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|----|--|--|---|------------------------|--------------|
| 1  | Subject  | <b>General pathology</b>                               |   |                        |              |
| 2  | Code   | DOP206   |   |                        |              |
| 3  | Study Program  | Study Program of Integrated studies in dental medicine |   |                        |              |
| 4  | Organizing Institution (Unit, Institute, Chair, Department)  | UKIM – Medical Faculty<br>Department of Pathology      |   |                        |              |
| 5  | Educational degree (first or second cycle)   | Integrated study                                       |   |                        |              |
| 6  | Study year/semester  | 2/3  | 7 | Number of ECTS credits | 4            |
| 8  | Teacher  | Prof. Liljana Spasevska                                |   |                        |              |
| 9  | Preconditions  | Signatures of first and second semester courses        |   |                        |              |
| 10 | Teaching goals: <ul style="list-style-type: none"> <li>The student will get to know the causes and general mechanisms of development of the diseases, as well as understand the structural and functional changes in the cells, tissues and organs by using the routine morphological and contemporary molecular techniques.</li> <li>While studying general pathology, the student will learn about the basic cellular and tissue responses to various pathological stimuli.</li> </ul> |  |   |                        |              |
| 11 | <b>Brief content</b>   |  |   |                        |              |
|    | <b>Theoretical course</b>  |  |   |                        | <b>Class</b> |
|    | <b>Cellular injury, adaptations and death</b> <ul style="list-style-type: none"> <li>➤ Overview of cell injury and cell death</li> <li>➤ Cellular adaptations of growth and differentiation</li> <li>➤ Mechanisms and morphology of cell injury</li> <li>➤ Intracellular accumulations</li> <li>➤ Pathologic calcification</li> </ul>  |  |   |                        | 5+2          |
|    | <b>Hemodynamic disorders, thrombosis and shock</b> <ul style="list-style-type: none"> <li>➤ Edema, hyperemia and congestion</li> <li>➤ Hemorrhage</li> <li>➤ Thrombosis, embolism, infarction</li> <li>➤ Shock</li> </ul>  |  |   |                        | 5+2          |
|    | <b>Acute and chronic inflammation</b> <ul style="list-style-type: none"> <li>➤ Acute inflammation</li> <li>➤ Chemical mediators of inflammation</li> <li>➤ Outcome of acute inflammation</li> <li>➤ Morphologic patterns of acute inflammation</li> <li>➤ Chronic inflammation</li> </ul>  |  |   |                        | 5+2          |
|    | <b>Tissue regeneration and reparation</b> <ul style="list-style-type: none"> <li>➤ Control of normal cell proliferation and tissue growth</li> <li>➤ Repair by healing, scar formation and fibrosis</li> <li>➤ Cutaneous wound healing</li> </ul>  |  |   |                        | 2+3          |
|    | <b>Specific inflammation</b> <ul style="list-style-type: none"> <li>➤ Tuberculosis</li> <li>➤ Syphilis</li> <li>➤ Actinomycosis</li> </ul>   |  |   |                        | 3+2          |
|    | <b>Immunopathology</b> <ul style="list-style-type: none"> <li>➤ General features of immune system</li> <li>➤ Disorders of the immune system</li> </ul>   |  |   |                        | 5+2          |
|    | <b>Pathology of the neoplasia</b> <ul style="list-style-type: none"> <li>➤ Definitions, nomenclature, epidemiology</li> <li>➤ Molecular basis of cancer</li> <li>➤ Molecular basis of multistep carcinogenesis</li> <li>➤ Host defense against tumors</li> <li>➤ Clinical features of tumors</li> </ul>  |  |   |                        | 5+2          |
|    | <b>Total</b>   |  |   |                        | <b>30+15</b> |

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|----|---|--|--|--|
|    | <b>Practical lessons:</b>   |  |  | Class  |
|    | Introduction to diagnostic techniques in pathology<br>Pathology of cell injury<br>Hemodynamic disorders<br>Introduction to dissection and macroscopic analyses of surgical specimens<br>Inflammation<br>Tumor pathology |  |  | 15   |
|    | Total   |  |  | 15   |
|    | <b>Seminars</b>   |  |  | Class  |
|    | Elaboration of topics from the relevant material, presentation of the topics by the students and active involvement of the students until discussion of the given topic.  |  |  | 15   |
| 12 | Methods of studying: class room oriented lectures, interactive lectures, group work, practical training, seminar paper  |  |  |  |
| 13 | Total available time  | 120 classes  |  |  |
| 14 | Organization of the course  | 30 classes - theoretical course, 15 classes- practical course, 15 classes – seminars, 65 classes - home individual learning and other activities   |  |  |
| 15 | Forms of teaching activities  | 15.1.  | Theoretical course   | 30 classes   |
|    |   | 15.2.  | Practical course, seminars   | Practical course- 15 classes, seminars – 15 classes  |
| 16 | Other forms of activities   | 16.1.  | Project tasks  |  |
|    |   | 16.2.  | Individual tasks   |  |
|    |   | 16.3.  | Individual (home) learning   | 65 classes   |
| 17 | Method of assessment  | 17.1.  | <b>Continuous checks of knowledge:</b><br>Written test during the exam session, covering the following chapters: cell injury, adaptations and death; hemodynamic disorders; acute and chronic inflammation; specific inflammation; tissue regeneration and reparation. | Maximum 40 points, minimum 24 points                 |
|    |   | 17.2.  | Active participation, seminar paper/project (oral/written presentation)  | 2 points   |
|    |   | 17.3.  | Final (oral) exam integrative + practical part (analysis and diagnosis of 2 histopathology slides)   | Maximum 40 (20+20) points, minimum 20 (10+10) points |
| 18 | Grading criteria (points / grade)   | Up to 59 points  |  | 5 (five) (F)   |
|    |   | from 60 to 67 points   |  | 6 (six) (E)  |
|    |   | from 68 to 75 points   |  | 7 (seven) (D)  |
|    |   | from 76 to 84 points   |  | 8 (eight) (C)  |
|    |   | from 85 to 93 points   |  | 9 (nine) (B)   |
|    |   | from 94 to 100 points  |  | 10 (ten) (A)   |
| 19 | Requirement for signature and taking the final exam   | <p>The student is required to actively follow all of the planned activities.</p> <p><b>Conditional criteria for assessment of knowledge:</b></p> <p><b>Conditions for a signature</b><br/>In order to get a signature, the student should obtain minimum points in both theoretical and practical courses: the student must attend at least 13 practical courses (of maximum 15), and 60% of the theoretical lessons.<br/>Minimum 13 practical courses – 13 points, theoretical lessons – 3 points<br/>Maximum 15 practical courses – 15 points, theoretical lessons – 5 points</p> <p><b>Conditions to take the final exam</b><br/>In order to take the final exam, the student has to pass the General pathology test first:</p> |  |  |

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|-----|---|--|---|--|--|------|
|     |   | minimum 24 points, maximum 40 points.  |   |  |  |      |
| 20  | Language of the course                            | English  |   |  |  |      |
| 21  | Method for evaluation of the quality of education | Anonymous student's evaluation of the subject, teachers and collaborators involved in the educational activities |   |  |  |      |
| 22  | <b>Literature</b>                                 |  |   |  |  |      |
|     | 22.1.   | <b>Mandatory textbooks</b>   |   |  |  |      |
|     |   | No.  | Author                                  | Title  | Publisher  | Year |
|     |   | 1.   | Kumar V, Cotran RS, Robbins SL. Robbins | Pathologic basis of disease. 8th ed.                                       | W.B. Saunders Company, Philadelphia                | 2010 |
|     |   | 2.   | Група автори                            | Практикум за хистопатолошки вежби, за студенти по медицина и стоматологија | Катедра по патологија, Медицински факултет, Скопје | 2008 |
|     | 22.2.   | <b>Additional literature</b>   |   |  |  |      |
| No. |   | Author   | Title                                   | Publisher  | Year   |      |
| 1.  |   | Група автори   | Авторизирани предавања по Патологија 1  | Катедра по патологија, Медицински факултет, Скопје                         | 2008   |      |