COURSE SPECIFICATION

(Hematology-HEM 530 HE)

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of clinical hematology/HEMA 500
(2) Department offering the programme:	Internal Medicine Department
(3) Department responsible for teaching the course:	Clinical Pathology department
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	26/04/2016
(6) Date of last approval of programme specification by Faculty council	9\8\2016
(7) Course title:	Hematology
(8) Course code:	HEM 530 HE
(9) Total teaching hours:	22.5 lectures,15 practical
(10) Credit hours	1.5 h theoretical-0.5 practical

(B) Professional information

- Course Aims:

To provide the candidate with:

1- Medical knowledge and skills essential for the practice of Clinical Hematology efficiently and properly according to the international standards and necessary to gain further training and practice in the field.

2- Skills necessary for proper diagnosis and management of patients in the field of Clinical Hematology including diagnostic, problem solving and decision making.

3- Ethical principles related to the practice in this specialty.

4- Active participation in community needs assessment and problems solving.

5- Maintenance of abilities necessary for continuous medical education.

- Intended Learning Outcomes (ILOs):

A- Knowledge and Understanding

Most of them are unrelated to the course contents.. please make your ILOS specific and measurable to describe precisely the outcome of each of the course contents

A 1: To identify structure of the bone marrow , the hematopoietic microenvironment and the lymphoid tissues.

A 6; To identify the principles of transfusion medicine, including the evaluation of antibodies, blood compatibility, and the indications for and complications of blood component therapy and apheresis procedures.

A19: To identify basic molecular and pathophysiologic mechanisms, and diagnosis diseases of the blood, including anemias, diseases of white blood cells and stem cells, and disorders of hemostasis and thrombosis.

A20: To explain etiology, epidemiology, natural history, diagnosis, pathology, staging of neoplastic diseases of the blood, blood-forming organs, and lymphatic tissues. Unrelated to the course

A21: To identify principles of molecular genetics, the nature of oncogenes and their products, and cytogenetics. Unrelated to the course

A23: To identify Immune markers, immunophenotyping, flow cytometry, cytochemical studies, and cytogenetic and DNA analysis of neoplastic disorders. Unrelated to the course

B- Intellectual skills

B4:؛To correlate clinical information with cytology, histology, and immunodiagnostic imaging techniques.

B 5: To interpret the results of blood smears, bone marrow aspiration, and biopsy.

B 6: To interpret results of complete blood count, including platelets and white cell differential to approach patients with blood disorders.

B 7:To integrate etiology, epidemiology, natural history, diagnosis, pathology, staging of neoplastic diseases of the blood, blood forming organs and lymphatic tissues.

C- Professional/practical skills

C 4: To demonstrate competence in the performance and/or (where applicable) interpretation of complete blood count, including platelets and white cell differential, by means of automated or manual techniques, with appropriate quality control;

C 5: To demonstrate competence in the performance and/or (where applicable) interpretation of bone marrow aspiration and biopsy, preparation, staining, and interpretation of blood smears, bone marrow aspirates, and touch preparations, as well as interpretation of bone marrow biopsies.

C 6: To apply the following:

C6a: apheresis procedures

C6b: performance and interpretation of partial thromboplastin time, prothrombin time, platelet aggregation, and bleeding time, as well as other standard coagulation assays;

C6c: blood banking and current blood bank practice;

C6d: clinical experience in bone marrow or peripheral stem cell harvest for transplantation;

C6e: formal instruction and clinical experience in allogeneic and autologous bone marrow or

D- Communication & Transferable skills

D2: To participate in a multidisciplinary case management conference or discussion

(3)Course content:

Subjects	Lectures	Clinical	Laboratory	Field	Total Teaching Hours
(1)The Red blood cells • Anemias a-Hypochromic microcytic anemias b-Macrocytic anemias c-Normocytic normochromic anemia					
(2) The White blood cells • Granulocyte disorders • Lymphocyte disorders • Leukemias -Acute leukemias -Chronic leukemias					
(3) Plasma cell disorders					
(3)Myeloproliferative neoplasm (4)Myelodysplastic syndromes					
(5) Hemostasis • Platelet disorders -Quantitative platelet disorders -Qualitative platelet			2h		

disorders • Coagulation disorders -Hereditary coagulation disorders -Acquired coagulation disorders • Vascular defects • Hypercoagulable states(Thrombophilia)					
(6)Component blood transfusion			3h		
(7)Blood bank • ABO blood groups and ABO typing • Estimation of Coombs test			5h		
(8)Blood smears, BMA, Differential leucocytic count, manual Hemoglobin, manual platelet count.			5h		
	7.5 h		15		30 h total (15 lect. 15 practical)

- Teaching methods:

4.1:Power Point presentation.

4.2:Laboratory training

4.3: Case discussion.

- Assessment methods:

5.1:Written exam for assessment of knowledge, intellectual skills

5.2:Oral exam for assessment of knowledge, intellectual skills

5.3:Clinical exam for assessment of knowledge, intellectual and practical skills……etc)

5.4: MCQ exam continuous assessment for assessment of knowledge, intellectual skills

Assessment schedule:

Assessment 1: Final written and oral exam after 6 months of registration to the degree

Assessment2:MCQ at the end of the semester

Percentage of each Assessment to the total mark:

MCQ exam:24 marks

Written exam:96 marks

OSPE Lab exam: 40 marks

Oral exam: 40 marks

- References of the course:
- 6.1: Hand books: Guide to Clinical Pathology,Faculty of Medicine, Mansoura University.
- 6.2: Text books: Clinical Hematology Theory and Procedures,Interprettation of Diagnostic Tests Jacques Wallace, Williams Hematology,Wintrobes Clinical Hematology
- 6.3:Journals: American Society of Hematology(ASH), European Hematology Associatation(EHA).

- Facilities and resources mandatory for course completion:

-Lecture Halls.

-Data show.

-Equipped Laboratory.

Course coordinator: Prof. Sameh Shamaa

Prof. Mohamed Nasr

Prof. Emad Azmy

Head of hematology unit: prof. Mohamed Nasr

Head of the department: Prof. Salah El-Gamal

Date of 1st approval 22/12/2010

Date of last approval 30/3/2016