



Clemson University - Center for Corporate Learning  
 1 North Main Street, 7th Floor,  
 Greenville, SC 29601

<http://www.clemson.edu/online/>

Contact: Juanita Durham | 864.656.3984 | [jdrhm@clemson.edu](mailto:jdrhm@clemson.edu)

### Education & Training Plan

## Phlebotomy Technician Certificate Program with Clinical Externship

Student Full Name: \_\_\_\_\_

Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

**Program includes National Certification & a Clinical Externship Opportunity**  
**Mentor Supported**

## Phlebotomy Technician Certificate Program with Clinical Externship

Course Code: CLEM-PH 07

Program Duration: 4 Months

Contact Hours: 375

Student Tuition: \$3,650

**Note program not available in California**

### The Phlebotomy Technician Profession

The phlebotomist is a vital member of the clinical laboratory team, whose main function is to obtain patient's blood specimens by venipuncture and micro-collection for testing purposes. Phlebotomists are employed throughout the healthcare system including in hospitals, neighborhood health centers, medical group practices, HMO's, public health facilities, veteran hospitals, insurance carriers, and in other healthcare settings. The demand for phlebotomy technicians has increased substantially with the overall complexity of healthcare services and the risks of infectious disease. Current healthcare industry experts predict a 15% increase in phlebotomy jobs by 2018.

### The Phlebotomy Technician Program

The Phlebotomy Technician Program prepares students to collect blood specimens from clients for the purpose of laboratory analysis. Students will become familiar with all aspects of blood collection and will review the skills needed to perform venipunctures safely. Also includes terminology, blood collection procedures, order of draw and other engaging topics. *Program also includes an optional clinical externship at a local healthcare provider!* This course covers the following key areas and topics:

- Process and procedures for collecting blood specimens for laboratory analysis
- All aspects of blood collection and related procedures
- The order of draw and Universal precautions
- Skills to perform venipunctures completely and safely
- Terminology and related anatomy and physiology

## Education and National Certifications

- Students should have or be pursuing a high school diploma or GED.
- With the exception of California where this program is NOT available, there are no state approval and/or state requirements associated with this program.
- There are several National Certification exams that are available to students who successfully complete this program:
  - **American Society of Phlebotomy Technician (ASPT) Phlebotomy Technician (CPT) Exam**
  - **NHA Certified Phlebotomy Technician (CPT) Exam**

## Phlebotomy Technician Detailed Course Information:

- The history of Phlebotomy and the roles and responsibilities of a Phlebotomy Technician
- Laboratory operations (e.g. safety, quality control,), quality assurance , laboratory law, ethics and regulatory issues
- Anatomy and physiology of the circulatory system and anatomy of the hand, leg & foot – including arteries and veins
- Universal precautions – safety protocols, infection control and medical asepsis
- Specimen collection, processing, handling, documentation and transportation
- Venipunctures and skin puncture practice, syringe practice, heel puncture, protocol, syringe draws, etc.

## National Certification

Students who complete this Clemson University Phlebotomy Technician certification program will be prepared to sit for the American Society of Phlebotomy Technician (ASPT) Phlebotomy Technician (CPT) certification exam and the National Healthcareer Association (NHA) Phlebotomy Technician (CPT) certification exams. Although other than the state of California where this program is not available, there is no state approval, state registration or other state requirements for this program. Students who complete this program at Clemson University will be prepared and are eligible to sit for these national certification exams. Students who complete this program can and do sit for the ASPT or the NHA national certification exams and are qualified, eligible and prepared to do so. Clemson University will work with each student to determine which national certification exam works best with each particular student and register the student for that exam. **Note:** This Phlebotomy Technician program is NOT available in the State of California.

## Clinical Externship / Hands on Training / Practicum

Although not a requirement of this program, once students complete the Phlebotomy Technician program they have the ability to participate in a clinical externship and/or hands on practicum so as to practice the skills necessary to perform the job requirements of Phlebotomy Technician. Students will be assisted with completing a resume and/or other requirements necessary to work in a hospital, physicians practice, clinic and/or with other healthcare organizations. All students who complete this program are eligible to participate in an externship and will be placed in a healthcare organization near their location. Clemson University works with national healthcare organizations and has the ability to place students in clinical externship opportunities nationwide.

**Clemson University contact:** If students have any questions regarding this program including national certification and externships, **they should call Juanita Durham of Clemson University at 864.656.3984 or via email at [jdrhm@clemsun.edu](mailto:jdrhm@clemsun.edu).**

Note: No refunds can be issued after the start date published in your Financial Award document.



## About Clemson University!

Clemson Online, a unit reporting directly to the Provost, works closely with leadership teams across the University to develop, market, and deliver top-quality courses and programs in blended and online formats. The office provides vision, leadership, coordination, and expertise in support of faculty design, delivery, and evaluation of technology-enhanced, blended, and fully online courses and instructional materials. Dynamic, transformative, and unique eLearning opportunities characterize Clemson's approach to online teaching and learning.

**Our Mission:** Clemson Online provides strategic leadership for online education, emphasizing innovative teaching and superior learning outcomes to maximize student success in 21st-century academic and professional contexts.

**Our Vision:** Clemson Online will define the public web-grant university through measurable achievements in online education, research, and service.

The office is committed to pursuing strategic opportunities, providing supportive resources, promoting superior educational quality, and ensuring faculty involvement and responsibility in shaping Clemson's online future.



## Clemson University and Pearson Education

Clemson University's eLearning programs were developed in partnership with Pearson Education to produce the highest quality, best-in-class content and delivery necessary to enhance the overall student learning experience, boost understanding and ensure retention. Pearson Education is the premier content and learning company in North America offering solutions to the higher education and career training divisions of colleges and universities across the country aimed at driving quality education programs to ensure student success. Please visit us at [www.pearson.com](http://www.pearson.com).

## About Pearson Education

Welcome to Pearson. We have a simple mission: to help people make more of their lives through learning. We are the world's leading learning company, with 40,000 employees in more than 80 countries helping people of all ages to make measurable progress in their lives. We provide a range of education products and services to institutions, governments and direct to individual learners, that help people everywhere aim higher and fulfil their true potential. Our commitment to them requires a holistic approach to education. It begins by using research to understand what sort of learning works best, it continues by bringing together people and organizations to develop ideas, and it comes back round by measuring the outcomes of our products.

## Lesson Checklist

Each lesson has a prescribed, detailed checklist of activities for successful completion of the lesson. This includes lesson objectives, readings, and recommended assignments. Although assignments are optional, the instructor will grade and provide feedback on submitted assignments.

## Course Materials:

- Phlebotomy Handbook: Blood Specimen Collection From Basic to Advanced
- Phlebotomy Technician Program Student Workbook, Custom Edition

## Module/Lesson Structure

The Phlebotomy Technician program is divided into four main content modules. Each module contains one or more lesson presentations to view. These lesson presentations are the “lectures” which, along with the textbook readings and resources, will help you learn the material. The lesson presentations aim to address a variety of learning styles and preferences using text, audio, video, etc. Each lesson contains at least one *Check Your Understanding* interactive self-assessment that will help you gauge your comprehension of that lesson’s content. Many lessons include supplemental resources such as games, animations, videos, and interactive activities. Using these additional materials will deepen your understanding of the content. Each module has a Module test (the last Module concludes with a Final Exam for all students).

## Course Overview

### Module 1 – Overview and Safety in Phlebotomy Procedures

- Lesson 1 – Phlebotomy Practice and Quality Management
  - Reading Assignment: Chapter 1 (pp. 1-38)
- Lesson 2 – Communication, Computerization, and Documentation
  - Reading Assignment: Chapter 2 (pp. 39-80)
- Lesson 3 – Professional Ethics, Legal, and Regulatory Issues
  - Reading Assignment: Chapter 3 (pp. 81-100)
- Lesson 4 – Infection Control
  - Reading Assignment: Chapter 4 (pp. 101-137)
- Lesson 5 – Safety and First Aid
  - Reading Assignment: Chapter 5 (pp. 138-157)

### Module 2 – Overview of Medical Terminology, Anatomy, and Physiology

- Lesson 6 – Medical Terminology, Anatomy, and Physiology of Organ Systems
  - Reading Assignment: Chapter 6 (pp. 158-173)
- Lesson 7 – Anatomy and Physiology of Organ Systems
  - Reading Assignment: Chapter 6 (pp. 173-206)
- Lesson 8 – The Cardiovascular and Lymphatic Systems
  - Reading Assignment: Chapter 7 (pp. 207-248)

### Module 3 – Phlebotomy Specimen Collection Procedures

- Lesson 9 – Blood Collection Equipment
  - Reading Assignment: Chapter 8 (pp. 249-280)
- Lesson 10 – Preanalytical Complications Causing Medical Errors in Blood Collection
  - Reading Assignment: Chapter 9 (pp. 281-300)
- Lesson 11 – Venipuncture Procedures
  - Reading Assignment: Chapter 10 (pp. 301-362)
- Lesson 12 – Capillary Blood Specimens
  - Reading Assignment: Chapter 11 (pp. 363-382)
- Lesson 13 – Specimen Handling, Transportation, and Processing

- Reading Assignment: Chapter 12 (pp. 383-404)

#### **Module 4 – Point-of-Care Testing and Special Procedures**

- Lesson 14 – Pediatric and Geriatric Procedures
  - Reading Assignment: Chapter 13 (pp. 405-443)
- Lesson 15 – Point-of-Care Collections
  - Reading Assignment: Chapter 14 (pp. 444-464)
- Lesson 16 – Arterial, Intravenous (IV), and Special Collection Procedures
  - Reading Assignment: Chapter 15 (pp. 465-499)
- Lesson 17 – Urinalysis, Body Fluids, and Other Specimens
  - Reading Assignment: Chapter 16 (pp. 500-522)
- Lesson 18 – Drug Use, Forensic Toxicology, Testing, Sports Medicine & Related Areas
  - Reading Assignment: Chapter 17 (pp. 523-544)

**Note:** This program can be completed in 4 months. However, students will have online access to this program for a 24-month period.

#### **MICROSOFT OFFICE Module**

- Use an integrated software package, including applications included in the Microsoft Office suite
- Demonstrate marketable skills for enhanced employment opportunities
- Describe proper computer techniques for designing and producing various types of documents
- Demonstrate the common commands & techniques used in Windows desktop
- List the meaning of basic PC acronyms like MHz, MB, KB, HD and RAM
- Use WordPad and MSWord to create various types of documents
- Create headings and titles with Word Art
- Create and format spreadsheets, including the use of mathematical formulas
- Demonstrate a working knowledge of computer database functions, including putting, processing, querying and outputting data
- Define computer terminology in definition matching quizzes
- Use the Windows Paint program to alter graphics
- Use a presentation application to create a presentation with both text and graphics
- Copy data from one MS Office application to another application in the suite
- Use e-mail and the Internet to send Word and Excel file attachments
- Demonstrate how to use the Windows Taskbar and Windows Tooltips
- Take the college computer competency test after course completion

**Note:** Although the Microsoft Office Module is not required to successfully complete this program, students interested in pursuing free Microsoft MOS certification may want to consider completing this Microsoft Office Module at no additional cost.

## **System Requirements:**

### **Windows Users:**

- Windows 8, 7, XP or Vista
- 56K modem or higher
- Soundcard & Speakers
- Firefox, Chrome or Microsoft Internet Explorer

### **Mac OS User:**

- Mac OS X or higher (in classic mode)
- 56K modem or higher
- Soundcard & Speakers
- Apple Safari

### **iPad Users:**

- Due to Flash limitations, eLearning programs are NOT compatible with iPads

### **Screen Resolution:**

- We recommend setting your screen resolution to 1024 x 768 pixels.

### **Browser Requirements:**

- System will support the two latest releases of each browser. When using older versions of a browser, users risk running into problems with the course software.
  - Windows Users: Mozilla Firefox, Google Chrome, Microsoft Internet Explorer
  - Mac OS Users: Apple Safari, Google Chrome Mozilla Firefox

### **Suggested Plug-ins:**

- Flash Player
- Real Player
- Adobe Reader
- Java