaws and teeth, premalignant lesions in a clinically pathological correlation- virtual pathology slides ER	Assoc. Prof. Dr.sc. Kovička Matušić Prof. Gordana Đorđević
19.05.2022.	L25. Inflammation and tumors of the salivary glands LIB	S20/ E17 Salivary gland diseases, odontogenic cysts and tumors – virtual pathology slides LIB	
<b>20.05.2022.</b>	<b>FINAL EXAM includes ORAL EXAM ( general and systemic pathology)</b>	<b>And PRACTICAL EXAM : VIRTUAL PATHOLOGY SLIDES (oral cavity) AND ATLAS (systemic pathology)</b>	
<b>Final exam dates</b>	20.05. 2022. 03.06.2022. 17.06.2022. 08.07.2022. 05.09.2022. 19.09.2022.		
<b>remedial exams dates</b>	03.06. 2022. remedial exam in general pathology 15. 06. 2022. remedial test in systemic pathology and oral cavity pathology 04. 07.2022. remedial exam in general pathology 06.09. 2022. remedial test in systemic pathology and oral cavity pathology	<b>Legend:</b> LR- Lecture room ER- exercise room LIB-Library of Department of Pathology, Medical faculty Rijeka	

**Other important information regarding to the course:**

**The course contents and all course related information are available on the student web portals, Departments of General Pathology and Pathological Anatomy and [Merlin 2022/2023 \(srce.hr\)](#).**

