SAN JUAN COLLEGE
Success Matters

PTAP-210 PRINCIPLES OF REHABILITATION 5 CREDITS

SYLLABUS

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.

Prerequisites: PTAP 140, PTAP 160

Semester Offered: Fall for On-Campus Program; Spring for Online Hybrid Program

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. 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. Assess student progress using Professional Behaviors Student's Self-Assessment criteria.

a. related to course content.

14. Describe basic concepts related to the APTA Guide to Physical Therapist Practice.

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.
   1b. Demonstrate cranial nerve assessment.
   1c. Demonstrate sensory assessment using dermatomes and peripheral nerve patterns.
   1d. Demonstrate motor assessment using myotomes.
   1e. Demonstrate reflex assessment using deep tendon reflexes and pediatric reflexes.
   1f. Verify the relationship between nervous system impairment and muscle tone.
   1g. Explain neuroplasticity across the life span.
2. Apply techniques related to the theories of neurological development.
   2a. Describe basic principles of motor learning and motor control.
   2b. Differentiate between neurological techniques such as Neurodevelopmental Treatment (NDT), Brunnstrom, Carr/Shepherd, Developmental Model, PNF, Taub, Rood and Ayers.
   2c. Demonstrate competency in neurological techniques to meet requirements outlined in the skill check and lab exam.
3. Differentiate normal and abnormal gait patterns.
   3a. Recognize normal alignment of the trunk and extremities in normal and abnormal gait.
   3b. Demonstrate equilibrium and righting reactions.
   3c. Administer balance assessment tools.
4. Explain the appropriate type of wheelchair.
   4a. Identify the appropriate type of wheelchair related to a given diagnosis.
   4b. Demonstrate competency in wheelchair transfers to meet requirements outlined in the skill check and lab exam.
5. Describe the appropriate type of supportive device.
   5a. Demonstrate appropriate application of supportive devices while maintaining skin integrity.
   5b. Review the functional use of orthotics.

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.
   6b. Modify treatment techniques intended for adults to be appropriate for pediatric patients.
   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.
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.
   7b. Demonstrate competency in appropriate treatment techniques for mock patients with a CVA to meet requirements outlined in the skill check and lab exam.
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.
   8b. Identify the eight levels of the Rancho Los Amigos Scale.
   8c. Demonstrate competency in appropriate treatment techniques for mock patients with a TBI to meet requirements outlined in the skill check and lab exam.
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.
   9b. Identify expected physiological responses of the thermoregulatory system related to SCI.
   9c. Demonstrate competency in appropriate treatment techniques for mock patients with a SCI to meet requirements outlined in the skill check and lab exam.
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.
    10b. Understand appropriate application of prosthetics while maintaining skin integrity.
    10c. Understand the functional use of prosthetics.
    10d. Demonstrate proficiency in residual limb wrapping.
    10e. Analyze gait patterns with a prosthetic device.
    10f. Demonstrate competency in appropriate treatment techniques for mock patients with an amputation to meet requirements outlined in the skill check and lab exam.
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.
    11b. Describe the pathological conditions that normally occur for a given lesion.
    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.
12. Explain outcome assessment related to course content.
    12a. Identify equipment and resources necessary for discharge.
    12b. Finalize a functional home exercise program including ADLs.
    12c. Provide input to the supervising physical therapist about outcomes.
13. Practice Professional Behaviors Student's Self-Assessment criteria related to course content.
    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.
    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.
    13c. Communication Skills – Demonstrate the ability to communicate effectively (i.e., speaking, body language, reading, writing, and listening) for a varied audiences and purposes.

13d. Effective Use of Time – Demonstrate the ability to obtain maximum benefit from a minimum investment of time and resources.
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.
13f. Problem-Solving – Demonstrate the ability to recognize and define problems, analyze data, develop and implement solutions, and evaluate outcomes.
13g. Professionalism – Demonstrate the ability to exhibit appropriate professional conduct and to represent the profession effectively.
13h. Responsibility – Demonstrate the ability to fulfill commitments and to be accountable for actions and outcomes.
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.
13j. Stress Management – Demonstrate the ability to identify sources of stress and to develop effective coping behaviors.
13k. Use a SOAP note format to document lab skills.

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.
14b. Identify the parameters of the scope of practice of the PTA related to course content.