

SYLLABUS

Name: Patomorfologia (1655-Lek32PATO-J)

Name in Polish:

Name in English: Pathomorphology

Information on course:

Course offered by department: Department of Pathology

Course for department: Faculty of Medicine

Term: Academic Year 2025/26

Cordinator of course edition: prof. dr hab. Dariusz Grzanka

Default type of course examination report:

Examination

Language:

English

Course homepage:

<https://www.wl.cm.umk.pl/kizpk/>

Short description:

The purpose of the Pathology course is studying and understanding etiology, pathogenesis, morphology and functional changes of diseases. Topics of the lectures focus on general pathology, seminars and microscopic tutorials aim at extending knowledge and discussing the lecture associated withpics, and laboratory tutorials focus on preparing and processing histopathological slides as well as additional pathology techniques, immunohistochemistry and molecular pathology techniques used in a laboratory.

Description:

Lectures are designed to acquire and consolidate knowledge in the field of pathomorphology: basic knowledge in the field of: Lymphomas, Pathology of the gastrointestinal tract, Pathology of the urinary tract, Pathology of the female reproductive system, Dermatopathology, Pathology of the gastrointestinal tract. Muscular and Skeletal, Head and Neck Pathology, and Immunohistochemistry and Molecular Techniques in Pathomorphology.

The seminars are designed to acquire and consolidate detailed knowledge and discuss selected issues in the field of pathomorphology: assimilation of knowledge and discussion on: Pathology of the liver and pancreas , Gastrointestinal pathology, Male reproductive system, , Female reproductive system pathology,, Endocrine system pathology, Central nervous system pathology, Urinary system pathology, Hematopathology, Breast and skin pathology.

Tutorials are devoted to the acquisition of practical skills in the field of systemic pathology:

Collection of tissue material for pathomorphological examination, Analysis of autopsy examination, gynecological and non-gynecological cytology, practical study of microscopic evaluation, Laboratory -Advanced special techniques in pathological diagnostics, Immunohistochemical techniques and the use of AI in pathological diagnostics, Clinical use of pathological results on the example of: cutaneous lymphoma, breast cancer, gastrointestinal cancers, melanoma

Bibliography:

1. Vinay Kumar, Abul K. Abbas, Jon C. Aster, Andrea T. Deyrup , Robbins & Kumar Basic Pathology 11th Edition. Elsevier, 2022.

Supplementary literature:

1. Kumar V, Abbas A, Aster J. Robbins & Cotran Pathologic Basis of Disease, 9th Edition. Elsevier, 2014.

2. Histopathological atlas: <https://cmumk.cancercenter.ai/app/82da202d-e18e-45d4-aa82-85aa165065d1?parent=f643c19e-3d40-42a7-a9c7-4e34ba8b0177>

Assessment methods and assessment criteria:

Seminars and Tutorials:

One colloquium (0 – 35 points), each consisting of two parts:

1. Theoretical: (0-30 points): W1 – W10

2. Practical (0-5 points): W3, U1 – U5

Entrance tests (0-3 points): W1-W10, starting at the beginning of all of the seminars.

Lectures:

Lecture test (0 – 35 points): W1 – W10

Extended observation/Activity: (0-10 pkt.; > 50%): K1 – K6

To obtain course credit one has to get a total score of at least 60% (in entrance tests, colloquiums and lecture test altogether) and positive score for activity

EXAM:

1) The condition for admitting a student to the exam is first passing obligatory classes and obtaining a credit for the subject (achievement of the appropriate learning outcomes assigned to the subject)

2) The material required for the exam is consistent with the learning outcomes contained in the SYLLABUS and includes the content presented during lectures, seminars and tutorials and contained in the recommended literature for the Subject "Pathomorphology" both in the 1st and 2nd semester of the 3rd year.

3) The date of the exam is agreed with the year representative and announced for the whole year. The exam date is set during the exam session.

4) The exam consists of two parts - a theoretical and practical test. The theoretical part covers the content of all lectures, seminars and tutorials (semester 1 and 2). The multiple-choice test consists of 70 questions with five answers, only one of which is correct. For the

theoretical part you can get 70 points, and the condition for passing it is to give min. 60% of correct answers. This part lasts 50 minutes. The practical part of the exam lasts 15 minutes. and consists of displaying 10 microscope images with 10 MCQ questions - 3 points for each image. You can get 30 points for the practical part. and the condition for passing it is to give min. 60% of correct answers.

The grade for the exam is issued according to the number of points obtained in accordance with the table below:

Percentage points Rating

92≤...<100 very good (5)

88≤...<92 Fairly good (4,5)

80≤...<88 Good (4)

71≤...<80 Satisfactory plus (3,5)

60≤...<71 Satisfactory (3)

0...<60 Unsatisfactory (2)

5) There is a possibility of taking the "0" term exam after obtaining 90% of the scores in the "Pathomorphology" courses carried out in the 1st and 2nd semester. The test conditions is set directly with students who meet the requirements.

Total student workload

1. Workload associated with classes that require direct presence of the academic teachers:

- lectures 25 hours
- seminars 30 hours
- tutorials: 30 hours
- in-class consultations: 6 hours
- consultations 9 hours
- time required for student's assessment: 3 hours

Total workload associated with classes that require direct presence of the academic teachers: 93 hours, equal to 3,1 ECTS

2. Student's workload:

- participation in lectures 25 hours
- participation in seminars 30 hours
- participation in tutorials: 30 hours
- in-class consultations: 6 hours
- consultations 9 hours
- preparations for tutorials 30 hours
- preparations for assessment and time required for the assessment: 57 + 3 = 60 hours

Total student's workload: 180 hours, equal to

6 ECTS

3. Workload associated with scientific research:

- scientific literature reading: 8 hours
- participation in lectures (including research results and scientific reports in the field of pathology): 30 hours
- participation in tutorials (including results of the scientific reports in the field of pathology): 30 hours
- preparations for assessment (including scientific papers in the field of pathology): 57 hours
- consultations (including scientific papers in the field of pathology): 6 hours

Total workload associated with scientific research: 131 hours, equal to 4,37 ECTS

4. Time required for preparations and participation in the assessment process:

- preparations for assessment: 60 + 3 = 63 hours (2,1 ECTS)

5. Student's workload of a practical character:

- participation in tutorials (including credit for practical classes)

15 + 15 + 1 = 31 hours

Total student's workload of a practical character:

16 hours, equal to 0,54 ECTS

6. Time required for the obligatory student internship:

not applicable

Learning outcomes - knowledge

W1: Distinguishes cell cycle stages, cell injury and tissue regeneration, adaptation, aging and degeneration processes, apoptosis and necrosis, in relation to clinical picture and presentation of the selected diseases (B.W18, B.W23, C.W27, C.W28, C.W29, C.W47, C.W48, C.W50)

W2: Distinguishes stem cells role in regeneration and carcinogenic processes (B.W19)

W3: Explains the link between pathological factors and clinical picture of the selected diseases (B.W25, C.W30, C.W32, C.W33, C.W34, C.W45)

W4: Classifies common pediatric diseases and explains their pathogenesis (C.W27, C.W9, E.W3, E.W6, E.W37, F.W1)

W5: Deduces pathogenesis of a disease based on its epidemiology (including infectious risk factors) (C.W13, E.W1, E.W23)

W6: Lists types of hypersensitivity reactions and distinguishes types of autoimmune diseases (C.W23, E.W34)

W7: Analyses tumor biology of the selected cases, focusing on immunological surveillance (C.W24, C.W41, C.W42, E.W24, E.W25)

W8: Uses professional pathologic nomenclature (C.W26) W9: Interprets patient's rights according to medical documentation, included in a deceased as well as in preserved human tissues collected intravitaly (D.W17, G.W5, G.W11)

W10: Classifies common cardiovascular system diseases, connective tissue diseases, hypersensitivity diseases and hematopoietic system diseases in adults (E.W7)

W11: Defines organ pathology issues, gross and microscopic pictures and clinical course of the pathologic lesions in specific organs (C.W31, C.W34)

Learning outcomes - skills

U1: Analyses microscopic image using a light microscope and distinguishes selected images and diseases based on that (A.U1, A.U2, C.U9)

U2: Analyses immunohistochemical stains of the selected disorders (C.U8)

U3: Formulates diagnosis based on a clinical picture (patient's medical history, radiological imaging, laboratory test results and pathological examination) (C.U11)

U4: Analyses pathomechanism of the selected diseases, including shock, describes changes in body function as well as patient's immunological response (C.U12, C.U20).

U5: Plans pathological differential diagnosis of the selected diseases in adults and children (E.U12)

U6: Writes a referral that requests selected pathological examinations: histopathological and autopsy; writes a synoptic report on the selected disorders as well as an autopsy report (E.U38)

Learning outcomes - social competencies

K1: Critically assesses medical information sources (K_K01)

K2: Tries to find a solution to ethical problems associated with pathological examination (K_K02)

K3: Understands what being responsible for human health and life means and puts patient's well-being first (K_K02, K_K04)

K4: Understands the importance of medical information obtained during pathological examination and what being responsible for it means (K_K05).

K4: Collaborates with a team of specialists in order to reach a final diagnosis Współpracuje z zespołem specjalistów w celu ustalenia ostatecznej diagnozy (K_K06)

K5: Has a habit of self-studying (K_K07)

K6: Formulates conclusions based on their observations (K_K10)

Teaching methods

Lectures:

- informative lecture

Seminars:

- case study
- discussion

Tutorials:

- demonstration;
- classes;
- simulation methods (case study; simulation case);
- discussion
- laboratory classes

Observation/demonstration teaching methods

- display

Online teaching methods

- content-presentation-oriented methods

- exchange and discussion methods

Expository teaching methods

- informative (conventional) lecture

Exploratory teaching methods

- practical

- laboratory

- seminar

- case study

Prerequisites

Students beginning the Pathology course should have knowledge of anatomy, histology, genetics, biochemistry, human embryology, physiology at a third-year medical student level (according to the curriculum).

Information on course edition:

Default type of course examination report:

Examination

Homepage of course edition:

<https://www.wl.cm.umk.pl/kizpk/>

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Details of classes and study groups

Lecture (25 hours)

The classes homepage

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Bibliography:

1. Vinay Kumar, Abul K. Abbas, Jon C. Aster, Andrea T. Deyrup, Robbins & Kumar Basic Pathology 11th Edition. Elsevier, 2022. Supplementary literature:

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Assessment methods and assessment criteria:

Lecture test

Classes topics:

1. Molecular techniques in pathomorphology – Anna Klimaszewska – Wiśniewska, PhD
2. Pathology of the Urinary tract – Jakub Józwicki, MD, PhD
3. Pathology of the gastrointestinal tract – Prof. Dariusz Grzanka
4. Head and neck pathology – Natalia Skoczylas- Makowska, MD, PhD
5. Pathology of the female genital system, part 1 – prof. Dariusz Grzanka
6. Pathology of the female genital system, part 2, pregnancy pathology – Jakub Józwicki, MD, PhD
7. Central nervous system - Natalia Skoczylas-Makowska, MD, PhD
8. Infectious diseases – Jakub Józwicki, MD, PhD
9. Dermatopathology – prof. Dariusz Grzanka
10. Lymphomas – prof. Dariusz Grzanka
11. Lecture test
12. Colloquium nr 2

Teaching methods:

Lecture

Study groups details

Group number 1

Class instructors:

prof. dr hab. Dariusz Grzanka
dr Natalia Skoczylas-Makowska
dr Anna Klimaszewska-Wiśniewska
dr Jakub Józwicki

Tutorial (30 hours)

The classes homepage

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Bibliography:

1. Vinay Kumar, Abul K. Abbas, Jon C. Aster, Andrea T. Deyrup, Robbins & Kumar Basic Pathology 11th Edition. Elsevier, 2022. Supplementary literature:

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Assessment methods and assessment criteria:

colloquium - teoretical and practical

Classes topics:

1. Gynecological cytology – neoplastic lesions– Martyna Parol– Kulczyk, MD, PhD
2. Advanced special techniques in pathological diagnostics - Anna Klimaszewska - Wiśniewska, MD, PhD
3. Autopsy classes
4. Laboratory classes - Preliminary Macroscopic Examination (PME)
5. Laboratory classes - Grossing
6. Microscopic classes - pathology of the liver and pancreas
7. Microscopic classes - pathology of the gastrointestinal tract
8. Microscopic classes - pathology of the male genital system
9. Microscopic classes - Pathology of the female genital system and pathology of the urinary system
10. Microscopy classes - Breast and skin pathology
11. Microscopy classes - Summary of microscopy classes
12. Immunohistochemical techniques and the use of AI in pathological diagnostics - Paulina Antosik, MD, PhD

Teaching methods:

- discussion,
- case observation
- show
- experiencing
- laboratory

Study groups details

Group number 1

Class instructors:

mgr Jakub Chabowski
dr Jakub Józwicki

Group number 3

Class instructors:

lek. Izabela Neska-Długosz

Group number 5

Class instructors:

lek. Kacper Naglik

Group number 7

Class instructors:

lek. Anna Tomczak

Group number 9

Class instructors:

lek. Damian Łukasik

Seminar (30 hours)

The classes homepage

<https://www.wl.cm.umk.pl/kizpk/>

Bibliography:

1. Vinay Kumar, Abul K. Abbas, Jon C. Aster, Andrea T. Deyrup , Robbins & Kumar Basic Pathology 11th Edition. Elsevier, 2022. Supplementary literature:
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Assessment methods and assessment criteria:

- colloquium teoretical
- entrance tests

Classes topics:

1. Pathology of the liver and pancreas – Natalia Skoczylas – Makowska, MD, PhD
2. Pathology of the gastrointestinal tract – Kacper Naglik, MD/ Natalia Skoczylas – Makowska, MD, PhD
3. Hematopathology. – Natalia Skoczylas – Makowska, MD. PhD
4. Pathology of the endocrine system – Radosław Wujec, MD
5. Pathology of the male genital system – Magda Zwolińska, MD
6. Urinary tract – Natalia Skoczylas-Makowska, MD
7. Central nervous system -Sara Kierońska-Siwak, MD, PhD
8. Pathology of the female genital system part 1 – Jakub Józwicki , MD, Phd
9. Pathology of the female genital system part 2 – Jakub Józwicki , MD, Phd
10. Pathology of the breast and skin- Izabela Neska – Długosz, MD. PhD

Teaching methods:

- seminar
- presentation

Study groups details

Group number 1

Class instructors:

dr Natalia Skoczylas-Makowska
lek. Izabela Neska-Długosz
dr Jakub Józwicki
lek. Radosław Wujec
lek. Magda Zwolińska
dr Sara Kierońska-Siwak
lek. Kacper Naglik
lek. Damian Łukasik

Group number 2

Class instructors:

dr Natalia Skoczylas-Makowska
lek. Izabela Neska-Długosz
dr Jakub Józwicki
lek. Radosław Wujec
lek. Magda Zwolińska
dr Sara Kierońska-Siwak
lek. Kacper Naglik
lek. Damian Łukasik

Group number 3

Class instructors:

dr Natalia Skoczylas-Makowska
lek. Izabela Neska-Długosz
dr Jakub Józwicki
lek. Radosław Wujec
lek. Magda Zwolińska
dr Sara Kierońska-Siwak
lek. Kacper Naglik
lek. Damian Łukasik

Element of course groups in various terms:

Course group description	First term	Last term
<i>missing group description in English (16550147-3-O)</i>	2022/23	
All university courses (0000-ALL)	2022/23	
Courses in English (0000-ANG)	2025/26	2025/26

Course credits in various terms:

<without a specific program>			
Type of credits	Number	First term	Last term
European Credit Transfer System (ECTS)	6	2022/23	