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MICB 309.01: Hematology

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SYLLABUS

MICROBIOLOGY 309-FALL 2001

HEMATOLOGY

COURSE INSTRUCTOR: Gene Mead, Ph.D.
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COURSE CONTENT: This course is intended to introduce the student to normal hematology, with emphasis on cell development, normal morphology, and normal cellular function. Lab exercises will instruct the student in proper blood collection (phlebotomy), preparation of peripheral blood smears, microscopic examination of blood smears, and other manual tests associated with blood and coagulation studies.

LAB EXERCISES IN THE CLINICAL SETTING:

Each student will be **required** to spend at least 2 hours in the clinical lab at the Western Montana Clinic. The student will observe phlebotomy and clinical hematology procedures.

The times must be scheduled with the instructor.

TEXT BOOK MATERIALS:

Required:

> CLINICAL HEMATOLOGY ATLAS. CARR. W.B. Saunders. 1999

Optional

> DIAGNOSTIC HEMATOLOGY. Rodak. W.B. Saunders. 1995

> FacPac for class- contains copies of all overhead projections for lecture sections.

FINAL GRADE:

- 2 lab-lecture tests (100 pts ea)
- 1 lab test –final (50 pts)
- Final test (100 pts material from last test, 50 pts comprehensive) (150 pts total)
- Quiz x 2 at 25 ps ea. (unannounced)

total lecture-lab test points: 450 pts
lab notebook: 25
blood smear – unknown 25

MICROBIOLOGY 309
HEMATOLOGY
LECTURE AND LAB SCHEDULE-FALL 2001

September	4	Lecture in lab > overview of hematology, specimen collection, safety in lab
	5	Lecture – quality control and quality assurance
	10	Lecture – hematopoietic theory
	11	Lab – blood collection
	12	Lecture – morphology and function of cellular components
	17	Lecture – continue
	18	Lab – manual WBC counts
	19	Lecture – erythrocyte production and destruction
	24	Lecture – hemoglobin and iron metabolism
		25
October	26	Lecture – hemoglobin – continue
	1	Lecture – metabolism of the erythrocyte
	2	Lab – manual RBC counts
	3	Lecture – leukopoiesis
	8	Lecture – evaluation of blood cells and bone marrow
	9	Lab – hematocrit, RBC indices, reticulocytes
	10	Lecture- evaluation of blood cells – continue
	15	Lecture – introduction to anemias
	16	Lab – 35 mm slides.
	17	Lecture – anemias – continue
	22	Lecture – hematopathology
	23	Lab – peripheral blood smears and WBC differentials
	24	Lecture – hematopathology – continue
	29	Lecture – benign disorders of leukocytes
30	Lab – sedimentation rates	
31	Lecture – acute and chronic leukemias	
November	5	Lecture – acute and chronic leukemias
	6	LAB-LECTURE TEST #2
	7	Lecture – myeloproliferative disorders
	12	VETERANS DAY HOLIDAY
	13	Lab – distribute individual project peripheral blood smears
	14	Lecture – hemostasis
	19	Lecture – hemostasis
	20	Lab – work on blood smears
	21	(travel day for Thanksgiving)
	26	Lecture – hemostasis
27	Lab – work on blood smears	
28	Lecture – hemostasis	
December	3	Lecture – hemostasis
	4	Lab – finish blood smears-hand in reports and notebooks
	5	Lecture – hemostasis
	10	Lecture - newborn hematology
	11	Lab- LAB FINAL TEST
	12	Lecture – instrumentation in hematology and coagulation
	17-21	FINALS WEEK