# **PHYSICAL THERAPY (PHYT)**

#### PHYT 8800 Clinical Pathology 1 3 s.h.

Study basic concepts of clinical pathology, imaging, histology, and pharmacology used in Physical Therapists clinical decision making. Study human disease processes and tissue injury and their effect on body structure and function. Learn relationships between pathology and clinical signs and symptoms, diagnostic imaging techniques, histological findings, etiology, differential diagnosis, prognosis, and treatment.

#### PHYT 8801 Clinical Pathology 2 3 s.h.

Study human disease processes and tissue injury and their effect on body structure and function. Learn relationships between pathology and clinical signs and symptoms, diagnostic imaging techniques, histological findings, etiology, differential diagnosis, prognosis, and treatment.

#### PHYT 8810 Human Gross Anatomy 6 s.h.

Knowledge of anatomy is essential in the practice of healthcare. In this course we will concentrate on the study of human gross anatomy, which includes the structure of the body and body parts that can be studied with the unaided eye. This course will include examination of the musculoskeletal, nervous and circulatory systems. This course will primarily encompass structural and functional relationships with clinical perspectives that relate to healthcare. **Prereq.:** BIOL 3705.

# PHYT 8901 Clinical Decision Making 1 6 s.h.

Decision-making process for clinical management of uncomplicated cases in practice patterns. Emphasis on posture and movement assessment, safety, body mechanics, and monitoring physiological status. The course includes integrated hands on practice into lectures and class sessions.

## PHYT 8902 Functional Anatomy 4 s.h.

Study of kinetics, kinematic variables, and mechanical properties of tissue; motion analysis: posture, gait and functional activities; environmental contexts and constraints, and life span applications. Four hour lecture per week.

## PHYT 8905 Clinical Decision Making 2 6 s.h.

Decision making process for clinical management of both routine and less common cases in practice patterns. Emphasis on outcomes research, personnel supervision, individualized and culturally-sensitive intervention, and program design.

Prereq.: Admission to DPT program.

# PHYT 8906 Critical Inquiry 1 3 s.h.

Develop skills needed to create and answer clinical questions including: use of technology to obtain information: evaluation and application of the information for decision making. Examine the application of current literature to clinical decision making. Emphasis on written research communication methods: scientific writing, documentation and literature reviews. Examine the use of qualitative, quantitative and non-experimental research in health care that are used to inform physical therapy practices. Introduction of group research projects as a means of clinical inquiry.

## PHYT 8907 Special Topics: Pediatrics 3 s.h.

Theories of human growth and development and application to typical and atypical motor development and illnesses or injuries of children. Clinical management of cases across the practice patterns with emphasis on family/ caregiver participation, team approach, and setting-specific expectations. **Prereq.:** Admission to DPT program.

## PHYT 8909 Clinical Decision Making 3 6 s.h.

Evaluation of decision-making process for clinical management of complex and complicated cases. Emphasis on reimbursement, professional development, interprofessional activities, and program evaluation. **Prereq.:** Admission to DPT program.

#### PHYT 8911 Special Topics: Geriatrics 2 s.h.

Theories of life span development and human aging with application to systems development and dysfunction. Emphasis on prevention, well elderly, and illnesses/injuries common to the elderly. Clinical management of cases, considering functional goals; cognition; pharmacology; and reimbursement issues. Two hour lecture.

# PHYT 8913 Management and Leadership in Physical Therapy 2 s.h.

Theories of resource planning, management strategies for utilizing resources (human, information, fiscal, and space/equipment) for health care delivery, and clinical management issues in various physical therapy settings. Two hour lecture.

## PHYT 8914 Clinical Education 1 5 s.h.

This is a first-time, intermediate, full-time, 6-week clinical education experience (CEE). It is the first in a sequence of three experiences across the curriculum. This experience introduces the student to the general organization and operations of physical therapy practice as it pertains to the care of diverse patients/ clients being served in the inpatient or outpatient setting. It emphasizes the early phases of development toward entry-level PT competencies in professional practice and patient management across the lifespan. The student is responsible, under the direct supervision of a licensed physical therapist, for the examination, evaluation, diagnostic, prognostic, and intervention aspects in the delivery of patient care. The specific content and context of clinical practice for this experience will vary depending upon the learning experiences available and the perceived or declared readiness of each student. 210 practicum hours per semester. Grading is S/U.

#### PHYT 8916 Critical Inquiry in Physical Therapy 3 s.h.

Student groups will analyze datasets and write up manuscripts for the methods, results and some discussion. Groups will peer review these written reports. Student groups will then revise the report and design a clinically-related project based on the findings of the project. Emphasis will be given to formal research proposals, clinical applications, and resources for project implementation. Three hour lecture.

#### PHYT 8918 Professional Issues 2 s.h.

Discussion of professional topics related to entry-level practice, such as leadership, interagency and interprofessional collaboration, future trends and technologies, and opportunities for professional growth. Two hour lecture.

#### PHYT 8919 Clinical Education 2 9 s.h.

This is a terminal, full-time, 12-week clinical education experience (CEE). It is the second in a sequence of three experiences across the curriculum in which all didactic curriculum is completed. This experience provides the student the opportunity to participate in physical therapy practice that pertains to the care of diverse patient/ client populations in an inpatient or outpatient setting. It emphasizes the on-going and progressive development toward entry-level PT competencies in professional practice and patient management across the lifespan. The student is responsible, under the direct supervision of a licensed physical therapist, for the examination, evaluation, diagnostic, prognostic, and intervention aspects in the delivery of patient care. Additionally, students are expected to function as part of a multi-disciplinary team and to participate in practice for this experience will vary depending upon the learning experiences available and the perceived or declared.

## PHYT 8920 Clinical Education 3 12 s.h.

This is a final, terminal, full-time, 15-week CEE; the third in a sequence of three across the curriculum. All didactic curriculum is completed. This experience provides students the opportunity to fully participate in PT practice that pertains to the care of diverse patient populations in an inpatient/ outpatient setting & within the context of transforming society. It emphasizes the development of entry-level PT competencies in professional practice & patient management across the lifespan. The student is responsible, under the direct supervision of a physical therapist, for examination, evaluation, diagnostics, prognostics, & interventions of patient care. Students are expected to fully function as part of a multi-disciplinary team & participate in practice management activities in the capacity of an entry-level physical therapist. The content & context of clinical practice for this experience varies depending upon the learning experiences available & perceived or declared readiness of each student. Grading is S/U.

## PHYT 8921 Evidence Based Practice in Health Sciences 3 s.h.

This course will help the student develop skills needed to formulate and answer clinical questions including: use of technology to obtain information, evaluation and application of the information for decision making needed to answer questions. Examine the application of current literature to clinical decision-making. Emphasis on written research communication methods: scientific writing, documentation and literature reviews. Three hour lecture.

#### PHYT 8922 Research 1-6 s.h.

Research under the supervision of a graduate faculty member. May be repeated for a total of six semester hours.

**Prereq.:** Admission to DPT program, and permission of instructor and department chair.

# PHYT 8923 Community Applications 3 s.h.

Community-based project that encompasses the aspects of advocacy, collaboration, social responsibility, consultation and leadership, marketing/PR, and fiscal management. Three hour lecture.

# PHYT 8923C CE Community Applications 3 s.h.

Community-based project that encompasses the aspects of advocacy, collaboration, social responsibility, consultation and leadership, marketing/PR, and fiscal management.

# PHYT 8925 Applied Neuroscience for Physical Therapists 4 s.h.

Introduction to the anatomy and physiology of the human central and peripheral nervous systems. Interaction and relationships between the various structures are described in order to understand movement, sensation and higher cortical functions. Structure is related to function through clinical case examples with an emphasis on the importance for physical therapy assessment and intervention. Four hour lab.

#### PHYT 8929 Clinical Decision Making 3: Advanced Cases 3 s.h.

In-depth analysis of patient/client cases which includes pharmacology influences and diversity aspects. Differential diagnosis skills will be further developed in respect to each case. Evidence-based practice will be emphasized. Three hour lecture.

#### PHYT 8933 Clinical Foundation Skills 4 s.h.

Theories of professionalism in Physical Therapy practice including APTA/OPTA membership and benefits, fiscal responsibility, core values, professionalism, patient and professional advocacy, communication skills, safety, and healthcare compliance will be discussed. Basic patient assessment as it relates to anatomic principles will be taught and practiced and their clinical relevance will be reinforced. **Prereq.:** Admission to DPT program.

#### PHYT 8935 Epidemiology in Health Sciences 3 s.h.

The course will discuss various research designs and appropriate statistics germane to epidemiology. Common measures of effect will be discussed with appropriate interpretation of these effects. The student will be expected to implement their knowledge of the subject by designing or redesigning a study specific to epidemiological principles within their area of interest. **Prereg.**: Admission to Physical Therapy Department.

#### PHYT 8938 Special Topics in Physical Therapy 1-5 s.h.

Special interest physical therapy topics selected by the faculty which reflect current trends and issues in physical therapy practice. May be repeated as desired.

Prereq.: Admission to the DPT program.

## PHYT 8940 Interdisciplinary Health Care Delivery 3 s.h.

Foundational knowledge and skills necessary for legal and ethical practice of pertinent healthcare disciplines (Physical, Occupational, and Speech Therapy, Dietetics, etc.). Emphasis is on legal principles and concepts; contract, business, and educational law; licensure and state practice acts. Emphasis is placed on ethical theory and ethical decision making approaches; and professional code of ethics. Global study of the delivery of healthcare in a broad spectrum view is provided. Emphasis is on the societal, economic, legal/ ethical and cultural factors that influence healthcare. Multidisciplinary views of healthcare are considered.

Prereq.: Admission to Physical Therapy Department.

# PHYT 8941 Psychosocial & Cultural Aspects of Healthcare 3 s.h.

Investigation into the psychosocial and cultural issues related to a variety of common clinical pathologies. The dynamic impact of the interaction between the patient/client and persons involved in their healthcare, professionals and caregivers will be considered. Topics of interest include mental, physical, behavioral, and cultural issues across the lifespan. Cultural theory and its applications to clinical interactions will be examined and integrated. Topics include cultural assumptions and patterns of health-related activity related to: disability, socioeconomic status, age, gender, ethnicity/race, sexual orientation, and religion. Three hour lecture.

### PHYT 8945 Clinical Decision Making 4 6 s.h.

Topics that integrate practice systems (musculoskeletal, neuromuscular, cardiopulmonary, and integumentary) such as multiple trauma, burns, amputations, orthopedics, neurologic diseases and critical care. Also includes complex cases within routine diagnoses, due to severity, chronicity or comorbidity. Emphasis on outcomes studies. **Prereq.:** Admission to DPT.

Prereq.. Admission to DPT.

# PHYT 8950 Therapeutic Exercise 2 s.h.

Provides a wide variety of therapeutic exercises and integrates key principles of exercise physiology with clinical application to several movement impairment diagnoses. Engages in exercise prescription, progression, regression, and modification strategies, through lecture, discussion, and lab. Content will include synthesizing therapeutic exercise principles with patient specific factors related to the components of the ICF-model. Students will have an opportunity to design and carry-through exercise programs for a patient's plan of care.

#### PHYT 8962 Mentored Instruction 3 s.h.

Course is taken on an individual basis with an assigned faculty member during which the student assists in all teaching aspects of the undergraduate or entry-level course selected by the student. Individualized mentoring in the teaching-learning process is the focus of the course. Student will assist in course planning, syllabi construction, student facilitation, and student assessment.

Prereq.: TCED 6936 or equivalent.

#### PHYT 8970 Scientific Writing in Health Sciences 3 s.h.

PHYT 8970 will address four major areas of written communication for the scientific process: institutional review board, grant writing, thesis/dissertation, and writing for manuscript submission. This course will engage the student in the activity of writing clear and concise documents that are readable to large diverse audiences while remaining technically proficient. The course will address common pitfalls to written communication and will culminate in a project that is peer reviewed.

#### PHYT 8990 Graduate Research in Health Sciences 1-6 s.h.

PHYT 8990 is a graduate research experience that will allow the student the opportunity to contribute to research that is directed by an individual faculty mentor and refine their thinking on research design and implementation. This course will facilitate the student's formulation of a potential dissertation topic or provide opportunity to create foundational work for their dissertation.

# PHYT 8800 Clinical Pathology 1 3 s.h.

Study basic concepts of clinical pathology, imaging, histology, and pharmacology used in Physical Therapists clinical decision making. Study human disease processes and tissue injury and their effect on body structure and function. Learn relationships between pathology and clinical signs and symptoms, diagnostic imaging techniques, histological findings, etiology, differential diagnosis, prognosis, and treatment.

# PHYT 8801 Clinical Pathology 2 3 s.h.

Study human disease processes and tissue injury and their effect on body structure and function. Learn relationships between pathology and clinical signs and symptoms, diagnostic imaging techniques, histological findings, etiology, differential diagnosis, prognosis, and treatment.

#### PHYT 8810 Human Gross Anatomy 6 s.h.

Knowledge of anatomy is essential in the practice of healthcare. In this course we will concentrate on the study of human gross anatomy, which includes the structure of the body and body parts that can be studied with the unaided eye. This course will include examination of the musculoskeletal, nervous and circulatory systems. This course will primarily encompass structural and functional relationships with clinical perspectives that relate to healthcare. **Prereq.:** BIOL 3705.

## PHYT 8901 Clinical Decision Making 1 6 s.h.

Decision-making process for clinical management of uncomplicated cases in practice patterns. Emphasis on posture and movement assessment, safety, body mechanics, and monitoring physiological status. The course includes integrated hands on practice into lectures and class sessions.

#### PHYT 8902 Functional Anatomy 4 s.h.

Study of kinetics, kinematic variables, and mechanical properties of tissue; motion analysis: posture, gait and functional activities; environmental contexts and constraints, and life span applications. Four hour lecture per week.

### PHYT 8905 Clinical Decision Making 2 6 s.h.

Decision making process for clinical management of both routine and less common cases in practice patterns. Emphasis on outcomes research, personnel supervision, individualized and culturally-sensitive intervention, and program design.

Prereq.: Admission to DPT program.

# PHYT 8906 Critical Inquiry 1 3 s.h.

Develop skills needed to create and answer clinical questions including: use of technology to obtain information: evaluation and application of the information for decision making. Examine the application of current literature to clinical decision making. Emphasis on written research communication methods: scientific writing, documentation and literature reviews. Examine the use of qualitative, quantitative and non-experimental research in health care that are used to inform physical therapy practices. Introduction of group research projects as a means of clinical inquiry.

#### PHYT 8907 Special Topics: Pediatrics 3 s.h.

Theories of human growth and development and application to typical and atypical motor development and illnesses or injuries of children. Clinical management of cases across the practice patterns with emphasis on family/ caregiver participation, team approach, and setting-specific expectations. **Prereq.:** Admission to DPT program.

## PHYT 8909 Clinical Decision Making 3 6 s.h.

Evaluation of decision-making process for clinical management of complex and complicated cases. Emphasis on reimbursement, professional development, interprofessional activities, and program evaluation. **Prereq.:** Admission to DPT program.

#### PHYT 8911 Special Topics: Geriatrics 2 s.h.

Theories of life span development and human aging with application to systems development and dysfunction. Emphasis on prevention, well elderly, and illnesses/injuries common to the elderly. Clinical management of cases, considering functional goals; cognition; pharmacology; and reimbursement issues. Two hour lecture.

#### PHYT 8913 Management and Leadership in Physical Therapy 2 s.h.

Theories of resource planning, management strategies for utilizing resources (human, information, fiscal, and space/equipment) for health care delivery, and clinical management issues in various physical therapy settings. Two hour lecture.

## PHYT 8914 Clinical Education 1 5 s.h.

This is a first-time, intermediate, full-time, 6-week clinical education experience (CEE). It is the first in a sequence of three experiences across the curriculum. This experience introduces the student to the general organization and operations of physical therapy practice as it pertains to the care of diverse patients/ clients being served in the inpatient or outpatient setting. It emphasizes the early phases of development toward entry-level PT competencies in professional practice and patient management across the lifespan. The student is responsible, under the direct supervision of a licensed physical therapist, for the examination, evaluation, diagnostic, prognostic, and intervention aspects in the delivery of patient care. The specific content and context of clinical practice for this experience will vary depending upon the learning experiences available and the perceived or declared readiness of each student. 210 practicum hours per semester. Grading is S/U.

#### PHYT 8916 Critical Inquiry in Physical Therapy 3 s.h.

Student groups will analyze datasets and write up manuscripts for the methods, results and some discussion. Groups will peer review these written reports. Student groups will then revise the report and design a clinically-related project based on the findings of the project. Emphasis will be given to formal research proposals, clinical applications, and resources for project implementation. Three hour lecture.

## PHYT 8918 Professional Issues 2 s.h.

Discussion of professional topics related to entry-level practice, such as leadership, interagency and interprofessional collaboration, future trends and technologies, and opportunities for professional growth. Two hour lecture.

#### PHYT 8919 Clinical Education 2 9 s.h.

This is a terminal, full-time, 12-week clinical education experience (CEE). It is the second in a sequence of three experiences across the curriculum in which all didactic curriculum is completed. This experience provides the student the opportunity to participate in physical therapy practice that pertains to the care of diverse patient/ client populations in an inpatient or outpatient setting. It emphasizes the on-going and progressive development toward entry-level PT competencies in professional practice and patient management across the lifespan. The student is responsible, under the direct supervision of a licensed physical therapist, for the examination, evaluation, diagnostic, prognostic, and intervention aspects in the delivery of patient care. Additionally, students are expected to function as part of a multi-disciplinary team and to participate in practice for this experience will vary depending upon the learning experiences available and the perceived or declared.

#### PHYT 8920 Clinical Education 3 12 s.h.

This is a final, terminal, full-time, 15-week CEE; the third in a sequence of three across the curriculum. All didactic curriculum is completed. This experience provides students the opportunity to fully participate in PT practice that pertains to the care of diverse patient populations in an inpatient/ outpatient setting & within the context of transforming society. It emphasizes the development of entry-level PT competencies in professional practice & patient management across the lifespan. The student is responsible, under the direct supervision of a physical therapist, for examination, evaluation, diagnostics, prognostics, & interventions of patient care. Students are expected to fully function as part of a multi-disciplinary team & participate in practice management activities in the capacity of an entry-level physical therapist. The content & context of clinical practice for this experience varies depending upon the learning experiences available & perceived or declared readiness of each student. Grading is S/U.

#### PHYT 8921 Evidence Based Practice in Health Sciences 3 s.h.

This course will help the student develop skills needed to formulate and answer clinical questions including: use of technology to obtain information, evaluation and application of the information for decision making needed to answer questions. Examine the application of current literature to clinical decision-making. Emphasis on written research communication methods: scientific writing, documentation and literature reviews. Three hour lecture.

#### PHYT 8922 Research 1-6 s.h.

Research under the supervision of a graduate faculty member. May be repeated for a total of six semester hours.

**Prereq.:** Admission to DPT program, and permission of instructor and department chair.

# PHYT 8923 Community Applications 3 s.h.

Community-based project that encompasses the aspects of advocacy, collaboration, social responsibility, consultation and leadership, marketing/PR, and fiscal management. Three hour lecture.

#### PHYT 8923C CE Community Applications 3 s.h.

Community-based project that encompasses the aspects of advocacy, collaboration, social responsibility, consultation and leadership, marketing/PR, and fiscal management.

#### PHYT 8925 Applied Neuroscience for Physical Therapists 4 s.h.

Introduction to the anatomy and physiology of the human central and peripheral nervous systems. Interaction and relationships between the various structures are described in order to understand movement, sensation and higher cortical functions. Structure is related to function through clinical case examples with an emphasis on the importance for physical therapy assessment and intervention. Four hour lab.

## PHYT 8929 Clinical Decision Making 3: Advanced Cases 3 s.h.

In-depth analysis of patient/client cases which includes pharmacology influences and diversity aspects. Differential diagnosis skills will be further developed in respect to each case. Evidence-based practice will be emphasized. Three hour lecture.

#### PHYT 8933 Clinical Foundation Skills 4 s.h.

Theories of professionalism in Physical Therapy practice including APTA/OPTA membership and benefits, fiscal responsibility, core values, professionalism, patient and professional advocacy, communication skills, safety, and healthcare compliance will be discussed. Basic patient assessment as it relates to anatomic principles will be taught and practiced and their clinical relevance will be reinforced.

Prereq.: Admission to DPT program.

# PHYT 8935 Epidemiology in Health Sciences 3 s.h.

The course will discuss various research designs and appropriate statistics germane to epidemiology. Common measures of effect will be discussed with appropriate interpretation of these effects. The student will be expected to implement their knowledge of the subject by designing or redesigning a study specific to epidemiological principles within their area of interest. **Prereq.:** Admission to Physical Therapy Department.

#### PHYT 8938 Special Topics in Physical Therapy 1-5 s.h.

Special interest physical therapy topics selected by the faculty which reflect current trends and issues in physical therapy practice. May be repeated as desired.

Prereq.: Admission to the DPT program.

#### PHYT 8940 Interdisciplinary Health Care Delivery 3 s.h.

Foundational knowledge and skills necessary for legal and ethical practice of pertinent healthcare disciplines (Physical, Occupational, and Speech Therapy, Dietetics, etc.). Emphasis is on legal principles and concepts; contract, business, and educational law; licensure and state practice acts. Emphasis is placed on ethical theory and ethical decision making approaches; and professional code of ethics. Global study of the delivery of healthcare in a broad spectrum view is provided. Emphasis is on the societal, economic, legal/ ethical and cultural factors that influence healthcare. Multidisciplinary views of healthcare are considered.

Prereq.: Admission to Physical Therapy Department.

# PHYT 8941 Psychosocial & Cultural Aspects of Healthcare 3 s.h.

Investigation into the psychosocial and cultural issues related to a variety of common clinical pathologies. The dynamic impact of the interaction between the patient/client and persons involved in their healthcare, professionals and caregivers will be considered. Topics of interest include mental, physical, behavioral, and cultural issues across the lifespan. Cultural theory and its applications to clinical interactions will be examined and integrated. Topics include cultural assumptions and patterns of health-related activity related to: disability, socioeconomic status, age, gender, ethnicity/race, sexual orientation, and religion. Three hour lecture.

## PHYT 8945 Clinical Decision Making 4 6 s.h.

Topics that integrate practice systems (musculoskeletal, neuromuscular, cardiopulmonary, and integumentary) such as multiple trauma, burns, amputations, orthopedics, neurologic diseases and critical care. Also includes complex cases within routine diagnoses, due to severity, chronicity or comorbidity. Emphasis on outcomes studies. **Prereq.:** Admission to DPT.

# PHYT 8950 Therapeutic Exercise 2 s.h.

Provides a wide variety of therapeutic exercises and integrates key principles of exercise physiology with clinical application to several movement impairment diagnoses. Engages in exercise prescription, progression, regression, and modification strategies, through lecture, discussion, and lab. Content will include synthesizing therapeutic exercise principles with patient specific factors related to the components of the ICF-model. Students will have an opportunity to design and carry-through exercise programs for a patient's plan of care.

#### PHYT 8962 Mentored Instruction 3 s.h.

Course is taken on an individual basis with an assigned faculty member during which the student assists in all teaching aspects of the undergraduate or entry-level course selected by the student. Individualized mentoring in the teaching-learning process is the focus of the course. Student will assist in course planning, syllabi construction, student facilitation, and student assessment.

Prereq.: TCED 6936 or equivalent.

#### PHYT 8970 Scientific Writing in Health Sciences 3 s.h.

PHYT 8970 will address four major areas of written communication for the scientific process: institutional review board, grant writing, thesis/dissertation, and writing for manuscript submission. This course will engage the student in the activity of writing clear and concise documents that are readable to large diverse audiences while remaining technically proficient. The course will address common pitfalls to written communication and will culminate in a project that is peer reviewed.

## PHYT 8990 Graduate Research in Health Sciences 1-6 s.h.

PHYT 8990 is a graduate research experience that will allow the student the opportunity to contribute to research that is directed by an individual faculty mentor and refine their thinking on research design and implementation. This course will facilitate the student's formulation of a potential dissertation topic or provide opportunity to create foundational work for their dissertation.