Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT.  MEDICAL LABORATORY TECHNICIAN COURSE NUMBER: MDLT 2120

NUMBER OF CREDITS: 3 (2 LECTURES, 1 LAB)

COURSE TITLE: Hematology II

CATALOG DESCRIPTION: This course is a continuation of MDLT 1130 (Hematology I). Student will study the disease processes that occur in the red blood cells of the blood with emphasis on anemias. This course also covers the theory and testing of the coagulation aspects of the blood.

AUDIENCE: Medical Laboratory Technician student

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: MDLT 1100 Introduction to Laboratory Science and MDLT 1130 Hematology I

LENGTH OF COURSE: 1 semester

THIS COURSE IS USUALLY OFFERED: Spring Semester Only

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT: The academic objectives of this course are:
   a. Understand hematopoiesis, with emphasis on erythropoiesis
   b. Differentiate the different types of anemia based on laboratory observations, etiology, clinical symptoms and pathophysiology
   c. Operate hematological instrumentation and understand the principles of various instrumentations
   d. Proficiently perform and understand hematology and coagulation laboratory procedures as used in the clinical laboratories
   e. Understand the basic principles of hemostasis and diagnostic testing used in the coagulation department of the laboratory

2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through:
   a. Identifying normal and abnormal red blood cells and platelets in the laboratory
   b. Performing mathematical calculations
   c. Correlating lab tests with hematological disorders
3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through:
   a. Working with classmates in the laboratory environment
   b. Interpreting case studies

4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through:
   a. Respect instructor and classmates
   b. Working in small groups in lecture and lab

TOPICS TO BE COVERED:
1. Safety and infection control
2. Specimen collection
3. Microscopy
4. Hematopoiesis with emphasis on erythropoiesis
5. Routine laboratory testing in Hematology
6. Examination of peripheral blood smears
7. Anemias and hemoglobinopathies
8. Mathematical calculations
9. Hematology instrumentation
10. Hemostasis

LIST OF EXPECTED COURSE OUTCOMES:
1. Improvement of phlebotomy skills, including enhancement of communication skills
2. Perform mathematical hematological calculations
3. Accurately make and stain blood smears
4. Proficient count and reporting of red blood cells on blood smear
5. Recognize abnormal cells in differential smear
6. Understand the different types of anemias as discussed in the lecture
7. Understand the basic treatment of anemias
8. Understand and perform quality control
9. Learn to work with others in the laboratory

LEARNING/TEACHING TECHNIQUES used in the course are:
X Collaborative Learning  X Problem Solving
☐ Student Presentations  ☐ Interactive Lectures
☐ Creative Projects  X Individual Coaching
X Lecture  X Films/Videos/Slides
X Demonstrations  Other (describe below)
X Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
☐ Reading  X Tests  X Individual Projects (lab)
☐ Oral Presentations  X Worksheets  X Collaborative Projects (lab)
☐ Textbook Problems  Research Paper  ☐ Portfolio
X Group Problems  ☐ Term Paper
EXPECTED STUDENT LEARNING OUTCOMES:
Student will learn the basic hematological disorders.
The student will learn and be proficient at hematology and coagulation testing procedures as they enter their clinical externship at which time they will further their knowledge in these areas.

The information in this course outline is subject to revision

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

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