Instructor: Kathie Kohut  
Location: Holt 329  
Time: Tuesday 09:00-10:50 am and Thursday 08:00-10:50 am

Required Textbook: Hematology Clinical Principles and Applications 4th edition by B.F. Rodak, note that 3rd Edition will suffice, although it is not current.


Required Laboratory Materials: Lab coat. Gloves and goggles will be provided.

Method of Instruction: PP slide lectures plus Labs: microscopy and live blood cells.

Cheating Policy: If a student is caught cheating on an exam, their homework, assignments or Lab, that student will be awarded an F as a grade.

Laptop and Cell Phone Regulation: All electronic gadgets are to be turned off during class/labs. Permission for their use will be granted at my discretion. Students caught surfing the web during class without my permission will incur significant demerit points.

Add/Drop Policies: standard CSUC policies apply

Contracts: All students must sign a laboratory safety contract and blood handling safety contract before you will be allowed to participate in any of the labs. It is the student’s responsibility to read and understand the contract.

Office Hours: Please reach me by e-mail: KKohut@csuchico.edu or hematology@pinpal.com to set up an appointment as I am not on campus full time.

Grades and Grading:

Exams (55%): two exams, plus final for a total of three. Format will be mainly multiple choice, matching, True/False and short answer questions. Make up exams will be allowed at my discretion.

Labs (25%): Didactics, dexterity and participation will be measured and will be part of the lab grade. Laboratory test results and microscopy results will comprise the lab grade.

Attendance/Participation 5%: Attendance will be taken at each class/lab. If you know you will be missing a class it is your responsibility to let me know prior to class. You are allowed 2 misses. More than 2 missed classes will incur demerit points unless you can provide a verifiable excuse. Missing more than 6 classes will incur a failing grade unless a doctor’s note is provided. Class participation will also be assessed in this segment.

Assignments (15%): Case History and homework assignments.

Final Grade: All of your grades are entered into a spreadsheet. Each column in the spreadsheet will represent an exam, lab, microscopy, homework assignment etc. anything that is awarded marks or grades. Your final grade will be calculated on the total number of points you score throughout the semester. ie: each exam is worth 100 points and there are 3 exams. Your total out of 300 points will be worth 55% of final grade.

Grades are determined using the following criteria:

- A - Outstanding achievement 90% of total possible points
- B - Excellent performance; clearly exceeds course requirements 80-89%
- C - Meets course requirements 70-79%
- D - Passed, but not at average achievement standards 60-69%
- F - Failure to meet class requirements less than 60%
- +/- grades will be at my discretion

Note that it is the right of the instructor to make amendments to the syllabus and class schedule with adequate warning to all students.

K. Kohut
**Course objectives:**
Upon completion of this course, the student will be able to:
- Understand Hematological terminology
- Describe and identify the developmental stages of erythrocytes, leukocytes and platelets
- Understand the production, function and destruction of the erythrocyte (red blood cell)
- Understand the production and function of hemoglobin
- Understand the production and function of the leukocytes and platelets
- Identify and recognize microscopically the main characteristics of red blood cells in normocytic-normochromic anemia, microcytic-hypochromic anemia and macrocytic anemia
- Identify and recognize microscopically the main characteristics of normal, reactive and pathological leukocyte and platelet disorders
- Understand the basics of the human immune system
- Understand Universal Precautions for Biohazards
- Perform a basic Complete Blood Count via manual cell counts and calculations (if fresh blood is available for testing)
- Understand the reference ranges for the basic Complete Blood Count
- Make, stain, and microscopically examine a blood smear
- Identify normal and abnormal blood cells microscopically on the Wright or Wright Geimsa stained blood smear through Case Histories.
- Calculate correction of WBC count in the presence of nucleated red blood cells
- Understand the basic theory of Hemostasis and Coagulation
- Perform a manual Prothrombin Time (PT)

**Lecture Itinerary**
Housekeeping, Introduction to Hematology, Hematopoietic Theory and Bone Marrow Overview
Red Blood Cell (Rbc) production, destruction, metabolism
Hemoglobin metabolism
Iron metabolism
White Blood Cell and Platelet Production and Function
Routine testing, Complete Blood Counts, Blood Slides
Anemia: Inherited and acquired red cell disorders
White Blood Cell (Wbc) changes in inherited and reactive disorders
Wbc changes in pathologic disorders: Leukemia
Platelet disorders
Hemostasis and Coagulation Normal pathways
Inherited and acquired bleeding and clotting disorders

Note that laboratory and morphology sessions will be held throughout the semester.

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