

# PHYSICAL THERAPY (DOCTORAL) (PHT)

## **PHT 5191 Special Topics: Seminar I (1)**

Concentrated study of a particular topic in physical therapy.

## **PHT 5192 Special Topics: Seminar II (1)**

Concentrated study of a particular topic in physical therapy.

## **PHT 5193 Special Topics: Seminar III (1)**

Concentrated study of a particular topic in physical therapy.

## **PHT 5194 Special Topics: Seminar IV (1)**

Concentrated study of a particular topic in physical therapy.

## **PHT 5230 Essentials of Evidence-Based Practice and Clinical Research (2)**

The integration of best evidence and best practice concepts as well as advanced concepts, techniques, and technologies used for the scientific inquiry of applied clinical research. Emphasis is placed on refining research designs for individual projects and preparing a research protocol for approval by the Institutional Review Board.

## **PHT 5321 Aspects of Pharmacology and Nutrition in Physical Therapy (3)**

Role and relationship of nutrition and drug therapy in the treatment of specific populations treated by physical therapists; medical indications and potential effects of drugs on physical therapy treatments; nutritional principles related to exercise.

## **PHT 5323 Pathophysiology of Therapeutic Exercise (3)**

An in-depth exploration of exercise physiology and pathophysiology related to the cardiovascular, respiratory, and musculoskeletal systems. Emphasis will be placed on utilizing this information as a basis for evaluating patients with selected pathologies commonly seen in physical therapy, and designing and implementing treatment programs.

## **PHT 5326 Functional Physical Therapy Anatomy and Biomechanics: Lower Quarter (3)**

Advanced dissection course in human gross anatomy with emphasis on the origin of function. Ligaments, bones, and bones are dissected and their interrelationships emphasized especially with the lower extremities. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

## **PHT 5327 Functional Physical Therapy Anatomy and Biomechanics: Upper Quarter (3)**

Advanced dissection course in human gross anatomy with emphasis on the origin of function. Ligaments, bones, and muscles are dissected and their interrelationships emphasized especially with the upper extremities. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

## **PHT 5331 Quantitative Evaluation (3)**

Assessment of the uses, advantages, validity, reliability, and sources of error of evaluation procedures in physical therapy.

## **PHT 5341 Differential Diagnosis in Orthopaedic Physical Therapy (3)**

Discussion of the subjective and objective findings of somatic and visceral disorders of the various systems with reference to their influence on physical therapy evaluation and rehabilitation or the need for referral to a physician.

## **PHT 5349 Radiology for Physical Therapists (3)**

Familiarizes the physical therapist with procedures used in radiology related to neuromuscular and musculoskeletal disorders. Emphasis placed on correlation of radiological findings with clinical signs and symptoms.

## **PHT 5382 Evaluation and Mobilization: Lower Quarter (3)**

Interpretation of basic science knowledge and development of clinical skills needed to complete a differential evaluation and proceed to effective treatment of lower quarter dysfunction.

## **PHT 5383 Evaluation and Mobilization: Upper Quarter (3)**

Interpretation of basic science knowledge and development of clinical skills needed to complete a differential evaluation and proceed to effective treatment of upper quarter dysfunction.

## **PHT 5392 Evaluation and Mobilization: Advanced Lower Quarter (3)**

Review of basic science knowledge and refinement of clinical skills needed to complete a differential evaluation and proceed to effective treatment of lower quarter dysfunction. Development of advanced clinical skills in treatment progression and application of combined movements, and grade V mobilization techniques (manipulation) which will increase efficiency, accuracy, and clinical outcomes.

## **PHT 5393 Evaluation and Mobilization: Advanced Upper Quarter (3)**

Review of basic science knowledge and refinement of clinical skills needed to complete a differential evaluation and proceed to effective treatment of upper quarter dysfunction. Development of advanced clinical skills in treatment progression and application of combined movements, and grade V mobilization techniques (manipulation) which will increase efficiency, accuracy, and clinical outcomes.

## **PHT 6101 Advanced Practicum in Physical Therapy (1)**

Supervised experience in a specialized area of interest such as administration, teaching, research, or advanced evaluation and treatment procedures.

## **PHT 6111 Advanced Orthopaedic/Sports Medicine and Surgery for Physical Therapists (1)**

Review of the orthopaedic surgeon's model of evaluation and treatment of musculoskeletal injuries. Update current orthopaedic and sports medicine surgical procedures and rehabilitation guidelines.

## **PHT 6150 Orthopaedic Lecture Series I (1)**

The Orthopaedic Lecture Series, developed for the West Point Joint & Soft Tissue Trauma Fellowship, provides lectures from some of the top orthopaedic and rehabilitation specialists in the country. The residents are invited to present their research at this forum, which prepares them to present in front of leading experts in orthopaedics and sports medicine.

## **PHT 6151 Orthopaedic Lecture Series II (1)**

A continuation of The Orthopaedic Lecture Series, developed for the West Point Joint and Soft Tissue Trauma Fellowship, which provides lectures from some of the top orthopaedic and rehabilitation specialists in the country. The residents are invited to present their research at this forum, which prepares them to present in front of leading experts in orthopaedics and sports medicine.

## **PHT 6152 Orthopaedic Lecture Series III (1)**

A continuation of courses PHT 6150 and 6151. The Orthopaedic Lecture Series, developed for the West Point Joint and Soft Tissue Trauma Fellowship, provides lectures from some of the top orthopaedic and rehabilitation specialists in the country. The residents are invited to present their research at this forum, which prepares them to present in front of leading experts in orthopaedics and sports medicine.

**PHT 6191 Independent Study I (1)**

Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

**PHT 6192 Independent Study II (1)**

Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

**PHT 6193 Independent Study III (1)**

Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

**PHT 6194 Independent Study IV (1)**

Variable content. Clinical practicum with direct one-to-one clinical mentoring with specialization in advanced orthopedic physical therapy.

**PHT 6292 Special Topics: Seminar I (2)**

Concentrated study of a particular topic in sports medicine as it relates to the overall health and performance of an athlete/soldier.

**PHT 6293 Special Topics: Seminar II (2)**

Concentrated study of a particular topic in sports medicine as it relates to the overall health and performance of an athlete/soldier.

**PHT 6294 Differential Diagnosis in Sports Medicine (2)**

Discussion of subjective and objective findings of somatic and visceral disorders of the various systems with reference to their influence on physical therapy evaluation and rehabilitation or the need for referral to a physician.

**PHT 6310 Soft Tissue and Bone Pathophysiology (3)**

Fundamental concepts of pathophysiological processes of injury and disease as related to causes, mechanisms, clinical manifestations, diagnostic techniques and management. Basic science of soft tissue and bone pathophysiology with emphasis on relationship to clinical/field evaluation, intervention and post-operative rehabilitation.

**PHT 6320 Athletic Injuries I (3)**

Basic and advanced concepts for the recognition, examination, diagnosis, management and prevention of injuries. Injuries are presented in general terms as well as sport specific. Classroom and practical exposure to acute and chronic injuries, to include injury prevention are addressed.

**PHT 6321 Athletic Injuries II (3)**

A continuation of PHT 6320 exposing the residents to advanced concepts for the recognition, examination, diagnosis, management and prevention of athletic injuries. Injuries are presented in general terms as well as sport specific. Classroom and practical exposure to acute and chronic injuries, to include injury prevention are addressed.

**PHT 6332 Field Research in Physical Therapy (3)**

Designs, data collection techniques, and analyses for field research in physical therapy. Critical application of surveys, observational studies, case studies, and single case designs to clinical field problems in physical therapy. Emphasis is on the development of analytical skills requisite for field research in physical therapy.

**PHT 6333 Advanced Professional Paper Project (3)**

This course focuses on methods of evaluating health status and outcomes of physical therapy intervention. Design, measurement and analysis are covered. This course is designed to guide the residents in conducting and completing original clinical research. Review of the literature of selected topics, pilot research studies, and the course instructor may approve independent research projects. Focus will be placed on assisting the residents to be participants in the research process.

**PHT 6340 Functional Anatomy and Biomechanics I (3)**

Advanced course in functional anatomy and biomechanics of the upper/lower quarter and spine with emphasis on orthopedic and sports related trauma and pathology. The course will correlate basic science with clinical concepts for diagnosis, intervention and injury prevention. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

**PHT 6341 Functional Anatomy and Biomechanics II (3)**

A continuation of PHT 6340. Advanced course in functional anatomy and biomechanics of the upper/lower quarter and spine with emphasis on orthopedic and sports related trauma and pathology. The course will correlate basic science with clinical concepts for diagnosis, intervention and injury prevention. All tissues and joint structures are analyzed from an anatomical as well as functional perspective.

**PHT 6379 Advanced Radiology in Sports Medicine (3)**

Familiarize with procedures used in radiology related to neuromuscular and musculoskeletal disorders. Emphasis placed on correlation of radiological findings with clinical signs and symptoms.

**PHT 6384 Independent Study (3)**

Concentrated study of a particular topic related to musculoskeletal pathology in sports medicine.

**PHT 6387 Research and Statistics I (3)**

This course is designed to introduce residents to advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical research, with the emphasis on sports medicine. Topics to be investigated include measurement theory and the scientific method, the research process, experimental design, hypothesis construction and testing, critical evaluation of physical therapy research, sampling, indices of validity and reliability, parametric and non-parametric statistics, data collection, and coding schemes. This course focuses on methods of evaluating health status and outcomes of physical therapy intervention. Design, measurement and analysis are covered. This course is also designed to guide the residents in conducting and completing original clinical research. Review of the literature of selected topics, pilot research studies, independent research projects may be approved by the course instructor. Focus will be placed on assisting the residents to be participants in the research process.

**PHT 6388 Research and Statistics II (3)**

A continuation of PHT 6387 and is designed to further introduce residents to advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical research, with the emphasis on sports medicine. Topics to be investigated include measurement theory and the scientific method, the research process, experimental design, hypothesis construction and testing, critical evaluation of physical therapy research, sampling, indices of validity and reliability, parametric and non-parametric statistics, data collection, and coding schemes. This course focuses on methods of evaluating health status and outcomes of physical therapy intervention. Design, measurement and analysis are covered. This course is also designed to guide the residents in conducting and completing original clinical research. Review of the literature topics, pilot research studies, independent research projects may be approved by the course instructor. Focus will be placed on assisting the residents to be participants in the research process. Dissemination of research findings in the form of manuscripts, poster and platform presentations will also be covered.

**PHT 6389 Research and Statistics III (3)**

A continuation of PHT 6387 and 6388. This course focuses on the dissemination of research findings in the form of manuscripts, poster and platform presentations will also be covered.

**PHT 6391 Clinical Fellowship I (3)**

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct patient, orthopaedic care.

**PHT 6392 Clinical Fellowship II (3)**

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct patient, orthopaedic care.

**PHT 6393 Clinical Fellowship III (3)**

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct patient, orthopaedic care.

**PHT 6394 Clinical Fellowship IV (3)**

Clinical practicum with specialization in orthopaedic physical therapy emphasizing advanced orthopaedic evaluation and treatment procedures in the provision of direct outpatient, orthopaedic care.

**PHT 6395 Advanced Sports Medicine Practicum I (3)**

Field and courtside basic and advanced practical applications for the recognition, examination, diagnosis, and management of athletic injuries. Coverage for an athletic event may be with another faculty member or independently (usually not until third or fourth semesters). Athletic venues will consist of USMA intramural and inter-collegiate sports. Residents will also be sent on TDY to cover Army Sports at trial camps, Armed Forces, National and CISM competitions. TDYs will be in CONUS and OCONUS.

**PHT 6396 Advanced Sports Medicine Practicum II (3)**

A continuation of PHT 6395 for field and courtside basic and advanced practical applications for the recognition, examination, diagnosis, and management of athletic injuries. Coverage for an athletic event may be with another faculty member or independently (usually not until third or fourth semesters). Athletic venues will consist of USMA intramural and inter-collegiate sports. Residents will also be sent on TDY to cover Army Sports at trial camps, Armed Forces, National and CISM competitions. TDYs will be in CONUS and OCONUS.

**PHT 6397 Advanced Sports Medicine Practicum III (3)**

Continuation of PHT 6395 and 6396. Field and courtside basic and advanced practical applications for the recognition examination, diagnosis, and management of athletic injuries. Coverage for an athletic event may be with another faculty member or independently (usually not until third and fourth semesters). Athletic venues will consist of USMA intramural and inter-collegiate sports. Residents will also be sent on TDY to cover Army Sports at trial camps, Armed Forces, National and CISM competitions. TDYs will be in CONUS and OCONUS.