



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

<http://www.clemson.edu>

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

### Education & Training Plan

## Pharmacy Technician with Medical Administration Certificate Program with a Clinical Externship Clemson University (CLEM)

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

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

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

### Pharmacy Technician with Medical Administration Certificate Program with a Clinical Externship

Course Code: CLEM-PTMA 11  
Program Duration: 6 Months  
Contact Hours: 780  
Student Tuition: \$3,950

#### Pharmacy Technician with Medical Administration

This program will prepare students to enter the pharmacy field and take the Pharmacy Technician Certification Board's PTCB exam. Course content includes pharmacy terminology, pharmacy calculations, reading and interpreting prescriptions and defining generic & brand names drugs. Additionally, this program includes a Medical Administration course covering key topics such as medical ethics and law, basics of insurance billing and coding, telephone techniques, scheduling appointments, and medical records management.

#### Pharmacy Technician with Medical Administration Certificate program

This comprehensive course will prepare students to enter the pharmacy field and take the Pharmacy Technician Certification Board's PTCB exam. Course content includes pharmacy medical terminology, reading and interpreting prescriptions and defining generic and brand names drugs and much, much more! Program also includes an optional clinical externship at a local healthcare provider! This also program prepares students to function effectively in many of the administrative and clerical positions in the healthcare industry. It provides students a well-rounded introduction to medical administration that delivers the skills students require to obtain an administrative medical assistant position or advance within their current healthcare career.

This course covers the following key areas and topics:

- Pharmacy calculations
- Medical terminology specific to the pharmacy
- Skills to read and interpret prescriptions
- Review of the top 200 drugs
- Skills to identify drugs by generic and brand names
- Dosage calculations, I.V. flow rates, drug compounding, and dose conversions

- Dispensing of prescriptions, inventory control, and billing and reimbursement
- History and background of the medical assisting profession
- Interpersonal skills, medical ethics, and basic medical law
- Telephone techniques and skills for scheduling appointments
- Medical terminology
- Basics of insurance billing and coding
- Medical records management, confidentiality of the medical record, initiating a medical record for a new client and filing reports in the medical record
- HIPAA review and patient bill of rights and confidentiality
- Financial and practice management
- Health insurance coverage, and billing and coding procedures
- Professional fees, billing and collecting procedures, accounting systems and credit arrangements
- Medical accounting, financial statements, cost analysis, and budgets for the medical practice
- Specimen collection, laboratory safety and federal and state regulations
- Assisting with medical emergencies

### **Education and National Certifications**

- Pharmacy Technicians should have or be pursuing a high school diploma or GED.
- There are no state approval and/or state requirements associated with this program.
- Students who complete this course are prepared for national certification:
  - **Pharmacy Technician Certification Board (PTCB) national technician certification exam**
  - **National Healthcareer Association (NHA) Certified Medical Administrative Assistant (CMAA) exam**

### **National Certification**

Students who complete the Clemson University Pharmacy Technician program will be prepared to sit for the Pharmacy Technician Certification Board (PTCB) national technician certification exam and the National Healthcareer Association (NHA) Certified Medical Administrative Assistant (CMAA) exam. Although there are no state eligibility or registration requirements for Medical Administrative Assistants, in order to work as a pharmacy technician, many states nationwide are requiring that technicians achieve national PTCB technician certification. This comprehensive program is designed to prepare students to sit for this PTCB national certification exam and the NHA-CMAA exam. Students who complete this program can and do sit for these national certification exams and are qualified, eligible and prepared to do so.

### **Clinical Externship / Hands on Training / Practicum**

Although not a requirement of this program, once students complete this 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 a Pharmacy Technician and or a Medical Administrative Assistant. 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@clemson.edu](mailto:jdrhm@clemson.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.

## Pharmacy Technician 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:

- The Pharmacy Technician: Foundations and Practices. Custom Edition for Condensed Curriculum International
- The Pharmacy Technician: Foundations and Practices Lab Manual and Workbook, Second Custom Edition
- Pharmacy Technician Program Student Workbook. Second Custom Edition for Condensed Curriculum International

### Module/Lesson Structure

The Pharmacy 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 – History of Pharmacy Practice

- Lesson 1 – History of Pharmacy Practice
  - Reading Assignment: Chapter 1 (pp. 1-11)
- Lesson 2 – The Professional Pharmacy Technician
  - Reading Assignment: Chapter 2 (pp. 12-26)
- Lesson 3 – Communication and Customer Care
  - Reading Assignment: Chapter 3 (pp. 27-41)
- Lesson 4 – Pharmacy Laws and Ethics
  - Reading Assignment: Chapter 4 (pp. 42-62)
- Lesson 5 – Terminology and Abbreviations
  - Reading Assignment: Chapter 5 (pp. 63-112)

#### Module 2 – Retail Pharmacy

- Lesson 6 – Retail Pharmacy
  - Reading Assignment: Chapter 6 (pp. 113-132)
- Lesson 7 – Health-System Pharmacy
  - Reading Assignment: Chapter 7 (pp. 133-149)
- Lesson 8 – Technology in the Pharmacy
  - Reading Assignment: Chapter 8 (pp. 150-161)
- Lesson 9 – Inventory Management and Health Insurance Billing
  - Reading Assignment: Chapter 9 (pp. 162-173)
- Lesson 10 – Introduction to Compounding
  - Reading Assignment: Chapter 10 (pp. 174-188)
- Lesson 11 – Introduction to Sterile Products
  - Reading Assignment: Chapter 11 (pp. 189-204)

**Module 3 – Basic Math Skills**

- Lesson 12 – Basic Math Skills
  - Reading Assignment: Chapter 12 (pp. 205-227)
- Lesson 13 – Measurement Systems
  - Reading Assignment: Chapter 13 (pp. 228-243)
- Lesson 14 – Dosage Calculations
  - Reading Assignment: Chapter 14 (pp. 244-268)
- Lesson 15 – Concentrations and Dilutions
  - Reading Assignment: Chapter 15 (pp. 269-286)
- Lesson 16 – Alligations
  - Reading Assignment: Chapter 16 (pp. 287-303)
- Lesson 17 – Parenteral Calculations
  - Reading Assignment: Chapter 17 (pp. 304-324)

**Module 4 – The Body and Drugs**

- Lesson 18 – Dosage Formulations and Administration
  - Reading Assignment: Chapter 18 (pp. 325-347)
- Lesson 19 – The Body and Drugs
  - Reading Assignment: Chapter 19 (pp. 348-370)
- Lesson 20 – Drug Classifications
  - Reading Assignment: Chapter 20 (pp. 371-397)
- Lesson 21 – The Skin
  - Reading Assignment: Chapter 21 (pp. 398-405)
- Lesson 22 – Eyes and Ears
  - Reading Assignment: Chapter 22 (pp. 406-415)
- Lesson 23 – The Gastrointestinal System
  - Reading Assignment: Chapter 23 (pp. 416-431)
- Lesson 24 – The Musculoskeletal System
  - Reading Assignment: Chapter 24 (pp. 432-441)
- Lesson 25 – The Respiratory System
  - Reading Assignment: Chapter 25 (pp. 442-455)
- Lesson 26 – The Cardiovascular, Circulatory, and Lymph Systems
  - Reading Assignment: Chapter 26 (pp. 456-471)
- Lesson 27 – The Immune System
  - Reading Assignment: Chapter 27 (pp. 472-485)
- Lesson 28 – The Renal System
  - Reading Assignment: Chapter 28 (pp. 486-492)
- Lesson 29 – The Endocrine System
  - Reading Assignment: Chapter 29 (pp. 493-504)
- Lesson 30 – The Reproductive System
  - Reading Assignment: Chapter 30 (pp. 505-513)
- Lesson 31 – The Nervous System
  - Reading Assignment: Chapter 31 (pp. 514-525)

**Module 5 – Special Topics**

- Lesson 32 – Pediatric and Neonatal Patients
  - Reading Assignment: Chapter 32 (pp. 527-536)
- Lesson 33 – Geriatric Patients
  - Reading Assignment: Chapter 33 (pp. 537-543)
- Lesson 34 – Biopharmaceuticals
  - Reading Assignment: Chapter 34 (pp. 544-548)

## Medical Administrative Assistant - Lesson Checklist

Each lesson includes a prescribed 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

- Kinn's The Administrative Medical Assistant
- Kinn's The Administrative Medical Assistant Student Workbook

### Module/Lesson Structure

The Medical Administrative Assistant program is divided into six main content modules. The textbook is *Kinn's The Administrative Medical Assistant*. 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 – Introduction to Medical Assisting

- Lesson 1 – Becoming a Successful Student
  - Reading Assignment: Chapter 1 (pp.1-10)
- Lesson 2 – The Healthcare Industry
  - Reading Assignment: Chapter 2 (pp.11-29)
- Lesson 3 – The Medical Assisting Profession
  - Reading Assignment: Chapter 3 (pp.31-42)
- Lesson 4 – Professional Behavior in the Workplace
  - Reading Assignment: Chapter 4 (pp.43-51)
- Lesson 5 – Interpersonal Skills and Human Behavior
  - Reading Assignment: Chapter 5 (pp.53-73)
- Lesson 6 – Medicine and Ethics
  - Reading Assignment: Chapter 6 (pp.75-91)
- Lesson 7 – Medicine and the Law
  - Reading Assignment: Chapter 7 (pp.93-120)

#### Module 2 – Administrative Medical Assisting

- Lesson 8 – Computer Concepts
  - Reading Assignment: Chapter 8 (pp.121-134)
- Lesson 9 – Telephone Techniques
  - Reading Assignment: Chapter 9 (pp.135-153)
- Lesson 10 – Scheduling Appointments
  - Reading Assignment: Chapter 10 (pp.169-173)
- Lesson 11 – Patient Reception and Processing
  - Reading Assignment: Chapter 11 (pp.175-186)
- Lesson 12 – Office Environment and Daily Operations
  - Reading Assignment: Chapter 12 (pp.187-210)
- Lesson 13 – Written Communications and Mail Processing
  - Reading Assignments: Chapter 13 (pp.211-233)

### **Module 3 – Health Information in the Medical Office**

- Lesson 14 – The Paper Medical Record
  - Reading Assignment: Chapter 14 (pp.235-261)
- Lesson 15 – The Electronic Medical Record
  - Reading Assignment: Chapter 15 (pp.263-273)
- Lesson 16 – Health Information Management
  - Reading Assignment: Chapter 16 (pp.275-285)
- Lesson 17 – Privacy in the Physician's Office
  - Reading Assignment: Chapter 17 (pp.287-300)

### **Module 4 – Billing and Coding Procedures**

- Lesson 18 – Basics of Diagnostic Coding
  - Reading Assignment: Chapter 18 (pp.301-323)
- Lesson 19 – Basics of Procedural Coding
  - Reading Assignment: Chapter 19 (pp.325-348)
- Lesson 20 – Basics of Health Insurance
  - Reading Assignment: Chapter 20 (pp.349-370)
- Lesson 21 – The Health Insurance Claim Form
  - Reading Assignment: Chapter 21 (pp.371-394)
- Lesson 22 – Professional Fees, Billing, and Collecting
  - Reading Assignment: Chapter 22 (pp.395-420)

### **Module 5 – Financial and Practice Management**

- Lesson 23 – Banking Services and Procedures
  - Reading Assignment: Chapter 23 (pp.421-439)
- Lesson 24 – Financial and Practice Management
  - Reading Assignment: Chapter 24 (pp.441-452)
- Lesson 25 – Medical Practice Management and Human Resources
  - Reading Assignment: Chapter 25 (pp.453-479)
- Lesson 26 – Medical Practice Marketing and Customer Service
  - Reading Assignment: Chapter 26 (pp.481-492)

### **Module 6 – Assisting with Medical Emergencies and Career Development**

- Lesson 27 – Emergency Preparedness and Assisting with Medical Emergencies
  - Reading Assignment: Chapter 27 (pp.493-525)
- Lesson 28 – Career Development and Life Skills
  - Reading Assignment: Chapter 28 (pp.527-553)

**Note: This program can be completed in 6 months. However, students will have online access to this program for a 24-month period.**

## **MICROSOFT OFFICE Module**

- Use an integrated software package, specifically the 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
- Explain how copyright laws pertain to data and graphics posted on the Internet
- Take the college computer competency test after course completion
- Follow oral and written directions and complete assignments when working under time limitations

**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