

## NVCC COLLEGE-WIDE COURSE CONTENT SUMMARY

### PTH 225 - REHABILITATION PROCEDURES (5 CR.)

#### COURSE DESCRIPTION

Focuses on rehabilitation techniques utilized in the treatment of disabling conditions, Emphasizes advanced exercise procedures, prosthetic and orthotic training, and other specialized techniques. Lecture 3 hours. Laboratory 4 hours. Total 7 hours per week.

#### General Course Purpose

PTH 225 - Rehabilitation Procedures is designed to provide a basic knowledge, understanding and application of treatment strategies utilized in rehabilitation populations. The neurorehab population is emphasized. The course consists of coordinated lectures and laboratory practice in techniques commonly utilized in rehabilitation. Significant effort is directed toward obtaining opportunities for clinical observations and experiences to acquire and practice learned techniques. Therapeutic programs are explored for patients with specific disabilities such as brain and spinal cord injuries, peripheral nerve injuries, orthopedic and soft tissue problems and degenerative disorders. Principles of growth and development and facilitation techniques are emphasized.

#### Entry Level Competencies

Prerequisites for this course are as follows:

- BIO 141-142 - "Human Anatomy and Physiology I-II"
- PTH 105 - "Introduction to Physical Therapy"
- PTH 121 - "Therapeutic Procedures I"
- PTH 151 - "Musculoskeletal Structure and Function"
- PTH 115 - "Kinesiology for the Physical Therapist Assistant"
- PTH 122 - "Therapeutic Procedures II"
- PTH 131 - "Clinical Education I"
- PSY 201 - "Introduction to Psychology I"

#### COURSE OBJECTIVES

Upon completion of this course, the student should be able to:

- A. identify varied structures of the nervous system, i.e., peripheral and central nervous system
- B. diagram sensory and motor tracts in the central nervous system
- C. explain the hierarchy of the nervous system
- D. explain the muscle spindle and its relation to control of postural muscle tone
- E. identify the twelve cranial nerves by name and function
- F. identify various components of normal growth and development

- G. select and apply various facilitation techniques appropriate to an identified pathology and description of dysfunction
- H. identify architectural barriers for the disabled and instruct client and family how to modify home environment
- I. describe the management of patients with spinal cord injuries, amputations, cerebral vascular accidents and other neurological/rehabilitation diagnoses
- J. identify basic classifications and describe the purpose for varied orthoses and prosthetics components, including wheelchairs
- K. instruct a client in proper management of appliances, e.g., orthoses, prosthetics, etc.

#### **MAJOR TOPICS TO BE INCLUDED**

- A. Neuroanatomy and neurophysiology
- B. Neural control
- C. Normal movement
- D. Growth and development, e.g., motor development from infancy through the elderly
- E. Rehabilitation techniques
  - 1. Orthotics/prosthetics
  - 2. Activities of Daily Living
  - 3. Adaptive devices and equipment
  - 4. Facilitation techniques: Brunnstrom, Rood, PNF, NDT, etc.

#### **EXTRA TOPICS (optional)**

- A. Seminars with disabled students on campus
- B. Service-Learning project - ADA assessment of campus, or assigned facility