

## HED-50 – Clinical Medical Assistant Certificate Program with Clinical Externship

### Professional Education Course Syllabus

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

**Course Contact Hours: 140**

#### **The Clinical Medical Assisting Profession**

The Clinical Medical Assisting program is designed to prepare students to function as professionals in multiple healthcare settings. Medical assistants with a clinical background perform various clinical tasks including assisting with the administration of medications and with minor procedures, performing an EKG electrocardiogram, obtaining laboratory specimens for testing, educating patients, and other related tasks. Job opportunities are prevalent with physician's offices, clinics, chiropractor's offices, hospitals and outpatient facilities.

#### **The Clinical Medical Assisting Program**

This program prepares students to assist physicians by performing functions related to the clinical aspects of a medical office. Instruction includes preparing patients for examination and treatment, routine laboratory procedures, pharmacology, taking and documenting vital signs, technical aspects of phlebotomy, the 12-lead EKG and the cardiac life cycle.

The purpose of the Clinical Medical Assisting program is to prepare students to assist physicians by performing functions related to the clinical aspects of a medical office. This course covers the following key areas and topics:

- Clinical responsibilities of the medical office - assisting the physician with patient related care
- Preparing patients for examination and treatment, routine procedures and diagnostic testing
- HIPAA, patient confidentiality, legal aspects of healthcare and regulatory patient care issues
- Recording and taking of vital signs, blood pressure, and other patient care items related to the physician office visit
- Review and administration of medications, allergies & other pharmacology related items
- Laboratory procedures, phlebotomy and the proper techniques required to collect specimens for laboratory analysis
- Cardiology and the proper placement of leads when taking a 12 lead EKG

#### **Education and National Certifications**

- Students should have or be pursuing a high school diploma or GED.
- 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:
  - **National Healthcareer Association (NHA) Certified Clinical Medical Assistant (CCMA) Exam**

- **American Society of Phlebotomy Technician (ASPT) Phlebotomy Technician (CPT) Exam**
- **National Healthcareer Association (NHA) Certified Phlebotomy Technician (CPT) Exam**
- **National Healthcareer Association (NHA) Certified EKG Technician (CET) exam**
- In addition to facilitating entry-level clinical medical assisting related positions, this course is ideal for students interested in pursuing a future formal Certified Medical Assistant (CMA), Nursing (LPN) or a Nursing (RN) program.

### **Clinical Medical Assisting Detailed Course Information:**

- Responsibilities of the clinical medical assistant and introduction to healthcare facilities
- Medical terminology, anatomy and physiology, circulation of the heart and blood vessels
- Care & safety of patients, medical & legal aspects of care, confidentiality and HIPAA
- Effective verbal and non-verbal communication, interpersonal skills and human behavior
- Aseptic techniques, infection prevention, universal precautions, proper use and disposal of biohazards and sharps
- Documenting patient medical histories, updating patient medical files, vital signs and documentation
- Applying sterile dressings, preparing patients for x-rays, performing various injections, administering oral medications, instructing patients on the proper usage of medications
- Phlebotomy, venipunctures and capillary sampling, collecting specimens and point of care testing
- Performing 12 lead EKGs and EKG strip analysis (P,Q,R,S,T wave form)
- Role of the EKG technician
- Function of the EKG department in a variety of settings (hospital, clinic, office, mobile service)
- Medical terminology related to electrocardiography
- Care and safety of patients including medical and legal aspects of patient care
- Anatomy and physiology of the cardiovascular system
- Electrophysiology, the conduction system of the heart, and the cardiac cycle
- Circulation of blood through the heart and vessels
- Lead placement for 12-lead electrocardiography
- Basic EKG interpretation of normal rhythms and arrhythmias
- EKG troubleshooting including recognizing artifacts
- Waves and measurements
- EKG strip analysis (P,Q,R,S,T wave-form interpretation)
- Identification of rhythms using the 12-lead EKG
- Pacemakers
- Holter monitoring and the echocardiogram
- 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**

Upon successful completion of this Clinical Medical Assistant program, students would be eligible to sit for the National Healthcareer Association (NHA) Certified Clinical Medical Assistant (CCMA)

national certification exam as well as other EKG and Phlebotomy Technician exams. Although there are no state approval, state registration or other state requirements for this program, students who complete this Clinical Medical Assistant program will be prepared and are eligible to sit for this national certification exam. Students who complete this program are encouraged to complete the clinical externship option with their program. Students who complete this program can and do sit for the NHA CCMA national certification exam 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 the Clinical Medical Assistant 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 Clinical Medical 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.

### **Course Overview**

#### **Introduction to the Clinical Medical Assisting Profession**

- Lesson 1 The Medical Assisting Profession
  - Reading Assignment: Chapter 1 (pp. 2-13)
- Lesson 2 Interpersonal Communication
  - Reading Assignment: Chapter 2 (pp. 16-26)
- Lesson 3 Patient-Centered Care
  - Reading Assignment: Chapter 3 (pp. 27-35)
  - Reading Assignment: Chapter 4 (pp. 36-46)

#### **The Clinical Environment**

- Lesson 4 The Clinical Environment: Safety and the Patient Encounter
  - Reading Assignment: Chapter 5 (pp. 48-59)
  - Reading Assignment: Chapter 6 (pp. 60-77)
- Lesson 5 Medical and Surgical Asepsis
  - Reading Assignment: Chapter 7 (pp. 78-94)
  - Reading Assignment: Chapter 8 (pp. 95-115)
- Lesson 6 Pharmacology and Medication Administration
  - Reading Assignment: Chapter 9 (pp. 116-146)
- Lesson 7 Vital Signs
  - Reading Assignment: Chapter 10 (pp. 147-175)
- Lesson 8 Minor Surgery
  - Reading Assignment: Chapter 11 (pp. 176-199)

#### **Medical Specialties and Testing**

- Lesson 9 Medical Imaging
  - Reading Assignment: Chapter 16 (pp. 306-323)
- Lesson 10 Pulmonary System and Testing
  - Reading Assignment: Chapter 18 (pp. 363-385)
- Lesson 11 EENT
  - Reading Assignment: Chapter 19 (pp. 386-413)
- Lesson 12 Immunology and Allergies
  - Reading Assignment: Chapter 20 (pp. 414-425)

- Lesson 13 Dermatology
  - Reading Assignment: Chapter 21 (pp. 426-445)
- Lesson 14 Endocrinology
  - Reading Assignment: Chapter 22 (pp. 446-456)

### **Medical Specialties**

- Lesson 15 Emergency Care
  - Reading Assignment: Chapter 23 (pp. 458-498)
- Lesson 16 Gastroenterology and Nutrition
  - Reading Assignment: Chapter 24 (pp. 499-528)
- Lesson 17 Orthopedics and Physical Therapy
  - Reading Assignment: Chapter 25 (pp. 529-562)
- Lesson 18 Obstetrics and Gynecology
  - Reading Assignment: Chapter 26 (pp. 563-588)
- Lesson 19 Pediatrics
  - Reading Assignment: Chapter 27 (pp. 589-608)
- Lesson 20 Neurology
  - Reading Assignment: Chapter 28 (pp. 609-626)
- Lesson 21 Mental Health
  - Reading Assignment: Chapter 29 (pp. 627-643)
- Lesson 22 Oncology
  - Reading Assignment: Chapter 30 (pp. 644-654)
- Lesson 23 Geriatrics
  - Reading Assignment: Chapter 31 (pp. 655-665)
- Lesson 24 Alternative Medicine
  - Reading Assignment: Chapter 32 (pp. 668-678)

### **EKG**

- Lesson 1 – Coronary Anatomy and Physiology
  - Reading Assignment: Chapter 1: pp. 1-12
- Lesson 2 – Electrophysiology
  - Reading Assignment: Chapter 2: pp. 13-34
- Lesson 3 – A Review of Lead Morphology and Placement
  - Reading Assignment: Chapter 3: pp. 35-46
- Lesson 4 – The Technical Aspects of the EKG
  - Reading Assignment: Chapter 4: pp. 47-60

### **EKG**

- Lesson 5 – Calculating the Heart Rate
  - Reading Assignment: Chapter 5: pp. 61-72
- Lesson 6 – How to Interpret a Rhythm Strip
  - Reading Assignment: Chapter 6: pp. 73-78
- Lesson 7 – A Review of Rhythms Originating from the Sinus Node
  - Reading Assignment: Chapter 7: pp. 79-98
- Lesson 8 – A Review of Rhythms Originating from the Atria
  - Reading Assignment: Chapter 8: pp. 99-119

## **EKG**

- Lesson 9 – A Review of Rhythms Originating in the Av Junction
  - Reading Assignment: Chapter 9: pp. 121-132
- Lesson 10 – Rhythms Originating on the Ventricles
  - Reading Assignment: Chapter 10: pp. 133-155
- Lesson 11 – AV Blocks
  - Reading Assignment: Chapter 11: pp. 157-176
- Lesson 12 – Performing Rhythms Practice Strips
  - Reading Assignment: Chapter 12: pp. 177-302

## **EKG**

- Lesson 13 – A Review of Artificial Pacemakers
  - Reading Assignment: Chapter 13: pp. 303-317
- Lesson 14 – Diagnostic Electrocardiography
  - Reading Assignment: Chapter 14: pp. 319-345

## **EKG**

- Lesson 15 – How to Interpret a 12-Lead EKG
  - Reading Assignment: Chapter 1: pp. 1-36
- Lesson 16 – Myocardial Infarction
  - Reading Assignment: Chapter 2: pp. 37-71
- Lesson 17 – Cardiac Medications and Electrical Therapy
  - Reading Assignment: Chapter 4: pp. 103-109

## **PHLEBOTOMY – 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)

## **PHLEBOTOMY – 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)

## **PHLEBOTOMY – 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)

### PHLEBOTOMY – 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, Workplace Testing, Sports Medicine and Related Areas
  - Reading Assignment: Chapter 17 (pp. 523-544)

### Fresno Pacific University Student Learning Outcomes (FPU-SLO)

|           |  |
|-----------|--|
| FPU-SLO 1 | <b>Student Learning Outcomes Oral Communication:</b> Students will <i>exhibit</i> clear, engaging, and confident oral communication – in both individual and group settings – and will critically <i>evaluate</i> content and delivery components.   |
| FPU-SLO 2 | <b>Written Communication:</b> Students will <i>demonstrate</i> proficient written communication by <i>articulating</i> a clear focus, <i>synthesizing</i> arguments, and utilizing standard formats in order to <i>inform</i> and <i>persuade</i> others.  |
| FPU-SLO 3 | <b>Content Knowledge:</b> Students will <i>demonstrate</i> comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.   |
| FPU-SLO 4 | <b>Reflection:</b> Students will <i>reflect</i> on their personal and professional growth and <i>provide evidence</i> of how such reflection is utilized to manage personal and vocational improvement.  |
| FPU-SLO 5 | <b>Critical Thinking:</b> Students will <i>apply</i> critical thinking competencies by <i>generating</i> probing questions, <i>recognizing</i> underlying assumptions, <i>interpreting</i> and <i>evaluating</i> relevant information, and <i>applying</i> their understandings to new situations. |
| FPU-SLO 6 | <b>Moral Reasoning:</b> Students will <i>identify</i> and <i>apply</i> moral reasoning and ethical decision-making skills, and <i>articulate</i> the norms and principles underlying a Christian world-view.   |
| FPU-SLO 7 | <b>Service:</b> Students will <i>demonstrate</i> service and reconciliation as a way of leadership.  |
| FPU-SLO 8 | <b>Cultural and Global Perspective:</b> Students will <i>identify</i> personal, cultural, and global perspectives and will employ these perspectives to <i>evaluate</i> complex systems.   |
| FPU-SLO 9 | <b>Quantitative Reasoning:</b> Students will accurately <i>compute</i> calculations and symbolic operations and <i>explain</i> their use in a field of study.  |

|            |  |
|------------|--|
| FPU-SLO 10 | <b>Information Literacy:</b> Students will <i>identify</i> information needed in order to fully understand a topic or task, <i>explain</i> how that information is organized, <i>identify</i> the best sources of information for a given enquiry, <i>locate</i> and critically <i>evaluate</i> sources, and accurately and effectively <i>share</i> that information. |
|------------|--|

### Continuing Education Student Learning Outcomes (CE-SLO)

|          |   |
|----------|---|
| CE-SLO 1 | Demonstrate proficient written communication by articulating a clear focus, synthesizing arguments, and utilizing standard formats in order to inform and persuade others, and present information applicable to targeted use.                                    |
| CE-SLO 2 | Demonstrate comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.   |
| CE-SLO 3 | Reflect on their personal and professional growth and provide evidence of how such reflection is utilized to manage personal and professional improvement.  |
| CE-SLO 4 | Apply critical thinking competencies by generating probing questions, recognizing underlying assumptions, interpreting and evaluating relevant information, and applying their understandings to the professional setting.  |
| CE-SLO 5 | Reflect on values that inspire high standards of professional and ethical behavior as they pursue excellence in applying new learning to their chosen field.  |
| CE-SLO 6 | Identify information needed in order to fully understand a topic or task, organize that information, identify the best sources of information for a given enquiry, locate and critically evaluate sources, and accurately and effectively share that information. |