

# MT-2701: COMPREHENSIVE SOMATIC STUDIES FOR MASSAGE THERAPISTS

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## Cuyahoga Community College

### Viewing: MT-2701 : Comprehensive Somatic Studies for Massage Therapists

**Board of Trustees:**

December 2022

**Academic Term:**

Summer 2024

**Subject Code**

MT - Massage Therapy

**Course Number:**

2701

**Title:**

Comprehensive Somatic Studies for Massage Therapists

**Catalog Description:**

Quizzes and mock exams are given to prepare for MBLEx licensure exam. Comprehensive exam given at the end of course must be passed to be recommended for license. Comprehensive summary of human anatomy and physiology for students of massage therapy. Special emphasis on review of key concepts of human body - its introduction, six levels of organization and eleven systems of the body. Students develop in-depth knowledge of anatomy and physiology of human body.

**Credit Hour(s):**

1

**Lecture Hour(s):**

1

## Requisites

**Prerequisite and Corequisite**

Departmental approval: completion of all course work necessary to sit for the MBLEx licensure exam with a grade of "C" or higher.

## Outcomes

**Course Outcome(s):**

Be prepared to sit for the MBLEx exam, recognized by the Medical Board of Ohio for licensure.

**Objective(s):**

1. Discuss the basic concepts and terminology of the human body.
2. Demonstrate knowledge of the six different levels of organization in the body.
3. Define and describe the anatomy and physiology of all the eleven systems of the human body.
4. Pass the comprehensive exam given at the end of the course with grade of 75% or better.

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**Methods of Evaluation:**

1. Quizzes
2. Final exam

**Course Content Outline:**

1. Overview of the human body
  - a. Definition of anatomy and physiology
  - b. Levels of organization
  - c. Basic life processes

- d. Homeostasis
- e. Anatomical and directional terms
- f. Body planes and cavities
- g. Regions and quadrants
- 2. Cellular level of organization
  - a. Parts and composition
  - b. Transport across plasma membrane
  - c. Cytoplasm
  - d. Organelles
    - i. structure
    - ii. function
- 3. Tissue level
  - a. Types
    - i. composition
    - ii. function
- 4. Integumentary system
  - a. Structure
  - b. Function
  - c. Types
  - d. Healing
- 5. Skeletal system
  - a. Structure
  - b. Function
  - c. Formation
  - d. Remodeling
- 6. Axial skeleton
  - a. Skull
  - b. Hyoid bone
  - c. Vertebral column
  - d. Thorax
- 7. Appendicular skeleton
  - a. Pectoral
  - b. Upper extremity
  - c. Pelvic girdle
  - d. Lower extremity
  - e. Male and female pelvis
- 8. Joints
  - a. Structural classification
  - b. Functional
  - c. Shoulder joint
  - d. Knee joint
  - e. Elbow joint
  - f. Types of movement
- 9. Muscle tissue
  - a. Types
  - b. Function
  - c. Properties
  - d. Anatomy
  - e. Physiology
  - f. Skeletal muscle fibers
    - i. types
  - g. Regeneration of muscle tissue
- 10. Nervous tissue
  - a. Histology
  - b. Electric signals
  - c. Synapse and neurotransmitter
  - d. Neuronal circuits
  - e. Regeneration
- 11. Spinal cord and spinal nerves

- a. Anatomy
- b. Physiology
- c. Spinal nerves
12. Brain and cranial nerves
  - a. Meninges
  - b. Cerebral spinal fluid (CSF)
  - c. Brain stem
  - d. Cerebellum
  - e. Diencephalon
  - f. Cerebrum
  - g. Functional
  - h. Cranial nerves
13. Sensory and motor pathways
14. Special senses
  - a. Olfaction
  - b. Gustation
  - c. Vision
  - d. Hearing and equilibrium
15. Autonomic nervous system
  - a. Anatomy and physiology of sympathetic nervous system
  - b. Anatomy and physiology of parasympathetic nervous system
  - c. Neurotransmitters and receptors
16. Endocrine system
  - a. Function and disorders
17. Cardiovascular system
  - a. Anatomy and physiology of the heart
  - b. Anatomy and physiology of the cardiac muscle
  - c. Electrocardiogram (ECG)
  - d. Cardiac cycle
  - e. Cardiac output
  - f. Composition and function of blood
  - g. Capillary exchange
  - h. Blood pressure and its control
18. Lymphatic system
  - a. Lymphatic vessels, organs, and tissue
  - b. Specific and nonspecific resistance
19. Respiratory system
  - a. Anatomy and physiology of respiration
  - b. Lung volumes and capacities
  - c. Gas laws
20. Digestive system
  - a. Anatomy and physiology of digestive organs
  - b. Digestive hormones
21. Metabolism
  - a. Glucose, catabolism, and anabolism
  - b. Lipid, catabolism, and anabolism
  - c. Protein, catabolism, and anabolism
  - d. Minerals and vitamins, catabolism, and anabolism
22. Urinary System
  - a. Structure and function
23. Fluid and electrolyte, acid-base homeostasis
  - a. Acid base imbalance
  - b. Electrolytes imbalance
  - c. Fluid imbalance
24. Reproductive system
  - a. Male reproductive system
  - b. Female reproductive system

## Resources

Allen, Colleen & Harper, Valerie. *Laboratory Manual for Anatomy & Physiology*. 7th ed. Wiley & Sons, 2021.

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Tortora, Gerald J. and Derrickson, Bryan H. *Principles of Anatomy and Physiology*. 16th ed. Hoboken, N.J.: Wiley & Sons, 2020.

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Goldberg, Stephen. *Clinical Physiology Made Ridiculously Simple*. 2nd ed. MedMaster Inc., 2019.

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Goldberg, Stephen & Ouellette, Hugue. *Clinical Anatomy Made Ridiculously Simple*. 4th ed. MedMaster Inc., 2016.

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## Resources Other

Wiley Plus Website

Top of page

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