

COURSE OUTCOME MATRIX

COURSE SYLLABUS

PART 2 of 3

Course Number and Title	ML 103 Immunohematology and Serology
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Credit Hours	5 Credit Hours
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Course Description	This course begins with an overview of immunology and genetics, and teaches the student the technical and theoretical skills necessary for performing blood banking operations, including information related to blood group antigens and antibodies. An introduction to the field of serology is included.
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Prerequisite(s) and/or Corequisite(s)	Prerequisite: ML 101 Co-requisite: ML 102.
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Required Textbooks/References/Course Materials:

Basic and Applied Concepts of Blood Banking and Transfusion Practices	5th	Paula R. Howard	Elsevier Science	0323697399
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	General Education Outcomes
1	Utilize written and verbal language to discuss and comprehend information, incorporating a variety of technologies, such as text, data, and images (written language, verbal language, and information technology).
2	Identify and interpret relevant information in order to formulate an opinion or conclusion (critical thinking).
3	Demonstrate and communicate computational methods and mathematical reasoning in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate) (quantitative literacy and fluency).
4	Communicate in appropriate ways with those who are culturally diverse (intercultural competence).

	Program/Department Outcomes
1	Graduates will demonstrate skills, knowledge and proper attitudes to realize a career as entry level Medical Laboratory Technicians in hospitals and other health care environments.
2	Graduates must demonstrate professionalism and conduct that reflects safe, legal, and ethical behavior.
3	Graduates will have the necessary knowledge to be able to pass a national certification examination.
4	Graduates must be able to communicate in a facilitative, purposeful and respectful manner with patients, families, colleagues, and other members of the health care team.
5	Graduates will have knowledge of prospective job information in an effort to achieve 100% placement within 3 months of graduation or for continuing their undergraduate education in medical technology or other field of their choice.
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	Course Outcomes (CO)	Bloom's Domain for CO (C, A, P), Category, and Level	Program/ Department Outcome(s)	Written Language	Verbal Language	Information Technology	Critical Thinking	Quantitative Literacy and Fluency	Intercultural Competence
1.	Apply principles of safety, quality assurance, and quality control in Immunohematology and Serology.	A-Responding to Phenomena (2)	1,2	0	0	0	1	0	0
2.	Compare blood group genetics, characteristics of main blood group systems, and the principles of Immunology, as they relate to Immunohematology;	C-Understanding (2)	1,3	0	0	0	1	0	0
3.	Demonstrate proficiency and accuracy in blood typing, direct and Indirect antiglobulin testing, antibody identification, compatibility testing, elution and corresponding component selection;	P-Perfecting (3)	1,3	0	0	0	1	0	0
4.	Differentiate immediate from delayed transfusion reactions and the mandated procedures following the advent of a transfusion reaction.	C-Analyzing (4)	1,3	0	0	0	1	0	0
5.	Evaluate prenatal, maternal, and cord blood testing to assist in diagnosis of Hemolytic Disease of the fetus/newborn.	C-Evaluating (5)	1,3	0	0	0	1	0	0
6.	State individual blood donation requirements for collection, preparation and separation of units and components.	C-Remembering (1)	1,3	0	0	0	1	1	0
7.	Demonstrate the importance of maintaining neat, orderly and complete records in blood banking as well as other departments of the laboratory.	A-Valuing (3)	1,2,3,4	1	0	1	1	0	0
8.	Differentiate various Immunological testing principles, reagents and results.	C-Understanding (2)	1,3	0	0	0	1	1	0
9.	Interpret laboratory results in relation to the diagnosis and treatment of patients.	C-Evaluating (5)	1,2,3,4	1	0	0	1	0	0

Bloom's Domain Legend

C = Cognitive
A = Affective
P = Psychomotor

General Education Outcome Legend

2 = Included and Measurable
1 = Introduced and/or Minimally Addressed and Not Measurable
0 = Not included

Approved: May 2021
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