

Glendale Unified School District

High School

June 21, 2022

Department: Career Technical Education

Course Title: Medical Assisting Year One

Course Code: 5224V

Grade Level(s): 10-12

School(s) Course Offered: Hoover High School

UC/CSU Approved (Y/N, Subject): College-Preparatory Elective (G)

Course Credits: 10

Recommended Prerequisite: None

Course Overview: This course is designed to teach the fundamental skills necessary for both administrative and clinical duties in a physician's office or medical clinic. This certified Medical Assisting course is a learning experience that provides students an opportunity to apply their technical and academic skills in a hybrid model that allows for on-line asynchronous work paired with a hands-on medical lab experience. Students will develop and practice an understanding of the duties and responsibilities of a highly skilled medical assistant, including but not limited to anatomy and physiology, medical terminology, health and human growth and development, pharmacology, body mechanics, infection control, EKG, phlebotomy, physical exams, and ambulatory surgery. Students who complete this program will be eligible to take the California state exam to obtain a Certified Medical Assistant status.

Unit 1: The Health Assistant

(4 weeks)

STANDARDS

B6.0, B6.2

Common Core Pathway Standards 11-12.4, 11-12.6

- A. In this unit, students will gain an overview of the role and responsibilities of health assistant occupations, including employment opportunities, educational

requirements, professionalism, scope of practice, confidentiality, informed consent, ethics, infection control, and safety precautions.

- a. Health Assisting: Health Care Teams, Facilities, Education and Credential
 - b. Nursing Care Delivery Models, The Nursing Process
 - c. Qualities of Health Assistants, Personality Traits, Communication
 - d. Infection Control and Safety Precautions, Violations
 - e. Legal Conduction: Law, scope of practice, privileged communication
 - f. Patient Rights and Code of Ethics: Informed Consent, Patient and Resident Rights, Ethics
 - g. Communication Exercise
- B. Students will be allowed the opportunity to observe a scenario involving communication between a healthcare worker and a patient. After two scenario endings, students will answer questions to check their understanding. Students will also have to write a reflection about how this relates to being a competent healthcare assistant and explain in detail how they can relate this to their learning in what they have learned in this Healthcare Assistant unit. They should cite textual evidence from their readings to support their ideas. Students will share their reflections with small groups and give feedback to one another on their reflection details.

Unit 2: Human Growth and Development

(4 weeks)

STANDARDS

B2.0, B2.2

Common Core Pathway Standards 11-12.7

- A. In the unit, students will gain an understanding of how people grow, develop, and age throughout their lifespan in the four areas of development: physical, intellectual, social, and emotional. They also learn about the hierarchy of human needs, genetics, genetic diseases, aging, terminal illness, grief, and mortuary science.
- a. Genetics: Introduction to Genetics, Genetics
 - b. Prenatal and Neonatal: Prenatal, Neonatal
 - c. Childhood: Infants and Toddlers, Early Childhood, Middle Childhood
 - d. Adolescence and Adulthood: Adolescence, Early Adulthood, Middle Adulthood, Late Adulthood
 - e. Aging and Death: Aging, Death and Grief, Mortuary Science
- B. Students will develop questions and then interview a relative or friend with health problems. The findings will be presented in class through a Google Slide Presentation. Students will also develop a digital visual representation of how Maslow's Hierarchy of Needs can affect people physically, socially, psychologically, and behaviorally. Students will create an information brochure explaining the biophysical, mental/cognitive, social, and emotional development of patients throughout the stages of life.

Unit 3: Infection Control

(4 weeks)

STANDARDS

B10.0, B10.1, B10.2

Common Core Pathway Standards 11-12.3

- A. In the final unit of this semester, students will learn about the importance of protecting oneself and others from disease-causing microorganisms, as students learn about microorganisms, asepsis, hand washing, basic equipment cleaning, autoclaving, personal protective equipment, sterile technique, and transmission-based precautions. Students practice donning and doffing protective garments and working in an isolation unit. During our hands-on lab activities, students will practice taking Vital Signs throughout the semester and perform the procedures for medical doctors virtually with the use of SimRated hands-on lab curriculum.
- Introduction to Infection Control: Microorganisms, Infections, Asepsis, Hand Cleansing, Cleaning Equipment
 - Standard Precautions: Standard Precautions, Gowns, Masks and Eyewear, Non-Sterile Gloves,
 - Transmission-Based Precautions: Transmission-Based Precautions, Transmission-Based Garments, Isolation Units
 - Sterile Technique: Sterile Field, Sterile Gloves, Autoclave
- B. Key Assignments: Students will demonstrate proper hand washing to the instructor and be evaluated on technique. Students will also collect microorganisms from common objects and observe their growth over several days using petri dishes. They will record their observations onto an observation sheet. Students will also create a poster depicting strategies for breaking the chain of infection based on their research of sanitation and disinfection. They will present their posters to the class.

Unit 4: Medical Assisting Pharmacology

(4 weeks)

STANDARDS

B3.0, B3.1, B13.0,

Common Core Standards S-ID-7, S-ID-9

- A. In this unit, students will be able to understand safety techniques and the steps for greeting and identifying patients in a health care facility. Students use the Internet to research safety regulations from OSHA, the FDA, and the EPA and demonstrate how to report safety violations by filing an event report. Students will also learn about the regulations and guidelines for drug prescription, administration, storage, and disposal. Students calculate and prepare medication dosages and learn to administer medications, including injections.
- Medical Assisting Pharmacology Overview: Introduction to Pharmacology: Introduction to Pharmacology, Drugs
 - Drug Safety: Legal and Safety Issues, Prescriptions and Abbreviations,
 - Preparing and Administering Medication: Calculating Dosage, Administering Medications
 - Parenteral Medications: Preparing Syringes, Administering Injections,

Intravenous Therapy

- B. Key Assignments- Students will work individually to research a culture or religion that is different from their own, focusing on healthcare and medicine beliefs. The students will then present their research to their classmates using some form of media such as a poster, an infographic, or a Google Slide presentation, etc.

Unit 5: Electrocardiography

(4 weeks)

STANDARDS

B6.0

Common Core Standards 11-12.4

- A. In the Electrocardiography Unit, students will learn how to conduct a routine 12-lead ECG and recognize related diagnostic cardiac tests. Students examine the anatomy of the heart and the electrical conduction pattern for the cardiac cycle. Then they classify leads and learn how ECGs work.
- Anatomy and the ECG: ECGs and the Heart, Heartbeat and the ECG Cycle, Recognizing Cardiac Emergencies
 - The Science of the ECG: How ECGs Work, ECG Leads
 - Performing a Standard Resting ECG: Types of ECGs, Standardization, Artifacts Automatic 12-Lead ECG
 - Using ECG REcordings: Arrhythmias, Calculating Heart Rate
 - Other Cardiac Tests and Equipment: Related Diagnostic Cardiac Tests, Holter Monitoring
- B. Key Assignments-Students will work individually to identify at-risk behavior and create posters that persuade others to keep their hearts healthy. Students will also practice procedures learned in the module using various scenarios-sometimes in less-than-ideal circumstances. Students will then act out the various scenarios with their small groups and present and perform the scenarios to the rest of the class.

Unit 6: Phlebotomy

(4 weeks)

STANDARDS

B10.4

Common Core Standards 11-12.4

- A. In the phlebotomy unit, students will learn how to collect blood specimens using venipuncture and fingerstick techniques. During our hands-on lab activities, students will practice phlebotomy techniques, specifically intramuscular injections with medical grade injection supplies throughout the semester.
- Phlebotomy Overview: Introduction to Phlebotomy: Introduction Communication,
 - Skin Puncture: Microhematocrit and Hemoglobin: Skin Punctures, Microhematocrit, Hemoglobin
 - Venipuncture: Venipuncture, Equipment for Venipuncture, Order of Draw, Vacuum Tube Blood Collection Troubleshooting

- B. Key Assignments-Students will work independently to determine their blood types using the ABO and Rh systems. They will then create a pie graph to show the percentages of students in the class with each blood type. Students will also practice procedures learned in the module using various scenarios-sometimes in less than ideal circumstances. Students will play the scenarios out in their small groups and then present to their entire class. Students will also perform venipuncture on a mannequin arm to practice drawing blood and perform the procedure for the instructor and a medical physician on-line.

SimRated Badges/Certificates:

To obtain the SimRated Badges/Certifications, each student will practice their procedures in the lab and will then be evaluated by a professional Medical Physician or Resident. Each student enrolled in the program will demonstrate that they can perform the procedure in the clinical lab environment with clinical supervision. The attending physician or resident physician will sign off that the student completed the procedure correctly. In Year-1, each student will receive SimRated Badge Certifications, which are recognized within the medical field and among the medical community, in the following Medical Assisting areas:

A. Vital Signs

- a. Students will earn a SimRated Badge/Certification in performing Vital Signs. Students will be able to take the vital signs of their patients. Students will understand that vital signs represent the measurement of body temperature, the rate of respiration, pulse, blood pressure, and blood oxygen saturation. These measurements provide the essential information regarding the patient's state of health especially:
- b. The information regarding the presence of an acute medical issue
- c. The information that quantifies the severity of the medical issue and how well is the patient's body coping with the resulting stress
- d. Series of measurement may imply that there is a chronic health issue (e.g. hypertension).
- e. Successful completion of the simulation-based assessment evaluated by clinician raters, which includes narrative feedback provided beyond the checklist rating.
- f. Obtain 90% or greater on assessment of Vital Signs cognitive knowledge.
- g. Obtain accurate vital signs on an adult with 90% or greater score on simulation-based assessment. Skills assessed include obtaining accurate radial pulse, obtaining accurate blood pressure, use of temperature probe and use of pulse oximeter.
- h. Obtain accurate vital signs on an adult without any critical failures as deemed by clinician rater

B. Phlebotomy

- a. Students will earn a SimRated Badge/Certification in the Phlebotomy procedure. Students will be able to demonstrate appropriate manual skills and theoretical knowledge to successfully obtain the high-quality laboratory specimens which will ultimately result in accurate results and treatment. Students will be able to draw blood and understand the science of phlebotomy.
- b. In Year-2, students will continue to earn their SimRated Badges/Certifications in the following Medical Assisting Areas by performing the procedures for the attending physician/resident:
- c. Successful completion of the simulation-based assessment evaluated by clinician raters, which includes narrative feedback provided beyond the checklist rating.
- d. Obtain 90% or greater on assessment of Phlebotomy cognitive knowledge.
- e. Perform phlebotomy on an adult with 90% or greater score on simulation-based assessment. Skills assessed include identifying correct patient, hand hygiene, applying tourniquet, inserting needle into vein, using vacutainers, sharps safety
- f. Perform phlebotomy on an adult without any critical failures as deemed by clinician rater

Primary Curriculum Source:

Applied Educational Systems

Certified Medical Assistant Course

<https://teacher.aeseducation.com/courses>

Secondary Curriculum Source:

SimRated

Hands-on Labs for Medical Assisting

<https://www.simrated.com>