



## INSTRUCTIONAL PACKAGE

MTH 113

Essentials of Anatomy and Physiology for  
Massage Therapy

Effective Term  
Fall/2018

# INSTRUCTIONAL PACKAGE

## **PART I: COURSE INFORMATION**

Effective Term: Fall 201810

COURSE PREFIX: MTH 113

COURSE TITLE: Essentials of Anatomy and  
Physiology for Massage Therapy

CONTACT HOURS: 2-3-3

CREDIT HOURS: 3.0

### **RATIONALE FOR THE COURSE:**

This course provides the student with a solid foundation in anatomy and physiology that the student can use in the pursuit of a career in massage therapy. A working knowledge and understanding of the structure and function of the human body is critical to the competent practice of massage therapy.

### **COURSE DESCRIPTION:**

This course will focus on the pre-massage assessment of each body region including signs and symptoms relating to pathologic conditions. Specific emphasis will be given to the skeletal, muscular, cardiovascular and nervous systems. This course is a basic integrated study of the structure and function of the human body.

### **PREREQUISITES/CO-REQUISITES:**

Test Scores: COMPASS Reading 85 and COMPASS Writing 65 or SAT Critical Reading 460 or ACT Reading 19 and ACT English 16

Or

Credit level: ENG 101 Minimum Grade of C or Credit level ENG 100 Minimum Grade of C\* or  
Credit level ENG 101 Minimum Grade of TC or Credit level ENG 155 Minimum Grade of C or  
Credit level ENG 155 Minimum Grade of TC

And

Background Check Form 1

\***Online/Hybrid** courses require students to complete the DLI Online Student Orientation prior to completing an online course. The DLI Online Student Orientation can be found in WaveNet, under the My Student tab.

**REQUIRED MATERIALS:**

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

[BOOKSTORE](#).

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

**ADDITIONAL REQUIREMENTS:**

Attire: Scrubs (black) or Black polo and black slacks

**TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials.

WaveNet and D2L email access.

Access to a computer

Laptop or tablet

**STUDENT IDENTIFICATION VERIFICATION**

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

**CLASSROOM ETIQUETTE:**

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before lab sessions begin. If you are monitoring for an emergency, please notify your professor prior to lab and switch cell phone ringers to vibrate.

**NETIQUETTE:** is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit: [Online Netiquette](#).

**Part II: Student Learning Outcomes****Program Learning Outcomes**

PLO - OSHA and State Regulations- Comply with OSHA and current state regulations, security, privacy and confidentiality policies while modeling professional behaviors, ethics and appearance.

PLO - National Licensure- Successful completion of national licensure exam

**COURSE LEARNING OUTCOMES and ASSESSMENTS\*:****Module 1 Overview of Human Anatomy and Physiology and Medical Terminology**

**Materials Covered:** Chapter 4 Theory and Practice of Therapeutic Massage

A Massage Therapist's Guide to Pathology Chapter 4 page 154 Sidebar 4.1  
Stress Response System

**\*Assessment(s):** Discussion 1  
Homework 1

**Learning Outcomes:**

1. Define anatomy, physiology, kinesiology, and pathology.
2. Explain why a massage therapist should have a good understanding of anatomy, physiology, kinesiology, and pathology.
3. Differentiate between a sign and a symptom of a disease.
4. Explain the physiologic and psychological effects of stress and pain on the body.
5. Explain the role of massage therapy in the management of stress and pain.
6. Describe the healing functions of the body related to inflammation and tissue repair.
7. Describe the wellness model and how massage can be a part of that model.
8. Understand and derive the meaning of medical terms by breaking the terms into their parts and defining those parts.

**Module 2 Body Organization, Terminology, and Body Systems**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage, pages 97-103  
Anatomy & Physiology Reference for Massage Therapists pages 2 & 8

**\*Assessment(s):** Discussion 1  
Homework 1

**Learning Outcomes:**

1. Name the anatomical planes of the body.
2. List the subdivisions of the ventral and dorsal cavities of the body.
3. Name the major organs found in each body cavity.
4. Locate each region of the body.
5. Name the ten most important body systems for the massage therapist.
6. Explain the structure and function of these ten body systems.

**Module 3 Cells**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Cells pages 83-96  
Anatomy & Physiology Reference for Massage Therapists pages 3, 4-7

**\*Assessment(s):** Discussion 2  
Homework 2  
Lab Quiz 1

**Learning Outcomes:**

1. Explain the level of complexity of the human body beginning with the atom.
2. Identify and name the three principal parts of a cell.
3. Identify, name, and label the major organelles of a cell (cell membrane, centriole, endoplasmic reticulum, Golgi apparatus, Lysosome, mitochondria, nucleus, nucleolus, and ribosome).
4. Name and explain the five phases of mitosis.
5. Describe enzymes and their function.
6. Describe the four main categories of body tissue.
7. Differentiate between epithelial and fibrous connective tissue membranes.
8. Name the three types of muscle tissue.

9. Name and describe the three classifications of connective tissue.
10. Name and identify the two types of dense connective tissue and provide examples of each type.
11. Define fascia and describe its function in the body.
12. Name the three types of cartilage in the body.

#### **Module 4 Integumentary System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Integumentary System pages 106-110

A Massage Therapist's Guide to Pathology Chapter 1, pages 24-25

Anatomy & Physiology Reference for Massage Therapists pages 9-11

**\*Assessment(s):** Discussion 3  
Homework 3  
Test 1 Module 1 and 2  
Lab Quiz 2

#### **Learning Outcomes:**

1. Understand the basic function of the skin and integumentary system.
2. Understand and describe the layered structure of the skin
3. Identify the appendages of the skin (hair, nails, and glands).
4. List the sensory receptors in the skin.
5. Understand that the nerve supply to the skin follows specific dermatomal patterns.

#### **Module 5 Skeletal System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Skeletal System pages 120-130

A Massage Therapist's Guide to Pathology Chapter 3 page 68

Anatomy & Physiology Reference for Massage Therapists pages 12-14

**\*Assessment(s):** Discussion 4 & 5  
Homework 4 & 5  
Test 2 Module 3  
Lab Quiz 3  
Lab Practical 1

#### **Learning Outcomes:**

1. Understand the basic structure of a bone.
2. Describe the functions of the skeletal system.
3. Differentiate between the axial skeleton and the appendicular skeleton.
4. Recognize and identify the various types of bones and bony landmarks that exist inside the body.
5. Describe the functional and structural classifications of joints.
6. Identify the components of a synovial joint.
7. Describe five types of movable joints.

#### **Module 6 Muscular System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Muscular System pages 136-155 & 158-199

A Massage Therapist's Guide to Pathology Chapter 3 pages 68-71

Anatomy & Physiology Reference for Massage Therapists pages 15-16

**\*Assessment(s):** Discussion 6 & 7  
Homework 6 & 7  
Test 3 Module 4  
Lab Quizzes 4 and 5

**Learning Outcomes:**

1. List the functions of the muscular system.
2. Identify the structure of skeletal muscle fiber at the microscopic level.
3. Describe the differences between the three types of muscle tissue: skeletal, cardiac, and smooth.
4. Understand the anatomy of a skeletal muscle.
5. Identify the various organizations of muscle fibers in skeletal muscles.
6. Describe seven shapes of muscles and give an example of each.
7. Describe the function of muscle spindle cells and the Golgi tendon organ.
8. Understand the difference between aerobic and anaerobic cellular respiration.
9. Differentiate between postural and phasic muscles.
10. Locate and name the major skeletal muscles of the human body.
11. Identify the origin, insertion, and action of the major skeletal muscles of the human body.

**Module 7 Circulatory System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Circulatory System, pages 203-217 and Lymph-Vascular System pages 218-227  
A Massage Therapist's Guide to Pathology Chapter 5 pages 244-247 and Chapter 6 pages 290-293  
Anatomy & Physiology Reference for Massage Therapists pages 21-27

**\*Assessment(s):** Discussion 8 & 9  
Homework 8 & 9  
Lab Quiz 6  
Lab Practical 2

**Learning Outcomes:**

1. Understand the different types of blood vessels (five classifications) and their function in the body.
2. Comprehend what occurs in the larger structures of the heart such as the heart chambers and heart valves.
3. Identify the basic categories of the components of blood and the function of these components.
4. Understand the basic concepts of oxygen and carbon dioxide exchange within the circulatory system including the sites for this exchange: pulmonary circulation versus systemic circulation.
5. Understand the blood's role in healing.
6. Understand the functions of the basic blood cells: erythrocytes, leukocytes, lymphocytes, and thrombocytes.
7. Identify the major pulse points on the body.
8. Identify major blood vessels such as the carotid artery, femoral artery and others of this magnitude.
9. Understand the blood's role in transport within the body.

10. Understand blood pressure, including the basic factors contributing to it.
11. Identify the locations of lymphatic structures inside the body: spleen, lymph nodes, tonsils, etc.
12. Identify the types of immunity that protect the body from infection and disease.
13. Identify the path of lymphatic fluid in the body, its source, and where it drains

### **Module 8 Nervous System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Nervous System pages 233-250  
 A Massage Therapist's Guide to Pathology Chapter 4 pages 152-153  
 Anatomy & Physiology Reference for Massage Therapists pages 17-20

**\*Assessment(s):** Discussion 10  
 Homework 10  
 Test 4 Modules 5 and 6  
 Lab Quizze 7

#### **Learning Outcomes:**

1. List the functions of the nervous system.
2. Identify the parts of a neuron
3. Differentiate between the various divisions of the nervous system: central nervous system from peripheral nervous system, autonomic from somatic, and sympathetic from parasympathetic.
4. Identify the location of structures within the central nervous system and label them on a diagram.
5. Describe the function of each part of the central nervous system (CNS)
6. Identify the parts of the peripheral nervous system (PNS)
7. Describe afferent, efferent, motor, sensory, cranial, spinal, and mixed nerves.
8. Identify the location of the largest nerve plexi and branches within the peripheral nervous system.
9. Recognize the various types of receptors in the body.
10. Understand reflexes within the body.

### **Module 9 Endocrine System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Endocrine System pages 260-266  
 A Massage Therapist's Guide to Pathology Chapter 9 pages 422-424  
 Anatomy & Physiology Reference for Massage Therapists pages 28-29

**\*Assessment(s):** Discussion 11  
 Homework 11  
 Lab Quiz 8

#### **Learning Outcomes:**

1. Name and identify the location of the endocrine glands.
2. Understand the basic functions of each gland, such as the secretion of insulin in the pancreatic islets or estrogen in the ovaries.
3. Understand the effects of the more commonly discussed hormones such as adrenaline and melatonin.
4. Understand the roles of the hypothalamus and pituitary glands in controlling other glands.

## **Module 10 Respiratory System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Respiratory System pages 268-270  
A Massage Therapist's Guide to Pathology Chapter 7 pages 338-339  
Anatomy & Physiology Reference for Massage Therapists pages 30-31

**\*Assessment(s):** Homework 12  
Test 5 Modules 7 and 8

### **Learning Outcomes:**

1. List and identify the major organs of the respiratory system and their location.
2. Explain the role of hemoglobin in respiration.
3. Understand the smallest functioning unit of the respiratory system, the alveoli.
4. Understand the difference between aerobic and anaerobic metabolism.
5. Describe the functions of the respiratory system: the exchange of gases, producing speech, and maintaining pH.
6. Describe breathing.

## **Module 11 Digestive System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Digestive System pages 273-276  
A Massage Therapist's Guide to Pathology Chapter 8 pages 376-378  
Anatomy & Physiology Reference for Massage Therapists page 32  
Fundamental Concepts in Pathology

**\*Assessment(s):** Discussion 12  
Homework 12  
Lab Quiz 9

### **Learning Outcomes:**

1. Identify and locate the structures of the digestive system.
2. Understand the functions of the parts of the gastrointestinal tract and what is processed and absorbed at each portion: example is water and mineral absorption from the large intestine.
3. Understand peristalsis.
4. Identify the basic types of tissue found in the digestive system such as smooth muscle.
5. Understand the autonomic nervous system's impact on the digestive system.
6. Understand the path of consumed foods through the digestive system.
7. Understand how the accessory organs of the digestive system are involved in digestion: liver, gall bladder, and pancreas.

## **Module 12 Urinary System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Urinary System pages 277-279  
A Massage Therapist's Guide to Pathology Chapter 10 pages 442-443  
Anatomy & Physiology Reference for Massage Therapists page 33

**\*Assessment(s):** Discussion 13  
Homework 13  
Lab Quiz 11

### **Learning Outcomes:**



1. Identify and locate the anatomical components of the urinary system.
2. Explain the basic function of the urinary system: elimination of waste, conservation of nutrients, and regulation of pH.
3. Understand the urinary system's effect on blood pressure and other aspects of homeostasis.
4. Identify and label on a diagram the structure of a nephron and describe its function (functional unit of the kidney).

### **Module 13 Reproductive System**

**Materials Covered:** Chapter 5 Theory and Practice of Therapeutic Massage Reproductive System pages 280-284

A Massage Therapist's Guide to Pathology Chapter 11 pages 464-467  
Anatomy & Physiology Reference for Massage Therapists page 34

**\*Assessment(s):** Homework 14  
Test 6 Modules 9-11

#### **Learning Outcomes:**

1. Identify and locate the structures of the male reproductive system.
2. Identify and locate the structures of the female reproductive system.
3. Understand the changes in the body during puberty, menstruation, and pregnancy.
4. Recognize the major reproductive system hormones and their purpose in the body: testosterone, estrogen, and relaxin.

### **Module 14 Special Senses**

**Materials Covered:** Special Senses Instructor Resources

Chapter 5 Theory and Practice of Therapeutic Massage page 239 Table 5-26

**\*Assessment(s):** Discussion 14  
Homework 14

#### **Learning Outcomes:**

1. Identify the types of receptors found in the organs of sight and hearing.
2. Name and recognize the cranial nerves responsible for the major senses of smell, taste, sight, and hearing.

### **Week 15**

Lab Practical # 3

Cumulative Final Exam

***\*Students – please refer to the Instructor's Course Information sheet for specific information on assessments and due dates.***

## **Part III: Grading and Assessment**

### **EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\***

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

## EVALUATION\*

EVALUATION	Percentage of Weighted Grade
<b>Lecture Assignments</b>	<b>75% of total grade</b>
Lecture Tests	45%
Comprehensive Final	10%
Discussion	10%
Homework	10%
<b>Lab Assignments</b>	<b>25% of total grade</b>
Lab quizzes	10%
Lab Practicals	15%
<b>Total of Lecture and Lab Assignments</b>	<b>100%</b>

*\*Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.*

## GRADING SYSTEM:

90-100 A

80-89 B

70-79 C

60-69 D

Below 60 F

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

## Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course**

## Information Sheet.

**For online and hybrid courses**, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

## Part V: Student Resources



### The Student Success and Tutoring Center (SSTC)

The SSTC offers to all students the following **free** resources:

1. **Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills**.
2. **On-line student success and academic support resources**.

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455. Room locations and Live Chat is available on the SSTC website.



### Student Information Center: WaveNet Central (WNC)

WNC offers to all students the following **free** resources:

1. **Getting around HGTC**: General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

### Student Testing:

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L

- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through RPNOW, our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

## **Disability Services**

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Jocelyn Williams, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

## **Statement of Equal Opportunity/Non-Discrimination Statement**

Horry Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

### ***Title IX Requirements***

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

<b>Inquiries regarding the non-discrimination policies:</b>	
<p>Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Associate Vice President for Student Affairs.</p>	<p>Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Associate Vice President for Human Resources.</p>
<p><b>Dr. Melissa Batten, AVP Student Affairs</b> <i>Title IX Coordinator</i></p> <p>Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a></p>	<p><b>Jacquelyne Snyder, AVP Human Resources</b> <i>Section 504, Title II, and Title IX Coordinator</i></p> <p>Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a></p>