# Jordan University of Science and Technology

## Faculty of Applied Medical Sciences

## Allied Medical Sciences Department

LM353 Diagnostic Hematopathology (1) - JNQF Level: 7

First Semester 2023-2024

| Course Catalog |
|---|
| 2 Credit Hours. The course will provide students with a vista of erythrocytes' common hematological abnormalities (disorders) (red blood cells), with a major emphasis on the etiology, pathogenicity, and clinical features. The course will also include a detailed description covering the laboratory diagnostic approaches of erythrocytic disorders examination flow, the interpretation of routine hematological assay results, and specialized assays. Quality control and quality assurance measures are significantly considered. |
| **Teaching Method:** On Campus |

| Text Book | |
|---|---|
| **Title** | Hematology: Clinical principles and applications |
| **Author(s)** | Bernadette F. Rodak, George A. Fritsma and Kathryn Doig |
| **Edition** | 5th Edition |
| **Short Name** | Ref #1 |
| **Other Information** | |

| Instructor | |
|---|---|
| Name | **Dr. Jehad Alhmoud** |
| Office Location | - |
| Office Hours | Mon : 10:00 - 11:00<br>Tue : 10:00 - 14:00<br>Wed : 10:00 - 11:00<br>Thu : 12:30 - 14:30 |
| Email | jfalhmoud@just.edu.jo |

| Class Schedule & Room |
|---|

Section 1:
Lecture Time: Sun, Thu : 08:30 - 09:30
Room: NB49

| Tentative List of Topics Covered | | |
|---|---|---|
| **Weeks** | **Topic** | **References** |
| Week 1 | Erythrocytes disorders: classification systems | **19** From **Ref #1** |
| Week 2 | Irons deficiency anemia | **20** From **Ref #1** |
| Week 3 | Anemia of chronic inflammation/ Sideroblastic anemia | **20** From **Ref #1** |
| Week 4 | Porphyria/ Iron overload | **20** From **Ref #1** |
| Weeks 5, 6 | Thalassemia | **28** From **Ref #1** |
| Week 7 | Sickle cell disease | **27** From **Ref #1** |
| Week 8 | Megaloblastic anemia | **21** From **Ref #1** |
| Week 9 | Aplastic Anemia | **22** From **Ref #1** |
| Week 10 | Introduction to hemolytic anemia | **23** From **Ref #1** |
| Week 11 | Erythrocyte membrane defects | **24** From **Ref #1** |
| Week 12 | Enzymopathies | **25** From **Ref #1** |
| Week 13 | Immune-mediated hemolytic anemia | **25** From **Ref #1** |
| Week 13 | Anemia of pediatrics and pregnancy | **45** From **Ref #1** |
| Week 14 | Platelets disorders: Quantitative disorders/ Qualitative disorders | **40, 41** From **Ref #1** |
| Week 15 | Coagulopathies (I): Hypercoagulability disorders/ Coagulopathies (II): Hypocoagulability disorders | **38, 39** From **Ref #1** |

| **Mapping of Course Outcomes to Program Outcomes and NQF Outcomes** | **Course Outcome Weight (Out of 100%)** | **Assessment method** |
|---|---|---|
| To understand the basic concepts and terminology in hematopathology. [1SLO1] [1L7K1] | 10% | |
| To understand the principle of classifying erythrocyte disorders [1SLO2] [1L7K1] | 10% | |
| To understand the etiology and pathogenesis of erythrocyte disorders [1SLO2] [1L7S1] | 20% | |
| To understand the methods and application of hematological tests in diagnosing erythrocyte disorders. [1SLO3] [1L7S2] | 30% | |

| | | |
|---|---|---|
| To introduce hemostatic disorders including platelet disease and coagulopathies regarding etiology, pathogenesis, and clinical features as well as routine and specialized diagnostic approaches [1SLO2, 1SLO3] [1L7S3] | 20% | |
| Review many case studies with erythrocyte and hemostatic abnormalities to understand the common procedures that help ensure the correct diagnosis of the diseases. [1SLO6] [1L7C4] | 10% | |

| Relationship to Program Student Outcomes (Out of 100%) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SLO1 | SLO2 | SLO3 | SLO4 | SLO5 | SLO6 | MSLO1 | MSLO2 | MSLO3 | MSLO4 | MSLO5 | MSLO6 |
| 10 | 40 | 40 | | | 10 | | | | | | |

| Relationship to NQF Outcomes (Out of 100%) | | | | |
|---|---|---|---|---|
| L7K1 | L7S1 | L7S2 | L7S3 | L7C4 |
| 20 | 20 | 30 | 20 | 10 |

| Evaluation | |
|---|---|
| **Assessment Tool** | **Weight** |
| First Exam | 30% |
| Second Exam | 30% |
| Final Exam | 40% |

Date Printed: 2024-02-22