

2016-2017

**COURSE:** MA 138 Anatomy and Pathology II

**COURSE DESCRIPTION:** This course includes the study of the basic structures and functions of the body including lymphatic, nervous, urinary, reproductive, digestive, endocrine and the senses. It is also designed to examine the various body systems, diseases and disorders affecting them.

**LEARNING OUTCOME:** Upon successful completion of this course, the student will be able to describe the identified body systems, list major organs in the identified body systems, identify the anatomical location of major organs in listed body systems and describe their normal function.

**INSTRUCTOR:** Larin Albertson, CMA (AAMA)

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**DURATION:** 84 Clock Hours

3 Semester Credits

**SEMESTER:** SPRING 2017 (1/--/17 – 5/--/17) MWF **TIME** ROOM #110A

**REQUIRED TEXT:** Medical Assisting Administrative & Clinical Competencies, 8<sup>th</sup> edition; Michelle Blesi, \$145.00, ISBN: 978-1-305-11070-0, Publisher: Cengage Learning

Student Workbook: Medical Assisting Administrative & Clinical Competencies, 8<sup>th</sup> edition, Michelle Blesi, \$129.00, ISBN: 978-1-305-11085-4, Publisher: Cengage Learning

#### UNITS OF INSTRUCTION

- MA 138 1 The Nervous System (Chapter 10)
- MA 138 2 The Senses (Chapter 11)
- MA 138 3 The Immune System (Chapter 17)
- MA 138 4 The Digestive System (Chapter 18)
- MA 138 5 The Urinary System (Chapter 19)
- MA 138 6 The Endocrine System (Chapter 20)
- MA 138 7 The Reproductive System (Chapter 21)

#### STUDENT LEARNING OUTCOMES

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

MA 138 1

1. Spell and define, using the glossary, all the Words to Know in this chapter.
2. Identify the two main divisions of the nervous system.
3. Identify the two types of peripheral nerves, and explain the function of the spinal nerves.
4. Describe simple and complex reflex actions.
5. Describe a synapse and the effects of various substances on its action.
6. Describe the purpose of the autonomic nervous system, and explain the action of its two divisions.
7. List the major organs in the neurological system.
8. Identify the anatomical location of major organs in the neurological system.
9. Describe the normal function of the neurological system.

10. Name the coverings of the brain and spinal cord and describe their purpose.
11. Identify common pathology related to the neurological system including signs, symptoms, and etiology.
12. Analyze pathology for each body system including diagnostic measures and treatment modalities.
13. Identify three body systems that interact in cerebral palsy.

#### MA 138 2

1. Spell and define, using the glossary, all the Words to Know in this chapter.
2. Name the senses of the human body, identifying the corresponding organ(s) responsible for perception.
3. Identify on an anatomical illustration the structures of the eye, ear, nose, tongue, and skin.
4. Describe the normal function of the sensory system.
5. Trace the path of a visual image from the cornea to the visual center of the brain.
6. Explain the effects of the lens and cornea on the focusing of images.
7. Trace the path of sound from the entrance of the ear to the auditory center of the brain.
8. Explain the balance function of the inner ear.
9. Describe the anatomy of the olfactory organ, and explain how an odor is perceived.
10. Name the types of contact receptors found in the skin.
11. Identify common pathology related to the eye, ear, nose, mouth, and tongue, including signs, symptoms, and etiology.
12. Analyze pathology for the sensory system including diagnostic measures and treatment modalities.
13. Discuss the age-related changes that occur with the senses.
14. Identify the body systems involved in diabetic retinopathy and Meniere's disease.

#### MA 138 3

1. Spell and define, using the glossary, all the Words to Know in this chapter.
2. Identify the immune system.
3. List the body's three main lines of defense against antigens.
4. Describe the normal function of the immune system.
5. Identify the three basic services of the immune system.
6. Describe the origin of blood cells.
7. List the major organs of the immune system, and identify their anatomical locations.
8. Describe the purpose of MHC.
9. Explain the role of the B cell.
10. Identify the four types of T cells.
11. Tell how NK cell action differs from phagocytic action.
12. Explain what causes an inflammatory response.
13. Tell how immunizations and vaccines work.
14. Identify common pathology related to the immune system including signs, symptoms, and etiology.
15. Analyze pathology for the immune system, including diagnostic measures and treatment modalities.
16. Explain how the acquired immunodeficiency syndrome (AIDS) virus destroys the immune system.
17. Identify five ways to acquire the AIDS virus.
18. List four high-risk behaviors to avoid.
19. Name the three most common opportunistic diseases.
20. Define cancer.

21. Name the classifications of cancer.
22. Identify six characteristics of a cancerous cell.
23. Identify the basic cause of cancer.
24. Describe grading and staging of cancer.
25. List four types or categories of carcinogens.
26. Identify the three categories of diagnostic testing>
27. List the four major cancer treatment methods.
28. List five symptoms of chronic fatigue syndrome.
29. Explain how lupus affects the immune system and the major body organs it may affect.
30. Identify the symptoms of rheumatoid arthritis.
31. Tell how immunity changes through the years.
32. Identify the body systems affected by AIDS.

#### MA 138 4

1. Spell and define, using the glossary, all the Words to Know in this chapter.
2. Identify the digestive system.
3. Define digestion.
4. Name the raw materials required for a healthy body.
5. Trace the pathway of food through the alimentary tract.
6. List the major organs in the digestive system.
7. Explain the process of swallowing.
8. Describe how the esophagus propels food toward the stomach.
9. Identify the anatomical location of major organs in the digestive system.
10. Explain how and where nutrients are absorbed.
11. Describe the normal structure and function of the digestive system.
12. Analyze pathology for the digestive system including diagnostic measures and treatment modalities.
13. Identify common pathology related to the digestive system including signs, symptoms, and etiology.
14. Compare the structure and function of the digestive system across the life span.
15. Identify the body systems involved with GERD and hepatitis.

#### MA 138 5

1. Spell and define, using the glossary, all the Words to Know in this chapter.
2. Describe the normal function of the urinary system.
3. List the major organs of the urinary system, and describe their physical characteristics.
4. Identify the anatomical location of the urinary system.
5. Explain how the urinary system functions with other systems.
6. Describe the process of dialysis and name two types.
7. Explain the likelihood of success with a kidney transplant.
8. Analyze pathology for the urinary system including diagnostic measures and treatment modalities.
9. Identify common pathology related to the urinary system including signs, symptoms, and etiology.
10. Compare the structure and function of the urinary system across the life span.
11. Identify the body systems that interact with chronic glomerular nephritis and renal failure.

#### MA 138 6

1. Spell and define, using the glossary, all the Words to Know in this chapter.
2. List the major organs in the endocrine system.

3. Compare structure and function of the endocrine system across the life span.
4. Identify the anatomical location of major organs in the endocrine system.
5. Describe the normal functions of the endocrine system.
6. Analyze pathology for the endocrine system including diagnostic measures and treatment modalities.
7. Identify common pathology related to the endocrine system including signs, symptoms, and etiology.
8. Identify the body systems involved with diabetes and Graves' disease.

#### MA 138 7

1. Spell and define, using the glossary, all the Words to Know in this chapter.
2. Identify the reproductive system.
3. List the major organs in the reproductive systems.
4. Explain how sperm are able to fertilize an egg.
5. Describe male prenatal development.
6. Identify the anatomical location of the major organs of the reproductive system.
7. Describe the normal function of the reproductive system.
8. Name the components of semen.
9. Identify common pathology related to the reproductive system including signs, symptoms, and etiology.
10. Explain the interaction of pituitary hormones with the ovaries and other organs.
11. Identify the female secondary sex characteristics.
12. Describe the maturation and release of an ovum.
13. Describe the phases of the menstrual cycle and the purpose of menstruation.
14. Explain how fertilization occurs.
15. Describe the events occurring during each trimester of pregnancy as they relate to the woman and the embryo or fetus.
16. Describe the events that occur in the three stages of labor.
17. List the reasons for practicing contraception.
18. Identify the contraceptive methods, stating their relative effectiveness.
19. Analyze pathology for the reproductive system including diagnostic measures and modalities.
20. Relate how the female body changes in relation to fertility.
21. Discuss the system relationships with premenstrual syndrome.
22. Compare structure and function of the reproductive system across the life span.

#### **COGNITIVE OBJECTIVES:** I.C.2. Identify body systems

I.C.4. List major organs in each body system

I.C.5. Identify the anatomical location of major organs in each body system

I.C.6. Compare structure and function of the human body across the life span

I.C.7. Describe the normal function of each body system

I.C.8. Identify common pathology related to each body system including: signs, symptoms and etiology

I.C.9. Analyze pathology for each body system including: diagnostic measures and treatment modalities

**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 4 (four) 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 Student 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.

**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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