DEPT. MDLT                        COURSE NUMBER:  1120

NUMBER OF CREDITS:  3

COURSE TITLE: IMMUNOLOGY

CATALOG DESCRIPTION: This course introduces the student to a wide array of clinical laboratory techniques that are based on the concepts studies in Immunology. The topics range from the very simple to the very complex procedures that are used in all areas of the clinical laboratory.

AUDIENCE: MLT Students

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area: by meeting the following competencies:
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PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: MDLT 1100 or Phlebotomy skills with the discretion of the instructor.

LENGTH OF COURSE: 3 credits/2 lecture/presentation/1 lab

THIS COURSE IS USUALLY OFFERED:
Every other year ☐ fall ☐ spring ☑ summer ☐ undetermined ☐

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

1) ACADEMIC CONTENT:

2) THINKING SKILLS:

3) COMMUNICATIONS SKILLS:

4) HUMAN DIVERSITY:

TOPICS TO BE COVERED: This course is a practical introduction to the field of clinical immunology that combines essential theoretical principles with serological techniques commonly used in the clinical laboratory. The focus then advances basic blood banking theory, technical practice, regulatory guidelines and preparation for Immunohematology.
LIST OF EXPECTED COURSE OUTCOMES:
1. Discuss immunodiffusion
2. Perform forward and reverse blood typing
3. Wash blood cells
4. Perform serial dilutions
5. Describe types of hypersensitivity
6. Discuss agglutination and precipitation
7. Perform agglutination tests
8. Correctly balance and centrifuge blood samples
9. Discuss development and manifestation of autoimmunity
10. Make phagocytosis slides
11. Discuss screening tests for rheumatoid factor
12. Explain blood grouping tests
13. Perform documentation of blood typing
14. Explain C-Reactive Protein testing
15. Differentiate classes of immunoglobulins based on structure and function
16. Explain RBC antigens
17. List antigenic substance essentials
18. List factors affecting RBC antigens
19. Apply lab safety rules
20. Apply Quality Control
21. Explain in vitro complement destruction
22. Describe complement
23. Perform serology tests
24. Describe immunity
25. Define antigen and antibody
26. Define various immunohematology and serology terms
27. Explain immune response
28. Explain acquired immunity
29. Explain humoral immunity
30. Explain in vivo antibody activity
31. Explain various types of immunoassays

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

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
☒ Reading ☒ Tests ☒ Individual Projects
☐ Oral Presentations ☐ Worksheets ☐ Collaborative Projects
☒ Textbook Problems ☐ Papers ☐ Portfolio
☐ Group Problems ☐ Term Paper
☐ Other (describe below)
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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