COURSE INFORMATION FORM

DISCIPLINE
Physical Therapist Assistant

COURSE TITLE
Rehabilitation

CR.HR  4.0  LECT HR.  3.0  LAB HR.  2.0  CLIN/INTERN HR.  _______  CLOCK HR.  _______

CATALOG DESCRIPTION
Introduction to the underlying theory, principles, and application of interventions involved in physical rehabilitation. Field trips as required.

PREREQUISITES
PTHA 162 Clinical Experience I

EXPECTED STUDENT OUTCOMES IN THE COURSE

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

1. Explain the rationale for treatment interventions of amputee, traumatic brain injury, spinal cord injury, burns and cerebrovascular accident clients, including scope of physical therapist assistant practice in these interventions.
2. Explain and correctly perform and/or instruct the patient and family in activities of daily living utilizing wheelchairs, assistive and/or orthotic devices as necessary while employing safe and appropriate patient care techniques under the specified plan of care (according to performance checklist).
3. Determine progress towards goals as outlined in the plan of care, recommend modifications within scope of practice and recognize when patient response would require re-evaluation by the physical therapist.
4. Recognize environmental barriers associated with gait with assistive devices and W/C mobility and provide suggestions for environmental modification.
5. Make recommendations that assist in discharge planning for the conditions covered on a written case study.
6. Document pertinent information regarding “client” progress in a SOAP note format and/or standardized functional scoring system.
7. Correctly identify parts of a wheelchair, optional components that are commonly used in wheelchair prescription and common measurements taken to prescribe a wheelchair.
8. Demonstrate according to performance checklist, proper therapeutic manual techniques utilizing PNF diagonals to improve motor function in the client with neurological disorders.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>(ESO)</th>
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<tbody>
<tr>
<td>1. Communication</td>
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<tr>
<td>A. Listening and Speaking Skills</td>
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<tr>
<td>6. Demonstrate basic communication skills, both vocally (volume, rate, articulation, variety) and non-verbally (posture, eye contact, use of face and hands)</td>
<td>(2)</td>
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<tr>
<td>C. Writing Skills</td>
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<tr>
<td>6. Exhibit control of surface features of standard English, grammar, punctuation, and spelling</td>
<td>(6)</td>
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<td>7. Use writing for inquiry, learning, thinking and communicating</td>
<td>(6)</td>
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<td>2. Critical Thinking</td>
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<td>B. Define, analyze, and evaluate information, materials and data</td>
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<td>4. Integrate information and see relevant relationships that broaden and deepen understanding</td>
<td>(3,4,5)</td>
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<tr>
<td>5. Natural and Physical Sciences</td>
<td></td>
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<tr>
<td>B. Evaluate scientific evidence and argument</td>
<td>(1)</td>
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<td>D. Describe and apply current theoretical explanations of the nature, organization and evolution of living systems</td>
<td>(1)</td>
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PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Communicates effectively (2)
3. Competently implements the physical therapy plan of care (1-8)

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written examinations and quizzes (1,2,3,4,5,6,7)
2. Assignments (5,6)
3. Practicals or competency checks (2,8)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Elements of gait
   A. Biomechanics of normal gait
      1. Gait cycle
      2. Joint action during gait
      3. Muscle activity during gait
      4. Assessment of normal gait
   B. Pathological gait patterns
      1. Gross gait patterns
      2. Specific gait patterns due to muscle weakness
   C. Corrective gait training
      1. Preambulation training
      2. Ambulation training
         (a) Selection, instruction and assessment of gait with assistive devices on level surfaces
         (b) Selection, instruction and assessment of gait with assistive devices on stairs
      3. Advanced gait activities

II. Rehabilitation utilizing prosthetics/orthotics
   A. Amputations
      1. Etiology of amputation
      2. Surgical techniques
      3. Complications
   B. Preoperative rehabilitation of the amputee
   C. Postoperative rehabilitation of the amputee
      1. Exercise protocols
      2. Residual limb compression
      3. Residual limb hygiene
      4. Assessment of residual limb/readiness for prosthesis
   D. Prosthetics
      1. Prosthetic components
      2. Prosthetic selection, instruction and fit assessment
      3. Common prosthetic gait abnormalities
   E. Orthotics
      1. Lower extremity orthotics
      2. Cervical orthotics
      3. Thoracic-lumbar-sacral orthotics (TLSO)

III. Rehabilitation of neurological conditions/burns
   A. Wheelchairs
      1. Types, measurement and assessment of fit
2. Wheelchair cushions
3. Third party reimbursement
4. Wheelchair mobility

B. Traumatic brain injury
1. Etiology
2. Clinical presentation
   (a) Glasgow coma scale
   (b) Rancho levels of cognitive function
3. Prognosis
4. Intervention strategies

C. Spinal cord injury
1. Etiology
2. Clinical presentation
   (a) Critical levels of function
3. Prognosis
4. Intervention strategies

D. Cerebrovascular accident
1. Etiology
2. Clinical presentation
3. Prognosis
4. Intervention strategies
   (a) Neurodevelopmental treatment
   (b) Brunnstrom
   (c) Rood
   (d) Integrated approach

E. Burns
1. Etiology
2. Clinical presentation
3. Prognosis
4. Intervention strategies
   (a) Splints
   (b) Exercise
   (c) Functional activities
   (d) Compression

IV. Proprioceptive neuromuscular facilitation
A. PNF theory
1. UE/LE diagonals
2. Developmental progression
3. Stages of motor control

B. Indications for PNF
C. PNF techniques
1. Assist to position
2. Rhythmic initiation
3. Rhythmic stabilization
4. Slow reversal
5. Slow reversal hold