

**PHED 2604****HUMAN ANATOMY AND PHYSIOLOGY II**

Semester Hours: 3

Semester/Year:

Instructor:

Office Location:

Office Hours:

Telephone:

E-mail:

Fax:

**COURSE DESCRIPTION**

Prerequisite: For physical education majors only

This course focuses on descriptive human anatomy and physiology with an emphasis on the cardiovascular, respiratory, digestive, and endocrine systems of the human body. This course provides in-depth analysis of the processes of respiration, heart function, breakdown and absorption of nutrients, and the integration of these processes within the human body.

**CONCEPTUAL FRAMEWORK**

The conceptual framework of the College of Education at the University of West Georgia forms the basis on which programs, courses, experiences, and outcomes are created. By incorporating the theme “Developing Educators for School Improvement”, the College assumes responsibility for preparing educators who can positively influence school improvement through altering classrooms, schools, and school systems (transformational systemic change). Ten descriptors (decision makers, leaders, lifelong learners, adaptive, collaborative, culturally sensitive, empathetic, knowledgeable, proactive, and reflective) are integral components of the conceptual framework and provide the basis for developing educators who are prepared to improve schools through strategic change. National principles (INTASC), propositions (NBPTS), and standards (Learned Societies) are also incorporated as criteria against which candidates are measured.

The mission of the College of Education is to develop educators who are prepared to function effectively in diverse educational settings with competencies that are

instrumental to planning, implementing, assessing, and re-evaluating existing or proposed practices. This course's objectives are related directly to the conceptual framework and appropriate descriptors, principles or propositions, and Learned Society standards are identified for each objective. Class activities and assessments that align with course objectives, course content, and the conceptual framework are identified in a separate section of the course syllabus.

## **COURSE OBJECTIVES**

Students will:

1. describe the organization and function of cells and the histology of the human organism  
(*Knowledgeable; Reflective; INTASC 1, 5; PSC 4,14*)  
(McArdle, Katch, & Katch, 2007; Powers, & Howley, 2007; Seeley, Stephens, & Tate, 2008);
2. discuss the locations of the major endocrine glands, their regulation, and the general functions of the hormones secreted by them  
(*Knowledgeable; Reflective; INTASC 1, 5; PSC 4,14*)  
(McArdle, Katch, & Katch, 2007; Powers, & Howley, 2007; Seeley, Stephens, & Tate, 2008);
3. describe the general characteristics of blood and the organs of the cardiovascular and respiratory systems and discuss their functions  
(*Knowledgeable; Reflective; INTASC 1, 5; PSC 4,14*)  
(McArdle, Katch, & Katch, 2007; Powers, & Howley, 2007; Seeley, Stephens, & Tate, 2008);
4. describe the location and function of the organs of the digestive system and their functions, and how the digested foods are used as energy within the cells of the body  
(*Knowledgeable; Reflective; INTASC 1, 5; PSC 4,14*)  
(McArdle, Katch, & Katch, 2007; Powers, & Howley, 2007; Seeley, Stephens, & Tate, 2008); and
5. describe how water and electrolyte balance is maintained and the importance of that maintenance  
(*Knowledgeable; Reflective; INTASC 1, 5; PSC 4,14*)  
(McArdle, Katch, & Katch, 2007; Powers, & Howley, 2007; Seeley, Stephens, & Tate, 2008).

**TEXTS, READINGS, AND INSTRUCTIONAL RESOURCES****Required Texts**

Seeley, R. R., Stephens, T. D., & Tate, P. (2008). *Anatomy & physiology* (8th ed.). New York: McGraw-Hill.

**References**

- Carlson, N. R. (1994). *Physiology of behavior* (5th ed.). Boston: Allyn and Bacon.
- Enoka, R. M. (2002). *Neuromechanical basis of kinesiology* (3rd ed.). Champaign, IL: Human Kinetics.
- Gilbert, H. F. (1992). *Basic concepts in biochemistry: A student's survival guide*. New York: McGraw-Hill.
- Houston, M. E. (1995). *Biochemistry primer for exercise science*. Champaign, IL: Human Kinetics.
- Lehninger, A. L., Nelson, D. L., & Cox, M. M. (1993). *Principles of biochemistry* (2nd ed.). New York: Worth.
- Marieab, E. N. (2003). *Human anatomy and physiology* (6th ed.). Redwood City, CA: Benjamin/Cummings.
- McArdle, W. D., Katch, F. I., & Katch, V. L. (2007). *Exercise physiology: Energy, nutrition and human performance* (6th ed.). Baltimore: Williams and Wilkins.
- McComas, A. J. (1996). *Skeletal muscle: Form and function*. Champaign, IL: Human Kinetics.
- Powers, S. K., & Howley, E. T. (2007). *Exercise physiology: Theory and application to fitness and performance* (6th ed.). New York: McGraw-Hill.
- Plowman, S. A., & Smith, D. L. (2008). *Exercise physiology for health, fitness, and performance* (2nd ed.). Baltimore: Lippincott, Williams, & Wilkins.
- Sherwood, L. (1993). *Human physiology: From cells to systems*. St. Paul, MN: West.
- Shier, D., Butler, J., & Lewis, R. (2009). *Hole's human anatomy & physiology* (10th ed.). New York: McGraw-Hill.
- Thibodeau, G. A., & Patton, K. T. (1996). *Anatomy and physiology* (3rd ed.). St. Louis: Mosby.

Tortora, G. J., & Grabowdki, S. R. (1996). *Principles of anatomy and physiology* (8th ed.). New York: Harper Collins.

Van de Graaff, K. M. (1995). *Human anatomy* (4th ed.). Dubuque, IA: Wm. C. Brown.

Watkins, J. (1999). *Structure and function of the musculoskeletal system*. Champaign, IL: Human Kinetics.

Wilmore, J. H., & Costill, D. L. (1999). *Physiology of sport and exercise* (2nd ed.). Champaign, IL: Human Kinetics.

## **ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY**

**Link to Conceptual Framework:** The focus of this course is on examining the structure of the human body with emphasis on the cardiovascular, respiratory, digestive, and organ systems of the body. The primary goals are as follows: 1) Develop an understanding of the field of anatomy and physiology; 2) Develop a knowledge base of the terminology of anatomy and physiology; and 3) Investigate the structure of the human body and its relationship to physical education. At the completion of this course, students will have demonstrated achievement in the areas of *knowledgeable*: drawing on content and professional knowledge (**All Assignments**), and *reflective*: engaging in ongoing, continuous reflection of the primary principles and philosophies of anatomy and physiology (**All Assignments**).

### **Assignments**

#### **1. Quizzes (10 points each)**

There will be ten quizzes throughout the semester. Some of the quizzes will be announced while some will be unannounced. Quizzes will cover recently reviewed material.

Course objectives: 1, 2, 3, 4, 5

#### **2. Exams (100 points each)**

There will be three exams throughout the semester. The exams will cover material in the assigned readings and class lecture/discussion to that point in the semester. Questions will consist of multiple choice, true or false, or short answer.

Course objectives: 1, 2, 3, 4, 5

#### **3. Applied Assignments and Activities (100 points total)**

There will be a series of applied assignments and activities throughout the semester. These activities will emphasize physiological concepts important in health and physical education.

Course objectives: 1, 2, 3, 4, 5

## GRADING POLICY

A = 90-100%	450-500 Points
B = 80-89%	400-449 Points
C = 70-79%	350-399 Points
D = 60-69%	300-349 Points
F = below 60%	below 300 Points

## CLASS POLICIES

### Attendance

Students are expected to attend and fully participate in all class meetings, arrive on time and remain until the discussion for that class period is complete. Absences will be excused with appropriate written documentation for the following reasons:

- a. Death or major illness in a student's immediate family;
- b. Participation in legal proceedings or administrative procedures that require a student's presence;
- c. Religious holy day;
- d. Illness that is too severe or contagious for the student to attend class (as determined by a physician);
- e. Required participation in military duties;
- f. Mandatory admission interviews for professional or graduate school which cannot be rescheduled; or
- g. Official representation of the University of West Georgia (athletic team, debate team, etc.).

### E-mail

University of West Georgia students are provided a MyUWG e-mail account. The University considers this account to be an official means of communication between the University and the student. The purpose of the official use of the student e-mail account is to provide an effective means of communicating important University related information to UWG students in a timely manner. It is the student's responsibility to check his or her email.

### Professional Disposition

The student is expected to demonstrate professional dispositions in all courses, field experiences, and other settings in which the student represents the university. Professional dispositions include but are not limited to attitude, dress, language, collegiality, preparedness, and punctuality. Professional disposition assessments are a significant part of the student's permanent file and will be used to determine the student's progress and continuation in the program. In addition, disposition assessments will help determine whether a student is ready to enter the internship experience.

All students seeking teaching certification through the Department of Physical Education and Recreation will be reviewed by all instructional faculty members during the

thirteenth (13th) week of fall and spring semesters regarding their professional dispositions. Additional reviews will be conducted as needed. This holistic evaluation will determine students' continuation in the certification program.

### **Foliotek**

This course will require students to save course assignments. The course assignments will be uploaded to the student's electronic portfolio (foliotek).

### **Work Credit**

No material prepared to meet requirements in one course may be used to fulfill the requirements in another course without prior permission of the instructor.

### **Americans with Disabilities Statement (ADA)**

The ADA is a federal anti-discrimination statute that provides comprehensive civil rights for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of his/her disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services Office in Room 272 of the Student Development Center located in Parker Hall. The phone number is (678) 839-6428, and the fax number is (678) 839-6429.

### **Academic Integrity and Honor Code Pledge**

At the University of West Georgia we believe that academic and personal integrity are based upon honesty, trust, fairness, respect, and responsibility. Students at West Georgia assume responsibility for upholding the honor code. West Georgia students pledge to refrain from engaging in acts that do not maintain academic and personal integrity. These include, but are not limited to, plagiarism, cheating, fabrication, aid of academic dishonesty, lying, bribery, or threats, and stealing.

#### Pledge:

Having read the Honor Code for UWG, I understand and accept my responsibility to uphold the values and beliefs described and to conduct myself in a manner that will reflect the values of the institution in such a way as to respect the rights of all UWG community members. As a West Georgia student, I will represent myself truthfully and complete all academic assignments honestly. I understand that if I violate this code, I will accept the penalties imposed, should I be found guilty of violations through processes due me as a university community member. These penalties may include expulsion from the University. I also recognize that my responsibility includes willingness to confront members of the University community if I feel there has been a violation of the Honor Code.

**\*\*If plagiarism or another act of academic dishonesty occurs, a grade of zero will be given for the course assignment and, if further actions are warranted, the misconduct will be dealt with in accordance with the academic misconduct policy as stated in *The Student Handbook*, the *Undergraduate Catalog* and *Graduate Catalog*.**

**CLASS OUTLINE**

Week	Topic	Chapter
1	Overview of the Human Organism & Organization of Cells	1 & 3
2	Organization and Function of Cells	3
3	Histology	4
4	Histology & Integumentary System	4 & 5
5	Functional Organization of the Endocrine System, Exam 1	17
6	Endocrine Glands	18
7	Endocrine Glands	18
8	Cardiovascular System: Blood	19
9	Cardiovascular System: Heart	20
10	Cardiovascular System: Peripheral Circulation, Exam 2	21
11	Respiratory System	23
12	Digestive System	24
13	Digestive System & Nutrition	24 & 25
14	Nutrition, Metabolism, & Temperature Regulation	25
15	Water, Electrolytes, & Acid-Base Balance	27
16	Final Exam	