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## Clinical Medical Assistant Program Courses

### **CMA 100: Medical Terminology (EKG)**

This course subject presents a study of basic medical terminology. Prefixes, suffixes, word roots, combining forms, special endings, plural forms, abbreviations, and symbols are included in the content. A programmed learning, word building systems approach is used to learn word parts for constructing or analyzing new terms. This provides the opportunity to decipher unfamiliar terms and check their spelling. Emphasis is placed on spelling, definition, usage, and pronunciation.

### **CMA 101: Anatomy & Physiology (EKG-Review)**

This course subject is a scientific study of the structure of the human body and its parts, including relationships, functions, and diseases processes of the cardiovascular, and respiratory systems.

### **CMA 102: Electrocardiography**

This course subject enables the student to perform electrocardiography (EKG) and recognize and interpret basic cardiac rhythms along with a trial, functional, and ventricular arrhythmias. Recognition and identification of the location of various myocardial infarctions is also included in. Utilizing the skills learned, the student will be able to identify and respond appropriately to life threatening cardiac arrhythmias and EKG changes.

### **CMA 103: Advanced Electrocardiographic Interpretation**

This course subject will prepare students to operate a 12-lead EKG machine utilizing the proper techniques of performing electrocardiograms, stress tests, and Holter monitor exams. Students will be able to perform EKG mountings and tracings, will learn the cardiovascular system, and interpret EKG readings including recognition or normal and abnormal arrhythmias. Students will also become cognizant of advanced heart diseases such as myocardial infarction and congestive heart failure including interpretation of advanced arrhythmias, hypertrophies, heart blocks, premature ventricular contractions, and fibrillations.

### **CMA 104: Cardiac Rehabilitation**

This course subject studies the role of exercise in health and disease, specifically acute and chronic effects of exercise upon the cardiovascular system. Students explore therapeutic benefits of exercise intervention and rehabilitation for individuals with heart disease, diabetes, and obesity. Students are provided with an opportunity to gain knowledge and understanding of physiological principles and concepts related to clinical cardiopulmonary assessment.

### **CMA 105: Cardiovascular Invasive/Non-invasive Procedure**

This course subject introduces the basic principles and applications of echocardiographic procedures. Emphasis is placed on the physical assessment, physical principles of cardiac ultrasound, and echocardiographic imaging planes. Upon completion, students should be able to identify echocardiographic views with application of echocardiographic principles. Students will explore purpose of specialized equipment and its utilization during invasive procedures such as coronary angiogram, percutaneous coronary intervention, balloon angioplasty, coronary stenting, atherectomy, intravascular ultrasound, Angio jet thrombectomy, transesophageal echocardiogram, pacemaker implantation, peripheral implantation, peripheral artery angiogram/intervention, and EVLT procedures.

### **CMA 105: Medical Terminology (Phlebotomy)**

This course subject presents a study of basic medical terminology. Prefixes, suffixes, word roots, combining forms, special endings, plural forms, abbreviations, and symbols are included in the content. A programmed learning, word building systems approach is used to learn word parts for constructing or analyzing new terms. This provides the opportunity to decipher unfamiliar terms and check their spelling. Emphasis is placed on spelling, definition, usage, and pronunciation.

### **CMA 105: Anatomy and Physiology (Phlebotomy-Review)**

This course subject is a scientific study of the structure of the human body and its parts, including relationships, functions, and diseases processes of the cardiovascular, and respiratory systems.

### **CMA 105: Principles of Phlebotomy**

This course subject discusses the process of blood collection for the purposes of testing and diagnostics. Students will be exposed to the role of a phlebotomist, quality assurance, anatomy and physiology of the circulatory system, safety, equipment, technicians, specimen collections, and special procedures.

### **CMA 105: Phlebotomy Procedures**

This course subject is a review of laboratory and clinical procedures in a medical office. It includes the discussion of possible complications of phlebotomy. The student will perform venipuncture and capillary sticks while using proper safety procedures.

#### **CMA 106: Blood Chemistry Analysis**

This course subject introduces students to various methods of analysis used in clinical chemistry laboratories to assist in diagnosing, monitoring treatment, and preventing disease. It includes theory and analysis of chemical constituents of the blood. In addition, detailed theory, testing methodologies, reference ranges, clinical significance, and laboratory analysis of carbohydrates, proteins, lipids, and liver function tests are covered. After learning proper methods of specimen collection, preservation, and the processing of patient specimens, the students learn tests that measure carbohydrate metabolism including glucose testing for hyper and hypoglycemia. Students learn concept of Urinalysis, body fluids and other specimens' collections; forensic toxicology.

#### **CMA 107: Clinical Hematology I**

This course subject is a basic hematology study of cells in the blood. Diseases and conditions that would result in abnormalities in laboratory tests performed are also discussed. Students are introduced to basic techniques in performing and interpreting tests of blood group serology. The ABO and Rh systems are studied with an emphasis on accurate grouping and typing, donation, blood components, hemolytic disease of the newborn, and transfusion practices. Additional topics of discussion include major hematological disorders with identification of typical findings on blood smears are emphasized. The anemia's and leukemia's are studied in detail; cytochemical stains are introduced. The course subject also includes a study of the blood coagulation process, its theory and practice and application.

#### **CMA 108: Clinical Hematology II**

This course subject provides further instruction and study of the techniques of blood group serology, compatibility testing, and the selection of the proper blood component for the patient. Adverse reaction to blood products and reaction investigations are discussed. Lab procedures include the use and interpretation of commercial serology test kits. The serological diagnosis of infectious diseases such as spirochetes, streptococcal, viral infections, and HIV are discussed.

#### **CMA 109: Job Placement**

This course subject will prepare students for Proper Image, Dress, Resume, and How to Prepare For An Interview and other techniques to get them ready for job placement.