

COURSE INFORMATION

COURSE PREFIX/NO: **AHS 144**
COURSE TITLE: **Phlebotomy Practicum**
LECTURE HRS/WK: 10 hrs./wk. for 4 weeks
LAB HRS/WK: 20 hrs./wk. for 6 weeks
CREDIT HRS/SEMESTER: 5.0

DL ATTENDANCE/VA STATEMENT TEXTBOOK INFORMATION

REVISED: 5/00

COURSE DESCRIPTION

This course is a detailed study and practice of phlebotomy procedures utilized in hospital settings, clinical facilities, and physicians' offices.

COURSE COMPETENCIES

1. Define phlebotomy and relate to its history.
2. Identify elements of professionalism associated with phlebotomy.
3. Define basic medical terms, abbreviations, and tests used in the clinical lab.
4. Describe the hospital clinical laboratory. (Departments, personnel, education requirements, job duties.)
5. Relate other hospital departments with the clinical lab.
6. Describe several professional organizations affiliated with phlebotomy.
7. Recognize the fiscal aspects of phlebotomy in the clinical lab.
8. Describe phlebotomy hazards and the safety rules that apply to each.
9. Describe the major body systems and the functions of each.
10. Describe routine blood collection systems.
11. List the steps used to perform a routine venipuncture and skin puncture.
12. Perform a routine venipuncture and skin puncture.
13. Describe an arterial puncture.
14. Describe specimen handling and transport.
15. Recognize special lab tests involving phlebotomy.
16. Identify quality control and troubleshooting used in phlebotomy.
17. Demonstrate professionalism in dress, conduct, and attitude.

ENTRY LEVEL SKILLS

The student should display basic reading, writing, and mathematical skills.

PREREQUISITES

High School Diploma, or GED

COREQUISITES

None

METHODS OF INSTRUCTION

Class time will consist of lecture by the instructor and note taking by the student. Use of various audio visual aids, handouts, computer assisted instruction, and demonstrations will be employed. Students are encouraged to ask questions and make comments relating to lecture material.

GRADING PROCEDURES

A score of 70 or better must be attained on each of 2 written tests.

Grading scale

90 - 100 A

80 - 89 B

70 - 79 C

ATTENDANCE

If a student must be absent on the day of a test, he/she must notify the instructor prior to test time in order to be allowed to take a make-up test. A grade of zero (0) will be assigned if the instructor is not notified. If the student exceeds the maximum absences of 10%, this will result in his/her being

dropped from the course and from AHS 144 Clinical rotation. COURSE REQUIREMENTS

In order to successfully complete AHS-144 the following requirements must be met:

1. Attend lecture sessions consistently
2. Take and pass 2 written tests and an exam
3. Successfully complete AHS-144 Clinical Rotation

Note: Any student with a failing average in AHS-144 01 will not be allowed to continue with AHS 144-90

PERFORMANCE OBJECTIVES

1. Given lecture notes and text, the student will define phlebotomy and describe the development of phlebotomy from the earliest civilizations to the present time.
2. Utilizing lecture notes, text, and case situations, the student will list and apply the elements of professionalism needed in phlebotomy.
3. Utilizing text, handouts, and CAI lab exercises, the student will define the medical terms, abbreviations, and diagnostic tests used in phlebotomy.
4. Given lecture notes and handouts (including laboratory flow chart), the student will describe the clinical lab by listing the following:
 - a. departments of lab and functions of each (routine tests performed)
 - b. titles and education requirements of personnel working in main departments
5. Provided with lecture notes and text, the student will list several hospital departments and note the relationship that exists between these departments and the clinical lab.
6. Given lecture notes, text, and handouts, the student will list and describe several professional organizations affiliated with phlebotomy including certification exams and benefits offered by each.
7. Provided with lecture notes and examples, the student will list common and uncommon expenses incurred when phlebotomy is performed.
8. Utilizing lecture notes, videos, and text, the student will describe biological, chemical, electrical, fire, and personal injury hazards pertaining to phlebotomy and the safety rules that apply to each.
9. Given lecture notes and text, the student will list and describe the function of the eleven major body

systems with a special emphasis on the circulatory system and the components of blood.

10. Provided with lecture notes, text, videotapes, and demonstrations, the student will list the equipment used in the evacuated (Vacutainer) collection system, the syringe system, and the skin puncture system of blood collection.
11. Given textbook, videotapes, and demonstrations, the student will list the steps required for routine venipuncture and skin puncture in order of standard operating procedure.
12. Using provided equipment, the student will perform a minimum of 3 successful venipunctures and 2 successful skin punctures to the satisfaction of the instructor.
13. Utilizing lecture notes and text, the student will describe an arterial puncture including special precautions, reason for request, location of puncture, Allen Test, and comparison to venipuncture.
14. Given specific lab tests, the student will describe the required environment (put on ice, prevent light exposure, etc.) and transport time limit for each specimen.
15. Given lectures notes, text, and demonstrations, the student will become familiar with special testing that involves phlebotomy. (GTT, IVY Bleeding time, Type and Crossmatch, Blood Cultures.)
16. Utilizing lecture notes, text, and phlebotomy equipment, the student will examine quality control and problem solving techniques used in phlebotomy.
17. The student will demonstrate professionalism by adhering to policies set forth by the student handbook at York Tech and by the Phlebotomy Clinical Affiliates.

COMPETENCY CHECK LIST

NAME _____ TERM _____

1. History of Phlebotomy

- _____ Purpose - dates
- _____ Techniques past & present

2. Health Care Setting

- _____ Types of health care settings
- _____ Hospital Flow Chart
- _____ Departments in Clinical Lab & personnel
- _____ Regulation Agencies
- _____ Professional organizations

3. Medical Terminology

- _____ Prefixes
- _____ Suffixes
- _____ Root words
- _____ CAI lab

4. Anatomy and Physiology

- _____ Positions, planes, directional terms
- _____ Body systems and functions

5. Circulatory System

- _____ Heart
- _____ Vessels
- _____ Trace blood flow

6. Infection Control, Safety, First Aid

- _____ Universal Precautions, OSHA, CLIA
- _____ PPE (personal protective equipment)
- _____ Injury potential

7. Blood Collection Equipment and Supplies

- _____ Vacutainer system
- _____ Syringe system
- _____ Skin puncture system

8. Blood Collection Preparation

- _____ Lab requisition
- _____ Selection of equipment
- _____ Patient preparation (communication, site selection, precautions)

9. Blood Collection Procedures

- _____ Evacuated method
- _____ Syringe method
- _____ Skin puncture method

10. Special Procedures

- _____ Cross match
- _____ GTT
- _____ Blood cultures
- _____ Arterial blood gases
- _____ Bleeding time
- _____ Cold agglutinins

11. Specimen Handling and Transport

- _____ Routine
- _____ Special testing
- _____ Nonblood specimens and tests

12. Quality Control & Quality Assurance

13. Professionalism

- _____ Ethics
- _____ Communication (oral and written)
- _____ Telephone and computer communication

14. Written Tests

Test 1	(Chapters 1-6)
Test 2	(Chapters 7-16)
Vocabulary	(CAI Lab)
Final Exam	(Cumulative)
Grade	40% of Final Grade
Clinical Evaluation	60% of Final Grade

FINAL GRADE

COURSE OUTLINE
AHS 144 - PHLEBOTOMY PRACTICUM

CHAPTERS

I. INTRODUCTION AND TERMINOLOGY

1 – 3 ANATOMY AND PHYSIOLOGY AND THE CIRCULATORY SYSTEM
4 - 5 INFECTION CONTROL, SAFETY, FIRST AID
6 TEST & CAI VOCABULARY TEST

II. BLOOD COLLECTION, SPECIAL PROCEDURES

7 - 14 **TEST**

III. QUALITY CONTROL, QUALITY ASSURANCE, AND COMMUNICATION

15- 16 **FINAL EXAM**

AHS 144

CLINICAL PHLEBOTOMY ROTATION ROTATION: 6 WEEKS

PREREQUISITES: HIGH SCHOOL DIPLOMA OR GED DESCRIPTION:

This rotation affords clinical experiences in a hospital phlebotomy department under the supervision of a senior medical technologist or phlebotomist. Routine and special techniques are

observed and performed.

ROTATION COMPETENCIES:

Upon completion of the phlebotomy rotations, the student will be able to:

1. Prepare and assemble equipment for venipuncture and skin puncture.
2. Select additive for blood collection.
3. Identify patients for blood collection.
4. Display communication techniques with patients.
5. Perform routine venipuncture and skin puncture techniques.
6. Label and transport collected blood specimens.
7. Observe five arterial punctures.
8. Adhere to hospital safety rules and regulations.

PERFORMANCE OBJECTIVES:

1. Provided with materials used in blood collection, (vacutainer system, needles, syringes, tubes, lancets, alcohol, gauze, etc.) the student will prepare an organized collection tray and assemble the equipment from the tray for ready use. This will be preformed to the satisfaction of the clinical instructor.
2. Given the laboratory requisition slip and a procedure manual, the student will select the required collection tube (additive) according to the laboratory test ordered with 95% accuracy.
3. Given the laboratory requisition slip, the student will positively identify the patient by comparing information on the requisition slip with that on the patient's armband 100% of the time.
4. The student will display professional communication techniques to the patient (identify self, state

purpose, use courteous and caring attitudes) according to hospital protocol and to the satisfaction of the clinical instructor.

5. Provided with assembled equipment, requisition slips, and instruction, the student will perform 100 unaided routine venipuncture and 25 skin puncture techniques according to standard operating procedure and to the satisfaction of the clinical instructor.
6. Following guidelines in the procedure manual, the student will label collected blood with required information and transport (providing required environment) specimens to the laboratory for testing with 95% accuracy.
7. The student will observe the collection and handling of five arterial punctures while in clinical rotation.
8. Utilizing the hospital's Exposure Control Plan, Chemical Hygiene Plan, and orientation, the student will follow the protocol established by the hospital concerning blood borne pathogens, chemical safety and personal/patient injury.
9. Utilizing information obtained in AHS 144 - 51 on professionalism, the student will display appropriate dress, conduct and attitude at all times.

COURSE REQUIREMENTS:

In order to successfully complete the AHS-144 phlebotomy rotation, the following requirements must be met:

1. Attendance at clinical site must be consistent. (1 allowable absence) 120 clinical hours required.
2. Phlebotomy techniques must be performed at a satisfactory level per evaluation of the department supervisor. (100 successful venipunctures and 25 successful skin punctures)
3. Professionalism in dress, conduct and attitude must be displayed at all times.