Course Description for ROP Medical Assisting

This course consists of two semesters, Medical Assistant I and Medical Assistant II. Both semesters continually develop student skills needed to work in both medical front and back offices. This program includes learning by participating in clinical rotations in medical office settings.

Prerequisites: Must be 18 years of age with a high school diploma or equivalent. Necessary basic competencies include:

- Intermediate or better computer skills
- Read and write at 12th grade level
- Basic algebra skills

With successful completion of MA I and MA II the student will be eligible to sit for the California State Certification Board Exam or national certification through American Medical Technologists.

Medical Assistant I course content includes: medical terminology, introduction to anatomy and physiology, medical law and ethics, HIPAA, health insurance including billing and coding, appointment scheduling, patient communications, medical record management, Infection Control, and Vital Signs.

Medical Assistant II course content includes: Patient exams & patient care skills, nutrition, pharmacology, administration of medication, first aid and American Heart Association CPR for healthcare providers certification, electrocardiography, phlebotomy, assisting in the analysis of blood and urine, microbiology, surgical technique, and job search skills.

- Each student must complete a minimum of ten hours of instruction for venipuncture and thirty supervised successful venipunctures.
- Each student must complete a minimum of ten hours of injection instruction and ten hours of supervised injections using the intramuscular, subcutaneous, and intradermal techniques.
- Each student must complete a minimum of 180 clinical hours

Successful completion of MA I is required for admission to MA II

Classroom Instruction for both semesters equals 588 hours

Clinical Hours for MA II equal 180 hours

Information may be found at the ROP website under the Home, Health and recreation pathway.

http://www.rop.santacruz.k12.ca.us/portal/courses/section.php?course=5013
ROP Medical Assisting Course Outline – Administrative and Clinical Medical Assisting

A. Understand the role of Health Care Facilities
   1. Describe types of health care facilities and understand the populations they serve
   2. Provide job description for various fields of Allied Health Care workers.
   3. Analyze government agencies and services.
   4. Describe nonprofit agencies and services.
   5. Compare health insurance plans.
   6. Explain the purpose of organizational structures in health care facilities.
   7. Differentiate between early beliefs about the cause of disease and treatment and current beliefs about disease and treatment.
   8. Identify major events in the history of health care.
   9. Identify current trends or changes in health care.
   10. Define, pronounce, and spell all key terms

B. Administrative Medical Assisting
   1. Identify & demonstrate telephone techniques
   2. Identify & demonstrate scheduling appointments
   3. Identify & demonstrate medical records management
   4. Identify & demonstrate the processing of mail

C. Describe the role of computers in health care.
   1. Identify the three major components of a computer system.
   2. Compare and contrast computer capabilities and limitations.
   3. Describe computer applications currently being used in today’s health care computer systems.
   4. Demonstrate understanding and use of Electronic Health Record programs
   5. Define, pronounce and spell key terms.

D. Demonstrate effective communications.
   1. Identify four factors that interfere with communication.
   2. Explain the importance of listening, nonverbal behavior, reporting and recording in the communication process.
   3. Define, pronounce and spell all key terms.

E. Understand cultural diversity.
   1. List four basic characteristics of culture.
   2. Differentiate between culture, ethnicity and race.
   3. Identify some of the major ethnic groups in the United States.
   4. Provide an example of acculturation in the United States.
   5. Recognize bias, prejudice, and stereotyping.
   6. Create an example of how a bias, prejudice or stereotype can cause a barrier to effective relationships with others.
   7. Describe at least five ways to avoid bias, prejudice and stereotyping.
8. Differentiate between a nuclear family and an extended family.
9. Demonstrate understanding of cultural diversity.
10. Identify ways in which language, personal space, touching, eye contact and gestures are affected by cultural diversity.
11. Compare and contrast the diverse health beliefs of different ethnic/cultural groups.
12. List ways health care providers can show respect for an individual’s religious beliefs.
13. Identify methods that can be used to show respect for cultural diversity.
14. Define, pronounce and spell key terms.

F. Financial Management
1. Identify & demonstrate professional fee, billing and collecting
2. Identify & demonstrate basics of diagnostic coding
3. Identify & demonstrate procedural coding
4. Identify and demonstrate use of health insurance claim forms and third party reimbursement
5. Identify & demonstrate banking services and procedures

G. Legal and Ethical Responsibilities
1. Provide examples of situations that might result in legal action of each of the following: malpractice; negligence; assault and battery; invasion of privacy; false imprisonment; abuse; and defamation.
2. Describe how contract laws affect health care.
3. Define privileged communication and explain how it applies to health care.
4. Differentiate types of protected health information.
5. HIPAA Certification
6. Describe state legal regulations that apply to health care records.
7. List basic rules of ethics for health care personnel.
8. List rights of the patient who is receiving health care.
10. Define, pronounce and spell all of the key terms.

H. Demonstrate the promotion of safety.
1. Understand the use of body mechanics.
2. Define the term body mechanics.
3. Use correct body mechanics while performing procedures in the laboratory or clinical area.
4. Demonstrate knowledge of accident and injury prevention.
5. Observe all safety standards established by the Occupational Safety and Health Administration (OSHA) especially the Occupational Exposure to Hazardous Chemicals Standard and the Bloodborne Pathogen Standard.
i. Follow safety regulations stated in the information sections while performing in the laboratory area.

ii. Observe all regulations for patient safety while performing procedures on a student partner in the laboratory or clinical area or on a patient in any area.

6. Observe fire safety.
   i. List the four main classes of fire extinguishers.
   ii. Relate each class of fire extinguisher to the specific fire (s) for which it is used.
   iii. Simulate the operation of a fire extinguisher.
   iv. Locate and describe the operation of the nearest fire alarm.
   v. Set up detailed evacuation plan for a laboratory area according to policy.

I. Medical terminology
   1. Identify basic medical abbreviations selected from a standard list
   2. Define prefixes, suffixes, and word roots selected from standard list
   3. Spell and pronounce medical terms correctly

J. Demonstrate knowledge of Anatomy and Physiology.
   1. Define the basic structure of the human body.
   2. Label and diagram main parts of a cell.
   3. Describe the basic function of each part of a cell.
   4. Compare the four main types of tissue.
   5. Explain the basic function of each tissue type.
   6. Understand body planes, directions and cavities.
   7. Label the names of the three body planes and the directional terms related to these planes
   8. Label a diagram of the main body cavities
   9. Identify the main organs located in each body cavity.
   10. Locate the nine abdominal regions.

K. Recognize the Integumentary System.
   1. Differentiate between the two types of skin glands.
   2. Label a diagram of a cross section of the skin.
   3. List the functions of the Integumentary system
   4. Provide the correct names for abnormal colors of the skin and identify the cause of each
   5. Describe skin eruptions
   6. Cleanse and dress skin lesions
   7. Describe diseases of the Integumentary system.
   8. Demonstrate general medical assistant duties for this body system
   9. Define, pronounce and spell the key terms
L. Demonstrate knowledge of the skeletal system.
   1. List the functions of the skeletal system.
   2. Label the main parts of a long bone.
   3. Name the two divisions of the skeletal system.
   4. Name the main groups of bones in each division
   5. Identify the main bones of the skeleton
   6. Compare the three classifications of joints
   7. Give examples of each joint classification
   8. Describe the major diseases of the skeletal system
   9. Assist with application and removal of casts
   10. Demonstrate general medical assistant duties for this body system
   11. Define, pronounce and spell the key terms

M. Define the muscular system.
   1. Compare the three main kinds of muscle action.
   2. Differentiate between voluntary and involuntary muscle.
   3. List the functions of the muscular system.
   4. Label major muscles.
   5. Describe the major diseases of the muscular system
   6. Check the correct measurements of canes, crutches, and walkers
   7. Apply ice pack using safety precautions
   8. Demonstrate general medical assistant duties for this body system
   9. Define, pronounce, and spell key terms.

N. Define the nervous system
   1. Identify the four main parts of a neuron.
   2. Name the two main divisions of the nervous system.
   3. Describe the functions of each of the five main sections of the brain.
   4. Explain the functions of the spinal cord.
   5. Name the meninges.
   6. Describe the circulation and function of cerebrospinal fluid.
   7. Contrast the actions of the sympathetic and parasympathetic nervous system.
   8. Describe the major diseases of the nervous system
   9. Demonstrate general medical assistant duties for this body system
   10. Define, pronounce and spell all key terms.

O. Describe the special senses.
   1. Identify five special senses.
   2. Label the major parts on a diagram of the eye.
   3. Trace the pathway of light rays as they pass thorough the eye.
   4. Label the major parts on a diagram of the ear.
   5. State the location of the main taste receptors.
6. List general senses located throughout the body.
7. Explain how the ear helps maintain balance and equilibrium
8. Perform an ear lavage
9. Administer a visual acuity test
10. Instill medication in eyes and ears
11. Describe the major diseases of the special senses
12. Demonstrate general medical assistant duties for this body system
13. Define, pronounce and spell all key terms.

P. Define the circulatory system.
1. Label the layers, chambers, valves and major blood vessels of the heart.
2. Differentiate between systole and diastole by explaining what happens in the heart during each phase.
3. List the cardiac cycle.
4. List the conductive pathway.
5. Define blood composition.
6. Compare the three main types of blood cells by describing their function
7. List major types of blood vessels and the action of each type.
8. List special procedures of the circulatory system
9. Perform an EKG
10. Understand cardiac rhythm interpretation
11. Describe the major diseases of the cardiovascular system
12. Demonstrate general medical assistant duties for this body system
13. Define, pronounce and spell all key terms.

Q. Discuss the lymphatic system.
1. Explain the function of lymphatic vessels.
2. List the functions of the lymph nodes.
3. Identify lymphatic ducts and the areas of the body that each drains.
4. List the functions of the spleen.
5. Describe the functions of the thymus.
6. Describe the major diseases of the lymphatic system
7. Demonstrate general medical assistant duties for this body system
8. Define, pronounce and spell key terms

R. Describe the respiratory system.
1. Label a diagram of the respiratory system.
2. List the functions of the nasal cavity.
3. Identify the three sections of the pharynx.
4. Explain how the larynx creates sound and speech.
5. Describe the functions of the epiglottis.
6. Compare the processes of inspiration and expiration, including the muscle action that occurs during each process.
7. Differentiate between external and internal respiration.
8. Administer pulmonary function tests.
10. Apply nasal canula and mask.
11. Describe major diseases of the respiratory system.
12. Demonstrate general medical assistant duties for this body system.
13. Define, pronounce and spell key terms.

S. Define the digestive system
   1. Label the major organs of the digestive system.
   2. Identify the organs in the mouth that aid in initial breakdown of food.
   3. Cite functions of the salivary glands.
   4. Describe how the gastric juices act on food.
   5. Explain how food is absorbed into the body by the villi in the small intestine.
   6. List the functions of the colon.
   7. List the functions of the liver.
   8. Explain how the pancreas helps digest foods.
   9. List special procedures of the digestive system.
  10. Describe major diseases of the digestive system.
  11. Demonstrate general medical assistant duties for this body system.
  12. Define, pronounce and spell all key terms.

T. Demonstrate knowledge of the urinary system.
   1. Label urinary system.
   2. Explain the action of the following parts of a nephron: glomerulus, Bowman’s capsule, convoluted tubule, and collection tubule.
   3. State the functions of the ureter, bladder and urethra.
   4. Explain why the urethra is different in males and females.
   5. Interpret terms used to describe conditions affecting urination.
   6. Describe major diseases of the urinary system.
   7. Demonstrate performance of a Urinalysis
   8. Perform urine pregnancy test
   9. Demonstrate general medical assistant duties to this body system
  10. Define, pronounce and spell all key terms.

U. Describe the endocrine system.
   1. Label main endocrine glands.
   2. Describe how hormones influence various body functions.
   3. List which glands produce what hormones.
   4. Describe major diseases of all endocrine glands.
5. Evaluate glucose by capillary puncture
6. Demonstrate general medical assistant duties to this body system
7. Define, pronounce and spell all key terms

V. Demonstrate knowledge of the reproductive system.
   1. Label male reproductive system.
   2. Trace pathway of sperm from where they are produced to where they are expelled.
   3. Identify organs of the male reproductive system.
   4. Explain the addition of seminal fluids to sperm to create semen.
   5. Label female reproductive system.
   6. Describe how an ovum is released.
   7. Explain the action of the endometrium.
   8. Describe how the female reproductive system works.
   9. Define signs and symptoms of sexually transmitted diseases for both male and female reproductive system.
11. Explain testicular self examination.
12. Describe major diseases of both male and female reproductive systems.
13. Demonstrate general medical assistant duties to this body system
14. Define, pronounce and spell all key terms.

W. Demonstrate knowledge of human growth and development.
   1. Define life stages.
   2. Identify the seven main life stages.
   3. Identify physical, mental, emotional and social developments that occur during each of the seven main life stages.
   4. Explain the causes and treatments for eating disorders and chemical abuse.
   5. Identify methods used to prevent suicide and list common warning signs.
   6. Recognize ways that life stages affect an individual’s needs.

X. Demonstrate knowledge of the death and dying process
   1. Describe the five stages of grieving that occur in the dying patient.
   2. Describe the role of the health care worker in the five stages of a dying patient.
   3. List purposes of hospice care and justify the “right to die”.

Y. Describe human needs.
   1. Explain Maslow’s Hierarchy of Needs.
   2. Create examples for each of Maslow’s Hierarchy of needs.
   3. Describe methods people use to meet or satisfy needs.
   4. Describe a situation that shows the use of each of the following defense mechanisms: rationalization, projection, displacement, compensation, daydreaming, repression, suppression, denial and withdrawal.
1. Recognize the myths of aging.
2. Differentiate between myths and facts of the various aspects of aging.
3. Describe the physical changes of aging.
4. Identify the major physical changes in each body system.
5. Demonstrate at least ten methods of providing care to the elderly person who is experiencing physical changes of aging.
6. Describe psychosocial changes of aging.
7. List factors that cause psychosocial changes of aging.
8. Describe methods to assist an elderly individual in adjusting to psychosocial changes.
9. Understand confusion and disorientation.
10. Recognize the causes and effects of confusion and disorientation in the elderly.
11. Create a reality orientation program.
12. Demonstrate meeting the needs of the elderly.
13. Justify the importance of respecting cultural and religious differences.
14. Explain the role of an ombudsman.

1. Demonstrate knowledge of the fundamentals of nutrition.
   a. Describe how nutrition plays a role in determining health.
   b. List what major diseases or conditions can occur.
2. Recognize the essential nutrients.
   a. List essential nutrients
   b. List vitamins and their best sources.
   c. Describe functions of each essential vitamin.
3. Understand the utilization of nutrients.
   a. Diagram and list the processes of digestion and absorption.
   b. Define metabolism and measuring food energy.
4. Demonstrate maintenance of good nutrition.
   a. Define the five major food groups.
   b. List the nutrient content of each food in the food groups.
   c. Create a menu utilizing the five major food groups.
5. Define therapeutic diets.
   a. Define eating disorders.
   b. Name, describe and explain the purposes of the ten therapeutic diets.

1. Demonstrate principles of infection control.
   a. Identify five classes of microorganisms.
   b. Describe the characteristics of each class.
   c. List the six components of the chain of infection.
2. Demonstrate effective hand washing techniques.
   a. Wash hands according to recommended aseptic technique.
   b. Demonstrate procedure for surgical aseptic technique.
3. Observe standard precautions.
   a. Define personal protective equipment (PPE).
   b. Describe how bloodborne pathogens are transmitted.
   c. Compare Hepatitis virus to human immunodeficiency virus.
   d. Define standard or universal precautions.
   e. List the types of PPE used for universal precautions.
4. Demonstrate the use of sterile techniques.
   a. Open sterile packages without contaminating the contents.
   b. Preparing a sterile dressing tray.
   c. Don sterile gloves without contaminating the gloves.
   d. Change a sterile dressing without contaminating the materials.
   e. Don and remove an isolation mask, gloves, and gown.
   f. Relate specific basic tasks to care for a patient in an isolation unit.
   g. Define, pronounce and spell key terms
5. Demonstrate sterilizing with an autoclave.
   a. Differentiate between antisepsis, disinfection and sterilization.
   b. Operate autoclave with accuracy and safety.
   c. Wash, wrap, and autoclave instruments, linen, and equipment.
   d. Follow basic principles on using chemicals for disinfection.
CC. Demonstrate obtaining vital signs.
1. List the four main vital signs.
2. List all pulse sites on the body.
3. Prepare graph for TPR.
4. Convert Fahrenheit temperatures to Celsius and back.
5. Read a clinical thermometer to the nearest two-tenths of a degree.
6. Measure and record oral temperature accurately.
7. Measure and record axillary temperature accurately.
8. Measure and record tympanic temperature accurately.
9. Measure and record radial pulse to accuracy within +/- 2 beats per minute.
10. Measure and record respirations.
11. Measure and record blood pressure to an accuracy within +/- 2mm of actual mercury reading.
12. State normal range for all forms of temperature, pulse, respirations, systolic pressure and diastolic pressure.
DD. Understand and demonstrate safe administration of medication
1. Exhibit administration of medication by oral, intradermal, subcutaneous, and intramuscular routes.
2. Identify parenteral administration equipment and explain how it is used.
3. Describe and demonstrate the types and locations of parenteral routes.
4. Demonstrate thorough understanding of patient and equipment safety.
EE. Demonstrate how to obtain a blood specimen by using phlebotomy techniques
1. List equipment needed for venipuncture
2. Explain the purpose of a tourniquet
3. Demonstrate the application of a tourniquet and the consequences of improper use
4. Explain the stopper colors on evacuated tubes
5. Describe the choice of syringes, winged infusion sets, or evacuated tubes
6. Detail patient preparation for venipuncture
7. Name the veins that may be used for blood collection
8. List in order the steps of a routine venipuncture
9. Collect a venous blood sample using a syringe
10. Collect a venous blood sample using a evacuated tube
11. Collect a venous blood sample using a winged infusion set
12. Identify causes and treatments of hemolysis during venous blood collection
13. List situations in which capillary punctures would be preferred over venipuncture
14. Perform a capillary puncture

FF. Demonstrate knowledge of First Aid.
1. Demonstrate cardiopulmonary resuscitation for one-person and two-person rescue on adults, infants, children and obstructed airway victims.
2. Describe first aid for:
   a. bleeding and wounds
   b. shock
   c. poisoning
   d. burns
   e. heat exposure
   f. cold exposure
   g. bone and joint injuries, including fractures
   h. specific injuries to the eyes, head, nose, ears, chest, abdomen, and genital organs
   i. sudden illness including heart attack, stroke, fainting, convulsions, and diabetic reaction.
3. Apply dressings and bandages.
4. Apply splinting bandages using circular, spiral, figure-eight and recurrent wraps.
5. Define, pronounce and spell key terms.

GG. Demonstrate laboratory assistant skills.
1. Operate a microscope and identify its parts.
2. Obtain a culture specimen without contaminating it.
3. Streak an agar plate or slide.
4. Perform a microhematocrit test.
5. Perform a hemoglobin test.
6. Test blood for type and Rh factors using anti-serums.
7. Measure blood sugar level.
8. Test urine using a reagent strip.
9. Measure specific gravity of urine.
11. Demonstrate proper use of centrifuge for urine and blood specimens.
HH. Demonstrate Medical Assisting Skills
   1. Measure and record height and weight of infants and adults
   2. Identify the following positions for exams:
      i. Horizontal recumbent
      ii. Prone
      iii. Sim’s
      iv. Knee Chest
      v. Fowler’s
      vi. Semi-Fowler’s
      vii. Lithotomy
      viii. Dorsal Recumbent
      ix. Trendelenburg
   12. Position and drape patient for MD exam
   13. Use a Snellen chart to screen for vision
   14. Use Ishihara plates to screen for color blindness
   15. Prepare equipment for eye, ear, nose, and throat exam
   16. Prepare for and assist with a gynecological exam
   17. Prepare for and assist with a general physical exam
   18. Set up a general surgery tray without contamination
   19. Demonstrate proper lead placement and obtain an EKG
   20. Use Physician’s Desk Reference to obtain information about medications
   21. Identify methods of medication administration
   22. Demonstrate drug conversions using metric and household systems

II. Demonstrate Preparation for the World of Work
   1. Identify job keeping skills
   2. Explain why employers consider the skills essential.
   3. Write a letter of application containing all required information and using correct form for letters.
   4. Prepare a resume containing all necessary information and meeting standards for neatness and correctness.
   5. Complete a job application form that meets standards of neatness and correctness.
   6. Demonstrate how to participate in a job interview, including wearing correct dress and meeting standards established in this unit.
   7. Calculate an accurate budget for a one month period, accounting for fixed expenses and variable expenses without exceeding net monthly income.
   8. Define, pronounce and spell key items.
Minimum required hours of instruction:

   Classroom instruction  588  
   Clinical rotation  180  
   Total hours  768  

**Instructional Strategies:** Lecture, simulations, guest speakers, field trips, role play, demonstration, lab, applied practice.

**Instructional Materials:**

Texts:

- Kinn’s The Medical Assistant with study guide; edition 13 by Alexandra P. Young and Deborah B. Kennedy printed by Saunders, ISBN # 978-1-4160-5439-9

**Articulation:**

**UC A-G:**

**Academic Credit:**

**Industry/licensing requirement met:** Students test with the California Certifying Board for Medical Assisting or the American Medical Technologists

**Certificates:** Course completion certificate attached. Competencies should match major sections of the course outline.

Revised: 6/29/16