

EXSC-2120 STRUCTURAL KINESIOLOGY 3 CREDITS

SYLLABUS

CATALOG DESCRIPTION

This course is designed to teach students basic scientific principles of human movement in an exercise and physical activity context. Students will learn about the anatomy of movement including the muscles, joints, bones, and their functional units. Students will learn about the planes of motion, anatomic directional terms, and explore the basic principles of Newtonian motion as they relate to human movement. Students will also examine the major muscles and bones and how they function to produce movement.

Prerequisites: BIOL 252: BIOL 253

Semester Offered: Spring

COMMON STUDENT LEARNING OUTCOMES

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

COURSE LEARNING OUTCOMES

Upon successful completion of the course, the student will be able to...

1. Apply appropriate anatomic position and directional terminology when describing human movement.
2. Understand the different planes of motion and be able to categorize movement by such.
3. Identify the major muscles of the human body and their attachment sites.
4. Recognize how different muscles function to produce specific movements.
5. Develop an understanding of simple Newtonian mechanics and their application to human motion.
6. Identify the major bones and joints throughout the body and how they function to produce movement.
7. Understand the basic physiology of muscle, bone, and neural tissue and the role of each in human movement.
8. Analyze a variety of sport and exercise movements with respect to the planes of motion, joint axes of rotation, and muscle involvement.