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 2340

NUMBER OF CREDITS:

COURSE TITLE: CLINICALS: CLINICAL CHEMISTRY AND IMMUNOLOGY

CATALOG DESCRIPTION:
In this clinical laboratory course the student continues their education in an affiliated hospital or clinic laboratory under the direct supervision of a qualified laboratory professional. The experience allows the students to refine laboratory techniques and apply knowledge learned in the didactic phase in an employment-like setting that offers realistic experiences unavailable in student laboratory sessions. Additionally, students acquire non-technical attributes including, but not limited to, communication, critical thinking, multitasking, and independent work skills. The student will practice and gain experience in basic medical laboratory techniques and procedures required for entry level Medical Laboratory Technicians.

AUDIENCE: Medical Laboratory Technician students who have completed all prerequisite courses to enter the clinical experience.

FULFILLS MN TRANSFER CURRICULUM AREA(S) *(Leave blank if not applicable)*
Area: by meeting the following competencies:
Area: by meeting the following competencies:
Area: by meeting the following competencies:

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:
ENGL1101, HC1290, HC1180, MDLT1100, BIOL1115, CHEM1150, MDLT1110, MDLT 1115, MDLT 1120, MDLT1125, MDLT 1105, MDLT 1130, MDLT 2106, MDLT 2110, MDLT 2120, MDLT 2102, AND 5 CREDITS OF HUMANITY OR SOCIAL/BEHAVIOR SCIENCE COURSE.

LENGTH OF COURSE: 135 hours of clinical experience (0/0/3) 45 hrs/credit

THIS COURSE IS USUALLY OFFERED:
Every other year ☐ fall ☐ spring X summer ☐ undetermined ☐
Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT:
   a. The academic objectives of this course are to review, refine, practice, and implement knowledge of hematology and hemostasis in a clinical setting.

2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through
   a) Collecting, processing, and analyzing biological specimens.
   b) Performing routine clinical laboratory tests in clinical chemistry and immunology
   c) Performing pre-analytical, analytical, and post-analytical processes.
   d) Performing mathematical calculations related to all areas of the clinical laboratory.
   e) Problem solving and troubleshooting techniques for laboratory methodologies.
   f) Correlating laboratory test results with patient diagnosis and treatment.
   g) Performing quality assessment within the clinical laboratory; recognize factors which interfere with analytical tests and take appropriate actions.

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through:
   a) Demonstrating professional interpersonal, oral, and written communications skills sufficient to serve the needs of patients and the public including an awareness of how diversity may affect the communication process
   b) Utilize computer technology applications to interact with computerized instruments and laboratory information systems
   c) Maintaining a daily journal

4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through:
   Demonstrating professional interpersonal, oral, and written communications skills sufficient to serve the needs of patients and the public including an awareness of how diversity may affect the communication process

TOPICS TO BE COVERED: Clinical Chemistry and immunology

LIST OF EXPECTED COURSE LEARNING OUTCOMES:
Upon completing the clinical rotation the student will be able to:

- Collect, process, and analyze biological specimens
- Perform routine clinical laboratory tests in clinical chemistry and immunology
- Perform pre-analytical, analytical, and post-analytical processes
- Perform mathematical calculations related to all areas of the clinical laboratory
- Perform problem solving and troubleshooting techniques for laboratory methodologies
- Correlate laboratory test results with patient diagnosis and treatment
- Perform quality assessment within the clinical laboratory; recognize factors which interfere with analytical tests and take appropriate actions
- Demonstrate professional interpersonal, oral, and written communications skills sufficient to serve the needs of patients and the public including an awareness of how diversity may affect the communication process
- Apply basic scientific principles in learning new techniques/procedures; demonstrate application of principles and methodologies

Utilize computer technology applications to interact with computerized instruments and laboratory information systems

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

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
- Reading
- X Tests
- Individual Projects
- Oral Presentations
- X Worksheets
- Collaborative Projects
- Textbook Problems
- Papers
- Portfolio
- Group Problems
- Term Paper
- X Other (describe below)
  - Skill checklists/evaluation form
  - Affective Domain checklist/evaluation

EXPECTED STUDENT LEARNING OUTCOMES: This course will prepare the student for entry-level medical laboratory technician employment.

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.

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.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or via your preferred Telecommunications Relay Service.

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