

2016-2017

**COURSE:** MA 220 – Diagnostic and Therapeutic Procedures

**COURSE DESCRIPTION:** This course includes the study of radiology, nutrition, physical therapy and electrocardiography as they apply to diagnosis.

**LEARNING OUTCOME:** Upon successful completion of this course, the student will be able to perform the activities in a clinical setting from assisting in radiology and performing an electrocardiography. The student will also be aware of nutrition/special diets and the different therapies that are performed in a clinical setting.

**INSTRUCTOR:** Larin Albertson, CMA (AAMA) (605)882-5284 ext. 459 Room # 110  
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**DURATION:** 28 Clock Hours 1 Semester Credit

**SEMESTER:** FALL 2016 (8/18/16 - 12/16/16) MW 1:30PM ROOM 110A

**REQUIRED TEXT:** Medical Assisting Administrative and Clinical Procedures, 5<sup>th</sup> edition by Booth, Whicker and Wyman \$169.00, ISBN: 978-0-07-340232-1, Publisher: McGraw Hill

Student Workbook: Medical Assisting Administrative and Clinical Procedures with Anatomy and Physiology, 5<sup>th</sup> edition by Booth, Whicker and Wyman, \$96.00, ISBN: 978-0-07-752588-0, Publisher: McGraw Hill

### UNITS OF INSTRUCTION

MA 220 1 Physical Therapy and Rehabilitation (Chapter 54)

MA 220 2 Nutrition and Health (Chapter 55)

MA 220 3 Electrocardiography and Pulmonary Function Testing (Chapter 49)

MA 220 4 Diagnostic Imaging (Chapter 50)

### STUDENT LEARNING OUTCOMES

**By successfully completing this course, students will:**

MA 220 1

1. Discuss the general principles of physical therapy.
2. Relate various cold and heat therapies to their benefits and contraindications.
3. Recall hydrotherapy methods.
4. Name several methods of exercise therapy.
5. Describe the types of massage used in rehabilitation therapy.
6. Compare different methods of traction.
7. Carry out the procedure for teaching a patient to use a cane, a walker, crutches, and a wheelchair.
8. Model the steps you should take when referring a patient to a physical therapist.

#### MA 220 2

1. Relate daily energy requirements to the role of calories.
2. Identify nutrients and their role in health.
3. Implement a plan for a nutritious, well-balanced diet and healthy lifestyle using the USDA's guidelines.
4. Describe methods used to assess a patient's nutritional status.
5. Explain reasons why a diet may be modified
6. Identify types of patients who require special diets and the modifications required for each.
7. Describe the warning signs, symptoms, and treatment for eating disorders.
8. Educate patients about nutritional requirements.

#### MA 220 3

1. Discuss the medical assistant's role in electrocardiography and pulmonary function testing.
2. Explain the basic principles of electrocardiography and how it related to the conduction system of the heart.
3. Identify the components of an electrocardiograph and what each does.
4. Carry out the steps necessary to obtain an ECG.
5. Summarize exercise electrocardiography and echocardiography.
6. Explain the procedure of Holter monitoring.
7. Carry out the various types of pulmonary function tests.
8. Describe and perform the procedure for performing pulse oximetry testing.

#### MA 220 4

1. Explain what x-rays are and how they are used for diagnostic and therapeutic purposes.
2. Compare invasive and noninvasive diagnostic procedures.
3. Carry out the medical assistant's role in x-ray and diagnostic radiology testing.
4. Discuss common diagnostic imaging procedures.
5. Describe different types of radiation therapy and how they are used.
6. Explain the risks and safety precautions associated with radiology work.
7. Relate the advances in medical imaging to EHR.

**COGNITIVE OBJECTIVES:** IV.C.1. Describe dietary nutrients including: carbohydrates, fat, protein, minerals, electrolytes, vitamins, fiber and water

IV. C. 2. Define the function of dietary supplements

IV. C. 3. Identify the special dietary needs for: weight control, diabetes, cardiovascular disease, hypertension, cancer, lactose sensitivity, gluten-free, food allergies

**PSYCHOMOTOR COMPETENCIES:** I.P.1. Measure and record: i. pulse oximetry

I.P.2. Perform: a. electrocardiography, d. pulmonary function testing

I.P.8. Instruct and prepare a patient for a procedure or a treatment

IV.P.1. Instruct a patient according to patient's special dietary needs

V.P.4. Coach patients regarding: office policies, health maintenance, disease prevention, treatment plan

XII.P.3. Use proper body mechanics

**AFFECTIVE COMPETENCIES:** IV.A.1. Show awareness of patient's concerns regarding a dietary change.

V.A.4. Explain to a patient the rationale for performance of a procedure.

**METHODS OF INSTRUCTION:** Lectures, class discussions, workbook, projects, and assignments.

**ATTENDANCE:** Absences can seriously affect grades. Students will be allowed to miss a maximum of two (2) class periods. Students are responsible for all information missed while absent from class. This includes any changes to the schedule that might occur.

**MAKE UP POLICY:** Make up work procedures addressed in the MA Program Policy Manual.

### **Student Responsibility for Student Handbook Information**

As a student, you are responsible for the information in the LATI handbook. Lake Area Technical Institute reserves the right to change regulations and policies as necessary. Information relating to the withdrawal of a course, class conduct, plagiarism, inclement weather can all be located in the student handbook.

**ACADEMIC INTEGRITY:** Students' Responsibilities: Students are responsible for their own behaviors and are expected to maintain stated standards of academic honesty. Students share the responsibility with the faculty for maintaining an environment that supports academic honesty and discourages plagiarism or cheating.

**Faculty and Administrator Responsibilities:** Faculty are responsible for creating a classroom and testing environment that discourages cheating, confronts suspected violators and insures fair treatment of all students. Administrators also share the responsibility for developing an environment that discourages academic dishonesty. If a student is participating in academic dishonesty, he/she may be dismissed from the course or otherwise disciplined.

**CAREER COUNSELING:** Guidance is available for students when investigating career choices or in reaffirming the choice already made.

**PERSONAL COUNSELING:** Knowing that student life can be stressful, Lake Area Tech provides personal on-campus counseling for either school-related or non-school-related issues. At times, referral to another counseling service may be warranted. Check with the on-campus counseling staff if you have concerns you need to discuss. Specific referrals for drug and alcohol-related issues will be made by on-campus counselors.

**AMERICANS WITH DISABILITIES ACT:** Students are entitled to 'reasonable accommodations' under provisions of the Americans with Disabilities Act. Those in need of such accommodations should notify the instructor and make appropriate arrangements with the Office of Disability Services, Educational Services/Library.

**STUDENT TUTORING:** The Educational Services Center staff and peer tutors provide tutoring for all courses. If you are a student in need of help in any of your classes, please contact the Educational Services Coordinator located in the LATI library.

### **PERSONAL OBJECTIVES:**

- Attend class session
- Prepare for class session
- Complete assignments by due date
- Demonstrate a high level of responsibility

- Display respect for other members of the class
- Participate in class discussions and projects

**COMPLETION STANDARDS:** The student will pass the course with a minimum of 80% on the overall grade of the course.

**EVALUATION AND GRADING:** Evaluation is directly related to the performance objectives. Performance is measured by written examinations, assignments, competencies, and/or quizzes.

**COMPETENCIES:** Students will be allowed three (3) attempts at the psychomotor and affective competencies for the Diagnostics and Therapeutics course. In order for the student to earn a passing grade in the course, the student must successfully complete the psychomotor and affective competencies by performing 100% competent. Students will receive a Pass/Fail grade for competencies.

**STUDENT EVALUATION:** The assessment and grading of student performance in this course is based on the following activities:

- 90% Written examinations
- 10% Workbook assignments

**GRADING SCALE:** 100% - 94% = A  
93% - 87% = B  
86% - 80% = C  
79% or below = F

\*\*Without my permission, you do not have the authority to record ANY of my class, its class members, or any content expressed here.

\*\*The instructor has the right to change any and all material on this syllabus at any time.



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