SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
MEDICAL LABORATORY TECHNOLOGY
Revision Date: 12/2023

I. CATALOG DESCRIPTION

Course Number:	**MEDT 2130**
Course Title:	**Immunohematology 1**
Prerequisite(s):	**MEDT 1170, MEDT 1180**
Catalog Description:	**Study of the basic theories and application of immunohematology (blood banking) practices and procedures. Skills and laboratory techniques corresponding to theoretical information presented in lecture. Laboratory is concurrent with lecture.**
Credit Hours:	**3**
Class Hours:	**30**
Lab Hours:	**45**
Total Contact Hours:	**75**

II. COURSE OBJECTIVES: *Course will:*

1. Explain the basic principles of genetics and immunology as they apply to blood banking practice.
2. Discuss the purpose and importance of quality control for good blood bank practice.
3. Explain the ABO blood group system.
4. Explain the Rh blood group system.
5. Describe the antigens and antibodies in the other blood group systems.
6. Describe blood donation center policies and procedures.
7. Explain the various blood components and their uses.
8. Discuss the process of compatibility testing.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

1. Describe the function of immunity as it applies to immunohematology.
2. List the characteristics of antigens and antibodies in the major and minor blood group systems.
3. List the various blood components and their uses.
4. Demonstrate routine blood bank quality control procedures.
5. Perform the procedures used to determine the ABO and Rh type.
6. Perform the procedures used to determine patient phenotypes.
7. Perform the procedures used to identify unexpected antibodies.
8. Perform the procedures used to identify acceptable donors in a donor center.
9. Perform the procedures used in compatibility testing.

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. INTRODUCTION – BASIC PRINCIPLES**
- **B. THE ABO BLOOD GROUP SYSTEM**
- **C. THE Rh BLOOD GROUP SYSTEM**
- **D. THE LEWIS SYSTEM**
- **E. THE OTHER BLOOD GROUPS**
- **F. BLOOD DONORS AND BLOOD COLLECTIONS**
- **G. COMPATIBILITY TESTING**

V. INSTRUCTIONAL MATERIALS

A. Required Text(s):

Harmening, Denise M. **Modern Blood Banking and Transfusion Practices** (most 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. In-person and recorded lectures and videos
2. In-person and recorded laboratory demonstrations and videos
3. Lecture activities and tasks (both self-guided and with a partner or group)
4. Laboratory activities and tasks (both self-guided and with a partner or group)
5. Discussions
6. Points-based activities

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. ATTENDANCE

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

B. OTHER

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