

SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
MEDICAL LABORATORY TECHNOLOGY
Revision Date: 9/2019

I. CATALOG DESCRIPTION

Course Number: MEDT 2140
Course Title Immunoematology 2
Prerequisite(s): MEDT 2130

Catalog Description: Continuation of Immunoematology 1. Theory and application of Immunoematology (blood banking) practices and procedures. Skills and laboratory techniques corresponding to theoretical information presented in the lecture. Laboratory is concurrent with lecture.

Credit Hours: 2
Class Hours: 15
Lab Hours: 45
Total Contact Hours: 60

II. COURSE OBJECTIVES: *Course will:*

1. Discuss the possible adverse effects of blood components transfusion.
2. Explain the significance of the direct antiglobulin test.
3. Explain the cause and development of hemolytic disease of the fetus and newborn.
4. Describe how to troubleshoot typing discrepancies.
5. Explain the various causes of incompatibility and/or typing discrepancies.
6. Discuss human leukocyte antigens and antibodies and their significance.
7. Discuss automated testing in the transfusion service.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *Student will be able to:*

1. Discuss the various adverse effects of transfusing blood products.
2. Discuss the significance of transfusion reactions.
3. State the procedures used to investigate suspected transfusion reactions.
4. State the use of the Direct Antiglobulin Test
5. Describe the mechanisms which result in drug-induced positive DATs.
6. Discuss the prevention of hemolytic disease of the fetus and newborn.
7. Generate a list of tests used to detect hemolytic disease of the fetus and newborn.
8. Relate results obtained in laboratory testing to the patient's condition.
9. Describe techniques used to resolve incompatibility and/or discrepancies.
10. Perform antibody identification procedures.

B. GENERAL EDUCATION LEARNING OUTCOMES

1. GELO #3: Critical Thinking & Problem Solving

Collect, identify, interpret and analyze data.

Evaluate the validity of arguments, alternatives, data, outcomes, and/or impacts of actions.

IV. CONTENT/TOPICAL OUTLINE *(course outline may provide more detailed information)*

A. ADVERSE EFFECTS OF TRANSFUSION

- B. **SIGNIFICANCE OF THE DIRECT ANTIGLOBULIN TEST (DAT)**
- C. **HEMOLYTIC DISEASE OF THE FETUS AND NEWBORN (HDFN)**
- D. **SPECIAL TECHNIQUES**
- E. **TROUBLESHOOTING INCOMPATIBILITIES**
- F. **AUTOMATION IN THE BLOOD BANK**
- G. **HUMAN LEUKOCYTE ANTIGENS (HLA)**

V. INSTRUCTIONAL MATERIALS

A. Required Text(s):

Harmening, Denise M. *Modern Blood Banking and Transfusion Practices* (current edition)

B. Other Required Resources:

Packet of handouts

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Technology enhanced lecture
2. Discussion
3. Demonstrations
4. In-class Activities
5. Handouts
6. Lab Exercises
7. Quizzes

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of assignments, quizzes, exams, projects, laboratory competencies, etc. For grading expectations please see the course information document.

SCC STANDARD GRADING SCALE POLICY:

A+	95-100	C+	75-79
A	90-94	C	70-74
B+	85-89	D+	65-69
B	80-84	D	60-64
		F	Below 60

VIII. SPECIFIC COURSE REQUIREMENTS

A. GRADING

Lecture and laboratory must be passed with a 75% or higher. If either the Lecture Grade or Lab Grade is below 75% (C+), the student will receive the lower grade as the Grade for the course.

B. ATTENDANCE

Attendance is crucial to the success of this course. The attendance policy can be found in the MLT Student Handbook.

Attendance for lecture is expected. Missing lecture will result in valuable information being missed and may have a negative effect on a student's grade in the course.

Attendance for laboratory sessions is required. The MLT attendance policy will be followed and applied in this course. Failure to attend laboratory sessions will have a negative effect

on a student's grade in the course.

C. OTHER

Please see the Course Information Document for course policies related to grading, expectations, assignments, assessment, and participation.