MODESTO JUNIOR COLLEGE
MEDICAL ASSISTING PROGRAM
Syllabus

Course Number:  MDAST 324

Course Title:  Introduction to Disease and Pharmacology

Course Description:  Medical terminology related to the human body in health and disease. Pathogenesis and discussion of representative diseases; signs and symptoms of many major diseases and basic drugs used in treatment.

Credit:  4 units

Class Hours:  3.5 hours lecture/1.5 hours lab

Instructor:  Amy Duffy  email:  duffya@mjc.edu
Office:  Glacier Hall 124  phone:  575-6380
Class location:  Glacier Hall 207
Instructor office hours are after class or by appointment.

Methods of Instruction:  This course will be taught by lecture, collaborative learning experience, guided discussion, audio-visual materials, case studies, and demonstration of clinical procedures.


Minimum Performance Standards: The student will receive one grade from this course. The requirements for satisfactory completion and minimum performance in this course will be evaluated by the instructor based on the student's:

I. Tests, quizzes, class assignments, computer assignments and written assignments.

II. Successful completion of entry-level procedures for the medical assistant.

   Each procedure is initially completed as a Peer Evaluation. The student then has a maximum of three attempts to achieve a satisfactory rating by the instructor for each procedure. **CAAHEP accreditation requires 100% of Medical Assisting graduates pass 100% of all competencies**

Failure to clearly demonstrate any of the Minimum Performance Standards will result in failure of the course.

If the student’s performance falls below a “C”, the instructor will require a counseling session with the student and complete a Student Contact Sheet.

If improvement does not take place, the instructor will initiate another meeting with the student and complete a Probation Notice.

If the student’s performance remains unsatisfactory, the student will need to repeat the entire course.

Any student required to repeat a medical assisting course will be required to withdraw from the program and reapply to repeat the course the following year.
Grading Scale: The grading policy requires a grade of “C” or better to progress in the Medical Assisting Program.

- A = 100-90%
- B = 89-80%
- C = 79-70%
- D = 69-60%
- F = 59 and below

A. COURSE GOAL

As a result of satisfactory completion of this course, the student should be prepared to:

Define diseases and disease-related terms as well as know the current and commonly used practices, procedures, medications and drug preparations; and satisfactorily complete clinical procedures.

B. STUDENT LEARNING GOALS

Mastery of the following learning goals will enable the student to achieve the overall course goal.

1. Required Learning Goals

Upon satisfactory completion of this course, the student will be able to:

- a. Identify etiological factors of disease.
- b. Define the common terms used to describe pathophysiological changes.
- c. Describe the infectious disease process.
- d. Discuss factors regarding the healing process.
- e. Identify signs and symptoms that occur in many common diseases.
- f. Develop ability to record medical information accurately in the medical record.
- g. Identify sources, use, classification and types of drugs.
- h. Give examples of drugs frequently used in various categories for therapy.
i. Interpret abbreviations and symbols used in pharmacology.

j. Use appropriate reference books to locate accurate information regarding use of drugs.

k. Define various diagnostic procedures for the body systems.

l. Demonstration of the medical assistant’s role in assisting with body systems procedures.

**COURSE LEARNING OUTCOMES**

Upon satisfactory completion of this course, the student should be prepared to:

1. Identify the signs, symptoms and treatments for common diseases.

2. Identify fifty common medications and their uses.
CHAPTER 30 Assisting in Ophthalmology and Otolaryngology

PREPARATION:

Read Chapter 30 in The Medical Assistant
Complete Chapter 30 in the Study Guide

CONTENT:

This chapter covers the basic anatomy of the eye and ear. Major disorders and common refractive errors are identified as well as the treatment for these disorders. Irrigation of the eye and ear and the administration of medication to both the eye and ear are addressed.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Explain the differences among an ophthalmologist, an optometrist, and an optician.
3. Identify the anatomic structures of the eye.
4. Describe the process of vision.
5. Differentiate among the major types of refractive errors.
6. Summarize typical disorders of the eye and eyeball other than refractive errors.
7. Do the following related to diagnostic procedures for the eye:
   - Define the various diagnostic procedures for the eye.
   - Perform a vision acuity test using the Snellen chart.
   - Assess color acuity using the Ishihara test.
8. Explain the purpose of and the proper procedure for eye irrigations and instillation of eye medications.
9. Identify the structures and explain the functions of the external, middle, and inner ear.

10. Describe the conditions that can lead to hearing loss, including conductive and sensorineural impairments.

11. Define the major disorders of the ear, including otitis, impacted cerumen, and Meniere’s disease.

12. Do the following related to diagnostic procedures for the ear:
   - Explain diagnostic procedures for the ear.
   - Use an audiometer to measure patient’s hearing acuity accurately.
   - Identify the purpose of ear irrigations and instillation of ear medications.
   - Demonstrate the procedure for performing ear irrigation.
   - Accurately instill mediated ear drops.

13. Summarize the nose and throat examination and perform a throat culture.


15. Discuss legal and ethical issues that might arise when caring for a patient with a vision or hearing deficit in addition to requirements established by HIPAA and the Americans with Disabilities Act Amendments (ADAA).

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities
Psychomotor Skills:
I.P8. Instruct and prepare a patient for a procedure or a treatment
I.P9. Assist provider with a patient exam
I.P3. Perform patient screening using established protocols

Affective Behavior:
I.A1. Incorporate critical thinking skills when performing assessment
I.A2. Incorporate critical thinking skills when performing patient care

PROCEDURES:
30-1 Measure Distance Visual Acuity with the Snellen chart
30-2 Assess Color Acuity using the Ishihara test
30-3 Irrigate a Patient’s Eyes
30-4 Instill an Eye Medication
30-5 Measure Hearing Acuity with an Audiometer
30-6 Irrigate a Patient’s Ear
30-7 Instill Medicated Ear Drops
30-8 Collect Specimen for a Throat Culture
CHAPTER 31 Assisting in Dermatology

PREPARATION:

Read Chapter 31 in The Medical Assistant
Complete Chapter 31 in the Study Guide

CONTENT:

This chapter covers the basic anatomy and physiology of the integumentary system. Additionally, the common disorders, diseases and medications associated with the body system are discussed.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.

2. Explain the major function of the skin.

3. Describe the anatomic structures of the skin.

4. Compare various skin lesions and give examples of each.

5. Describe typical integumentary system infections and infestations.

6. Differentiate among various inflammatory and autoimmune integumentary disorders.

7. Recognize thermal and cold injuries to the skin.

8. Compare the characteristics of benign and malignant neoplasms.

9. Do the following relating to benign and malignant neoplasms:
   - Explain the grading and staging of malignant tumors.
   - Conduct patient education on the warning signs of cancer.
   - Describe skin malignancies and their treatment.
   - Define the ABCDE rule for identifying a malignant melanoma.
10. Do the following relating to dermatologic procedures:
   - Discuss how to assist with dermatologic examination.
   - Summarize allergy testing procedures.
   - Describe the diagnosis and treatment of allergies.

11. Correctly obtain an exudate sample from a wound for laboratory analysis.

12. Discuss the medical assistant’s role in patient education, in addition to legal and ethical issues that would apply to a dermatology practice.

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

Affective Behavior:

I.A1. Incorporate critical thinking skills when performing assessment
I.A2. Incorporate critical thinking skills when performing patient care

PROCEDURES:

None
CHAPTER 32 Assisting in Gastroenterology

PREPARATION:

Read Chapter 32 in The Medical Assistant
Complete Chapter 32 in the Study Guide

CONTENT:

This chapter covers the basic anatomy and physiology of the gastrointestinal system. Additionally, the common disorders, diseases and medications associated with the body system are discussed.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.

2. Describe primary functions of the GI system.

3. Identify the anatomic structures that make up the GI system and describe the physiology of each.

4. Differentiate among the abdominal quadrants and regions.

5. Summarize the typical symptoms and characteristics of GI complaints and perform telephone screening for patients with GI complaints.

6. Distinguish among cancers of the GI tract.

7. List common esophageal and gastric disorders; also, describe the signs and symptoms, diagnostic tests, and treatments of each.

8. List intestinal disorders, the signs and symptoms, diagnostic tests, and treatments of each.

9. Do the following related to diseases of the liver and gallbladder:
   - Classify disorders of the liver and gallbladder and list the signs and symptoms, diagnostic tests, and treatments.
   - Describe the similarities and differences among the various forms of infectious viral hepatitis.

10. Summarize the medical assistant’s role in the GI examination.
11. Do the following when it comes to assisting with gastroenterology diagnostic procedures:

- Explain the common diagnostic procedures for the GI system.
- Demonstrate the procedures for assisting with an endoscopic colon examination.
- Perform the procedural steps for assisting with the collection of a fecal specimen.

12. Describe the medical assistant’s role in the proctologic examination.

13. Describe patient education, in addition to legal and ethical issues, related to assisting in gastroenterology.

**COMPETENCIES:**

**Cognitive Knowledge:**

I.C3. Describe:
   c. quadrants
I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

**Psychomotor Skills:**

I.P8. Instruct and prepare a patient for a procedure or a treatment
I.P9. Assist provider with a patient exam

**Affective Behavior:**

I.A1. Incorporate critical thinking skills when performing patient assessment
I.A2. Incorporate critical thinking skills when performing patient care
I.A3. Show awareness of a patient’s concerns related to the procedure being performed

PROCEDURES:

32-1 Telephone Screening of a Patient with a Gastrointestinal Complaint
32-2 Assist with Endoscopic Examination of the Colon
32-3 Instruct Patients in the Collection of a Fecal Specimen
CHAPTER 33  Assisting in Urology and Male Reproduction

PREPARATION:

Read Chapter 33 in The Medical Assistant
Complete Chapter 33 in the Study Guide

CONTENT:

This chapter covers the basic anatomy and physiology of the gastrointestinal system. Additionally, the common disorders, diseases and medications associated with the body system are discussed.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Describe the anatomy and physiology of the urinary system.
3. Do the following related to disorders of the urinary system:
   - Explain the susceptibility of the urinary system to diseases and disorders.
   - Identify the primarily signs and symptoms of urinary problems.
   - Detail common diagnostic procedures of the urinary system.
4. Discuss the causative factors of urinary incontinence, in addition to the various treatments and medications used to treat it.
5. Compare and contrast infections and inflammations of the urinary tract.
6. Describe urinary tract disorders and cancers.
7. Summarize the causes of renal failure and how is treated.
8. Summarize the typical pediatric urologic disorder.
9. Describe the anatomy and physiology of the male reproductive system.
10. Determine the causes and effects of prostate disorders.
11. Outline common types of genital pathologic conditions in men, and perform patient education for the testicular self-examination.
12. Analyze the effects of sexually transmitted infections in men and summarize the characteristics of HIV infection and the diagnostic criteria and treatment protocols.
13. Describe the medical assistant’s role in urologic and reproductive examinations.

14. Discuss patient education, legal and ethical issues, and HIPAA applications in the urology practice.

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system

I.C7. Describe the normal function of each body system

I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology

I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

Psychomotor Skills:

V.P4. Coach patients regarding:
   b. health maintenance

Affective Behavior:

I.A2. Incorporate critical thinking skills when performing patient care

PROCEDURES:

33-1 Teach Testicular Self-Examination
CHAPTER 34  Assisting in Obstetrics and Gynecology

PREPARATION:

Read Chapter 34 in The Medical Assistant
Complete Chapter 34 in the Study Guide

CONTENT:

This chapter covers the basic anatomy and physiology of the female reproductive system. Pregnancy, childbirth and menopause are addressed. Additionally, the common disorders, diseases and medications associated with the body system are discussed.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.

2. Explain the anatomy and physiology of the female reproductive system.

3. Trace the ovum through the three phases of menstruation.

4. Compare current contraceptive methods.

5. Summarize menstrual disorders and conditions.

6. Distinguish among different types of gynecologic infections.

7. Do the following related to benign and malignant tumors of the female reproductive system:
   
   - Differentiate between benign and malignant neoplasms of the female reproductive system.
   - Prepare for and assist with the female examination, including obtaining a Papanicolaou (Pap) smear.
   - Demonstrate patient preparation for a loop electrosurgical excision procedure (LEEP).
   - Teach the patient the technique for a breast self-examination.
8. Compare the positional disorders of the pelvic region.
9. Summarize the process of pregnancy and parturition.
10. Describe the common complications of pregnancy.
11. Specify the signs, symptoms, and treatments of conditions related to menopause.
12. Outline the medical assistant’s role in gynecologic and reproductive examinations and demonstrate how to assist with a prenatal examination.
13. Distinguish among diagnostic tests that may be done to evaluate the female reproductive system.
14. Summarize patient education guidelines for obstetric patients, in addition to legal and ethical implications in a gynecology patient.

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

Psychomotor Skills:

V.P4. Coach patients regarding
   b. health maintenance
I.P8. Instruct and prepare a patient for a procedure or a treatment
I.P9. Assist provider with a patient exam
Affective Behavior:

I.A2. Incorporate critical thinking skills when performing patient care

PROCEDURES:

34-1 Assist with the Examination of a Female Patient and Obtain Pap Smear
34-2 Prepare the Patient for a LEEP
34-3 Teach the Patient Breast Self-Examination
34-4 Assist with a Prenatal Examination
CHAPTER 35 Assisting in Pediatrics

PREPARATION:

Read Chapter 35 in The Medical Assistant
Complete Chapter 35 in the Study Guide

CONTENT:

This chapter summarizes the growth and development of the pediatric patient. Additionally, disorders and infectious diseases common to the patient are discussed.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Describe childhood growth patterns.
3. Summarize the important features of the Denver II Developmental Screening Test.
4. Discuss developmental patterns and therapeutic approaches for pediatric patients.
5. Identify four different growth and development theories.
6. Consider implications of postpartum depression.
7. Explain common pediatric gastrointestinal disorders, in addition to failure to thrive and obesity.
8. Describe disorders of the respiratory system in children.
10. Recognize the etiologic factors and signs and symptoms of the two primary pediatric inherited disorders.
11. Summarize the immunizations recommended for children by the Center for Disease Control and Prevention (CDC).
12. Demonstrate how to document immunizations and maintain accurate immunization records.

13. Compare and contrast a well-child and a sick-child examination.

14. Outline the medical assistant’s role in a pediatric examination.

15. Measure the circumference of an infant’s head.

16. Obtain accurate length and weight measurements and plot pediatric growth patterns.

17. Accurately measure pediatric vital signs and perform vision screening.

18. Correctly apply a pediatric urine collection device.

19. Describe the characteristics and needs of the adolescent patient.


22. Discuss the legal and ethical implications in a pediatric practice.

**COMPETENCIES:**

**Cognitive Knowledge:**

I.C6. Compare structure and functions of the human body across the life span

I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology

X.C12. Describe compliance with public health statutes:
   b. abuse, neglect and exploitation

V.C17. Discuss the theories of:
   b. Erikson

II.C6. Analyze healthcare results as reported in:
   a. graphs
Psychomotor Skills:

I.P1. Measure and record:
   a. blood pressure
   b. temperature
   c. pulse
   d. respirations
   e. height
   f. weight
   g. length (infant)
   h. head circumference (infant)

I.P4. Verify the rules of medication administration:
   f. right documentation

I.P9. Assist provider with a patient exam

II.P4. Document on a growth chart

X.P3. Document patient care accurately in the medical record

Affective Behavior:

I.A1. Incorporate critical thinking skills when performing patient assessment

I.A3. Show awareness of a patient’s concerns related to the procedure being performed

V.A4. Explain to a patient the rationale for performance of a procedure

PROCEDURES:

35-1 Document Immunizations
35-2 Measure the Circumference of an Infant’s Head
35-3 Measure an Infant’s Length and Weight
35-4 Obtain Pediatric Vital Signs and Perform Vision Screening
35-5 Applying a Urinary Collection Device
PREPARATION:
Read Chapter 36 in The Medical Assistant
Complete Chapter 36 in the Study Guide

CONTENT:
The chapter describes the duties of the medical assistant in an orthopedic practice, including assisting patients with ambulatory devices. Additionally, medications, injuries and disorders related to the body system are addressed.

LEARNING OBJECTIVES:
1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Describe the principle anatomic structures of the musculoskeletal system and their functions.
3. Differentiate among tendons, bursae, and ligaments.
4. Summarize the major muscular disorders.
5. Identify and describe the common types of fractures.
6. Explain the difference between osteomalacia and osteoporosis.
7. Classify typical spinal column disorders.
8. Differentiate among the various joint disorders.
9. Summarize the medical assistant’s role in assisting with orthopedic procedures.
10. Explain the common diagnostic procedures used in orthopedics.
11. Discuss therapeutic modalities used in orthopedic medicine.
12. Apply cold therapy to an injury.
13. Discuss various heat treatments and assist with hot moist heat application to an orthopedic injury.
14. Discuss therapeutic ultrasonography, massage, exercise, and electrical muscle simulation.

15. Explain the use of common ambulatory devices, properly fit a patient with crutches and coach a patient in the correct mechanics of crutch walking.

16. Discuss the management of fractures and prepare for and assist with both the application and removal of a cast.

17. Summarize patient education guidelines for orthopedic patients.

18. Discuss the legal and ethical implications in an orthopedic practice.

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

Psychomotor Skills:

I.P8. Instruct and prepare a patient for a procedure or a treatment
V.P4. Coach patients regarding:
   d. treatment plan

Affective Behavior:

I.A2. Incorporate critical thinking skills when performing patient care

PROCEDURES:
36-1 Assist with Cold Application
36-2 Assist with Moist Heat Application
36-3 Teach Patient Crutch Walking and Swing-Through Gait
36-4 Assist with Application of a Cast
36-5 Assist with Cast Removal
PREPARATION:
Read Chapter 37 in The Medical Assistant
Complete Chapter 37 in the Study Guide

CONTENT:
This chapter outlines the disorders, diagnostic procedures and treatments related to the nervous system.

LEARNING OBJECTIVES:
1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Summarize the anatomy and physiology of the nervous system.
3. Differentiate between the central and peripheral nervous system.
4. Distinguish among common nervous system diseases and conditions and identify the typical symptoms associated with neurologic disorders.
5. Describe the pathology of cerebrovascular diseases.
6. Identify the various types of epilepsy.
7. Compare and contrast encephalitis and meningitis.
8. Explain the dynamics of brain and spinal cord injuries.
9. Summarize common central nervous system (CNS) and peripheral nervous system (PNS) diseases.
10. Differentiate among common mental health disorders.
11. Analyze the medical assistant’s role in the neurologic examination.
12. Explain the common diagnostic procedures for the nervous system.
13. Outline the steps for needed to prepare a patient for an electroencephalogram (EEG).
14. Describe the steps for preparing a patient for and assisting with a lumbar puncture.

15. Discuss the implications of patient education in a neurologic and mental health practice.

16. Explain the legal issues and Health Insurance Portability and Accountability Act (HIPAA) applications associated with neurology and mental health.

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

Psychomotor Skills:

I.P8. Instruct and prepare a patient for a procedure or a treatment
I.P9. Assist provider with a patient exam

Affective Behavior:

I.A1 Incorporate critical thinking skills when performing patient assessment

PROCEDURES:
37-1 Assist with the Neurologic Examination
37-2 Prepare the Patient for an Electroencephalogram
37-3 Prepare the Patient for and Assist with a Lumbar Puncture
PREPARATION:
Read Chapter 38 in The Medical Assistant
Complete Chapter 38 in the Study Guide

CONTENT:
This chapter outlines the disorders, diagnostic procedures and treatments related to the endocrine system. The student will be instructed on assisting patients with management of diabetes as well as providing education related to diet and nutrition.

LEARNING OBJECTIVES:
1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Summarize the anatomy and physiology of the endocrine system.
3. Explain the mechanism of hormone action.
4. Differentiate among the diseases and disorders of the endocrine system.
5. Describe the diagnostic criteria for diabetes mellitus.
6. Do the following with regard to diabetes mellitus:
   • Compare and contrast pre-diabetes, diabetes type 1, diabetes type 2, and gestational diabetes.
   • Outline the treatment plan and management of the different types of diabetes mellitus.
   • Perform blood glucose screening with a glucometer.
   • Identify the characteristics of hypoglycemia and hyperglycemia.
   • Describe acute and chronic complications associated with diabetes mellitus.
7. Discuss follow-up for patients with diabetes and summarize patient education approaches to diabetes.
6. Discuss legal and ethical issues to consider when caring for patients with endocrine system disorders.

COMPETENCIES:
Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

Psychomotor Skills:

I.P8. Instruct and prepare a patient for a procedure or treatment
I.P9. Assist provider with a patient exam

Affective Behavior:

I.A2. Incorporate critical thinking skills when performing patient care
II.A1. Reassure a patient of the accuracy of the test results

PROCEDURES:

38-1 Perform a Blood Glucose TRUEresult Test
38-2 Perform a Monofilament Foot Exam
PREPARATION:
Read Chapter 39 in The Medical Assistant
Complete Chapter 39 in the Study Guide

CONTENT:
This chapter addresses the common pathological conditions of the pulmonary system, as well as the procedures and medications used to treat these conditions.

LEARNING OBJECTIVES:
1. Define, spell, and pronounce the terms listed in the vocabulary.
2. Describe the organs of the respiratory system and their functions.
3. Explain the process of ventilation.
4. Discuss respiratory system defenses and use correct respiratory system terminology when documenting in the medical record.
5. Describe upper respiratory infections (e.g., the common cold, sinusitis, and allergic rhinitis) in addition to lower respiratory infections (e.g., pneumonia).
6. Explain the diagnosis and treatment of tuberculosis.
7. Do the following related to chronic obstructive pulmonary disease:
   - Summarize the disorders associated with chronic obstructive pulmonary disease and their treatments.
   - Teach a patient how to use a peak flow meter.
   - Administer a nebulizer treatment.
   - Detail patient teaching for the use of a metered-dose inhaler.
8. Discuss obstructive sleep apnea, including causes, risk factors, complications, and treatment.
9. Describe the cancers associated with the pulmonary system.
10. Summarize the medical assistant’s role in assisting with pulmonary procedures.
11. Distinguish among common diagnostic procedures for the respiratory system; perform a volume capacity spirometry test and pulse oximeter procedure; collect a sputum sample for culture.

12. Discuss patient education, in addition to legal and ethical issues associated with pulmonary medicine.

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities

Psychomotor Skills:

I.P1. Measure and record:
   i. pulse oximetry
I.P2. Perform:
   d. pulmonary function testing
I.P3. Perform patient screening using established protocols
I.P8. Instruct and prepare a patient for a procedure or a treatment
I.P11. Obtain specimens and perform:
   e. CLIA waived microbiology test
III.P2. Select appropriate barrier/personal protective equipment (PPE)

Affective Behavior:

I.A2. Incorporate critical thinking skills when performing patient care
PROCEDURES:

39-1  Teach a Patient How to Use a Peak Flow Meter
39-2  Administer a Nebulizer Treatment
39-3  Perform Volume Capacity Spirometry Testing
39-4  Perform Pulse Oximetry
39-5  Obtain a Sputum Sample for Culture
PREPARATION:

Read Chapter 40 in The Medical Assistant
Complete Chapter 40 in the Study Guide

CONTENT:

This chapter will cover the anatomy and physiology of the heart, as well as diseases and disorders related to the body system and medications which treat these conditions.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.

2. Explain the anatomy and physiology of the heart and its significant structures.

3. Summarize risk factors for the development of heart disease.

4. Do the following related to coronary artery disease and myocardial infarction:
   - Describe the signs, symptoms, and medical procedures used in the diagnosis and treatment of coronary artery disease and myocardial infarction.
   - Summarize metabolic syndrome and associated risk factors.
   - Explain the signs and symptoms of myocardial infarction in women.

5. Compare and contrast the treatment protocols for hypertension.

6. Outline the causes and results of congestive heart failure.

7. Summarize the effects of inflammation and vascular disorders on cardiac function.

8. Describe the anatomy and physiology of the vascular system.

9. Differentiate among the various types of shock.

10. Summarize the characteristics of common vascular disorders.

11. Discuss arterial disorders, including causes, risk factors and common treatments.

13. Describe patient education topics, and legal and ethical issues, for cardiovascular patients.

COMPETENCIES:

Cognitive Knowledge:

I.C5. Identify the anatomical location of major organs in each body system
I.C7. Describe the normal function of each body system
I.C8. Identify common pathology related to each body system including:
   a. signs
   b. symptoms
   c. etiology
I.C9. Analyze pathology for each body system including:
   a. diagnostic measures
   b. treatment modalities
I.C11. Identify the classifications of medications including:
   a. indications for use
   b. desired effects
   c. side effects
   d. adverse reactions

Affective Behavior:

I.A1. Incorporate critical thinking skills when performing patient assessment

PROCEDURES:

NONE
PREPARATION:
Read Chapter 41 in The Medical Assistant
Complete Chapter 41 in the Study Guide

CONTENT:
This chapter examines the changes affecting people as they age, as well as common misconceptions and concerns regarding the aging population.

LEARNING OBJECTIVES:

1. Define, spell, and pronounce the terms listed in the vocabulary.

2. Do the following related to the aging process:
   - Discuss the impact of a growing aging population on society.
   - Identify the stereotypes and myths associated with aging.
   - Role-play the effect of the sensorimotor changes of aging.

3. Do the following related to the cardiovascular, endocrine, gastrointestinal, integumentary, and musculoskeletal body systems:
   - Explain the changes in the anatomy and physiology of the body systems caused by aging.
   - Summarize the major diseases and disorders faced by older patients.

4. Do the following related to the nervous system, pulmonary system, sensory organs, urinary system, and reproductive systems:
   - Explain the changes in the anatomy and physiology caused by aging.
   - Summarize the major related diseases and disorders faced by older patients.
   - Describe various screening tools for dementia, depression, and malnutrition in aging adults.

5. Explain the effect of aging on sleep.

6. Differentiate among independent, assisted, and skilled nursing facilities.

7. Summarize the role of the medical assistant in caring for aging patients.
8. Determine the principles of effective communication with older adults.

9. Discuss patient education, as well as legal and ethical issues, associated with aging patients.

COMPETENCIES:

Cognitive Knowledge:

I.C6. Compare structure and functions of the human body across the life span
X.C7. Define:
   f. living wills/advanced directives
X.C12. Describe compliance with public health statutes:
   b. abuse, neglect and exploitation

Affective Behavior:

I.A2. Incorporate critical thinking skills when performing patient care
V.A1. Demonstrate:
   a. empathy
V.A3. Demonstrate respect for individual diversity:
   d. age

PROCEDURES:

41-1 Understand the Sensorimotor Changes of Aging

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