

**Career-Technical Credit Transfer (CT)<sup>2</sup>  
Phlebotomy Career-Technical Assurance Guide (CTAG)  
August 29, 2012**

The following programs/courses, indicated by a Career-Technical Articulation Number (CTAN), are eligible for granted college credit at state institutions of higher education for (CT)<sup>2</sup> approved programs/courses at adult career-technical education institutions and public secondary career-technical institutions. In addition, the following courses, indicated by a Career-Technical Articulation Number (CTAN), are eligible for transfer among approved programs/courses at state institutions of higher education.

<b>CTP001 Phlebotomy</b>	<b>Credits: 3 Semester Hours</b>
Advising Notes: The American Society for Clinical Pathology (ASCP) phlebotomy credential is required. Eligibility for this credential is high school diploma and completion of a program approved by the National Accreditation Agency for Clinical Lab Sciences or high school diploma and completion of a course with 40 hours of didactic and 100 hours of clinical training. Based on ASCP requirements students must have “a minimum of 100 successful unaided blood collections including venipuncture’s and skin punctures.”	

Each CTAN identifies the learning outcomes that are equivalent or common in introductory technical courses. In order for students to be able to receive credit under these agreements, the career-technical programs and the state institutions of higher education must document that their course/program content matches the learning outcomes in the CTANs. In accordance with ORC 3333.162, industry standards and certifications provide documentation of student learning. Recognized industry standards are expectations established by business, industry, state agencies, or professional associations. These standards define training program curricular requirements, establish certification or licensure criteria, and often serve as the basis for program accreditation.

**Requirements and Credit Conditions:**

1. The receiving institution must have a comparable program, major, or courses that have been approved through submission to the Ohio Board of Regents (CT)<sup>2</sup> approval process for the CTANs listed in this document.
2. Credits apply to courses in the specified technical area at Ohio’s public institutions of higher education, provided that the institution offers courses in the specific technical area. In the absence of an equivalent course, and when the institution offers the technical program, the receiving institution will guarantee to grant and apply an equivalent credit value of the Career-Technical Articulation Number (CTAN) toward the technical requirements of the specific degree/certificate program.
3. The applicant must provide proof to the receiving institution that she/he completed a course or program that has been approved through the (CT)<sup>2</sup> approval process and that she/he holds the appropriate credential or has passed the end-of-program assessment.
4. A career-technical student seeking credit under the terms of this CTAG must apply and be accepted to the college within two years of graduating from a career-technical education institution.
5. A career-technical student who meets all eligibility criteria will receive the credit hour value for the comparable course(s) as offered at the receiving state institution of higher education.

6. The admission requirements of individual institutions and/or programs are unaffected by the implementation of (CT)<sup>2</sup> outcomes.
7. The transfer of credit through this CTAG will not exempt a student from the residency requirements at the receiving institution.

Public secondary career-technical students must complete the Clinical Healthcare Services pathway to be eligible for credit under this CTAG. This pathway is outlined in the Ohio Department of Education's *Health Science Career Field Technical Content Standards*.

### **CTP001- Phlebotomy**

**General Course Description:** This course will cover the act or practice of opening the circulatory system by incision or puncture to remove blood for therapeutic treatment, diagnostic procedures or for analysis of the sample. Clinical complications associated with such practices will also be covered.

**Credits:** 3 Semester Hours

#### **Module 1: Introduction to Phlebotomy**

##### **Learning Outcomes**

1. Discuss the role of a phlebotomist (i.e. duties and responsibilities, certification and licensure, public relations and patient bill or rights).
2. Identify and describe the accrediting and governing bodies associated with phlebotomy.
3. Describe various healthcare settings (i.e. inpatient, outpatient, departments within a hospital).
4. State the purpose of the clinical lab.
5. Identify laboratory departments, personnel, regulations and laboratory sites.
6. Explain the role of quality assurance in phlebotomy.
7. Describe legal issues associated with the role of a phlebotomist (i.e. 6 forms of consent, Code of Ethics, HIPAA, liability and legal/ethical issues).
8. Explain the role of safety as it pertains to infection control and isolation procedures.
9. Identify biological hazards.
10. Discuss fire safety classifications and procedures for personnel.
11. Explain chemical hygiene (classification, storage, emergency response and disposal).

#### **Module 2: Basic Collection Techniques**

##### **Learning Outcomes**

1. Identify the basic components of the circulatory system including blood cells and precursors.
2. Demonstrate proper insertion and removal techniques for venipuncture.

3. Perform capillary microcollection techniques based on patient age and condition.
4. Ensure patient safety throughout the collection process.
5. Perform venipuncture steps in correct order (i.e., evacuated tube system, syringe, winged collection set).
6. Perform capillary (dermal) puncture steps in the correct order.
7. Recognize common complications and symptoms which may be exhibited by patients during the blood sample collection process (i.e., lack of blood flow, hematoma, petechiae, nerve injury, patient fainting, mastectomy issues, etc.).
8. Identify the proper order of draw.
9. Associate color coded tubes with additive
  - a. How the additive works
  - b. Associate additive with common laboratory tests
  - c. Associate pre-analytical errors with improper additive used and/or improperly filled tubes.

### **Module 3: Special Procedures**

#### **Learning Outcomes:**

1. Demonstrate knowledge of special procedures and tests associated with the use of blood as a diagnostic entity.
2. Prepare peripheral blood smears.
3. Perform blood culture collection.
4. Discuss assisting other healthcare professionals with blood culture collections.
5. Collect blood samples for inborn errors of metabolism (i.e., PKU, galactosemia).
6. Discuss and/or perform phlebotomy for blood donations.
7. Calculate volume requirements to avoid causing iatrogenic anemia.
8. Explain how to adhere to chain of custody guidelines when required (i.e., forensic studies, blood alcohol, drug screen).

### **Module 4: Processing**

#### **Learning Outcomes:**

1. Discuss how to label specimens.
2. Explain how to transport specimens based on handling requirements (i.e., temperature, light, time).
3. Explain non-blood specimen collection procedures to patients (i.e., urine, stool, semen, sputum).
4. Describe how to handle patient-collected, non-blood specimens.
5. Discuss how to avoid pre-analytical errors when collecting blood specimens (i.e., QNS, hemolysis).
6. Describe how to prepare samples for transportation to a reference (outside) laboratory and shipping of biological and hazardous substances.
7. Describe how to coordinate communication between non-laboratory personnel for processing and collection.
8. Utilize technology to input and retrieve specimen data.

9. Explain how to report critical values for point of care testing.
10. Discuss how to distribute laboratory results to ordering providers.

### **Module 5: Basic Laboratory Principles**

#### **Learning Outcomes:**

1. Identify laboratory glassware as well as other instruments, equipment and supplies utilized in the collection, identification, and processing of blood.
2. Discuss and describe the principles of laboratory safety.
3. Discuss and describe autoclave.
4. Explain the centrifuge process.
5. Discuss quality assurance control processes within the laboratory setting.

### **Module 6: Basic and Major Laboratory Testing**

#### **Learning Outcomes:**

1. Explain routine laboratory testing techniques associated with Urinalysis.
2. Discuss routine laboratory testing techniques associated with Serology.
3. Explain routine laboratory testing techniques associated with Microbiology.
4. Describe routine laboratory testing techniques associated with Hematology.
5. State routine laboratory testing techniques associated with Coagulation.
6. Explain routine laboratory testing techniques associated with Immunohematology.
7. Explain routine laboratory testing techniques associated with Chemistry.
8. Describe routine laboratory testing techniques associated with Point of care testing.

## Phlebotomy Panel Participants

May 2012

Connie Moore	Eastern-Gateway
Erna Holland	C-Tec
Gerald Collins	Fort Hayes
Lisa Aaron	Terra Community College
Paula Wathen	Miami Valley CTC
Jenny Spegal	Sinclair Community College
Rachael Allstatter	University of Cincinnati
Jeffery Walmsley	Lorain County Community College
Donna Moore-Ramsey	Cuyahoga Community College
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Julie Clemens	Ohio Board of Regents
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Gayle Ashbridge	Ohio Articulation and Transfer Network