



Course Regime

Course: **PATHOLOGY**

Study Programme:
Dental Medicine

Year of the Course: 1 2 3 4 5 6

Semester:
Winter and summer

Course type:
Compulsory

Number of ECTS credits:
9 (6+3)

Lecturer(s):
Prof. Nina Zidar, MD, PhD, Assoc. Prof. Metka Volavšek, MD, PhD

Participating Organisational Units (Departments and Institutes):

Parts (Modules) of the Course

- 1: /
- 2: /
- 3: /
- 4: /

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A. General part (*applies to compulsory and elective courses*)

1. Course objectives

The pathology course provides comprehensive overview of human diseases, encompassing the etiopathogenesis, morphological and functional changes in cells, tissues and organs related to pathological processes. General professional and research methods are presented as well as the role of pathology in diagnostic assessment of the patient. The student is also trained to critically integrate clinical and pathological findings and thus the role of pathology in the process of diagnosis and treatment of the patient.

2. Comprehensive outline of the course organisation

Duration of the course: two semesters.

Lectures

Winter semester: 3 hours / week, on Monday from 10:15 to 13:00 hours.

Summer semester: 3 hours / week, on Wednesday from 8:15 to 11:00 hours.

Lectures in the winter semester are in the lecture hall of the Institute of Biophysics at Vrazov trg 2, in the summer semester in the small lecture hall of the Faculty of Medicine, Korytkova 2.

Practical lessons

Winter semester: Monday from 15:00 to 19:30 hours in the small lecture hall at the Department of Pathology (2nd floor, Korytkova 2).

Summer semester: Monday from 14:00 to 18:30 hours in the small lecture hall at the Department of Pathology (2nd floor, Korytkova 2).

The groups of students for the practical lessons are constituted and presented to students at the beginning of the semester.

Attending the practical lessons is mandatory and is a prerequisite for taking the course exam. If the absence from the practical lessons was justified, the substitute practical lessons could be attended during the week, which is scheduled for repetitive practical lessons.

Seminars

Seminars can be prepared by students according to an arrangement with the head of the department. Seminars are not mandatory.

3. Description of on-going assessment of knowledge and skills

The first test includes topics of the first two practical lessons.

The second test includes the topics of the 3rd and 4th practical lessons.

The third test includes the topics of the 5th and 6th practical lessons.

Passing the tests is not obligatory.

The test consists of 5 glass slides from practical lessons (duration of the test 5 minutes) and 10 test questions of the multiple choice type (duration of the test 10 minutes).

Students who reach at least 70% of correct answers at tests are exempted from the practical exam.

The exemption of the practical exam is valid for 10 months from the end of the school year (until March of the next year).

If the absence from attending the test was justified (medical certificate is required), the student has the right to a repetitive test.

Seminars

The seminar involves the preparation of a seminar according to an arrangement with the head and an oral defence. Students who defend a seminar with a very good (8 or 9) or excellent (10) grade can increase the grade from the tests by 10%.

4. Required conditions for the final examination (Course Exam)

The conditions for taking the final exam are passing the 2nd year exams (obligatory both exams in anatomy (1 and 2) and histology) and passing exercises and seminars with continuous knowledge testing.

5. Final assessment and examination of knowledge and skills (Course Exam)

The course examination consists of practical, written and oral part.

The practical part takes place on the first day of the examination period at 8.30 and is mandatory for the students who did not collect sufficient points in the tests (at least 70%). If the student has passed the practical part of the exam, she/he is obliged to carry out the written part of the examination, otherwise the validity of the positive practical part of the exam will not be recognized in the following examinations. The practical part of the exam is mandatory for the students in the committee examination.

The written exam follows on the second day and can be held simultaneously in several lecture rooms of the Faculty of Medicine, depending on the number of students enrolled. The written exam consists of 60 test questions of the multiple choice type, lasting 60 minutes. It is assessed according to the following criteria:

- unsatisfactory (1-5) - 0.00% to 59.99%,
- satisfactory (6) - 60.00% to 67.99%,
- good (7) - 68.00% to 75.99%,
- very good (8) - from 76.00% to 83.99%,
- very good (9) - from 84.00% to 91.99%,
- excellent (10) - from 92.00 to 100%

A student who has not obtained at least satisfactory grade (60%) in two consecutive written examinations may take an oral examination without passing a written part in the third examination. The results of the written part of the examination and the schedule for taking the oral exam (with the entry of grades) are published on the bulletin board and the website of the Department of Pathology one day after the written examination.

Applications and withdraws for the course exam: through the VIS information system, application no later than 5 days before the exam and withdraw no later than noon one day before the exam.

The committee examination is conducted in accordance with »Regulations for assessment of knowledge and skills for the uniform master's study programmes of medicine and dental medicine«.

6. Other provisions

IMPLEMENTATION OF LESSONS DURING THE COVID-19 CONDITIONS:

In case of special circumstances pedagogical work will be conducted by distance learning. The content of the course is carried out according to the schedule. The lessons will be carried out by videoconference system Webex, practical lessons at the Department of Pathology, according to all the measures and instructions for prevention of spreading the infection.

In case of additional escalation of the measures, the practical lessons are conducted via virtual microscope in the virtual classroom.

Seminar practical lessons in the online classroom are obligatory. Students who successfully complete all colloquiums and seminar lessons are exempted from the practical part of the course exam.

Tests and written course exams are carried out via online classroom and oral exams via Skype.

7. Fundamental study material and Supplement reading

Recommended literature:

Kumar V, Abbas AK, Aster JC. ROBBINS BASIC PATHOLOGY, 10th ed. Elsevier Saunders 2018

Zidar N, ed. CASE STUDIES IN PATHOLOGY. Department of Pathology, Faculty of Medicine, University of Ljubljana, Slovenia, Ljubljana 2013

Sapp JP, Eversole LR, Wysocki GP. CONTEMPORARY ORAL AND MAXILLOFACIAL PATHOLOGY, 2nd ed. Mosby 2004
Odell EW. ORAL PATHOLOGY AND ORAL MEDICINE. Elsevier 2017
Volavšek M. HEAD AND NECK PATHOLOGY, 1. izdaja, Springer 2016

8. Exam topics, clinical presentations and skills

Exam topics

The pathology exam consists of 3 parts: general, organic (systemic) and oral pathology.

General pathology - Exam topics:

Cell injury, cell death and adaptations: Cell responses to stress, Morphology of cell and tissue injury, Hypertrophy, Hyperplasia, Atrophy, metaplasia, Necrosis, Apoptosis, Autophagy, Intracellular accumulations, Calcifications

Inflammation and repair: Acute inflammation, Morphologic patterns of acute inflammation, Chemical mediators and regulators of inflammation, Chronic inflammation, systemic effects of inflammation, Cell and tissue regeneration, Stem cells, growth factors, Scar formation, Factors that influence tissue repair

Hemodynamic disorders: Hyperemia and congestion, Edema, Hemorrhage, Thrombosis, Embolism, Infarction

Immunopathology: Hypersensitivity reactions, Autoimmune diseases, Rejection of transplants, Immune deficiency diseases, Amyloidosis

Neoplasia: Nomenclature, Characteristics of benign and malignant tumors, Epidemiology and etiology, Carcinogenesis: molecular basis, Hallmarks of cancer, Host defense against cancer, Clinical aspects of neoplasia

Environmental pathology: Effects of alcohol and tobacco, Injury by drugs, Injury produced by ionizing radiation

Systemic pathology - Exam topics:

Blood vessels: Aneurysms and dissections, Veins and lymphatics

Heart: Ischemic heart disease, Valvular heart disease

Lung: Sarcoidosis, Pulmonary infections, Lung tumors, Lesions of the upper respiratory tract

Kidney and its collecting system: Diseases affecting tubules and interstitium, Urinary outflow obstruction, Tumors

Oral cavity and gastrointestinal tract: Barrett esophagus, Esophageal carcinoma, Stomach, Inflammatory bowel disease, Colonic polyps and neoplastic disease

Liver, gallbladder, and biliary tract: Cirrhosis, Portal hypertension, Portosystemic shunt, Viral hepatitis, Alcoholic and nonalcoholic fatty liver disease, Hepatocellular carcinoma, Gallbladder diseases, Tumors

Male genital system and lower urinary tract: Testicular neoplasms, Prostate

Female genital system and breast: Neoplasia of the cervix, Endometriosis, Proliferative lesions of endometrium and myometrium, Tumors of the breast

Central nervous system: Patterns of injury in the nervous system, Edema, herniation, and hydrocephalus, Cerebrovascular disease, Infections of the nervous system, Tumors

Skin: Tumors

Oral pathology - Exam topics:

Odontogenic cysts and odontogenic tumors

Epithelial lesions of the oral cavity: pigmented lesions (benign and malignant), leukoplakia and erythroplakia, squamous intraepithelial lesions, squamous cell carcinoma

Immune mediated diseases (aftous stomatitis, lichen, mucocutaneous bullous diseases, lupus, Crohn's disease, sarcoidosis, Wegener's granulomatosis)

Peripheral nerve diseases: traumatic neuroma, multiple neuroendocrine neoplasia syndrome, schwannoma, granular cell tumor, neuroectodermal tumor of infancy, malignant peripheral nerve sheath tumor

Diseases of fatty tissue: lipoma and liposarcoma

Diseases of blood vessels: reactive changes, benign and malignant vascular tumors (pyogenic granuloma, haemangioma, lymphhaemangioma, angiosarcoma, Kaposi sarcoma)

Diseases of fibrous tissue: peripheral ossifying fibroma, inflammatory fibrous and papillary hyperplasia, hyperplastic gingivitis, medicamentous hyperplasia of gingival mucosa, benign and malignant tumors

Salivary gland diseases: reactive/inflammatory changes (mucocele, retention cyst, sialolithiasis, necrotising sialometaplasia, virus and bacterial sialadenitis), benign and malignant salivary gland tumors

Bone diseases

9. Other information

*Pravilnik o preverjanju in ocenjevanju znanja in veščin za enovita magistrska študijska programa Medicina in Dentalna medicina