



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

Diagnostic hemato-pathology

1	Course title	Diagnostic Hematopathology
2	Course number	504714
3	Credit hours (theory, practical)	3 (theory + practical)
	Contact hours (theory, practical)	
4	Prerequisites/corequisites	
5	Program title	Doctor of Medicine
6	Program code	
7	Awarding institution	
8	Faculty	Medicine
9	Department	Pathology
10	Level of course	Master degree – Laboratory Analysis
11	Year of study and semester (s)	Second semester
12	Final Qualification	MD degree
13	Other department (s) involved in teaching the course	none
14	Language of Instruction	English
15	Date of production/revision	2016-2017

16. Course Coordinator:

Dr. Tariq Aladily, M.D.
Hematology Lab, Third Floor, Outpatient building, Jordan University Hospital
Office Hours: 12-2, Sunday
Phone: +962 6 5353666 – 2645
Email: tnaladily@ju.edu.jo

17. Other instructors:

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18. Course Description:

This three-credit hour course is mandatory for the master degree students of laboratory analysis. The course is designed to introduce students to common and most important diseases in Hematopathology, with a focus on the clinical aspect of both neoplastic and benign conditions

1. 19. Course aims and outcomes:
- 2.

A- Aims: The course aims at preparing students for knowledgeable and safe clinical practice in hematology lab from both scientific and practical aspects. Students also learn how to handle blood specimens, make and read blood film, observe automated tests of coagulation.
B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to ...
Know reference ranges of normal hemogram test
Know abnormal hemogram values
Know how to collect and handle blood specimens
Know procedure of preparing and staining blood film and marrow aspirate
Brief knowledge about morphologic features of normal bone marrow smear and biopsy
Know about: Iron deficiency anemia; epidemiology, causes, morphologic features
Know about: Megaloblastic anemia; epidemiology, causes, morphologic features
Know about: Autoimmune hemolytic anemia; epidemiology, causes, morphologic features
Know about: G6PD deficiency anemia; epidemiology, causes, morphologic features
Malaria: identify morphology and types
Babesia: identify morphology and types
Filaria: identify morphology
Trypanosom: identify morphology
Understand normal hemoglobin structure and hemoglobin electrophoresis test
Know about: thalassemia; epidemiology, causes, morphologic features, diagnosis
Know about: Sickle cell anemia and trait; epidemiology, causes, morphologic features, diagnosis
Know about hemoglobins C, C/S, D, E disease and traits; morphology, diagnosis
Know about: aplastic anemia; epidemiology, causes, morphologic features
Know the morphologic features of common WBC abnormalities in peripheral blood: Pelger Huet anomaly, Toxic changes, May-Hegglin anomaly
Understand myeloproliferative disorders; epidemiology, morphologic features
Understand myelodysplastic syndrome; epidemiology, morphologic features
Understand acute myeloid leukemia; epidemiology, morphologic features
Understand acute lymphoblastic leukemia; epidemiology, morphologic features
Understand chronic lymphocytic leukemia; epidemiology, morphologic features
Understand hairy cell leukemia; epidemiology, morphologic features
Understand splenic marginal zone lymphoma; epidemiology, morphologic features
Understand plasma cell myeloma; epidemiology, morphologic features
Know normal coagulation cascade
Understand hemophilia: causes, clinical features, diagnosis
Understand thombophilia: causes, clinical features, diagnosis
Understand microangiopathic hemolytic anemia; causes, morphologic features, diagnosis
Know about audit and quality control: definition, procedures

20. Topic Outline and Schedule:

3.

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
4.	5.	6.	7.	8.	
9.	10.	11.	12.	13.	14.
15.	16.	17.	18.	19.	20.
21.	22.	23.	24.	25.	26.
27.	28.	29.	30.	31.	32.
33.	34.	35.	36.	37.	38.
39.	40.	41.	42.	43.	44.

45.

21. Teaching Methods and Assignments:

Syllabus, schedule and electronic copy of textbook and references are distributed to students at the beginning of course. Every student is assigned to discuss a topic on specific date. Before that date, student should review his assignment with the instructor to ensure good quality and comprehensive coverage. Students make presentation in lecture room and discuss the topic with all students under observance and guidance of the instructor.

Every week, a small group of students go to the hematology lab and learn how to handle blood samples, data entry and make blood film. Other group observes how coagulation test service takes place. A third group is handled a set of slides of common diseases in hematology to learn the morphologic characteristics. A fourth group is handled a bunch of hemoglobin electrophoresis tests of normal and abnormal results to learn interpretation.

22. Evaluation Methods and Course Requirements:

Slide seminar presentation: 15%
 Attendance and behavior: 5%
 Midterm exam: 30%
 Final exam: 40%
 Practical exam: 10%

23. Course Policies:

- A- Full attendance is granted marks at the end of the course.
- B- Make up exams are held for students who did not attend regular exams if they present acceptable reasons to relevant committee.
- C- A complementary exam is held next to the course for eligible students according to faculty regulation.
- D- Health and safety procedures: students learn how to safely handle blood samples, and correct procedure in case of accidents. Emergency situations are dealt with in accordance with safety regulations and guidelines of the hospital.
- E- Students who do misconducts such as cheating, plagiarism, misbehavior are reported to the dean office for an interrogation committee
- F- Grading policy: 40% final exam, 30% midterm exam, 20% presentation and attitude, 10% practical

24. Required equipment:

Light microscope (available at hematology lab from instructor)

25. References:

- 1) Dacie and Lewis PRACTICAL HAEMATOLOGY. SM Lewis, BJ Bain, I Bates. Tenth edition.
- 2) Robbins Basic Pathology. Kumar, Abbas, Fausto, et al. Ninth edition.
- 3) Haemoglobinopathy Diagnosis. Barbara J. Bain. Second edition
- 4) Bone marrow pathology. Kathryn Foucar, et al. Third edition.
- 5) WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues. Swerdlow et al. Fourth edition

26. Additional information:

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

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Head of Department
Assistant Dean for Quality Assurance
Course File