PTA 3

FOUNDATIONS OF PHYSICAL THERAPY II

SYLLABUS AND COURSE INFORMATION PACKET

Summer 2017

3 credits 2 hour lecture/ 8 hours lab

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KINGSBOROUGH COMMUNITY COLLEGE  
OF THE  
CITY UNIVERSITY OF NEW YORK  

Physical Therapist Assistant Program  

Course Syllabus  

PTA 3  

FOUNDATIONS OF PHYSICAL THERAPY II  

Course Description: This course is a continuation of Foundations of Physical Therapy and is designed to introduce the student to gait deviations and ambulation activities using assistive devices and guarding techniques. Wheelchair activities are also presented. This course begins to consider the rehabilitation population including the effects of aging and the geriatric patient.


Pre-requisite Courses: PTA 1, PTA 2, PTA 10, PTA 20, BIO 11

Student Learning Objectives

As evidenced by successful completion of written and practical examinations, lab activities, assignments, research article reviews, and the role playing and analysis of clinical scenarios, the student will:

1.0 Demonstrate an understanding of normal gait and gait deviations.  
   1.1. Identify the components of normal and abnormal gait.  
   1.2. Differentiate the components of abnormal gait.
1.3. Describe abnormal gait deviations via video presentations and role playing.
1.4. Document gait deviations.
1.5. Correlate gait deviations with muscular-skeletal structure and function.
1.6. Correlate gait deviations with pathological conditions.

2.0 **Implement ambulation training activities.**
   2.1. Identify basic guarding techniques.
   2.2. Identify different weight bearing statuses.
   2.3. Identify ambulation devices and define their use in ambulation.
   2.4. Identify and interpret ambulation techniques using different devices on level and uneven surfaces (stairs, ramps, carpet, etc.).
   2.5. Identify specific crutch/cane gait patterns including: three point, two point, four point, swing to, and swing through.
   2.6. Explain body mechanics and moving and lifting techniques as they relate to patient ambulation activities.
   2.7. Discuss basic guarding techniques as they relate to proper body mechanics.
   2.8. Interpret levels of assistance as they relate to ambulation activities.
   2.9. Differentiate ambulation devices and their use in ambulation.
   2.10. Distinguish appropriate uses of crutch/cane gait patterns.
   2.11. Discuss different weight bearing statuses as they relate to different pathologies.
   2.12. Perform ambulation activities on level and uneven surfaces using: walkers, axillary crutches, platform crutches, forearm crutches, straight canes, quad canes and hemi canes using full, partial and non-weight bearing statuses.
   2.13. Implement specific crutch/cane gait patterns to pathological conditions.
   2.15. Properly measure walkers, crutches and canes.
   2.16. Instruct peers in gait with assistive devices.
   2.17. Assess balance and equilibrium reactions in terms of appropriate ambulation training.
   2.18. Determine the appropriate ambulation techniques and equipment given patient pathologies, architectural barriers and balance deficiencies.
   2.19. Delineate the progression of levels of assistance, weight bearing statuses and type of assistive device.
   2.20. Analyze gait deviations for patients using ambulation devices.
   2.21. Determine the procedure to be used given patient evaluation, short term goals, long term goals and plan of care for bed mobility, transfers and ambulation activities and their relationship to different pathologies.

3.0 **Implement wheelchair training activities.**
   3.1. Identify the parts of a standard wheelchair.
   3.2. Identify indications and uses of wheelchairs.
   3.3. Identify the uses and training methods for motorized wheelchairs.
   3.4. Outline the parts of a standard wheelchair.
   3.5. Explain the indications and uses of wheelchairs.
   3.6. Explain the uses and training methods for motorized wheelchairs as they
relate to different pathologies.

3.7. Perform sliding board, wheelchair to floor and floor to wheelchair transfers using sound principles of body mechanics.

3.8. Instruct peers in wheelchair transfers and wheelchair use.

3.9. Perform wheelchair to toilet transfers.

4.0 Implement bed mobility and transfer techniques with ambulation and wheelchair training.

5.0 Implement vital sign monitoring skills, bed mobility, draping, transfer, ambulation, wheelchair training with pathological conditions in different rehabilitation populations.

5.1 Perform skills appropriate to aging and geriatric patients.

5.2. Perform skills appropriate to acute, short term and long term care patients (considering short and long term goals).

6.0 Given patient scenarios, implement comprehensive physical therapy plan of care as directed by the physical therapist.

6.1. Perform therapeutic techniques demonstrating an understanding of the role of the physical therapist assistant in rehabilitation.

6.2. Perform therapeutic techniques appropriately employing universal precautions and sound body mechanics.

6.3. Perform therapeutic techniques demonstrating an understanding of organizational structure, levels of authority, and fiscal considerations of the health care delivery system.

6.4. Implement sound rationale when performing ambulation and wheelchair training considering specific characteristics of pathological conditions.

6.5. Identify patient progress as it relates to the achievement of short term goals.

6.6. Teach the uses, applications and responses of ambulation and wheelchair training activities, and concepts effectively with emphasis on safety and rationale.

6.7. Demonstrate the adjunctive nature of ambulation and wheelchair training by integrating their use in complete treatment applications.

6.8. Implement therapeutic interventions within the plan of care considering knowledge of assessment and measurement, pathology, kinesiology, anatomy, vital signs, and functional activities.

6.9. Implement therapeutic interventions within the plan of care demonstrating consideration of time management, therapeutic sequence and procedure selection issues.

6.10. Implement physical therapy interventions for a variety of patient types including: orthopedic, neurological and general deconditioned patients in a variety of settings.

6.11. Demonstrate appropriate documentation of physical therapy interventions considering patient response, precautions, treatment parameters, long/short term goals, and effectiveness.
6.12. Perform physical therapy interventions considering influencing factors (psychosocial, cultural, economic, legal/ethical, rehab. settings etc.).
6.13. Assist in discharge planning and alternative levels of care decision making.
6.14. Recognize patient response(s) that require the attention of the supervising physical therapist.
6.15. Communicate to supervising physical therapist the patient response to ambulation and wheelchair training.
6.16. Deduce the effectiveness of ambulation and wheelchair training techniques considering pathological conditions, attainment of short term goals and the patient’s overall response.
6.17. Assess patient response to treatment and appropriately alter ambulation and wheelchair training techniques.
6.18. Verify the effectiveness of his/her teaching behavior by analyzing performance.
6.19. Delineate the beneficial and untoward effects of ambulation and wheelchair training techniques.
6.20. Analyze the relationship of gait deviations, ambulation and wheelchair training with vital signs, body mechanics, documentation, bed mobility/draping and transfer techniques, the principles of kinesiology, and pathology as they relate to the achievement of rehabilitation goals.

7.0 **Demonstrate appropriate professional behavior.**
   7.1. Attend and be on time for class, lab, and scheduled appointments.
   7.2. Be prepared for lab activities; attend to tasks assigned.
   7.3. Accept constructive criticism and respond and/or follows through appropriately.
   7.4. Express self in a clear and easily understood manner.
   7.5. Maintain appropriate personal hygiene.
   7.6. Treat others with positive regard, dignity and respect.
   7.7. Analyze and examine professional literature considering: specific scientific methods, interpretation of results, and clinical significance in order to foster further personal investigation and clinical effectiveness.
   7.8. Explain the importance of life long learning.
   7.9. Describe how professional development can occur.

**Student Assessment**
As indicated in the student handbook, to receive a passing grade in this course the student must successfully complete all comprehensive examinations, assignments and the practical exam with a grade of “C” or better. Additionally, the instructor assesses student competencies in skills critical to this course using the standardized skills checklists, located in the laboratory, requiring a passing score of at least 90%. Critical skills in this course include:

1. Accurate measurement/fit of crutches, walkers and canes.
2. Employment of proper guarding techniques.
3. Instruction of gait with assistive devices including: walkers, crutches, and canes.
4. Instruction of stair climbing with assistive devices.
5. Instruction of wheelchair mobility.
7. Reporting to supervising physical therapist.

**Grade Determination**

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Clinical Presentations</td>
<td>15%</td>
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<tr>
<td>Research Article Paper</td>
<td>5%</td>
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<tr>
<td>Quizzes</td>
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<tr>
<td>Documentation</td>
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<tr>
<td>Practical Examination</td>
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<tr>
<td>Final Examination</td>
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<td><strong>Total</strong></td>
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**Clinical Presentations**
The students in the class are divided into groups of 3 - 5. During the course, the groups perform two demonstrations, one during week 3 and one during week 6. For the first demonstration, the group is given a mock patient scenario and is asked to demonstrate the transfers in front of the class. For the second demonstration, the group demonstrates a transfer of a mock patient from a supine position to a wheelchair. Groups must work together to make clinical decisions based on the mock patient evaluation and plan of care. These two group activities are worth fifteen percent of the final grade.

**Research Article Paper**
The student summarizes and analyzes one research article based on course topics. The articles must be from an APTA journal and be approved by the professor. The format of these papers is distributed in class. The complete research article papers are submitted during week four. The research article paper are worth 5% of the final grade.

**Quizzes**
Students must take a number of quizzes specifically related to assigned readings. Quizzes are mainly composed of short essay questions and multiple choice questions. Quizzes are worth twenty-five percent of the final grade.

**Documentation**
The student is instructed to write an individual progress note following a treatment application activity on a mock patient. Three to four notes will be collected during the semester to be graded. These notes are worth five percent of the final grade.
Practical Examination
During finals week, students take a cumulative laboratory practical examination based on laboratory activities. The lab practical is worth thirty percent of the final grade.

Final Examination
Students take a cumulative final examination. This examination is worth twenty percent of the final grade.

Week #1 — Normal/ Pathological Gait
Lecture
Assignments: Handout
Lippert Chapter 22 (review from PTA 1)

Discussion about normal gait continues from PTA 1. Pathological gait is introduced. Deviations are discussed in terms of deviations in muscle contraction/relaxation and their relationship to pathologies, such as those discussed in PTA 20. Documentation of gait deviations is also undertaken.

Laboratory
Students observe videos and classmates for gait deviations. Students document gait deviations and analyze what muscles are being affected. Considering information presented in patient scenarios, students predict types of gait deviations most likely to occur.

Week #2—Introduction to Ambulation Training
Lecture
Assignments: Pierson, Chapter 9

Ambulation activities are introduced. Students begin to study the following topics: weight bearing statuses, types of equipment used for different weight bearing statuses, amounts of assistance and basic guarding techniques. Students learn how to instruct patient and family in the use of assistive devices.

Laboratory
Students begin to practice ambulation activities in the parallel bars and with walkers. Students are introduced to ambulation equipment including walkers (standard, platform and rolling) and axillary crutches. Proper measurement of walkers and axillary crutches is studied. Students are given mini patient scenarios with various orthopedic and neurological conditions.

Treatment Application Activity
Students exhibit critical thinking and sound technical skills in the management of a mock acute traumatic brain injured case as presented by the instructor and implement the prescribed plan of care. Students perform bed mobility, lifting, draping techniques,
transfers and ambulation activities appropriate to this scenario. While performing interventions, students consider additional factors influencing patient care and the contemporary practice of physical therapy including, psycho-social issues and other issues impacting the health care delivery system. Students practice reporting and documenting consequences of treatment to supervising physical therapist. Students perform discharge planning activities including, suggestion for home equipment and discharge alternatives. Following this treatment application activity, students discuss patient management and therapeutic techniques.

**Week #3--Ambulation Training con't**

**Lecture**
Group presentation #1

Crutch gait patterns such as: swing to, swing through, three point, and four point are presented. Indications for walkers and crutches are also discussed. Students are introduced to additional ambulation equipment including platform and forearm crutches and canes (straight, quad., and hemi). Measurement of this equipment is also instructed.

**Laboratory**
Students continue perform measuring and ambulation activities with walkers and crutches using different weight bearing statuses on level and uneven surfaces. Given patient scenarios, students must instruct mock patients in ambulation activities. In addition students analyze gait deviations. Students must objectively document these activities.

**Treatment Application Activity**
Students exhibit critical thinking and sound technical skills in the management of a mock hip fracture case as presented by the instructor and implement the prescribed plan of care. Students perform bed mobility, lifting, draping techniques, transfers and ambulation activities appropriate to this scenario. While performing interventions, students consider additional factors influencing patient care and the contemporary practice of physical therapy including, psycho-social issues and other issues impacting the health care delivery system. Students practice reporting and documenting consequences of treatment to supervising physical therapist. Students perform discharge planning activities including, suggestion for home equipment and discharge alternatives. Following this treatment application activity, students discuss patient management and therapeutic techniques.

**Week #4- Ambulation Training con't**

**Lecture**
Assignments: Pierson, Chapter 9
Skinner, Chapter 4

Research Article paper due
Discussion of ambulation topics from week #2 and #3 continues. Gait analysis is discussed in relationship to the use of assistive devices. Balance and equilibrium difficulties are studied.
**Laboratory**
Students practice ambulation activities with platform and forearm crutches and canes. The various crutch and cane gait patterns (three point, two point, etc.) are practiced. The influence assistive devices have on balance and equilibrium is undertaken. Students apply these skills in assigned patient scenarios. Students continue to practice ambulation activities with all assistive devices, on level and uneven surfaces. Students practice assessing treatment goals outlined on mock patient evaluations.

**Treatment Application Activity**
Students exhibit critical thinking and sound technical skills in the management of an acute, obese, generally deconditioned mock patient with a cardiac history as presented by the instructor and implement the prescribed plan of care. Students perform bed mobility, lifting, draping techniques, transfers, ambulation and vital signs monitoring (previously learned in Bio 7 and PTA 1) appropriate to this scenario. While performing interventions, students consider additional factors influencing patient care and the contemporary practice of physical therapy including, psycho-social issues and other issues impacting the health care delivery system. Students practice reporting and documenting consequences of treatment to supervising physical therapist. Students perform discharge planning activities including suggestions for home equipment and discharge alternatives. Following this treatment application activity, students discuss patient management and therapeutic techniques.

**Week #5**

**Lecture**
Assignments: Pierson, Chapter 7

During this week, the student is introduced to wheelchair (w/c) mobility. The student is instructed in the following topics: w/c prescriptions, parts of a w/c, w/c mobility, transfers (review of sliding board transfers, w/c to floor transfers, stand pivot) and w/c training. Students are also introduced motorized w/c use and training.

**Laboratory**
Students practice w/c mobility, sliding board transfers and w/c to floor transfers and w/c to toilet transfers. In addition students practice teaching classmates advance w/c mobility skills including w/c mobility on uneven surfaces and popping a wheelie.

**Treatment Application Activity**
Students exhibit critical thinking and sound technical skills in the management of a mock spinal cord injury case as presented by the instructor and implement the prescribed plan of care. Students perform bed mobility, lifting, draping techniques, transfers, ambulation activities and wheelchair mobility appropriate to this scenario. While performing interventions, students consider additional factors influencing patient care and the contemporary practice of physical therapy including, psycho-social issues and other issues impacting the health care delivery system. Students practice reporting and documenting consequences of treatment to supervising physical therapist. Following this treatment application activity, students discuss patient management and therapeutic
techniques.

**Week #6-- The Rehabilitation Population**

**Lecture**

Group Presentation #2

This week different types of rehabilitation settings are reviewed. The rehabilitation population is discussed with emphasis on the aging and geriatric population. The impact of physical therapy practice and the health care delivery on the rehabilitation population is undertaken. Appropriate patient goals are reviewed.

**Laboratory / Treatment Application Activity**

Given patient scenarios (using examples of aging and geriatric patients), students perform all skills learned up to this point (documentation, measurements and assessments, vital signs, bed mobility, draping, transfer training, ambulation training, wheelchair training, gait analysis, etc.) for different pathological conditions including orthopedic, neurological, and general medical conditions. Students take patient scenarios through different rehabilitation settings. While performing interventions, students consider additional factors influencing patient care and the contemporary practice of physical therapy including, psycho-social issues and other issues impacting the health care delivery system. Students discuss patient management and therapeutic techniques.

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***Academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion. Additional information can be found in the College catalog (http://www.kingsborough.edu/sub-registration/Pages/catalog.aspx). Plagiarism is a violation of academic integrity. Plagiarism is the intentional theft(s) of someone else’s intellectual property without attribution (proper credit). Determination and penalty – ranging from grade reduction to course failure – will be decided by the instructor.*

***Class attendance is a vital part of the learning experience. A student who has been absent 15% or more of the total instructional hours that a class meets may be considered excessively absent by the instructor. The instructor may consider excessive absences as a factor in the assignment of a student’s grade.*

****The course professor utilizes a variety of teaching methodologies to facilitate accomplishment of student learning objectives. These methodologies may include interactive lecturing, supervised group and simulation activities, web-based instruction, use of custom computer based study guides, and active learning strategies.*