



**University of Nebraska Medical Center
School of Allied Health Professions
Clinical Laboratory Science Program
Nebraska Methodist Hospital Medical Technology Program**

Course Title: Phlebotomy

Course Number: CLS 424

Credit Hours: 1 semester hour

Prerequisites: Enrollment in the Clinical Laboratory Science Program

Semesters offered: Semesters I & II

Course Coordinator: Sandra Latshaw, MA, MT(ASCP)SM 402-423-9193 sjlatsha@unmc.edu

Course Faculty:

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Class Days, Times, Location: Established for each student at multiple clinical locations.

Course Description: This course includes the theory, practical application, technical performance and evaluation of procedures used in collecting, handling and processing blood specimens.

Instruction: Instructional methods will include independent reading assignments, lectures, worksheets, videotapes, online synchronous and/or asynchronous delivery, and clinical experience.

Course Goals: Upon successful completion of Phlebotomy, the Clinical Laboratory Science student will:

1. Demonstrate a working knowledge of the anatomy and physiology of the circulatory system as it relates to blood collection sites and hemostasis.
2. Demonstrate a working knowledge of the theory and techniques utilized in standard phlebotomy procedures.
3. Demonstrate safety procedures that must be followed in all phases of blood collection, handling and processing.
4. Successfully perform blood collection techniques following established protocol.
5. Demonstrate a working knowledge of quality assurance and quality control procedures applied to a phlebotomy techniques and point of care instruments.
6. Demonstrate a working knowledge of legal issues relating to phlebotomy.
7. Demonstrate the ability to effectively communicate with the healthcare team, peers, patients and the public.
8. Effectively utilize clinical information systems to access and process patient data.

Required Textbook: 1. McCall, R.E. & Tankersley, C.M., Phlebotomy Essentials, 5th Ed., Lippincott, Williams & Wilkins, 2012. ISBN: 978-1-60547-637-7

Major References: 1. McCall, R.E. & Tankersley, C.M., MTS Lab Training Library: Phlebotomy, University of Washington Department of Lab Medicine, <http://www.medtraining.org/ltl>
2. Department Procedure Manuals.

Grading System: The course will consist of worksheets, examinations, competency evaluations, and demonstration of successful blood collection techniques. Evaluation of professional behaviors shall be structured so that the faculty and the student can assess behavioral and professional traits. Results of this evaluation are used in counseling for professional development.

Grading Scale: Pass/Fail

Grade

Requirements: Satisfactory completion of the course requires each of the following:

1. An overall average of $\geq 70\%$ on all phlebotomy worksheets prior to taking the final phlebotomy exam. If the average is $< 70\%$, make-up work will be required prior to taking the final written examination.
2. A $\geq 70\%$ on the final written examination.
 - a. $< 70\%$ on this exam will require successful completion ($\geq 85\%$) of remedial work.
 - b. Remedial work must be completed to the satisfaction of the faculty/site coordinator or instructor. Repeated submissions of unsatisfactory remedial work will lead to a discussion with UNMC/NMH faculty and may be documented on the Professional Behaviors Evaluation.
 - c. Upon successful completion of the remedial work an additional exam will be required which must be passed with a $\geq 70\%$.*
3. A satisfactory rating on all skills/competencies listed on the Venipuncture and Capillary Collection Competency Assessment forms.
4. A minimum of an 85% successful venipuncture collection rate on the Final Phlebotomy Evaluation, obtained independently, on patients requiring entry-level phlebotomy skills.
5. Collection of a minimum of 0.5 mls non-clotted capillary blood in a microtainer, performed twice.
6. Successful completion of all components as stated on the Professional Behaviors Evaluation. If a student does not successfully meet all components, they may be placed on non-academic probation.
7. For students who are not showing satisfactory progress in the course, additional assignments may be made at the discretion of the course faculty and administration.

*Once the required work has been successfully completed, the student will obtain an altered score of 70%. If the required work is not successfully completed, the student may be put on academic probation and be required to demonstrate acceptable progress to remain in the program.

Learning Objectives: Refer to the Phlebotomy Objectives document.

Course Topics:

Rotation	Schedule/Topics
Student Laboratory Rotation	Lecture: Basic Principles of Phlebotomy Venipuncture Collections <ul style="list-style-type: none"> • Initial instruction with practice draws • Competency Assessment (student lab rotation) Capillary Collections <ul style="list-style-type: none"> • Initial instruction with practice draws • Competency Assessment (student lab rotation)
Clinical Rotation I	Venipuncture Collections <ul style="list-style-type: none"> • Venipunctures with direct supervision • Competency Assessment (clinical rotation) Capillary Collections <ul style="list-style-type: none"> • Capillary draws with direct supervision • Competency Assessment (clinical rotation) <p>Worksheets are to be completed by the following dates*:</p> <p>August 22, 2011</p> <ul style="list-style-type: none"> • Safety • Venipuncture Collections I • Venipuncture Collections II <p>September 19, 2011</p> <ul style="list-style-type: none"> • Special Phlebotomy Collections I • Capillary Collections • Special Phlebotomy Collections II <p>October 26, 2011</p> <ul style="list-style-type: none"> • Arterial Collections • Quality Assurance and Legal Issues <p>It is strongly recommended that you check all incorrect worksheet answers prior to taking the final exam.</p> <p>Make arrangements with your site coordinator to complete the Phlebotomy Final Exam by November 23, 2011.</p> <p>* Dates do not apply to Degree Advancement Option students</p>
Clinical Rotation II	Completion of Clinical Competencies <ul style="list-style-type: none"> • Venipuncture collections with indirect supervision • Capillary collections with indirect supervision

ADA Accommodations:

It is the policy of the University of Nebraska Medical Center to provide flexible and individualized accommodation to students with documented disabilities. To receive reasonable accommodations, students must complete a Request for Services application and provide documentation to the Services for Students with Disabilities office. Information is available at the Counseling and Student Development Center website at www.unmc.edu/stucouns/ You may contact Ronda Stevens, MSW, Coordinator of Services for Students with Disabilities at 402-559-5553 or rstevens@unmc.edu. The office is located in Bennett Hall, 6001 within the Counseling and Student Development Center. Meetings are by appointment. Adequate time for processing, up to four weeks, is recommended.

Statement of Academic Integrity:

The University of Nebraska Medical Center has established a policy on academic integrity and professional conduct. This policy may be found in the UNMC Student Handbook. All students are expected to adhere scrupulously to this policy. Cheating, academic misconduct, fabrication, and plagiarism are viewed as serious matters and will lead to disciplinary action as described in the UNMC Student Handbook under Procedural rules Relating to Student Discipline. Additional materials related to Responsible Conduct in Research can be found in the UNMC Student Handbook. Selected sections from the UNMC Student Handbook follow:

CHEATING: A general definition of cheating is the use or attempted use of unauthorized materials or information for an academic exercise. Examples of cheating include but are not limited to:

1. using unauthorized materials such as books, notes, calculators or other aids during an examination or other academic exercises;
2. receiving unauthorized assistance from another person during an exam or exercise such as copying answers, receiving answer signals, conversation or having another person take an examination for you;
3. providing assistance to another person during an exam or exercise, such as allowing your answers to be copied, signaling answers or taking an exam for someone else;
4. obtaining answers and/or other information without authorization from someone who has previously taken an examination;
5. including all or a portion of previous work for another assignment without authorization;
6. appropriating another person's ideas, processes, result, or words without giving appropriate credit, i.e. an appropriate attribution or citation (plagiarism). For example, a student who quotes verbatim the results of a previous student's work in a required term paper, but fails to credit the individual through citation. The work is recent and thus cannot be considered common knowledge.

ACADEMIC MISCONDUCT: Academic misconduct is defined as the falsification of official documents and/or obtaining records, examinations or documents without authorization. Several examples of academic misconduct are:

1. the unauthorized acquisition of all or part of an unadministered test;
2. selling or otherwise distributing all or part of an unadministered test;
3. changing an answer or grade on an examination without authorization;
4. falsification of information on an official university document such as a grade report, transcript, an instructor's grade book or evaluation file or being an accessory to an act of such falsification;
5. forging the signature of an authorizing official on documents such as letters of permission, petitions, drop/add, transcripts, and/or other official documents;
6. unauthorized entry into a building, office, file or computer data base to view, alter or acquire documents.

Research misconduct has been defined by the Federal DHHS Office of Research Integrity (ORI) and UNMC subscribes to this definition: **“Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.” Research misconduct does not include honest error or differences of opinion. It is important that every student understand the meaning of fabrication, falsification, and plagiarism.**

Fabrication is making up data or results and recording or reporting them. Some examples are:

1. indicating a laboratory experiment had been repeated numerous times or
2. done in a controlled environment when it had not, thus leading to an invented or uncorroborated conclusion.

Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research or academic performance is not accurately represented in the research or academic records.

Some examples are:

1. altering an original source document, misquoting or misrepresenting a source to support a point of view or hypothesis;
2. Using computer software to change research images so they show something different than the original data.

Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit, i.e. an appropriate attribution or citation. An example is:

1. In the methods section of a thesis, a graduate student describes a procedure used in research for the thesis. The procedure was developed by a fellow graduate student in the laboratory of their major professor; however, neither the student who developed this procedure nor the major professor was given credit in the thesis. This implies that the author had himself developed the procedure.
2. In the background section of a thesis, a graduate student quotes verbatim the results of a previous investigator's work but fails to credit the individual through citation. The work is recent and thus cannot be considered common knowledge.