

25/3/08

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HEMATOLOGY COURSE SYLLABUS (Cr. Hrs:4)

University of Jordan
Dept. Biol. & Biomed. Sciences
Hematology 0334367

1st Semester 2008/2009
Instructor: Prof. Y.Y.Bilto
Office : Rm 211 Building 31

LECTURE TOPICS

Week no. Lectures topics

1. Introduction to Hematology.
2. Hematopoiesis and related disorders.
3. Erythropoiesis and related disorders.
4. The Red Blood Cell and related disorders.
4. Heme synthesis & porphyrin metabolism and related disorders.
5. The hemoglobin molecule and related disorders.
6. Vitamin B12 & Folate metabolism and related disorders.
7. Iron metabolism and related disorders.
8. Red cell life span & bilirubin metabolism and related disorders.
8. Evaluation & Classification of Anemias.
9. Granulopoiesis & related disorders.
9. Neutrophil function and related disorders.
10. Eosinophils & Basophils & related disorders.
11. B Lymphocytes and related disorders.
11. T Lymphocytes and related disorders .
12. The myeloid leukemias (AML & CML).
12. The coagulation cascade.
13. Regulators (inhibitors & promoters) of coagulation and related disorders.
13. Factor VIII and Factor IX and related disorders.
14. Von Willebrand factor & related disorders.
14. Vitamin K and related disorders.
14. Fibrinogen, factor XIII & fibrinolysis and related disorders.
15. Platelet structure & function and related disorders.
15. Endothelium.

Laboratory Exercises:

Week No. Laboratory Exercises

Lab # 1 - Introduction on basic laboratory techniques; collection of blood, anticoagulants, the microscope, quality control procedures, safety procedures.

Lab # 2 - RBC Count.



Additional References :

- Hematology for the medical students, eds. A.N. Schmaier and L.M. Petruzzelli, Lippincott Williams and Wilkins, USA 2003
- Hematology in clinical practice, A guide to diagnosis and Management ed R.S. and K.A. Ault. Mc Graw-Hill, USA 1998
- Clinical Hematology principles and procedures, eds. E. Stien-Martin, C.A. Lotspeich-Steininger and J.A. Koepke, 2nd edn 1998. Lippincott Williams and Wilkins, USA. & Wilkins, Baltimore, Maryland, USA.
- Essential Hematology, eds. A.V. Hoffbrand, J.E. Pettit and P.H.A. Moss, 4th edn. 2001.
- Practical Hematology, eds. Dace and Lewis, 9th edn. 2001.

Course Assessment & Marks :

Examinations and grades:

<u>Lectures topics</u>	<u>date</u>	<u>points</u>
First hour exam	week 6	15 %
Second hour exam	week 12	15 %
Term paper	week 15	10 %
Final Exam.	week 16	35 %

Laboratory exercises:

Presentation & reports	-	10 %
Final lab exam	week 15	15 %

Total 100 %

