

SAN JUAN COLLEGE - PTA PROGRAM SYLLABUS

COURSE #: PTAP 115
COURSE TITLE: Musculoskeletal Focus
OF CREDITS: 2

CATALOG DESCRIPTION: Enrollment restricted to prospective PTA students only. Basic anatomy of the musculoskeletal system including identification of anatomical surface landmarks. Introduction to osteokinematics and arthrokinematics.

SEMESTER OFFERED: Summer and Fall for on-campus and online programs
PREREQUISITES: BIOL 112

COMMON STUDENT LEARNING OUTCOMES

Upon successful completion of a San Juan College degree, the student will be able to:

LEARN (L) - Students will actively and independently acquire, apply and adapt skills and knowledge to develop expertise and a broader understanding of the world as lifelong learners.

THINK (T) - Students will think analytically and creatively to explore ideas, make connections, draw conclusions, and solve problems.

COMMUNICATE (C) - Students will exchange ideas and information with clarity and originality in multiple contexts.

INTEGRATE (I) - Students will demonstrate proficiency in the use of technologies in the broadest sense related to their field of study.

ACT (A) - Students will act purposefully, reflectively, and respectfully in diverse and complex environments.

GENERAL LEARNING OBJECTIVES

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

1. Understand advanced human anatomy of the musculoskeletal system.
 2. Analyze osteokinematics and arthrokinematics related to the human body.
 3. Identify anatomical surface landmarks.
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SPECIFIC LEARNING OBJECTIVES

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

1. Understand advanced human anatomy of the musculoskeletal system.
 - 1a. Explain the function of the skeletal system. (L,T,C)
 - 1b. Describe the gross anatomical components and relationships of the skeletal system. (L,T,C)
 - 1c. Identify joint structures and components. (L)

- 1d. Define principles of joint motion. (L,T,C)
- 1e. Describe normal joint end-feel for all major joints. (L,T,C)
- 1f. Identify the normal curves of the vertebral column. (L)
- 1g. Identify the center of gravity in standing. (L)
- 1h. Explain the function of the muscular system. (L,T,C)
- 1i. Describe the gross anatomical components and relationships of the muscular system. (L,T,C)
- 1j. Compare and contrast the structure and function of the three major subtypes of skeletal muscles. (L,T, C)
- 1k. Describe the types of muscle contractions and give functional examples for each type. (L,T,C)
- 1l. Name the proximal/distal attachments and function of the major skeletal muscles. (L)
- 1m. Analyze how the skeletal system and the muscular system function together to allow normal movement. (L,T,C)
- 2. Analyze osteokinematics and arthrokinematics related to the human body.
 - 2a. Define planes and axes. (L,T,C)
 - 2b. Identify the relationship of axes to the cardinal planes of motion and the anatomical position for individual joints. (L)
 - 2c. Define Newton's Laws applicable to physical therapy and provide examples. (L,T,C)
 - 2d. Define the terminology applicable to forces and loading. (L,T,C)
 - 2e. Differentiate between pressure and forces. (L,T,C)
 - 2f. Describe the relationship between physical laws and biomechanical principles of the musculoskeletal system. (L,T,C)
 - 2g. Examine the components of levers and their use in the human body. (L,T)
 - 2h. Describe the mechanical property of tissues. (L,T,C)
 - 2i. Describe how the length-tension relation of muscle affects force production. (L,T,C)
 - 2j. Explain the forces involved when an object is in equilibrium. (L,T,C)
- 3. Identify anatomical surface landmarks.
 - 3a. Describe the correlation between bony structures and surface anatomy. (L,T,C)
 - 3b. Demonstrate the ability to palpate bony structures. (L,T,C,I,A)
 - 3c. Describe the correlation between muscular structures and surface anatomy. (L,T,C)
 - 3d. Demonstrate the ability to palpate muscular structures. (L,T,C,I,A)
 - 3e. Describe the correlation between connective structures and surface anatomy. (L,T,C)
 - 3f. Demonstrate the ability to palpate connective structures. (L,T,C,I,A)

ASSESSMENT TECHNIQUES USED BUT NOT LIMITED TO:

- 1. Lecture Exams.

ACCOMODATIONS STATEMENT

Students who need accommodations (i.e., notetaker, interpreter, special seating, etc.) need to provide accommodation notices to the instructor. Students can contact the Students with Disabilities on Campus (SDOC) Coordinator in the Counseling Center, located in the Administration Building, to make arrangements and provide documentation in accordance with the Americans with Disabilities Act of 1990.

ACADEMIC HONESTY RULES

San Juan College expects all students to adhere to the Academic Honesty Rules as posted on our website, <http://www.sanjuancollege.edu/academichonesty>. All Health Sciences Programs have a responsibility to ensure enrolled students and graduates are safe, ethical and competent practitioners. To ensure professionalism, students and faculty must uphold and abide by college and program accreditation specific policies.

Syllabus developed and/or reviewed by:

Dean of Health Sciences: _____ Date: _____

On-Campus PTA Program Director: _____ Date: _____

Online PTA Program Director: _____ Date: _____

PTA Program Faculty: _____ Date: _____

PTA Program Faculty: _____ Date: _____