

## Planning and Quality Assurance Affairs

Form (A)

### Course Specifications

#### General Information

|                            |                              |
|----------------------------|------------------------------|
| Course name                | Hematology and Blood Banking |
| Course number              | BIOL3314                     |
| Faculty                    |                              |
| Department                 |                              |
| Course type                | College Needs                |
| Course level               | 3                            |
| Credit hours (theoretical) | 3                            |
| Credit hours (practical)   | 0                            |
| Course Prerequisites       |                              |

#### Course Objectives

- 1 - Elaborate on the ontogeny of hematopoiesis, Hematopoietic System, Bone Marrow, and blood production.
- 2 - Demonstrate, classify and describe the morphologic characteristics of the different cellular parts of the blood in health and disease
- 3 - Explain the different mechanisms that included function of RBC, WBC and Platelets
- 4 - Demonstrate the diagnostic principles and usefulness for the laboratory tests in the assessment of functions of the blood components, cellular and no cellular parts
- 5 - Discuss the principles of blood transfusions, preservation and the diseases related to blood transfusion

#### Course Contents

- 1 - Introduction and Basic Principles of hematology Hematopoietic System, Bone Marrow, and blood production
- 2 - Erythropoiesis and Red Blood Cell Disorders
- 3 - Anemias and hemoglobinopathies
- 4 - RBC Membrane Disorders
- 5 - Leucopoiesis and White Blood Cell types White Blood Cell types, structure and function
- 6 - White Blood Cell Disorders
- 7 - Thrombopoiesis and Patelet and Disorders
- 8 - Hereditary Platelet Disorders
- 9 - Acquired Platelet Function Disorders
- 10 - Normal Mechanisms of Hemostasis
- 11 - Bleeding Disorders
- 12 - Thrombotic Disorders
- 13 - Introduction to blood banking, blood transfusions, preservation and the diseases related to blood transfusion

#### Teaching and Learning Methods

- 1 - PowerPoint and flash animations and whiteboard for more explanations

#### Teaching and Learning Methods for the Disabled Students

- 1 - Will be treated and addressed individually according to the type of disability

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**Students Assessment**

| <u>Assessment Method</u> | <u>TIME</u> | <u>MARKS</u> |
|--------------------------|-------------|--------------|
| First hour Exam          | 60 mins     | 15           |
| seconds hour Exam        | 60 mins     | 15           |
| Practical part           | 60minutes   | 20           |
| Final Exam               | 120minutes  | 50           |

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**Books and References**

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| Essential books | Hoffbrands Essential Haematology, 7th Edition |
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