

## SAN JUAN COLLEGE - PTA PROGRAM SYLLABUS

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**COURSE #:** PTAP 210  
**COURSE TITLE:** Principles of Rehabilitation  
**# OF CREDITS:** 5

**CATALOG DESCRIPTION:** Treatment strategies for patients with complex diagnoses such as developmental disorders, CVA, TBI, SCI, AKA/BKA, and UMN/LMN lesions. Study of the nervous system and techniques related to the theories of neurological development. Study of abnormal gait, types of wheelchairs, and types of supportive devices.

**SEMESTER OFFERED:** Fall for on-campus program; Spring for online program  
**PREREQUISITES:** PTAP 140, PTAP 160

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### 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.

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### GENERAL LEARNING OBJECTIVES

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

1. Review the development and function of the nervous system.
2. Apply techniques related to the theories of neurological development.
3. Address abnormal gait patterns.
4. Explain the appropriate type of wheelchair.
5. Describe the appropriate type of supportive device.
6. Review appropriate treatment programs for patients with a developmental disorder developed within the plan of care.
7. Demonstrate appropriate treatment programs for patients with a cerebral vascular accident (CVA) developed within the plan of care.
8. Perform appropriate treatment programs for patients with a traumatic brain injury (TBI) developed within the plan of care.

9. Demonstrate appropriate treatment programs for patients with a spinal cord injury (SCI) developed within the plan of care.
  10. Perform appropriate treatment programs for patients with an amputation (Transfemoral/Transtibial) developed within the plan of care.
  11. Review appropriate treatment programs for patients with an upper motor neuron (UMN) or lower motor neuron (LMN) lesion developed within the plan of care.
  12. Explain outcome assessment related to course content.
  13. Practice generic abilities related to course content.
  14. Describe basic concepts related to the *APTA Guide to Physical Therapist Practice*.
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### **SPECIFIC LEARNING OBJECTIVES**

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

1. Review the development and function of the nervous system.
  - 1a. Describe the anatomy and function of the nervous system. (L,T,C)
  - 1b. Demonstrate cranial nerve assessment. (L,T,C,I,A)
  - 1c. Demonstrate sensory assessment using dermatomes and peripheral nerve patterns. (L,T,C,I,A)
  - 1d. Demonstrate motor assessment using myotomes. (L,T,C,I,A)
  - 1e. Demonstrate reflex assessment using deep tendon reflexes and pediatric reflexes. (L,T,C,I,A)
  - 1f. Verify the relationship between nervous system impairment and muscle tone. (L)
  - 1g. Explain neuroplasticity across the life span. (L)
2. Apply techniques related to the theories of neurological development.
  - 2a. Describe basic principles of motor learning and motor control. (L,T,C)
  - 2b. Differentiate between neurological techniques such as Neurodevelopmental Treatment (NDT), Brunnstrom, Carr/Shepherd, Developmental Model, PNF, Rood and Ayers, and Taub. (L)
  - 2c. Demonstrate competency in neurological techniques to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
3. Differentiate normal and abnormal gait patterns.
  - 3a. Recognize normal alignment of the trunk and extremities in normal and abnormal gait. (L,T)
  - 3b. Demonstrate equilibrium and righting reactions. (L)
  - 3c. Administer balance assessment tools. (L, T, C, I, A)
4. Explain the appropriate type of wheelchair.
  - 4a. Identify the appropriate type of wheelchair related to a given diagnosis. (L)
  - 4b. Demonstrate competency in wheelchair transfers to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
5. Describe the appropriate type of supportive device.
  - 5a. Demonstrate appropriate application of supportive devices while maintaining skin integrity. (L)
  - 5b. Review the functional use of orthotics. (L)
6. Review appropriate treatment programs for patients with a developmental disorder developed within the plan of care.
  - 6a. Describe basic stages of physical development throughout the life span. (L, T, C)
  - 6b. Modify treatment techniques intended for adults to be appropriate for pediatric patients. (L, T, C, I, A)
  - 6c. Demonstrate competency in appropriate treatment techniques for mock patients with a developmental disorder to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
7. Demonstrate appropriate treatment programs for patients with a cerebral vascular accident (CVA) developed within the plan of care.
  - 7a. Describe the risk factors related to CVA. (L,T,C)

- 7b. Demonstrate competency in appropriate treatment techniques for mock patients with a CVA to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
8. Perform appropriate treatment programs for patients with a traumatic brain injury (TBI) developed within the plan of care.
- 8a. Describe the risk factors related to TBI. (L,T,C)
- 8b. Identify the eight levels of the Rancho Los Amigos Scale. (L)
- 8c. Demonstrate competency in appropriate treatment techniques for mock patients with a TBI to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
9. Demonstrate appropriate treatment programs for patients with a spinal cord injury (SCI) developed within the plan of care.
- 9a. Describe the risk factors related to SCI. (L,T,C)
- 9b. Identify expected physiological responses of the thermoregulatory system related to SCI. (L)
- 9c. Demonstrate competency in appropriate treatment techniques for mock patients with a SCI to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
10. Perform appropriate treatment programs for patients with an amputation (Transfemoral/Transtibial) developed within the plan of care.
- 10a. Describe the risk factors related to amputations. (L,T,C)
- 10b. Understand appropriate application of prosthetics while maintaining skin integrity. (L)
- 10c. Understand the functional use of prosthetics. (L)
- 10d. Demonstrate proficiency in residual limb wrapping. (L,T,C,I,A)
- 10e. Analyze gait patterns with a prosthetic device. (L,T,C)
- 10f. Demonstrate competency in appropriate treatment techniques for mock patients with an amputation to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
11. Review appropriate treatment programs for patients with an upper motor neuron (UMN) or lower motor neuron (LMN) lesion developed within the plan of care.
- 11a. Describe the risk factors related to UMN/LMN lesions. (L,T,C)
- 11b. Describe the pathological conditions that normally occur for a given lesion. (L,T,C)
- 11c. Demonstrate competency in appropriate treatment techniques for mock patients with a UMN/LMN lesion to meet requirements outlined in the skill check and lab exam. (L,T,C,I,A)
12. Explain outcome assessment related to course content.
- 12a. Identify equipment and resources necessary for discharge. (L)
- 12b. Finalize a functional home exercise program including ADLs. (L,T,C,I,A)
- 12c. Provide input to the supervising physical therapist about outcomes. (L,T,C)
13. Practice generic abilities related to course content. (*Generic Abilities adapted from the Physical Therapy Program, University of Wisconsin-Madison, May et al. Journal of Physical Therapy Education, 9:1, Spring, 1995.*)
- 13a. *Commitment to Learning* – Demonstrate the ability to self-assess, self-correct, and self-direct. Identify needs and sources of learning. Seek new knowledge and understanding. (L,T,C,I,A)
- 13b. *Interpersonal Skills* – Demonstrate the ability to interact effectively with patients, families, colleagues, other health care professionals, and the community. Demonstrate the ability to effectively deal with cultural and ethnic diversity issues. (L,T,C,I,A)
- 13c. *Communication Skills* – Demonstrate the ability to communicate effectively (i.e., speaking, body language, reading, writing, and listening) for a varied audiences and purposes. (L,T,C,I,A)
- 13d. *Effective Use of Time* – Demonstrate the ability to obtain maximum benefit from a minimum investment of time and resources. (L,T,C,I,A)
- 13e. *Use of Constructive Feedback* – Demonstrate the ability to identify sources and seek out feedback and to effectively use and provide feedback for improving personal interaction. (L,T,C,I,A)
- 13f. *Problem-Solving* – Demonstrate the ability to recognize and define problems, analyze data, develop and implement solutions, and evaluate outcomes. (L,T,C,I,A)

- 13g. *Professionalism* – Demonstrate the ability to exhibit appropriate professional conduct and to represent the profession effectively. (L,T,C,I,A)
- 13h. *Responsibility* – Demonstrate the ability to fulfill commitments and to be accountable for actions and outcomes. (L,T,C,I,A)
- 13i. *Critical Thinking* – Demonstrate the ability to question logically; to identify, generate, and evaluate elements of a logical argument; to recognize and differentiate facts, illusions, assumptions, and hidden assumptions; and to distinguish the relevant from the irrelevant. (L,T,C,I,A)
- 13j. *Stress Management* – Demonstrate the ability to identify sources of stress and to develop effective coping behaviors. (L,T,C,I,A)
- 13k. Use a SOAP note format to document lab skills. (L,T,C)
14. Describe basic concepts related to the APTA *Guide to Physical Therapist Practice*.
- 14a. Integrate basic concepts presented in the APTA *Guide to Physical Therapist Practice* related to course content. (I)
- 14b. Identify the parameters of the scope of practice of the PTA related to course content. (L)
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#### **ASSESSMENT TECHNIQUES USED BUT NOT LIMITED TO:**

1. Pre-Test and Post-Test.
  2. Lecture Exams.
  3. Midterm and Final Lab Exams.
  4. Assignments.
  5. Midterm Student Evaluations using Generic Abilities.
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#### **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.

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#### **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.

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#### **NON-DISCRIMINATION STATEMENT**

San Juan College will comply with existing federal and state laws and regulations, including the Title VII Civil Rights Act of 1964 and 1990, Executive Order 11246 Section 504 of the 1973 Rehabilitation Act, the Age Discrimination Act of 1967, the Americans with Disability Act of 1990, as amended, and the Vietnam Era Veteran's Readjustment Act of 1974. It is the policy of the College to provide for equal opportunity in recruitment, employment, compensation, benefits, transfers, layoffs, returns, institutionally sponsored education, training, tuition assistance, social and recreational programs, staff development opportunities and advancement, and all other personnel practices without regard to race, color, religion,

national origin, ancestry, sex, disability, age, or veteran's status. Questions should be directed to the EEO officer at 566-3253.

The College reserves the right to change, modify, or alter without notice all fees, charges, tuition, expenses, and costs of any kind and further reserves the right to add or delete without notice any course or program offering, service, or information.

In accordance with the Americans with Disabilities Act, the information in this publication will be made available in alternative formats upon request to Student Services. Call (505) 566-3271 for assistance.

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**Syllabus developed and/or reviewed by:**

Dean of Health Sciences:                      Signatures on file                      Date: \_\_\_\_\_

On-Campus PTA Program Director:                      \_\_\_\_\_                      Date: \_\_\_\_\_

Online PTA Program Director:                      \_\_\_\_\_                      Date: \_\_\_\_\_

PTA Program Faculty:                      \_\_\_\_\_                      Date: \_\_\_\_\_

PTA Program Faculty:                      \_\_\_\_\_                      Date: \_\_\_\_\_