

Course Description Form

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|---|--------------|---|--|------------------------|--------------------------|
| 1. Course Name: | | | | | |
| Pathophysiology (Theoretical+ Practical) | | | | | |
| 2. Course Code: | | | | | |
| Phcls25 313 | | | | | |
| 3. Semester / Year: | | | | | |
| Year 3, First semester/2025-2026 | | | | | |
| 4. Description Preparation Date: | | | | | |
| 01/9/2025 | | | | | |
| 5. Available Attendance Forms: | | | | | |
| Students' signature on attendance sheet | | | | | |
| 6. Number of Credit Hours (Total) / Number of Units (Total) | | | | | |
| 3 hours Theoretical + 2 hours Practical (75) /4 units | | | | | |
| 7. Course administrator's name | | | | | |
| Theoretical | | | | | |
| Name: Assist. Prof Dr. Abdulla Aqeel Altayyar Email: abdulla.a.ahmad@uomosul.edu.iq Name: Assist. Prof Dr. Ali Saeed AlChalabi Email: alchalabi@uomosul.edu.iq Lecturer Dr. Ahmed Mohammed Ibrahim Email: drahmedmias@uomosul.edu.iq Assist. Lecturer Omar Bassam Agha Email: Patho.omar@uomosul.edu.iq | | | | | |
| Practical | | | | | |
| Lecturer Dr. Ahmed Mohammed Ibrahim Email: drahmedmias@uomosul.edu.iq Name: Assist. Prof Dr. Abdulla Aqeel Altayyar Email: abdulla.a.ahmad@uomosul.edu.iq Name: Assist. Prof Dr. Ali Saeed AlChalabi Email: alchalabi@uomosul.edu.iq Assist. Lecturer Omar Bassam Agha Email: Patho.omar@uomosul.edu.iq | | | | | |
| 8. Course Objectives | | | | | |
| Course Objectives | | | | | |
| The course identifies the basic knowledge about important diseases at the cellular level | | | This course provides students with a comprehensive understanding of basic and systemic pathophysiology emphasizing the mechanisms of cell injury, inflammation, tissue repair, and the pathophysiological basis of cardiovascular, renal, respiratory, gastrointestinal, endocrine, reproductive, rheumatology and immune disorders. | | |
| 9. Teaching and Learning Strategies | | | | | |
| Strategy | | Lecturing Seminars Quiz Practical laboratory demonstrations of macroscopic and microscopic pictures. | | | |
| 10. Course Structure | | | | | |
| Week | Hours | Required Learning Outcomes | Unit or subject name | Learning method | Evaluation method |

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| 1 | 3+2 | A1: The student explains the fundamental concepts of pathophysiology and the mechanisms linking functional disturbances to clinical manifestations. | Overview of syllabus | Theoretical lectures. Laboratory experiments | Paper-based exams |
| 2 | 3+2 | A2: The student describes the molecular mechanisms of cell injury, patterns of cell death, cellular adaptations, and the resulting inflammatory response. | Cell injury and tissue response | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 3 | 3+2 | A1: The student explains the roles of oxidative stress, inflammation, and tissue repair in the progression of acute and chronic diseases. | Cell injury and tissue response | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 4 | 3+2 | A1: The student explains the pathophysiological mechanisms of cardiovascular diseases and correlates them with hemodynamic changes and therapeutic interventions. | Disorders of cardiovascular system | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 5 | 3+2 | A2: The student describes the pathophysiology of renal dysfunction and its impact on fluid, electrolyte, and acid–base balance | Disorders of renal system | Theoretical lectures. Laboratory experiments. | Paper-based exams |
| 6 | 3+2 | A1: The student explains the pathophysiological basis of CNS disorders and correlates lesion localization with clinical manifestations. | Disorders of the central nervous system | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 7 | 3+2 | A2: The student describes the pathophysiology of ventilation–perfusion abnormalities and respiratory failure. | Disorders of respiratory system | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 8 | Mid-term exam | | | | |
| 9 | 3+2 | A2: The student describes the | Disorders of the endocrine system | Theoretical lectures. | Paper-based exams |

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| | | pathophysiological mechanisms of major endocrine axis disorders and alterations in feedback regulation. | | Laboratory demonstration. | |
| 10 | 3+2 | A1: The student explains the pathophysiology of metabolic disorders, diabetes, and calcium homeostasis and their systemic complications | Disorders of the endocrine system I | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 11 | 3+2 | A2: The student describes the mechanisms underlying altered bone remodeling and joint pathology. | Disorders of the skeletal system | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 12 | 3+2 | A1: The student explains the pathophysiological mechanisms of gastrointestinal and liver diseases and their metabolic consequences. | Disorders of GI and hepatobiliary systems | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 13 | 3+2 | A1: The student explains the mechanisms of hypersensitivity, autoimmunity, and immunodeficiency and their pathological consequences. | Disorders of immune responses | Theoretical lectures. Laboratory demonstration. | Paper-based exams |
| 14 | 3+2 | A2: The student describes the molecular and cellular mechanisms of tumor initiation, progression, and metastasis and their therapeutic implications. | Neoplasia | Theoretical lectures. Laboratory demonstration. | Paper-based exams |

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Students' seminars**11. Course Evaluation**

- 25 M Theoretical assessment; (paper-based mid-term exam + quiz)
- 25 M practical assessment (quiz)
- 50 M paper-based theoretical final exam

 Total 100 M
12. Learning and Teaching Resources

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| Required textbooks | 1. Essentials of Pathophysiology: Concepts of Altered States (Fourth Edition) by Carol Porth PhD (2014) |
| Main references (sources) | 1. Robbins Basic Pathology 10th Edition March 8, 2017. Editors: Vinay Kumar, Abul Abbas, Jon Aster |
| Electronic References, Websites | https://youtu.be/UP1aZKQjINo |
| Curriculum development | 5% |