

Phlebotomy Technician Curriculum

Course Title: *Phlebotomy Technician*

Course Number: *HLTH.1000*

Credential: *Certificate of Achievement*

Prerequisites: *None*

TECHNICAL STANDARDS FOR ADMISSION

A candidate for the Phlebotomy certificate program is expected to participate fully in activities required by all courses in the program. A student in the program must have abilities and skills of four varieties: observation, communication, motor and behavioral.

Reasonable accommodations will be made for disabilities; however, a candidate is expected to perform in a reasonably independent manner. The skills listed below are essential requirements for this program. Applicants and students should possess these abilities or be able to demonstrate the ability to satisfy these criteria with the help of compensatory techniques, assistive devices or other reasonable accommodations. We invite any candidate for the program to meet with Special Services to discuss any potential issues associated with meeting these requirements.

Visual Observation: The applicant must be able to participate actively in all demonstrations, laboratory exercises, classroom activities and clinical experiences in the various programs.

Communication Skills: The applicant must be able to communicate effectively with patients in order to elicit information, describe changes in mood, activity, posture, and assess non-verbal communication. The applicant must be able to effectively transmit information to patient, peers, faculty and staff in addition to all members of the health care team.

Motor Function: The applicant must possess sufficient motor functions to perform all skills necessary to carry out required techniques and/or perform patient care at the bedside. Students must have adequate muscle function and dexterity to walk, stand, bend, lift, move patients and provide emergency treatment to patients.

Behavioral and Social Attributes: The applicant must be able to demonstrate rational and appropriate behavior. The clinical experience places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patient lives. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. The applicant must be able to exercise good judgment in addition to the development of mature and sensitive relationships with patients. Applicants must also be able to tolerate taxing workloads, function effectively under stress, adapt to changing environments, display flexibility and learn to function in the

face of uncertainties inherent to the clinical problems of many patients. Compassion, integrity, concern for others, interest and motivation are personal qualities which each applicant should possess.¹

ALL STUDENTS INTERESTED IN THE PHLEBOTOMY TECHNICIAN PROGRAM MUST HAVE:

1. Registration forms submitted on online
2. Minimum 18 years of age

SELECTION PROCESS

1. Negative drug screening
2. Absence of criminal background (see policy)
3. Documentation of a current negative TB test, Hepatitis B, MMR, Tdap, and Varicella vaccinations, seasonal influenza vaccine, full Covid-19 vaccination or approved exemption.
4. Students need to be proficient with computer skills.
5. Students meeting criteria are accepted in order of application.
6. Maximum of 12 students admitted per class.

CATALOG DESCRIPTION:

This course is designed primarily for the allied health field, and Phlebotomists in particular. Through 73 classroom hours of: lecture, activities, and simulated lab, which includes drawing blood from each other as well as other laboratory functions. The student will gain an understanding of the theory of laboratory procedures as well as a command of the skills necessary to perform accurately and efficiently in a business/hospital setting. Students will demonstrate the ability to integrate and communicate ideas and information by participating in class discussions during routine overview of the chapter or subject matter. The students will be required to verbally contribute answers to the associated questions or chapter quizzes. The class must demonstrate competence as judged by the instructor before the class will move on to the next chapter or subject matter.

Course requirements include the successful completion of a three-week practicum in phlebotomy at a clinical site approved by the instructor and the clinical coordinator of the Phlebotomy program.

Details:

This is a formal two-part structured Phlebotomy Training program, consisting of:

1. 43 hours of classroom training, including anatomy and physiology of the circulatory system, specimen collection, specimen processing and handling and laboratory operations. Course will present the theory and practical skills designed to prepare the individual for a position in phlebotomy.

¹ Phlebotomy Essentials, 5th Edition

2. 30 hours of simulated laboratory, consisting of hands-on training in the skill of venipuncture, capillary, swab and urine collection, bleeding time, interpretation of test order, collection equipment, order of draw, safety techniques, patient identification procedures, and customer service standards.
3. 120 hours of supervised clinical training in a CLIA regulated, accredited laboratory, where the student will encounter various patient populations, including: ambulatory and non-ambulatory outpatients, hospital inpatients, emergency, geriatric, pediatric (including nursery) and patients requiring “point-of-care” testing. When available: students will experience legal specimen collections, including paternity and legal ETOH, therapeutic and autologous unit collection. Students will perform at least 100 supervised venipunctures (including skin punctures) and demonstrate competence in the stated learning objectives. (Externship)
4. Students will return to the college, following the externship, for 3 additional hours of wrapping up of classroom training. This is designed to give students an opportunity to discuss practical learning and clarify variances if encountered. Students will also take a practice ASCP exam and be presented with materials necessary to apply for the ASCP National Certification exam.
5. Upon completion of classroom instruction and simulated lab, students are able to demonstrate competence in areas of professional practice. The externship portion of the program will allow the student practical application to further assemble theory, technical knowledge and skills.
6. Upon graduation, the student will be prepared to seek phlebotomy certification and secure employment as a phlebotomist in hospitals, HMOs, home health agencies, blood/donor centers, clinics, medical offices, and clinical laboratories.
7. The program will prepare the student, to take the American Society for Clinical Pathology exam, a nationally recognized certification.

REQUIRED TEXT, WORKBOOK:

McCall’s Phlebotomy Essentials, 7th edition, Text and Workbook.

Ruth E. McCall, ISBN-13: 9781284209945

ADDITIONAL MATERIALS TO BE PROVIDED BY STUDENT

1. Scrubs (Black top and bottoms, solid color)
2. Clean, comfortable tennis shoes: no open toe or heel (shoes should not be mesh or canvas)
3. Lab coat: long sleeves, either white, black or matching scrubs (optional)

METHOD OF INSTRUCTION:

- | | |
|-----------------------|------------------------|
| • Lecture | • Written handouts |
| • Discussion | • Homework assignments |
| • Class participation | • Skills demonstration |
| • Audio-Visuals | • Practical experience |

METHOD OF EVALUATION

- Homework assignments (Points accumulated according to work done)
- Written quizzes and tests
- Final Exam (Comprehensive)
- Direct Observation
- Final written paper (emailed to instructor)
- Skills checklist(s)
- Externship Evaluation

GRADING

In order for student to continue on to Externship:

1. Student must obtain a cumulative grade of at least 80% on homework, quizzes and tests
2. Attend 100% of simulated labs with completed competency checklist(s)

During the externship the student must complete or achieve

1. All written assignments
2. Skills checklist(s)
3. 120 hours
4. An overall acceptable evaluation from site supervisor

Phlebotomy Program Goals²

Goals of the Lesson:

Cognitive:

1. Students will gain an understanding of the overall context of phlebotomy and a practicing phlebotomist: historical overview, healthcare settings, healthcare provider models, healthcare organizational structures, patient communication, laboratory functions, and healthcare insurance
2. Students will become familiar with national standards and accrediting agencies and their procedures and manuals. Students will be able to identify risk situations and will be able to identify the proper methods of reporting incidents. Students will be able to describe quality assurance procedures.

² LESSON PLANS Phlebotomy Essentials (Third Edition)

3. Students will understand the how patients and healthcare workers acquire nosocomial infections and the steps necessary to prevent infections. Students will be able to identify warning labels.
4. Students will be able to identify elements of medical terms and will be able to determine the meaning of terms, based on understanding of the prefix, root, and suffix. Students know common medical charting abbreviations.
5. The student will be familiar with the terms and concepts that relate to the anatomy (structural composition) and physiology (function) of a healthy human being. Included in this understanding will be homeostasis, metabolism, cell structure, body tissue, and nine of the ten commonly recognized body systems. (The tenth, the circulatory system, is covered in Chapter 6.) Finally, the student will know the common disorders and Diagnostic tests associated with each body system.
6. The student will be familiar with the terms and concepts that relate to the anatomy (structural composition) and physiology (function) of a healthy human being. Included in this understanding will be homeostasis, metabolism, cell structure, body tissue, and nine of the ten commonly recognized body systems. (The tenth, the circulatory system, is covered in Chapter 6.) Finally, the student will know the common disorders and Diagnostic tests associated with each body system.
7. Students will be able to describe the vascular system, and the flow of blood and lymph through the circulatory and lymphatic systems. Students will be able to identify the major veins of the limbs and the layers and structures of the heart. Students will be able to describe coagulation and hemostasis processes. Students will be able to differentiate serum and plasma.
8. Students will become familiar with basic blood collection equipment, including venographs, antiseptics, tourniquets, needles, tubes, and syringes. Students will be able to identify common color-coded tubes and their additives.
9. Students will be able to perform venipuncture on a variety of patients, including infants and children, elders, and incapacitated patients.
10. Students will be able to identify potential problem situations associated with venipuncture, including physiologic, physical (e.g., medical devices), and anatomic difficulties. Students will be able to identify errors that occur during blood collection and will know the proper procedures for reporting such errors.
11. Students will be able to correctly select and prepare a skin puncture site and will be able to state the tests that can be performed on skin puncture samples.
12. Students will be able to list special collection procedures and will be able to correctly use equipment required to collect specimens for and interpret POCTs.
13. Students will be able to correctly select a site for and perform arterial blood draws. Students will be able to identify complications associated with arterial blood draws
14. The student will know about the common nonblood specimens — especially urine: what they can be tested for, and how they should be collected, labeled and handled.
15. The student will understand the basics of computer technology and how computer networks are used in healthcare and laboratory settings, especially regarding how laboratory information systems are used to facilitate specimen testing management. In addition, students will be familiar with specimen-handling and processing procedures and related safety considerations.

Motor:

1. Students will be able to perform common procedures without incurring excessive risk.
2. Students will be able to properly collect and dispose of body fluid samples, including proper attire and handwashing procedures. They will have a working knowledge of laboratory first aid procedures.
3. Students will be able to pronounce words correctly
4. Students will be able to identify heart sounds, take blood pressure readings, and identify veins for venipuncture.
5. Students will be able to prepare blood collection trays. Students will be able to perform basic blood draws in the proper tubes.
6. Students will be able to accurately identify patients, prep patients, collect specimens, and label and transport specimens.
7. Students will be able to select a venipuncture site appropriately and complete draws on most patients.
8. Students will be able to perform basic skin puncture procedures on adults and infants. Students will be able to prepare thick or thin blood smears.
9. Students will be able to perform special collections. Students will be able to perform basic POCTs.
10. Students will be able to perform Allen test, know about arterial blood draws and perform a capillary blood stick for a CBG (capillary blood gas).

Affective:

1. Students will understand the importance of interaction with the whole person — physical and emotional — and effective communication techniques in a variety of circumstances.
2. Students will understand the role of the phlebotomist and other laboratory personnel in providing quality healthcare services under the auspices of national standards.
3. Students will understand the inherent risk involved with working with ill patients in the healthcare environment, and will take action to protect themselves and their patients from excessive risk for infection and biohazard exposure.
4. Students will gain an appreciation for the importance of proper medical terminology and will be able to communicate effectively with other healthcare professionals and with patients.
5. Students will understand the importance of blood groups and the need for compatibility testing. Students will be familiar with the major disorders and diagnostic tests of the circulatory system.
6. Students will understand how to order multiple draws.
7. Students will understand the importance of interaction with the patient and will be able to assess and have an approach for handling difficult situations and patients.
8. Students will understand the need to properly report procedural errors.
9. Students will understand the advantages and disadvantages of arterial blood draws.

10. The student will be aware of potential patient sensitivity to specimen collection procedures and be able to explain methods of alleviating patient concerns.

Course Objectives: (Learning Outcomes)

Upon Completion of this course, the student will:

1. Demonstrate knowledge of the health care delivery system and medical terminology
2. Demonstrate knowledge of infection control and safety
3. Demonstrate basic understand of the anatomy and physiology of the body systems and anatomic terminology in order to relate major areas of clinical laboratory to general pathologic conditions associated with body systems
4. Demonstrate understanding of the importance of specimen collection and specimen integrity in the delivery of patient care.
5. Demonstrate knowledge of collection equipment, various types of additives used, special precautions necessary and substances that can interfere in clinical analysis of blood constituents
6. Follow standard operating procedures to collect specimens
7. Demonstrate understanding of requisitioning, specimen transport and specimen processing
8. Demonstrate understanding of quality assurance and quality control in phlebotomy
9. Communicate (verbally and nonverbally) effectively and appropriately in the workplace (inc. compliance with HIPAA)³

Mid Michigan College Goals – Dynamic Criteria Mapping

1. We expect students to show/demonstrate a critical and analytical approach that recognizes multiple perspectives.
2. We expect students to apply the appropriate theories, terminologies, and techniques in their work.
3. We expect students to follow the conventions of communication and presentation particular to the course or discipline.

This course meets these goals because students will have to demonstrate critical and analytical thought, identify theories, terms, technique and the concept of direct patient care with emphasis on complementary roles of phlebotomists and medical technologists/technicians.

³ NAACLS 8410 W. Bryn Mawr Avenue, Suite 670, Chicago, IL 606031-3415
Tele: 773-714-8880 www.naacls.org

	Obj. 1.0	Obj. 2.0	Obj. 3.0	Obj. 4.0	Obj. 5.0	Obj. 6.0	Obj. 7.0	Obj. 8.0	Obj. 9.0
Homework assignments	X	X	X	X	X	X	X	X	X
Written Tests	X	X	X	X	X	X	X	X	X
Final Exam	X	X	X	X	X	X	X	X	X
Class Participation	X	X	X	X	X	X	X	X	X
Direct Observation	X	X	X	X	X	X	X	X	X
Final Paper	X	X	X	X	X	X	X	X	X
Skills Checklist(s)	X	X	X	X	X	X	X	X	X
Externship-Practical Experience	X	X	X	X	X	X	X	X	X

Responsibilities - College:

1. The college will have a formal agreement with the externship site facility.
2. The **Clinical Coordinator** will assign each student to one of the sites, formally affiliated with the College.
3. The **Clinical Coordinator** will provide the site with a training evaluation for each student along with training expectations.
4. The **Clinical Coordinator** is responsible to provide assurance that the activities assigned to students in the clinical setting are educational.
5. Provide written proof of: a current negative TB test, Hepatitis B, MMR, Tdap, and Varicella vaccinations, seasonal influenza vaccine, full Covid-19 vaccination or approved exemption for each student to the externship site.
6. Provide documentation of an absence of a criminal background to the externship site.
7. Is responsible for the final evaluation of the student.

Responsibilities - Affiliate (Externship Facility):

1. Under the direction of the Laboratory Supervisor, each affiliate offers 120 hours of supervised clinical training in a CLIA regulated, accredited laboratory where the student has access to a variety of phlebotomy experiences that include:

- a. ER
 - b. Inpatient
 - c. Nursing Home
 - d. Out patient draw station
 - e. Off-site laboratory
 - f. In-hospital laboratory
2. Will oversee the student at all times and will supervise the completion skills checklist. (daily training checklist)
 3. Offer an abbreviated Hospital and Department Orientation
 4. Will supervise the training of students according to hospital policies and procedures.
 5. Will complete an evaluation on each student. (provided by the Clinical Coordinator)
 6. Will communicate all concerns to the Clinical Coordinator within 24 hours of occurrence.