**ACADEMIC DISCIPLINE OVERVIEW**

1. **Program data**

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| **1.1.** | **GRIGORE T. POPA UNIVERSITY OF MEDICINE AND PHARMACY IASI** | | | | | | | |
| **1.2.** | **FACULTY OF MEDICAL BIOENGINEERING** | | | | | | | |
| **1.3.** | **PROGRAMME:** Physio-kinetotherapy and rehabilitation | | | | | | | |
| **1.4.** | **STUDY FIELD:** Health | | | | | | | |
| **1.5.** | **STUDY CYCLE**: UNDERGRADUATE | | | | | | | |
| **1.6.** | **STUDY PROGRAMME:** INENGLISH | | | | | | | |
| 1. **Subject data** | | | | | | | | |
| **2.1.** | **Subject: MORPHOPATHOLOGY** | | | | | | | |
| **2.2.** | **Module leader: Lecturer Roxana Covali** | | | | | | | |
| **2.3.** | **Seminar leader: Lecturer Roxana Covali** | | | | | | | |
| **2.4. Year of study** | | **1st** | **2.5. Semester in which is taught** | **2nd** | **2.6. Evaluation type** | colloquium | **2.7. Subject status** | Elective |

1. **Estimated total time (hours/semester of didactic activity)**

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| --- | --- | --- | --- | --- | --- |
| **3.1.Number of hours / week** | 2 | **3.2. Courses number of hours / week** | 1 | **3.3.Seminar / l practical classes** | 1 |
| **3.4. Total number of learning hours** | 28 | **3.5. Courses** | 14 | **3.6. Seminar / practical classes** | 14 |
| **3.7. Distribution of the available time** | | | | | Hours |
| **Study based on the manual, lecture support, bibliography and hand notes** | | | | | 10 |
| **Supplementary documentation in the library, using specialised platforms via internet and by field work** | | | | | 12 |
| **Preparation for seminars / practical classes, study themes, reviews, portofolio, and essays** | | | | |  |
| **Tutorship** | | | | | 2 |
| **Examinations** | | | | | 3 |
| **Other activities** | | | | |  |
| **3.8. Total hours of individual study** | | | | | 22 |
| **3.9. Total hours pes semester** | | | | | 50 |
| **3.10. Number of credits** | | | | | 2 |

1. **Preconditions (where applicable)**

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| **4.1.** of curriculum | Anatomy, Histology |  |
| **4.2.** of competences | Knowledge of the communication means between basic units of living matter and the extracellular environment, and of the physical phenomena at the basis of living world |  |

1. **Conditions (where applicable)**

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| **5.1.** for lectures | Video projecting equipment |
| **5.2.** for seminars / practical classes | Microscopes |

1. **Specific competences acquired**

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| Professional competences (expressed as knowledge and abilities) | C1.2  Formulation of hypothesis and key concepts in order to explain syndromes /diseases |
| Transverse competences (of role, of professional development, personal) | Identifying roles and responsabilities in a multidisciplinary team.  Application of relationship techniques.  Efficiency in teamwork and in patient relationship |

1. **Objectives of the study discipline (according to the grid of specific competences acquired)**

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| **7.1.** General objective | To make students accustomed to different body structures, normal and abnormal |  |
| **7.2.** Specific objectives | To make students accustomed to tiny or major alterations of the different structures of the human body, and their meaning |  |

1. **Contents**

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| **8.1. Lecture** | **Teaching methods** | **Observations** |
| 1.Types of lesions | Drawings. Interactive courses | 2h |
| 2. Morphopathology of the cardiovascular system. Heart. Blood vessels. | Drawings. Interactive courses | 2h |
| 3. Morphopathology of the respiratory system. Trachea and bronchi. Lungs | Drawings. Interactive courses | 2h |
| 4. Morphopathology of the digestive system. Stomach. Small and large bowel | Drawings. Interactive courses | 2h |
| 5. Morphopathology of the excretory system. Kidney, urinary bladde. Morphopathology of the male and female reproductive system. | Drawings. Interactive courses | 2h |
| 6. Morphopathology of the central nervous system. Spinal cord | Drawings. Interactive courses | 2h |
| 7. Morphopathology of cartilage, bone, muscle. | Drawings. Interactive courses | 2h |
| **Bibliography**  1.Boto A, Costa J (2016): Soft Tissue and Bone Pathology. Jaypee Medical Publishers, 152 pages  2.Covali R (2017): Practical lessons of Histology, Stef Publishing House, Iași  3.Huether S, McCance KL (2017): Undestanding Pathophysiology. Mosby, 6th Edition, 1160 pages  4.Kumar V, Abbas AK, Aster JC (2015): Robbins Patologie. Bazele morfologice si fiziopatologice ale bolilor, Editura Medicală Callisto, 960 pages  5.Lakhani S, Finlayson C, Dilly S, Gandhi M (2016): Basic Pathology: An Introduction to the Mechanisms of Disease, CRC Press, 5th Edition, 382 pages  6.Mitchell R, Kumar V, Abbas AK, Aster JC (2017):Pocket Companion to Robbins& Coltran Pathologic Basis of Disease, Elsevier, 9th Edition  7.Mohan H (2016): Practical Pathology. Jaypee Medical Publishers, 4th Edition, 282 pages  8.Silbernagl S, Lang F (2011):Fiziopatologie, Editura Medicală Callisto, 448 pages | | |
| **8.2. Seminar / practical classes** | **Teaching methods** | **Observations** |
| 1. Morphopathology of the cardiovascular system. Heart. | Study of the microscopic specimens. Drawings. Interactive classes | 2h |
| 2. Morphopathology of the respiratory system. Lung | Study of the microscopic specimens. Drawings. Interactive classes | 2h |
| 3. Morphopathology of the digestive system. Tongue, liver, pancreas, salivary glands. | Study of the microscopic specimens. Drawings. Interactive classes | 2h |
| 4. Morphopathology of the excretory system. Kidney, urinary bladder | Study of the microscopic specimens. Drawings. Interactive classes | 2h |
| 5. Morphopathology of the male reproductive system. Testis. Morphopathology of the female reproductive system. Uterus, mammary gland | Study of the microscopic specimens. Drawings. Interactive classes | 2h |
| 6. Morphopathology of the central nervous system. Cerebellum, brain | Study of the microscopic specimens. Drawings. Interactive classes | 2h |
| 7. Morphopathology of cartilage and bone | Study of the microscopic specimens. Drawings. Interactive classes | 2h |
| **Bibliography**  1.Boto A, Costa J (2016): Soft Tissue and Bone Pathology. Jaypee Medical Publishers, 152 pages  2.Covali R (2017): Practical lessons of Histology, Stef Publishing House, Iași  3.Huether S, McCance KL (2017): Undestanding Pathophysiology. Mosby, 6th Edition, 1160 pages  4.Kumar V, Abbas AK, Aster JC (2015): Robbins Patologie. Bazele morfologice si fiziopatologice ale bolilor, Editura Medicală Callisto, 960 pages  5.Lakhani S, Finlayson C, Dilly S, Gandhi M (2016): Basic Pathology: An Introduction to the Mechanisms of Disease, CRC Press, 5th Edition, 382 pages  6.Mitchell R, Kumar V, Abbas AK, Aster JC (2017):Pocket Companion to Robbins& Coltran Pathologic Basis of Disease, Elsevier, 9th Edition  7.Mohan H (2016): Practical Pathology. Jaypee Medical Publishers, 4th Edition, 282 pages  8.Silbernagl S, Lang F (2011):Fiziopatologie, Editura Medicală Callisto, 448 pages | | |

1. **Correlation of the discipline contents with the expectations of the epistemic community, professional associations, and representative employers from the afferent program field**

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| Knowledge and abilities are established as didactic objectives and specified as such in the analytic programs that are revised yearly. After their analysis by the study discipline staff, these are discussed and approved in the Curricular Committee, towards curricular harmonization among the various study disciplines. Along this entire process systematic evaluation is performed, directly if possible, regarding the correspondence of the contents to the expectations of the academic community and of the representatives of the social community, professional associations, and employers. |

1. **Evaluation**

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| **Type of activity** | **Type of activity** | **Evaluation methods** | **Contribution to the final grade** |
| **Lecture** | Knowing the structure of the body | Exam | 50% |
| **Seminar/practical classes** | Recognising the microscopic specimen | Examination of the miscoscopic specimen | 40% |
| Recognising the role of these structures in the specific organ | Mark during semester | 10% |
| **Minimal performance standard:**  -Identification of the microscopic specimen: organ, tissue, cells  -Knowledge of the layers in: lung, stomach, kidney, testis, ovary, brain, skeletal muscle, tendon, bone. | | | |

**Date of completion: Signature of head of discipline**

23.09.2019 Lecturer Roxana Covali PhD

**Department approval date**

30.09.2019

**Signature of department director**

Lecturer Daniela-Viorelia Matei, Ph-D