Ashland University
Dwight Schar College of Education
Department of Sports Sciences
Master Syllabus

Undergrad: X
Credit Hours: 4
Field/Clinical Hours: 0

Course Number: ES 190

Course title for the catalog: Applied Human Structure, Function, and Development For the Exercise Sciences

Catalog Description: An examination of human structure and function with an emphasis on the applied aspects of anatomy, physiology, and human motor development as related to the exercise and sport sciences.

The prerequisite (s) for this course is (are): None

Fees and charges: None

Effective catalog date for this master syllabus: 2006

The enrollment restriction (s) for this course is (are): None

Course and field/clinical experience objectives (including knowledge, skills, and dispositions):

KNOWLEDGE: The student will be able to:

1. Demonstrate an understanding of the context within which human structure, function and motor development occur (as related to the exercise and sport sciences).
2. Demonstrate an understanding of the skeletal system, with applications to the exercise and sport sciences.
3. Demonstrate an understanding of the muscular system, with applications to the exercise and sport sciences.
4. Demonstrate an understanding of the nervous system, with applications to the exercise and sport sciences.
5. Demonstrate an understanding of the cardiorespiratory system, with applications to the exercise and sport sciences.
6. Demonstrate an understanding of the processes of physical growth, maturation, and aging as applied to the exercise and sport sciences.
7. Demonstrate an understanding of early motor development as applied to the exercise and sport sciences.
8. Demonstrate an understanding of sensory system development as applied to the exercise and sport sciences.

9. Demonstrate an understanding of perceptual-motor development as applied to the exercise and sport sciences.
10. Demonstrate an understanding of basic principles of motion and stability as applied to the exercise and sport sciences.
11. Demonstrate an understanding of various applied topics related to the exercise and sport sciences.

SKILLS: The student will be able to:

1. Apply knowledge of the skeletal system through a practical laboratory examination.
2. Apply knowledge of the muscular system through a practical laboratory examination
3. Use proper anatomical terminology to describe body directions, surfaces, and body planes.
4. Locate the major body cavities, and list the chief organs in each cavity.
5. Identify on a cell model or diagram the three major cell regions.

DISPOSITIONS: The student will be able to:
1. Value the basic anatomical, chemical and physiological principles related to the structure and function of the various systems of the human body; the nervous system, the endocrine system, the cardiovascular system, the respiratory system, the urinary system, the digestive system and the reproductive system.
2. Appreciate the integration of principles from different systems and critical evaluation of anatomical and physiological principles.

Suggested texts and/or references:

Marieb, E.N. (2006). *Essentials of Human Anatomy & Physiology,* 8th ed. San Francisco, CA: Pearson-Benjamin Cummings

Bowden, B.S. & Bowden, J.M. (2005). *An Illustrated Atlas of the Skeletal Muscles.* 2nd ed. Englewood, CO: Morton Publishing Company.

Course Packet of Power Points and class lectures

Suggested instructional strategies:
Lecture
Laboratory activities related to the applied aspects of the course content
Laboratory activities that include laboratory practical exams
Videos
SAFMEDS
Assigned chapter readings.

Description of field/clinical experiences: Not applicable.

Evaluation of Students:

a) Exams (3-5 @ 100 points each)
b) Laboratory Activities (100 points)
c) Quizzes (up to 100 points total)

d) SAFMEDS: Language of anatomy cards- consist of a deck of cards. Each card has text printed on both sides. One side is considered the **front**, the other the **back**. (If a "tact" relation between a graphic, or photo, of some object and its name, or other property, is to be learned, then the front would consist of a picture and the back the text.) The front may consist of a short statement with a word, phrase, or other segment of text blanked out. When you blank out a word, you put the missing word on the back of the card. Construct SAFMEDS using 3" by 5" index cards. Categories include: Anatomical positions, Regional terms (anterior body landmarks, posterior body landmarks), directional terms, body planes & sections, body cavities, body systems, etc.(20 points)
e) Written assignments dealing with applied topics related to course content

Faculty who frequently teach the course: Dr. Beth Patton, Dr. Glen Fincher

Licensure programs in which course is required: Physical Education

If the course is offered for either undergraduate or graduate credit identify the respective difference in expectations: N/A

Bibliography (Learned Societies, Etc.)

Bowden, B. & Bowden, J. (2005). An illustrated atlas of the skeletal muscles (2nd ed.). Englewood, CO: Morton Publishing.

Haywood, K. & Getchell, N. (2001). *Life span motor development* (3rd ed.). Champaign, IL: Human Kinetics.

Interactive Skeleton: Sports and Kinetic Anatomy CD-ROM [Computer software]. (2002). Champaign, IL: Human Kinetics.

Marieb, E.N. (2006). *Essentials of human anatomy & physiology* (8th ed). San Francisco: Benjamin Cummings.

Behnke, R.S. (2001). *Kinetic anatomy*. Champaign, IL: Human Kinetics.

Fox, S.I. (1999). *Human physiology* (6th ed.). Boston: McGraw-Hill.

Guyton, A.C. & Hall, J.E. (2000). *Textbook of medical physiology* (10th ed.). Philadelphia: Saunders.

Lindsay, D. T. (1996). *Functional human anatomy. St. Louis:* Mosby.

Martini, F. H. & Bartholomew, E. F. (2002). *Essentials of anatomy & physiology* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Martini, F. H., Timmons, M. J., & McKinley, M. P. (2000). *Human anatomy* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Sherwood, L. (2001). *Human physiology: From cells to systems* (4th ed.). United States:

Brooks/Cole.

Classroom Support Services:
Students with disabilities who have documentation on file with Classroom Support Services (105 Amstutz, extension 5953) are entitled to reasonable academic adjustments/ accommodations under *The American's with Disabilities Act* and *Section 504 of the Rehabilitation Act of 1973*. Qualified students are encouraged to identify to professors early in the semester. Ashland University makes great effort to provide equal access to all students who have documented disabilities.

Diversity Statement:
It is the intent of the instructor that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity students bring to the class be viewed as a resource, strength and benefit. The materials presented and activities used in the class will be respectful of gender, sexual orientation, disability, age, socioeconomic status, race/ethnicity, etc. Student suggestions on how to improve the diversity in this course are encouraged.

Academic Integrity Policy:
Academic Integrity is defined as the completion of assignments/tests/experiences of each class on one's own, presenting no work completed by others as one's own. Examples of violation include, but not limited to, plagiarism, fabrication, cheating, and other forms of academic misconduct. See Student Handbook for Academic Integrity Guidelines and Policies and Procedures for violations.