Physical Therapy, Ph.D.

COLLEGE OF PUBLIC HEALTH (http://cph.temple.edu)

About the Program

The mission of the Ph.D. program is to promote interdisciplinary and translational research that will impact the field of Physical Therapy by preparing individuals to conduct independent research and to assume roles as faculty members and researchers in academic and clinical settings.

Building on the strengths of our faculty, the program provides students with the theoretical foundations for understanding the typical function of the human movement system and disorders of that system that could lead to limitations in mobility and function. The strength of our faculty is their active engagement in research that examines the cellular, mechanical, physiological, and perceptual systems that support human movement.

By providing the opportunity for admission to those who are not physical therapists, we seek to enrich the profession with individuals from diverse backgrounds who can contribute to translational and interdisciplinary research. Human movement science is one of the most rapidly evolving areas of Neuroscience and one in which translational and interdisciplinary research is critical and fundamental. The rapid advance in knowledge is in large measure due to the application of principles of engineering and computer technology to the study of brain function.

Time Limit for Degree Completion: 7 years

Campus Location: Health Sciences

Full-Time/Part-Time Status: Students are encouraged to undertake full-time study.

Interdisciplinary Study: Students may use their elective coursework to pursue interdisciplinary study throughout the university to prepare them for future work in areas related to their specific interests. The Ph.D. program participates in the interdisciplinary program in Neuroscience at Temple University.

Job Prospects: Ph.D. graduates are prepared to practice in research and academic positions in the field of Physical Therapy and related areas.

Non-Matriculated Student Policy: Non-matriculated students may enroll in up to three Ph.D. courses with the permission of the Director of the Ph.D. Program.

Financing Opportunities: Assistantships are available for a limited number of students based on the academic plan of the student and the current needs of the department. The position can be either a Research Assistantship or Teaching Assistantship. The duties of a Research Assistant are assigned by the research mentor. The duties of a Teaching Assistant lie primarily in offering teaching support for the department's D.P.T. program under the direction of teaching mentors.

Admission Requirements and Deadlines

Application Deadline:

Fall: March 1

Applications are evaluated upon receipt of all supporting materials. Late applications may be considered for admission.

APPLY ONLINE to this graduate program.

Letters of Reference:

Number Required: 2

From Whom: Letters of recommendation should be obtained from individuals who can judge the applicant's ability to succeed in a doctoral program. At least one letter should be from a faculty member who can fairly judge the applicant's academic potential.

Master's Degree in Discipline/Related Discipline: A master's degree is not required.

Bachelor's Degree in Discipline/Related Discipline: All applicants must present credentials that are the equivalent of a baccalaureate degree at Temple University. All international students must have their educational transcripts reviewed by a credentialing agency in the United States.

Statement of Goals: One typed page details your interest in Temple's program; your research interests; and your future career goals.

Standardized Test Scores:

GRE: Required. Scores from the test taken within the last 5 years must be at or above the 50th percentile in the verbal, quantitative, and analytical components.

TOEFL: 88 iBT or 575 PBT minimum.
Interview: Qualified applicants are invited to interview with members of the Graduate Faculty. Phone interviews are available when travel costs are prohibitive.

Resume: Current resume required.

Program Requirements

General Program Requirements:
Number of Credits Required Beyond the Baccalaureate: 66

Required Courses:

Human Movement Science Core Courses

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<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>PHTH 9620</td>
<td>Human Movement Science I: Neural Factors</td>
<td>3</td>
</tr>
<tr>
<td>PHTH 9621</td>
<td>Human Movement Science III: Cognition and Learning</td>
<td>3</td>
</tr>
<tr>
<td>PHTH 9624</td>
<td>Human Movement Science II: Mechanics and Models</td>
<td>3</td>
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<tr>
<td>PHTH 9654</td>
<td>Laboratory Rotations and Seminar in Human Movement Science (2)</td>
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Research and Statistics Courses

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<th>Course</th>
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University Teaching Courses

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<tr>
<td>HRPR 9985</td>
<td>Teach in Higher Ed:Healp</td>
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<tr>
<td>PHTH 9787</td>
<td>Teaching Practicum</td>
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Electives

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Dissertation Research Courses

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<tr>
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<th>Credits</th>
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<tr>
<td>PHTH 9994</td>
<td>Preliminary Examination Preparation</td>
<td>1</td>
</tr>
<tr>
<td>PHTH 9998</td>
<td>Dissertation Proposal</td>
<td>2</td>
</tr>
<tr>
<td>PHTH 9999</td>
<td>Dissertation Research and Colloquium</td>
<td>6</td>
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Total Credit Hours 66

Culminating Events:

In addition to completing the required coursework, students are expected to complete an area paper, a preliminary written and oral examination, and a dissertation research proposal prepared in the form of a grant proposal. Students are also expected to write and submit an abstract for their research and present that research at a scientific or professional meeting. The dissertation must include a publishable article.

Area Paper:
Prior to the preliminary examination, students must write a paper of publishable quality in their chosen area. Students could enroll in an elective course, a laboratory rotation, or independent study to complete this paper. The paper can be a report of research completed with a faculty member; a systematic review of literature related to the projected area of dissertation work; or a representation of theoretical work. In each instance, the student is expected to be the lead or sole author. Students are encouraged to select and submit the paper for peer review to an appropriate journal, but the publishable quality of the paper will be determined by faculty members with sufficient background in the area to judge the quality of the work. Students who have published a peer-reviewed paper in a journal as lead author prior to entry into the doctoral program can request a waiver of this requirement.

Preliminary Examination (PHTH 9994):
All students must pass a preliminary examination prior to defending their dissertation research proposal. The exam consists of written and oral components. The written examination is based on required coursework with an emphasis on human movement science and research strategies. The exam is to be completed within eight hours. The questions for the exam are prepared by a Preliminary Examination Committee comprised of three faculty members, one of which must be the individual with whom the student will likely undertake dissertation research.

Dissertation Proposal and Defense (PHTH 9998):
With the approval of the Ph.D. Program Director, each student is expected to identify a Doctoral Advisory Committee. The committee shall be comprised of at least three members. Two of the members shall be from within the Physical Therapy Department and at least one shall be from outside the department. At least two of the three members must hold full Graduate Faculty status.

Students are required to prepare and submit a dissertation proposal in the form of a grant proposal and successfully defend it orally in front of their committee. As appropriate, they must obtain IRB approval for their proposed research and submit a copy of the grant proposal to the Graduate School. Students are expected to have developed and defended their dissertation grant proposal within one year of successfully completing their preliminary examination.

Any student who does not adhere to this timeline must petition the Departmental Ph.D. Program Advisory Committee for an exception to this requirement. Extensions are not guaranteed. If a student does not receive an extension, her/his case will be considered at the time of the Annual Review of Progress toward the degree. Failure to pass PHTH 9998 within one year can result in dismissal from the program.

Dissertation Research (PHTH 9999):
Students are required to complete and orally defend their dissertation research. Students must be enrolled continuously in PHTH 9999 until their dissertation is successfully defended. The Graduate School requires at least 6 credit hours of dissertation coursework. Students must be enrolled in the term that they graduate.

The dissertation must be successfully defended in a public oral defense as determined by the student's Dissertation Examining Committee. This committee evaluates the student's ability to express verbally her/his research question, methodological approach, primary findings, and implications. The Dissertation Examining Committee votes to pass or fail the dissertation and the defense at the conclusion of the public presentation.

Students who are preparing to defend their dissertation must confirm a time and date for the oral defense with their Dissertation Examining Committee at least 15 days before the desired defense date. After the student and department have arranged the time, date, and room for the defense, the student must provide the official announcement to the Graduate School at least two weeks before the defense.

Contacts

Program Web Address:
http://cph.temple.edu/pt/

Department Information:
Dept. of Physical Therapy
Jones Hall, 6th Floor
3307 N. Broad Street
Philadelphia, PA 19140
depth@temple.edu
215-707-4815

Mailing Address for Application Materials:
Dept. of Physical Therapy
Jones Hall, 6th Floor (602-00)
3307 N. Broad Street
Philadelphia, PA 19140

Department Contacts:
Program Director:
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215-707-9519

Department Chairperson:
Emily Keshner, PT, EdD
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215-707-4824

Public Health Courses

PBHL 5001. Fundamentals of Public Health. 3 Credit Hours.
This course encompasses historical and sociocultural approaches to understanding public health and bioethics. Emphasis is on understanding public health systems from the dawn of history to the 21st century and the evolution of bioethical issues including the application of bioethical principles, regulations and strategies in research and health practice. This seminar emphasizes the integration of conceptual and experiential learning. This is reflected in the course design and in teaching and learning processes.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5002. Biostatistics. 3 Credit Hours.
Introduction to applied biostatistics as used in research in public health. Statistical methods used for descriptive and analytic research, inferential statistics, surveillance systems and statistical software used in public health.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PBHL 5003. Spatial Analysis in Public Health. 3 Credit Hours.
This course will create a methodological framework for approaching public health issues within the context of spatial investigations of health and disease, both internally via perceptual mapping, and externally via geographic information systems (GIS). This integrative discipline provides the opportunity for students to draw upon the concepts and techniques of sound public health and add a spatial perspective to their analysis.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5004. Understanding Stress and Change. 3 Credit Hours.
This course focuses on the impact of stress on physical and emotional health and quality of life. It focuses on the causes, types, and physiology of stress and stress reduction methods, including relaxation, biofeedback, fear control, cognitive restructuring, and social psychological interventions in community settings.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5005. Intl Hlth Studies Abroad. 6 Credit Hours.
Students will be able to: Articulate a historical and cultural understanding of Costa Rican approach to health and medical care. Identify the major health concerns of the Costa Rican population in rural and urban settings and the major strides taken to improve health. Conduct limited fieldwork with rural communities in teams of 3 to 4 persons or conduct community health field research among the graduate students. Write professional paper and presentation on one of the health issues in Costa Rica based on your experience. While previous Spanish language proficiency is not required, some Spanish language ability is essential for students to gain the maximum understanding during the program. Therefore, students during the first two weeks of the program take intensive Spanish language training in Costa Rica at the Institute for Central American Development Studies (ICADS). The third week we travel to other regions within Costa Rica to examine different health conditions depending on that year’s topics. The fourth and fifth weeks students live and work in rural communities and help to facilitate health education workshops on different activities such as: diabetes, nutrition, HIV/AIDS prevention education, women’s health, child health care issues, first aid education, fitness and exercise, backyard gardening, etc.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5006. Political and Economic Aspects of Health. 3 Credit Hours.
The course provides an introduction to the structure and delivery of healthcare in the United States, as well as an introduction to health policymaking. In addition to required reading materials, students will be asked to examine current health policies at the local, state and/or national level.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5007. Principles of Emergency Management. 3 Credit Hours.
This course is designed to introduce students to the concepts and models of public health preparedness and response for all hazards emergency management. It will enable health care and allied health professionals, public health professionals, and emergency responders to work together to plan and respond effectively to both natural and man made disasters. The course will introduce students to the identified core competencies of emergency health preparedness for public health professionals which include: functional roles, communication, resource identification, problem solving, and evaluation. The issues of mental health and special populations will be introduced in an emergency management context. Students will utilize problem based learning by analyzing actual disaster events and applying the theories, principles, and practice of preparedness, response, mitigation, and recovery.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5008. Seminar in International Health. 3 Credit Hours.
This course is designed to introduce students to the concepts and models of public health preparedness and response for all hazards emergency management. It will enable health care and allied health professionals, public health professionals, and emergency responders to work together to plan and respond effectively to both natural and man made disasters. The course will introduce students to the identified core competencies of emergency health preparedness for public health professionals which include: functional roles, communication, resource identification, problem solving, and evaluation. The issues of mental health and special populations will be introduced in an emergency management context. Students will utilize problem based learning by analyzing actual disaster events and applying the theories, principles, and practice of preparedness, response, mitigation, and recovery.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5009. Risk Communication & PH. 3 Credit Hours.
The goal of this course is to demonstrate how health communication professionals can create and implement risk communication plans related to either possible or actual public health hazards (anything that can cause morbidity or mortality). This course focuses on risk communication within the context of terrorism, infectious disease outbreaks and health problems that occur because of natural disasters. It will include core principles of risk communication, examine special challenges of risk communication with diverse audiences and prepare students to create a crisis and emergency risk communication plan.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PBHL 5013. Global Environmental Health. 3 Credit Hours.
This is an intermediate-level graduate course for those interested in environmental health and global health. Other graduate students may attend the course with the instructor's permission, provided they meet the course prerequisites. This course does not meet the core requirement for environmental health in the MPH program.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: PBHL 5103 Minimum Grade of B- May not be taken concurrently.

PBHL 5014. Leadership and Management in Public Health Organizations. 3 Credit Hours.
This course covers leadership and management in public health practice. The course will review leadership styles, moving through the “leadership pipeline” to help students understand the basic underpinnings of leadership. Within that context, the course will explore the essentials of applying strong leadership practices in public health organizations.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5015. Public Health Nutrition. 3 Credit Hours.
This course explores nutrition as a science and platform for public health promotion and disease prevention. The fundamental contribution of nutrition to public health as well as the potential of food and nutrition policy, programs, and interventions to reduce risk and promote health will be examined.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5016. Epidemiology. 3 Credit Hours.
Introduction to descriptive and analytical epidemiology. Concepts and methods used in public health with emphasis on the calculation and interpretation of indices of community health, morbidity and mortality rates, age-adjustment, risk ratios and sensitivity and specificity and predictive value of screening tests. Overview of epidemiological research designs, surveillance systems, and evidence-based practice guidelines. Note: Introductory course for students in public health and related fields. Master's and doctoral students who have strong quantitative skills and plan to conduct epidemiological research should enroll in PH 5201.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5017. Theoretical Foundations of Health Behavior. 3 Credit Hours.
Theories of decision-making related to health behavior. Emphasis on the dynamic interaction of attitudes, values, situational factors and other factors that influence health promoting and health damaging behavior.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5018. Environmental Health. 3 Credit Hours.
This course explores the effects of interactions between the environment and human health, and the ways that adverse effects may be mitigated. Environmental health hazards, including chemical, biological, and physical pollutants in air, water, soil, and food are addressed, as are risk analysis and risk communication as applied to environmental health. Examines how problems and solutions are identified globally, nationally, and locally. The use of biological and chemical agents as weapons is also explored. This course is available online.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5019. Models for Teaching Health and Patient Education. 3 Credit Hours.
Description and application of teaching models used in health and patient education in communities, health care systems, and schools. Emphasis on creating learning environments, communication skills, tailoring for diverse populations, teaching techniques.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5020. Complex Emerg & Forced Mig. 3 Credit Hours.
This course will use case studies and research literature to examine the multifaceted causes of complex emergencies and their subsequent impacts on the health of the population, including populations that stay in place, that are internally displaced (IPD) and population movement that crosses international borders (refugees). The policies and practices of the humanitarian response among both governments and non governmental organizations (NGO’s) and their impact on population health will be explored. A framework for three issues that effect population health in complex emergencies will be provided and their consequences and possible interventions iterated. These issues are mental health, gender based violence, and nutrition. Assessment, program implementation, and evaluation will be looked at in the context of the particular barriers and issues found in complex emergency situations.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PBHL 5111. Special Pop Comm Outreac. 3 Credit Hours.
This course is designed to introduce students to the concepts and models of strategic community outreach as it pertains to the special population communities, within the context of emergency management planning, response, and recovery. It will assist health care and allied health professionals, public health professionals, and emergency responders to understand how accessible information and technology is part of the community outreach strategy. Students will utilize problem based learning by analyzing actual and scenario based disaster events and applying the theories, principals, and practice of strategic community outreach pertaining to emergency response and recovery. In addition, students will learn about the issues faced by special population communities and how to address these special needs in all hazard response and recovery
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5112. Public Health Program Evaluation. 3 Credit Hours.
Research methods and techniques used to evaluate public health programs. Students develop an evaluation design, including defined evaluation questions, study design, specific measures and methods and human subjects protocols.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5201. Epidemiological Research Methods I. 3 Credit Hours.
This course provides an introduction to the fundamentals of conducting epidemiologic research and protocol development. It covers definitions of epidemiology; measures of disease frequency and risk assessment; measures of effect and association; epidemiologic study designs, including randomized clinical trials, cohort, case-control studies, and cross-sectional surveys; assessment of screening programs; an overview of the role of bias and confounding in epidemiologic study results; and analytic techniques, including modeling using multiple variables, survival analysis, and issues related to quality assurance. Note: This course is the introductory epidemiology course for students in the M.S. in Epidemiology or related Public Health degree programs that require advanced quantitative methods. May be taken in place of PH 5101 for students in the M.P.H., M.S.EH and Ph.D. programs.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5202. Man-Made Disasters: Radiological, Chemical & Biological Terrorism. 3 Credit Hours.
This course is designed to introduce students to the concepts and models of public health preparedness, mitigation, and evaluation in the context of man-made disasters, including radiological, chemical and biological incidents. The course will address identified core competencies of emergency preparedness for public health professionals that include: disaster management, risk assessment, risk communication, governmental resources, functional roles, surveillance, and preparedness evaluation. Man-made disasters will be looked at in a historical, environmental and psychological context in order to elucidate the role of public health in man-made disaster preparedness and evaluation. In addition the role of cultural competency and the needs of special populations will be addressed. Public perception of risk and media views of man-made disasters will be explored.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5204. Mental Health Epidemiology. 3 Credit Hours.
Epidemiology of psychiatric disturbances, including alcohol and other drug dependencies, psychosocial aspects of health and illness. Emphasis on epidemiologic methods and theories in psychosocial and mental health research.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5301. Industrial Hygiene. 3 Credit Hours.
Anticipation, recognition, evaluation, and control of occupational and environmental health hazards. Topics include recognition of hazards from chemical, physical, and biological agents; analytical and survey methods of hazard evaluation; and engineering solutions, administrative actions, and personal protective equipment for hazard control. This course is available online.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5302. Industrial Safety. 3 Credit Hours.
In-depth presentation of the safety hazards that can be found in a work environment, and methods for their control. Students identify different classes of safety hazards, and design and present solutions for them.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5303. Environmental Toxicology. 3 Credit Hours.
A review of the absorption, distribution, metabolism and excretion of environmental toxicants. Methods used to measure acute and chronic toxicity, including carcinogenesis, are explored.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PBHL 5306. Analytical Instrumentation. 3 Credit Hours.
Sampling and analysis of chemical and physical agents using laboratory-based methods and real-time monitoring. Sample collection and proper handling. Analytical applications of absorption spectroscopy in the ultraviolet, visible and infrared; atomic absorption; emission spectroscopy; mass spectrometry; separation methods, including liquid chromatography.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5307. Industrial Ventilation. 3 Credit Hours.
The use of ventilation to maintain suitable environmental conditions in work areas. Topics include dilution ventilation; comfort ventilation; local exhaust ventilation system design, including fan, duct, and hood selection; and ventilation system testing. This course is available online.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5308. Medical Aspects of Occupational Health. 3 Credit Hours.
The physiology and the relationship to occupational health of the following: allergies; cardiovascular system; ear, nose, and throat; eye; hematology; lung; neurology; neuromuscular-skeletal system; occupational hepatitis; psychiatry; and skin.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5309. Ergonomics: Human Factors in Occupational Health. 3 Credit Hours.
This course covers both the observational, programmatic elements and the technical tools of ergonomics, including a number of computer-based applications for assessing specific situations. Ergonomic concepts and solutions are discussed covering low back pain, manual handling tasks, cumulative trauma disorders, repetitive tasks, human fatigue, job design, anthropometry, workplace design, human error, equipment design, vibration, and illumination. This course is available online.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5401. Curriculum Construction in Health Education. 3 Credit Hours.
In-depth examination of constructing, delivering and evaluating curricula. Provides opportunity to develop curricular materials for teaching in school situations.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 5500. Seminar in Current Issues in Public Health. 3 Credit Hours.
Seminar topics rotate to address current issues in public health research, policy and practice.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credit.

PBHL 8001. Research Design in Public Health. 1 to 3 Credit Hour.
This course examines how to develop and test models, formulate research problem statements and hypotheses, and implement and evaluate research designs and methods of data collection in public health research. It concentrates on fundamental concepts in research design and measurement that help prepare the student to plan and implement theoretically informed and methodologically sound scientific studies in public health and to critically evaluate and discuss public health research. The course emphasizes ethical and practical methods of studying and evaluating causal relations (efficacy and internal validity); determining generalizability of observations (effectiveness, external and ecological validity); and accurate and reliable measuring and conceptualizing of variables (construct validity). In addition, it covers systematic literature searches and randomized controlled trials, which are both increasingly important methods for conducting research in public health.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PBHL 8002. Research Seminar in Health Studies. 3 Credit Hours.
Research seminar on linkages between theory and research in social and behavioral health studies. Required for Ph.D. students prior to taking the preliminary examinations.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PBHL 8003. Political-Economic Aspects of Public Health. 3 Credit Hours.
Survey of the political and economic aspects of public health systems, practice, research.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5201|May not be taken concurrently.

PBHL 8004. Undrst/Ng Stress & Chng. 3 Credit Hours.
You will become aware of situations, people, and words that trigger alarm reactions. The profile that you will complete for this course will help you understand the causes of your stress, how your body reacts to excessive stress, and symptoms that exist because of your stress levels. You will become aware of areas that affect your control of life situations and how they affect your overall energy efficiency. You will become aware of how you manage your time and social situations. You will learn about the influence of exercise, sleep, nutrition and relaxation training on your health status and quality of life. You will become aware of your level of job or occupational stress and variables that affect your job-related stressors. You will become aware of how your thoughts and perceptions affect your bodies’ response to the stressors you face each day. You will become more competent in managing all aspects of your life as it relates to stress reactivity. You will become more confident; have more energy, greater control and fewer symptoms following the implementation of the many ideas, concepts and recommendations that will be offered. You will learn to put your energy into areas that are in your control. You will learn to be able to let go of situations that are now “history” and in the past. You will be able to have a more balanced and logical view of stress and its relationship to your health status and quality of your life.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8005. Theor Hlth Policy Making. 3 Credit Hours.
The purpose of this course is to introduce students to the primary theoretical frameworks for the development of policy, from agenda setting, through decision making and implementation. In addition to reviewing the theoretical foundations of policymaking, he course will apply the theories to current health policy issues.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8006. Addictions and Dependencies. 3 Credit Hours.
Social, psychological, cultural, clinical, and biological factors associated with addictions and dependencies, including the use of psychoactive drugs and lifestyle behaviors. Review of prevention and treatment approaches based on the causes and correlates of addictions and dependencies.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8007. Seminar in Maternal and Child Health. 3 Credit Hours.
Seminar on social, economic, and political issues in maternal and child health policies from the national to agency levels. Students undertake an analysis of a MCH issue using a policy analysis framework developed throughout the seminar. Includes definitions of MCH, the organization and funding of services, literacy and cultural issues and the evidence base for policies and programs.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8008. Health Economics. 3 Credit Hours.
This class will promote the understanding of core health economics theory, using research literature and case studies to examine how economic theory has shaped the development and understanding of the healthcare systems and policies in the U.S. A background in economic theory will help students to understand and interpret research based on those theories. Health Economics is intended to promote an understanding of how these theories fit into the formation and changes in our healthcare structure. It will also offer an economic perspective on health behavior, such as how discounting relates to risk behavior and how risk preference relates to insurance purchase.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8009. Health Psychology. 3 Credit Hours.
Through class lecture, readings, and discussions, students will learn how characteristics of persons (e.g., personality, behavior, coping, biological reactivity) and their environments (e.g., stress, social support) influence health outcomes at the individual and population level. In addition, the course examines the potential of health psychology to explain population-level health problems and to ameliorate public health problems through behavioral and community-based interventions.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PBHL 8011. Social Determinants of Health. 3 Credit Hours.
The purpose of this course is to provide an introduction for graduate students to the key social factors that are thought to influence health. These social factors include constructs such as gender, race, socioeconomic status, and social support. Understanding these social factors is important for public health research and practice. These factors can be considered "fundamental causes" of health outcomes insofar as they may cause or modify other factors that are known to influence health, such as individual behaviors or genetics. The course will focus on the conceptual and theoretical basis of these social factors, how these social factors are measured in epidemiologic research, and the mechanisms by which these social factors are thought to affect health. Students will have the opportunity to improve their skills in critically evaluating empirical data about the association between these social factors and health.

Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Public Health
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5101|May not be taken concurrently
OR PBHL 5201|May not be taken concurrently.

PBHL 8012. Multivariate Biostatics. 3 Credit Hours.
The objective of the course is to provide basic theory and application of regression models, analysis of variance, nonparametric statistics, and survival analysis applied to the analysis of population-based data. The emphasis will be on generating and interpreting results and health related applications rather than statistical theory. The course is designed for graduate students in public health who are already familiar with basic statistical concepts, including descriptive statistics, the components of statistical inference (p-values, hypothesis tests, confidence intervals, etc), as well as concepts of confounding and effect modification.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5002|May not be taken concurrently

PBHL 8013. Research Methods in Health Policy. 3 Credit Hours.
The purpose of this course is to introduce and engage students in research methods used in health policy research, including both the development of policies and the evaluation of existing policies. The course will cover both qualitative methods such as policy analysis, interviewing, focus groups and content analysis, as well as quantitative methods such as legal mapping studies, secondary data analysis, and some economic evaluations. The course will explain and engage these methodologies but students are not expected to carry out statistical analysis. Lastly, the course will require students to think about the results generated in such research and effective ways in which to communicate such findings to the appropriate audience. The course is intended for students who will be working on policy research or social science research that may include a policy component. Learning objectives will be met through didactic lecture, a formal policy analysis paper, individual homework assignments and a final exam.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5002|May not be taken concurrently.

PBHL 8014. Comparative Health Policy. 3 Credit Hours.
Approaches to public health policy are informed and influenced by evidence and experience from across the nation and around the globe. Students will be challenged to think about the social, cultural, political and economic challenges of engaging public health policy to advance population health in an international context.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5006|Minimum Grade of B-|May not be taken concurrently

PBHL 8015. Public Health Policy and Legal Issues. 3 Credit Hours.
This course will introduce public health students to the basic legal principles underlying public health policy and the mechanisms to achieve policy change. The law is a powerful tool to support public health but government must act within the confines of the Constitution and balance competing rights of individuals and the broader community. The course will explore these relationships in historical and present contexts and examine the differences among federal, state and local governments' authority to enact public health policy. Students will be able to identify the legal issues that arise when government attempts to regulate risky behavior by individuals or the conduct of companies that produce and market products that create such risks (e.g., tobacco, firearms, alcohol). The course will evaluate why the law is not uniform depending on the product government seeks to regulate (e.g., food v. vaccines) and how litigation can effectively change this legal landscape. Any student interested in policy should be familiar with basic legal rules and current debates in regulation and control; this class will provide such insight and equip students to work in any type of policy or advocacy setting.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5006|Minimum Grade of B-|May not be taken concurrently
OR PBHL 8003|Minimum Grade of B-|May not be taken concurrently.
PBHL 8016. Human Health Risk Analysis. 3 Credit Hours.
This course is an introduction to the use of stochastic modeling to identify, assess and manage environmental health hazards, risk assessment and analysis through the lens of public health. Students will develop an understanding of the underlying sciences and mathematics that fall within exposure science and use Markov chain method to build exposure models.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
PBHL 5002|Minimum Grade of B|May be taken concurrently.

PBHL 8018. Obesity: From Genes to Junk Food. 3 Credit Hours.
The course will broadly explore the etiology, treatment, and prevention of obesity from a multi-level systems perspective. Genetic, epigenetic, physiological, and psycho-social influences will be considered at the level of the individual. These influences will also be considered within family, school, and work-site contexts. Macro-level influences include government policies and programs, media, food industry influences, and community resources. Critical thinking skills and scholarly exchange will be emphasized through classroom discussion and weekly presentations/critiques of emerging science in each topic area.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
PBHL 5101|May not be taken concurrently
OR PBHL 5201|May not be taken concurrently.

PBHL 8105. Health Communication. 3 Credit Hours.
Levels of communication processes and effects in 1) intrapersonal health communication related to personality, attitudes, cognitive style, and quality of life; 2) interpersonal communication in the patient-caregiver relationships including dynamics of stress, conflict, and social support; 3) organizational communication in health-care settings; 4) mass communication processes including media campaigns to promote good health and disease prevention; and 5) risk communication across settings and strategies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8111. Public Health Program Planning. 3 Credit Hours.
Program planning in public health practice. Analysis of national health objectives and their applications at the state and community levels. Emphasis on program planning as a change strategy to alter knowledge, attitudes, and health behavior to achieve positive health outcomes.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
(PBHL 5101|May be taken concurrently)
OR PBHL 5201|May be taken concurrently
AND (PBHL 5002|May be taken concurrently)
AND (PBHL 5102|May be taken concurrently).

PBHL 8201. Structure Equation Model. 3 Credit Hours.
Extremely rapid pace of change in statistics and methodology in the field of developmental processes and family systems require that graduate students (and newly minted PhDs in academic and applied settings) be well versed in current data analytic techniques and able to keep abreast of emergent techniques by being aware of contemporary methodological literature. This course will illustrate the uses of structural equation models for cross-sectional, longitudinal and family data analysis. The course is organized to take participants through each of the cumulative steps in the analysis: deciding which type of model is appropriate, setting up the data file and coding variables, interpreting and displaying empirical findings, and presenting results in both verbal and written form. Class time will be devoted primarily to lectures, examples, group discussions and hands-on application of course material.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8202. Epidemiological Research Methods II. 3 Credit Hours.
The content of this course illustrates statistical concepts, methods, and strategies used in epidemiologic studies, beyond the principles discussed in PH5201 (Epidemiologic Research Methods I). Topics include a review of basic study designs, analysis of prospective and retrospective data, assessment of bias, confounding, effect modification/interaction, statistical methods of stratification and adjustment, sample size/power calculations, importance of quality control and data monitoring in randomized clinical trials, critical determination of causality, and the comprehensive analyses, reporting and presentation of epidemiologic results.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
PBHL 5201|May not be taken concurrently.
PBHL 8203. Pub Hlth Data Reporting. 3 Credit Hours.
Systematic reviews are essential tools for health care workers, researchers, consumers, and policy makers who need to keep abreast of the accumulation of knowledge within their field. Systematic reviews provide more objective evaluation of the evidence than has been possible with traditional narrative reviews, and so can help resolve uncertainty and point toward promising future directions in research and practice. When appropriate, meta-analyses can help increase the precision of estimates regarding treatment effects and way to improve treatments. For example, identification of subgroups of individuals most (or least) likely to benefit from treatment can generate new questions to be addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5101|May not be taken concurrently
OR PBHL 5201|May not be taken concurrently.

PBHL 8204. Multilev Mod in Int Res. 3 Credit Hours.
Interdisciplinary research nearly always involves data with a nested, hierarchical, or multilevel structure. Such data violate the standard statistical assumption of independence of observations. As well, the most important interdisciplinary research questions often involve understanding effects of one level of this structure on characteristics of another level of structure. Within the intervention contexts, individuals often serve as their own context as events unfold over chronological time. This course provides a broad and comprehensive introduction to analysis of multilevel data with an emphasis on questions which bridge disciplines. Participants should be familiar with the general linear model (analysis of variance, regression) prior to enrolling in this course, but no previous familiarity with mixed models (other than repeated measures ANOVA) is assumed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8205. Chronic Disease Epidemiology. 3 Credit Hours.
This intermediate course will cover selected topics in chronic disease epidemiology through critical examination of the current literature. Students will have the opportunity to study methodological issues, strategies for prevention, and contemporary issues in research. Coronary heart disease, cancer, diabetes, musculoskeletal disorders, chronic lung diseases and others will be addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5102|May not be taken concurrently
OR PBHL 5201|May not be taken concurrently.

PBHL 8206. Infectious Disease Epidemiology. 3 Credit Hours.
This Infectious Disease Epidemiology course provides basis for understanding infectious diseases, disease transmission, risk factors, outbreak investigation and study designs, surveillance methods, current infection control strategies and mechanisms. The purpose of this course is to expose students to the principles and practice of infectious disease epidemiology and how communicable diseases and their control affect public health locally, nationally and internationally.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5102|May not be taken concurrently
OR PBHL 5201|May not be taken concurrently.

PBHL 8207. Occupational and Environmental Epidemiology. 3 Credit Hours.
This intermediate course will cover selected topics in occupational and environmental epidemiology through a focus on specific health outcomes, such as non-malignant respiratory diseases, cancer, and musculoskeletal disorders, within the context of particular study designs or exposures. Students will have the opportunity to critically examine the current literature, and to study contemporary issues in research. Exposure assessment, biomarkers and emerging diseases within the context of the workplace and the environment will be addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5102|May not be taken concurrently
OR PBHL 5201|May not be taken concurrently.

PBHL 8208. Data Management and Analysis. 3 Credit Hours.
The content of this course will illustrate practical concepts, methods, and strategies used in the development, management and analysis of large data sets through in-class and homework exercises, quizzes, and a final project. Each class session will be a mixture of a lecture, demonstration and hands-on SAS programming exercises.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5201|May not be taken concurrently
OR (PBHL 5002|May be taken concurrently
AND PBHL 5101|May be taken concurrently).
PBHL 8209. Epidemiology of HIV/AIDS. 3 Credit Hours.
Epidemiology of HIV/AIDS. Application of epidemiological principles and concepts in infectious disease epidemiology with emphasis on surveillance, research, prevention, and control.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PBHL 5101|May not be taken concurrently
OR PBHL 5201|May not be taken concurrently.

PBHL 8306. Public Health Advocacy. 3 Credit Hours.
The purpose of this course is to prepare future public health practitioners with substantive knowledge on how policy is crafted, how to effectively integrate public health science in the policy process, and provides practical skills on engaging policymakers, and public constituencies to support public health initiatives. It will combine policy/advocacy strategy, real-life case studies, lectures by policymakers, and strategic analysis of recent legislative developments in health care. Reading assignments provide background knowledge for class lectures and discussion.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8307. Systematic Review in He. 3 Credit Hours.
Systematic reviews are essential tools for health care workers, researchers, consumers, and policy makers who need to keep abreast of the accumulation of knowledge within their field. Systematic reviews provide more objective evaluation of the evidence than has been possible with traditional narrative reviews, and so can help resolve uncertainty and point toward promising future directions in research and practice. When appropriate, meta-analyses can help increase the precision of estimates regarding treatment effects and way to improve treatments. For example, identification of subgroups of individuals most (or least) likely to benefit from treatment can generate new questions to be addressed.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8308. Physical Agents. 3 Credit Hours.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 8309. Exposure Assessment. 3 Credit Hours.
Exposure Assessment is the multi-disciplinary field that identifies and characterizes exposure to environmental agents; develops estimates of exposure for epidemiology, exposure-response, trend and surveillance, and risk assessment studies; and evaluates the significance of exposure of effectiveness of intervention strategies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PBHL 9083. Readings and Conference in Public Health. 1 to 3 Credit Hour.
Advanced tutorial in public health with an appropriate faculty member. Note: Requires written contract with the supervising faculty member and approval of Advisor and the Director of Graduate Programs.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credit.

PBHL 9187. Biostat Cnslt Practicum. 3 Credit Hours.
The objective of this course is to prepare students to collaborate effectively as biostatistics support consultants in the health professions. The emphasis will be to refresh statistical techniques and develop communication and problem solving skills. This course is designed for graduate students in public health who can use well-validated commercial statistical software, such as SAS, for the analyses of data from observational and/or interventional research studies.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PBHL 9189. MPH Capstone Seminar. 3 Credit Hours.
Required of M.P.H. students during final year of study. Seminar includes integration of coursework, practice skills to develop a fieldwork project or internship in a public health agency.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PBHL 9289. MPH Fieldwork I. 3 Credit Hours.
Fieldwork project or internship in a public health agency. Includes seminars, oral and written reports of progress and joint supervision by a preceptor and faculty member.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
Physical Therapy Courses

PHTH 8502. Human Anatomy I. 3 Credit Hours.
This course represents the first part of a regional study of the gross structure of the human body. It includes classroom lectures and laboratory observations, including dissection of the back, upper and lower limbs, head and neck, thorax, abdomen and pelvis, and perineum. Emphasis is on the structure and function of the skeletal, muscular, cardiovascular, respiratory, and peripheral nervous systems, including their embryologic development. Students must learn the origins, insertions, and both spinal cord level and peripheral innervations, and actions of each muscle. In addition, students must know all bony landmarks and all ligaments that support the joints under study.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8503. Human Anatomy II. 3 Credit Hours.
This course represents the second part of a regional study of the gross structure of the human body. It includes classroom lectures and laboratory observations, including dissection of the back, upper and lower limbs, head and neck, thorax, abdomen and pelvis, and perineum. Emphasis is on the structure and function of the skeletal, muscular, cardiovascular, respiratory, and peripheral nervous systems, including their embryologic development. Students must learn the origins, insertions, and both spinal cord level and peripheral innervations, and actions of each muscle. In addition, students must know all bony landmarks and all ligaments that support the joints under study.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8511. Anatomy Lab. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8512. Human Physiology. 3 Credit Hours.
This course provides D.P.T. students with an opportunity to learn basic facts and principles of physiology. The course focuses on cellular, skeletal, muscular, neurological, cardiovascular, pulmonary, integumentary, renal, endocrine, and metabolic physiology. The discussed clinical topics are relevant to the modern practicing physical therapist.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8513. Movement Science I. 3 Credit Hours.
This course begins with recognition of the external forces and factors that affect movement and then moves on to the interaction between biological structures, the forces they generate and encounter, and how the body assesses and coordinates the variables responsible in the production and control of movement. Tissue mechanics relevant to bone, skeletal muscle, cartilage, tendons, and ligaments provide a basis for understanding the contribution of these tissues to movement, not only at a specific joint in the body, but also across multiple joints in the body. In addition, students are required to recognize the implications of environmental conditions associated with movement, including statics, dynamics, reaction forces, and the effect of cognitive intent by the person performing the movement.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PTHT 8514. Clinical Decision Making. 2 Credit Hours.
This course presents evidenced-based models and exemplars of clinical decision making, including the World Health Organization's International Classification of Functioning, Disability and Health Model, decision making bias and heuristics, patient management, documentation styles, interdisciplinary care, teamwork, and interview/evaluation algorithms. This course provides the student physical therapist with the tools to utilize a patient-therapist collaborative model to develop a goal-directed, team-centered intervention that encompasses the physical, psychological, social, and psychomotor status of the patient.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8515. Anatomy Lecture. 3 Credit Hours.
Field of Study Restrictions: Must be enrolled in one of the following Fields of study: Physical Therapy
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8516. Introduction to Physical Therapy. 1 Credit Hour.
This course introduces students to the concepts of professionalism, advocacy, and the role of the physical therapist in the American health care system. Students learn about the American Physical Therapy Association, its role in advancing the profession of Physical Therapy, and resources available through the organization. In preparation for clinical practice, students are introduced to various documentation strategies, including electronic health records. Students complete a medical terminology self-study prior to the beginning of the semester to help enhance documentation skills.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8517. Clinical Examination & Intervention Skills I. 3 Credit Hours.
This Clinical Examination and Intervention Skills (CEIS) course provides an introduction to appropriate patient/client and clinician positioning/draping to preserve the modesty of the patient/client as well as the safety of the patient/client and clinician. The practices of appropriate positioning and draping for both the patient/client and clinician are emphasized throughout the course as the students begin to practically experience palpating their classmates and performing techniques such as soft tissue mobilization. Techniques such as manual muscle testing and goniometry are discussed based on the biomechanical concepts involved. Students spend their time in the laboratory practicing these techniques with specific attention paid to anatomy and the reliability and validity of manual muscle testing and range of motion measurements. Additionally, screening techniques (both gross motor and neurological) are addressed with time to practice these techniques assigned to the laboratory component of the class in order to help facilitate the student's developing decision-making processes.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8518. Psychosocial Aspects. 2 Credit Hours.
This course focuses on thoughtful critical thinking regarding the needs of human beings during illness and disease states and the related specific skills the student will require to successfully interact with and enhance wellness of patients and families in health care settings. To accomplish this, a variety of topics are presented through required readings, lectures, discussions, and experiential activities.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8521. Neuroscience. 3 Credit Hours.
This course offers a study of the anatomy of the human nervous system with special attention to the brain and spinal cord. It includes histology, physiology, and pathology of the nervous system. Examples are given of the cause-effect relationship between lesions and symptoms, albeit complex.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: 
(PTHT 8502|May not be taken concurrently
AND PTHT 8503|May not be taken concurrently
AND PTHT 8512|May not be taken concurrently).

PTHT 8522. Rehabilitative Pathophysiology. 3 Credit Hours.
There are three components of this course: basic pathology (injury and adaptation); normal microanatomy of skin, bone, and connective tissue; and pathology of the cardiac, pulmonary, immune, endocrine, musculoskeletal, and integumentary systems.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: 
(PTHT 8502|May not be taken concurrently
AND PTHT 8503|May not be taken concurrently
AND PTHT 8513|May not be taken concurrently).
PHTH 8523. Movement Science II. 4 Credit Hours.
Theories and basic principles of motor control, development, and learning are integrated and related to motor behavior across the human lifespan. Examples of both typical and atypical behavior are used to demonstrate the influence of impairments on control, development, and learning. Introductory concepts related to recovery of function following central nervous system damage are included.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: (PHTH 8512|May not be taken concurrently
AND PHTH 8513|May not be taken concurrently
AND PHTH 8523|May not be taken concurrently
AND PHTH 8524|May not be taken concurrently
AND PHTH 8536|May not be taken concurrently).

PHTH 8524. Clinical Examination & Intervention Skills II. 2 Credit Hours.
The Clinical Examination and Intervention Skills (CEIS) course sequence contains theory and evidence for and practice of examination and intervention skills that can be applied to a wide variety of clinical settings and patient populations. The CEIS II course content includes examination and intervention skills related to bed mobility, transfers, and ambulation. It also provides a general review of systems assessments, including vital signs, sensory testing, cognitive assessment, and tests of dynamic posture, reflexes, and tone - all within a context of functional intervention, safety, customer service, infection control, and confidentiality. The development and advancement of the patient-therapist therapeutic relationship within the patient-practitioner collaborative model is emphasized in this course.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: (PHTH 8513|May not be taken concurrently
AND PHTH 8517|May not be taken concurrently).

PHTH 8525. Clinical Electroneurophysiology. 3 Credit Hours.
This course includes the known physiologic and physical effects and application of select thermal and electrical therapeutic modalities. A problem-solving approach is used to assist the student to integrate basic physiologic, physical, and medical science aspects for the safe application of the modality. Electrodiagnostic testing in the context of physical therapy practice is presented. Validity, reliability, sensitivity, and specificity of select clinical tests and the effectiveness of each thermal modality/electrotherapeutic device are addressed.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: PHTH 8512|May not be taken concurrently.

PHTH 8527. Clinical Clerkship. 1 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8528. Critical Inquiry I. 3 Credit Hours.
This course provides an introduction to the critical analysis of professional literature in preparation for evidence-based practice. Students learn how to conduct searches of scientific and professional literature related to physical therapy, how to judge the validity of information obtained through both print and electronic media, and how to assess the internal and external validity of research articles as sources of information on which to base clinical decisions. Students also learn how to use web-based technology to prepare reports of research-based literature.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8529. Exercise. 3 Credit Hours.
Course content begins with an introduction of peripheral neurophysiology that functions as both a feedback system and instigator of human movement. Studied next is the physiologic response of connective tissue to exercise, including tissue irritability and plasticity, and how each relates to the goals of increased range or mobility through stretching and increased strength or stability from exercise progression. The decision-making rationale of exercise prescription is then discussed within the context of these goals regarding the use of exercise to augment performance in the areas of strength, power, and endurance, plus the progression and monitoring of the physiologic response to exercise for both symptomatic and asymptomatic individuals. Specific attention is paid to the concept of isometric, isotonic, and isokinematic (or any other) forms of exercise, including the incorporation of neural influences through proprioceptive neuromuscular facilitation (PNF).
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: (PHTH 8521|May not be taken concurrently
AND PHTH 8523|May not be taken concurrently
AND PHTH 8536|May not be taken concurrently).
PTHT 8532. Clinical Management of Musculoskeletal Conditions I. 4 Credit Hours.
The goal of the three-course musculoskeletal management series is for students to become proficient in the physical therapy management of patients with musculoskeletal disorders. Evidence-based practice serves as a foundation for this course. Students learn a comprehensive examination scheme utilizing the most valid and reliable tests and measures. Using the current best evidence, students learn to develop a plan of skilled interventions for patients with selected musculoskeletal disorders. Psychomotor skills are emphasized and practiced to proficiency during laboratory sessions for selected physical examination tests and manual therapy techniques. This course begins with an overview of the examination and intervention process for patients with musculoskeletal disorders. The focus of the remaining material is on the lower quarter regions of the musculoskeletal system: lumbar spine, pelvis, hip, knee, ankle, and foot.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8533. Movement Science III. 2 Credit Hours.
This course provides D.P.T. students with an opportunity to learn basic facts and principles of physiology. The course focuses on cellular, skeletal, muscular, neurological, cardiovascular, pulmonary, integumentary, renal, endocrine, and metabolic physiology. The discussed topics are relevant to the modern practicing physical therapist.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8534. Clinical Management of Neuromuscular Conditions I. 4 Credit Hours.
This course introduces evidence-based practice for adults and children with neurologic dysfunction. Using the International Classification of Function (ICF) model and the Hypothesis Oriented Algorithm for Clinicians (HOAC), students focus on evaluation and treatment for impairments of the human movement system and limitations in functional activities. Emphasis is placed on designing effective interventions for individuals with stroke, cerebral palsy (CP), traumatic brain injury (TBI), and spinal cord injury (SCI). Epidemiologic data and clinical medicine topics related to these diagnostic groups are presented. Issues related to the psychometric properties of measures and treatment efficacy and effectiveness are emphasized. The concept of diagnosis of neuromuscular disorders by physical therapists is introduced.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8535. Clinical Management of Cardiopulmonary Conditions. 3 Credit Hours.
This course includes presentation of advanced pathophysiology, examination techniques, and therapeutic interventions specific to the cardiac, vascular, and pulmonary systems. The course begins with the functional applications and implications of primary and secondary cardiovascular and pulmonary anatomy and dysfunction as it relates to movement dysfunctions. Throughout the course, students gain knowledge of disease pathology and progression, appropriate interventions, tests and procedures, plan of care progressions, and management of the acutely ill patient. The course emphasis is on impairments related to primary or secondary dysfunction of the cardiac and ventilatory pumps. Topics include aging; diabetes; cardiac rehabilitation; pulmonary rehabilitation; the use of supplemental oxygen as a clinical drug; and rehab strategies for management of patients with comorbidities affecting the cardiac, vascular, and pulmonary systems. This course includes wellness and prevention care, cultural issues, epidemiological data, and outcome measures. Issues of validity, reliability, sensitivity, and specificity are addressed with all examination techniques.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8536. Teaching Learning & Group Dynamics. 3 Credit Hours.
The focus of this course is the development of the teaching, learning, and group dynamics knowledge and skills needed by health care professionals to serve as effective change agents with patients/clients and students, as well as effective collaborators with colleagues across disciplines and health care administrators. In addition, the course provides insight on the skills needed to evaluate the impact of the teaching, learning, and group dynamic initiatives to bring about change through the presentation of a variety of topics, required readings, lectures, seminars, and experiential activities.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PTHT 8542. Clinical Management of Musculoskeletal Conditions II. 4 Credit Hours.
The second course in the musculoskeletal management series emphasizes the same concepts as PHTH 8532 with a focus on the upper quarter regions of the musculoskeletal system: cervical and thoracic spine, shoulder girdle, elbow, wrist, and hand.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PHTH 8546. Bioethics. 2 Credit Hours.
This 10-week course focuses on the complexity of clinical and research scenarios. It requires health care expertise and an understanding of bioethical principles and values, within the context of a decision-making process. This course allows the student to increase understanding of ethics within the context of ethical dilemmas; understand more about one's own values and preferences when collecting information and making decisions; and value the gifts of collaboration when making bioethical decisions. Students explore scenarios that require ethical decision-making and develop some expertise with using an ethical decision-making matrix and applying the APTA Code of Ethics and Guide for Professional Conduct.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PHTH 8532|May not be taken concurrently.

PHTH 8547. Management and Health Care Systems. 3 Credit Hours.
This course is an introduction to the American health care system, using a model proposed by Kissick, which identifies four major system components: resources, delivery systems, planning/regulatory infrastructure, and consumers. The course looks at all four of these components with less emphasis on consumers as this area is addressed in the Behavioral Science Series and again in the Management course. This course emphasizes the interconnections between the various segments of the health care system. It also explores and integrates the role of physical therapy as a profession and physical therapists as professionals in the system. Further emphasis is on class participation as a method of modeling professional behavior.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8512|May not be taken concurrently
AND PHTH 8522|May not be taken concurrently
AND PHTH 8529|May not be taken concurrently).

PHTH 8548. Critical Inquiry II. 1 to 2 Credit Hour.
This course continues the fall semester Critical Inquiry I course by providing practice of skills needed to locate, understand, and critique research literature for clinical decision-making. Emphasis is on methods used to find relevant literature and assess the validity of research articles, systematic reviews, and meta-analyses. As a result of the activities in this course, students are able to conduct and document a focused search of the literature, effectively examining and interpreting the validity of research reported in the literature to enable appropriate judgments about the application of research evidence to clinical questions. Students are also able to document the analysis of research studies' validity.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PHTH 8528|May not be taken concurrently.

PHTH 8550. Special Topics in Physical Therapy. 4 Credit Hours.
Offered as a 10-week, 4-credit course during the Fall Semester of the third year of the DPT curriculum. The course is designed to introduce third-year student physical therapists to leading edge and niche areas of practice commonly encountered by the contemporary practicing physical therapist. The course utilizes a “two-pronged” approach, with faculty providing current, high-quality literature on which to base clinical decisions and treatment while clinical guest lecturers provide information regarding the “PT application” in the clinic.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 8551. Medical Diagnostics. 2 Credit Hours.
Students gain an appreciation for and begin to develop strategies to integrate data from medical diagnostic procedures. These data include results obtained from imaging and laboratory chemistry tests, as well as data derived from vascular, neurologic, cardiac, and pulmonary testing. The focus is on utilizing clinical data that documents both the status and the progression of disease and its impact on differential diagnosis, prognostication, and physical therapy interventions.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8552. Clinical Management of Musculoskeletal Conditions III. 3 Credit Hours.
The third musculoskeletal management course emphasizes advanced clinical decision making and integration of material from across the curriculum, body systems, and lifespan. Selected areas of the upper and lower quarter regions of the musculoskeletal systems are reviewed and updated. Special topics such as management of chronic pain, work-related musculoskeletal disorders, injury prevention, complex regional pain syndrome, and temporomandibular joint disorders are also covered.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8525|May not be taken concurrently
AND PHTH 8534|May not be taken concurrently
AND PHTH 8535|May not be taken concurrently
AND PHTH 8542|May not be taken concurrently).
PHTH 8553. Clinical Medicine & Pharmacotherapeutics. 3 Credit Hours.
During the first half of the class, students gain an appreciation for the natural history, medical and/or surgical management of diabetes mellitus, HIV/AIDS, rheumatologic disorders, oncology, organ transplantation, and infectious diseases from the perspective of various health care practitioners, including nurses, physicians, and physical therapists. Students also gain an appreciation for the impact of these disorders on functional abilities and the role of the physical therapist in the coordination and management of care for individuals with these diseases. During the second half of the class, students are introduced to pharmacology as it relates to the practice of physical therapy. Discussions include pharmacokinetics and the indications and contraindications of various drugs relative to their effect on diagnosis, prognosis, and interventions in physical therapy. Specific pharmacologic categories covered in the course are cardiovascular medications, chemotherapeutic agents, NSAIDS, antirheumatic agents, pulmonary medications, pain management strategies, neuromuscular medications, ionto/phonopheresis agents, different classifications of steroids, and diabetes management agents.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8529)(May not be taken concurrently
AND PHTH 8535)(May not be taken concurrently).

PHTH 8554. Clinical Management of Neuromuscular Conditions II. 3 Credit Hours.
The course covers evidence-based practice for children and adults with disorders of the neuromuscular system with an emphasis on progressive disorders and selected current topics in managing neuromuscular disorders. Examination, evaluation, diagnosis, prognosis, and treatment of individuals with these disorders are addressed. The course includes epidemiologic data and medical management of progressive disorders, lifespan change in neurologic status, outcome measures, prevention of secondary impairments, wellness for individuals with neuromuscular dysfunction, and cultural issues related to the disorders presented. Issues addressed include validity, reliability, sensitivity, and specificity of measures as well as evidence of treatment efficacy and effectiveness.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8555. Assistive Technologies. 2 Credit Hours.
This course presents the theory, evidence for, and process of examination and interventions used in the management of patients with a variety of complex or multiple organ-system pathologies. Emphasis is on the rehabilitation management of patients with transient, prolonged, or residual impairments that affect functional and vocational performance. Students learn about home and workplace assessment, as well as assessment for and prescription of appliances and equipment used to maximize patients' functional abilities. These include wheelchairs, seating systems, alternative and adaptive equipment, aids, and prosthetic and orthotic devices.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PHTH 8542|(May not be taken concurrently.

PHTH 8557. Management of Physical Therapy Practices. 3 Credit Hours.
This course covers a transitional learning experience for the third-year student by allowing the synthesis of clinical knowledge learned during the first two years of the D.P.T. curriculum with an administrative and procedural framework. The student is expected to demonstrate an understanding of how patient care paradigms can meld with the parameters of reimbursement, compliance, management hierarchy, and regulatory issues while allowing for individual and group therapist growth. The capstone project entails the students providing a local physical therapy clinical department with real-time assistance on a management issue germane to that department. The students are expected to meet with the assigned clinical staff; collect data; research the management issue; and provide a reasonable and effective solution utilizing evidenced-based practice guidelines where acceptable.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PHTH 8534|(May not be taken concurrently.

PHTH 8558. Evidence-Based Practice I. 2 to 4 Credit Hours.
This is the first in a two-course sequence designed to encourage use of the principles of evidence-based practice, integrating clinical expertise, patients’ values, and research evidence to produce a therapeutic alliance. In this course, students generate a systematic review of the literature to answer a specific clinical question. Students can choose either a review of therapeutic interventions or diagnostic tests. The key project for this course is a written systematic review in a standardized format. In addition, during the annual Temple PT Student Presentation Day, students present their research through either a poster or platform presentation format.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
(PHTH 8502)(May not be taken concurrently
AND PHTH 8503)(May not be taken concurrently
AND PHTH 8533)(May not be taken concurrently
AND PHTH 8542)(May not be taken concurrently).
PHTH 8559. Elective - Clinical Specialty. 3 Credit Hours.
The physical therapy profession is a dynamic profession responding to changes in practice settings, health care policy, societal issues, and knowledge advancements. This course will cover topics that reflect current and anticipated needs in our profession that have emerged in current physical therapy practice. PHTH 8559 is an elective course for third year Doctor of Physical Therapy students and is designed to contain content classified as above the standard of entry-level professional education in physical therapy. Topics offered vary across areas of specialized clinical practice and clinical research activities of departmental faculty members. The content associated with each offered topic fulfills the course metric requirement for a 1.5 credit course and each student must successfully complete two (2) topics over the duration of the semester.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites: (PHTH 8528|May not be taken concurrently
AND PHTH 8548|May not be taken concurrently).

PHTH 8566. Evidence-Based Practice II. 2 Credit Hours.
This is the second in a two-course sequence designed to encourage use of the principles of evidence-based practice, integrating clinical expertise, patient values, and research evidence during clinical practice. This course is offered via a distance learning format utilizing the Blackboard courseware platform. Students complete several written assignments related to the application of evidence-based principles to their clinical practice. The primary project is an individual project in which the students apply the principles of evidence-based practice to a clinical problem encountered during the final clinical internship. The student then presents this process to colleagues in their clinical setting as an in-service.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8571. Phys Therapy Diagnostics. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8572. Clinical Pharmacology. 1.5 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8573. Diagnostic Imaging. 1.5 Credit Hour.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8574. Ethics. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8575. Motor Contrl & Human Mov. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8576. Clinical Decision Making. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8577. Health Care System. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8578. Outcome Meas Epidemiolog. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.

PHTH 8579. Teaching and Learning. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Transitional-DPT
Repeatability: This course may not be repeated for additional credits.
PHTH 8581. Mslsklt Mgt I Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 8582. Mslsklt Mgt II Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9085. Mentorship I Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9086. Mentorship II Residency. 3 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9187. Teaching Practicum. 1 to 3 Credit Hour.
Practicum in teaching physical therapy in professional curricula. Students contract with an advisor for 80 hours of guided development, presentation, and evaluation of a course segment based on principles and concepts. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9585. Clinical Internship I. 6 Credit Hours.
Clinical Internship I follows the first year of completed academic coursework. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship focuses on developing the professional clinical skills needed to work with various patient populations. Specifically, this internship gives students the opportunity to interact with patients in order to practice their interview skills, their interpersonal communication, their patient/client education, and their basic examination skills, including range of motion, manual muscle testing, palpation, and data collection.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9586. Clinical Internship II. 12 Credit Hours.
The second full-time clinical internship takes place over the course of twelve weeks. Clinical Internship 2 typically occurs during the summer semester of the student’s second academic year. The internship typically takes place off site and is coordinated, managed, and over-seen by the Director of Clinical Education. This internship focuses on developing and integrating clinical skills and engaging in clinical decision making with various patient populations. Students are evaluated by the Clinical Instructor using the APTA PT CPI Web (2006).
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9620. Human Movement Science I: Neural Factors. 3 Credit Hours.
Current theories and research pertaining to the neural mechanisms of motor control and sensorimotor integration are introduced as a foundation for the evaluation and treatment of movement and balance deficits. Studies involving lesion of the nervous system are discussed to demonstrate the impact of neural impairments on motor performance and motor learning. The course also introduces the neurophysiologic methods to evaluate the relationship between neural circuitry and human movement (e.g., MRI, EEG, single unit recording, PET).
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9621. Human Movement Science III: Cognition and Learning. 3 Credit Hours.
A survey of theory and research concerning the cognitive processes of the human brain and motor behavior is conducted. Emphasis is on the developmental changes that underlie cognition as they relate to motor behavior. These objectives are approached by examining lifespan motor development and learning, attentional mechanisms, perceptual effects on motor output, implicit and procedural memory effects on motor control, automatic compensatory responses and/or strategies following injury or disease, and adaptation to long- and short-term changes in the body or environment.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9622. Instrumentation and Motion Analysis. 3 Credit Hours.
Current methodology appropriate to the study of normal and abnormal human movement is presented. Both technical and theoretical foundations of instrumentation use are included. Students have opportunities to develop skills in data acquisition, reduction, and analyses in the laboratory sessions.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9623. Atypical Human Movement. 3 Credit Hours.
An exploration of the theoretical perspectives used to interpret movement dysfunctions. Topics include overuse, developmental regression, limited repertoires, and external and internal constraints. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits

Pre-requisites:
PHTH 9620
May not be taken concurrently.
PHTH 9624. Human Movement Science II: Mechanics and Models. 3 Credit Hours.
Application of the mechanical principles to static and dynamic models of human posture and movement and of the mechanical properties of the link-segment systems and biological tissues are introduced in this course. Dynamical systems framework are introduced as a basis for understanding the organization of complex movement patterns. Other systems, computational, and statistical models that are commonly used to analyze and describe the mechanisms of human posture and movement are discussed. Interpretation of the model predictions is based on healthy individuals in addition to those with movement deficits.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9625. Clinical Decision Making. 3 Credit Hours.
A survey of theory and research concerning the cognitive processes of the human brain and motor behavior is conducted. Emphasis is placed on the developmental changes that underlie cognition as they relate to motor behavior. These objectives are approached by examining lifespan motor development and learning, attentional mechanisms, perceptual effects on motor output, implicit and procedural memory effects on motor control, automatic compensatory responses and/or strategies following injury or disease, and adaptation to long- and short-term changes in the body or environment.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9626. Musculoskeletal Impairment: Evidence for Examination and Intervention Strategies. 3 Credit Hours.
Review of evidence from refereed literature and from expert clinical practice that supports reliability, validity, and utility of examination and intervention techniques used in the physical therapy management of patients with musculoskeletal impairment.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9627. Movement Sci & Cognitive. 3 Credit Hours.
Current theories pertaining to the control of movement and posture are reviewed as a foundation for the evaluation and treatment of movement and balance dysfunction. Required for Ph.D. students.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9645. Advanced Musculoskeletal Anatomy. 3 Credit Hours.
Advanced cadaver dissection and study. Students must have a basic understanding of human anatomy and cadaver dissection. The course integrates clinical and anatomical perspective of the human body. Individual projects are planned by each student.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9651. Theoretical Foundations of Physical Therapy. 3 Credit Hours.
This course examines theories that underlie the discipline of Physical Therapy. Topics include neuronal regeneration, balance control, motor development, cumulative trauma disorders, health services research and expertise in clinical practice. Students examine empirical evidence that supports or refutes each theory. Required for Ph.D. in PT students.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits
Pre-requisites:
PHTH 9620|May not be taken concurrently.

PHTH 9653. Research Strategies. 3 Credit Hours.
Research in health care practice and education. Includes critical analysis of manuscripts, experimental and nonexperimental research designs, and overview of quantitative and qualitative analyses.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9654. Laboratory Rotations and Seminar in Human Movement Science. 3 Credit Hours.
Full-time work in the laboratory of a faculty member to learn instrumentation and techniques pertinent to the area of research the student wishes to pursue. Two rotations required for Ph.D. in PT students. Health care problems are also presented.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9655. Qualitative Research Strategies for Health Care. 3 Credit Hours.
Qualitative research focusing on grounded theory and case analysis. Combining qualitative and quantitative research strategies to study health care problems is also presented.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.
PHTH 9673. Curricular Design and Teaching in the Health Professions. 3 Credit Hours.
Philosophical orientations to and alternative curricular designs for professional health care academic and clinical education. Theories of learning, teaching strategies, and evaluation formats. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9682. Independent Study. 1 to 3 Credit Hour.
Individual investigation in physical therapy practice or research under the guidance of a mentor.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9685. Clinical Internship III. 12 Credit Hours.
This course is designed as the third full-time clinical internship for each student. Each student participates in a total of 42 weeks of clinical internship throughout the course of the DPT program; Clinical Internship 3 takes place over the course of 12 weeks. Clinical Internship 3 will typically occur during spring semester of the third academic year. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship will focus on developing the professional clinical skills needed to work with various patient populations. Additionally, the students will have the opportunity to problem solve and utilize their clinical decision making skill in examining, evaluating, assessing and developing plans of care for the patients.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9686. Clinical Internship IV. 12 Credit Hours.
This course is designed as the fourth full-time clinical internship for each student. Each student participates in a total of 42 weeks of clinical internship throughout the course of the DPT program; Clinical Internship 4 takes place over the course of 12 weeks. Clinical Internship 4 will typically occur during spring semester of the third academic year. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship will focus on developing the professional clinical skills needed to work with various patient populations. Additionally, the students will have the opportunity to problem solve and utilize their clinical decision making skills in examining, evaluating, assessing and developing plans of care for the patients.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9687. Clinical Internship V. 9 Credit Hours.
The fifth and final full-time clinical internship takes place over the course of nine weeks. Clinical Internship 5 typically occurs during the Spring semester of the student’s third academic year. The internship takes place off site and is coordinated by the Director of Clinical Education. This internship focuses on developing and integrating clinical skills and engaging in clinical decision making with various patient populations. Students are evaluated by the Clinical Instructor using the APTA PT CPI Web (2006) and are expected to be at entry-level performance upon completion of this course.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9774. Administration of Health Professions Academic Programs. 3 Credit Hours.
Organization of universities with an emphasis on administration of professional graduate programs, program and faculty evaluation and development, funding, admissions, professional accreditation, clinical education, and state licensure. Required for Ph.D. students.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may not be repeated for additional credits.

PHTH 9785. Clinical Internship V. 9 Credit Hours.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9787. Teaching Practicum. 1 to 3 Credit Hour.
Practicum in teaching in the professional physical therapy curriculum. Students contract with a faculty member for guided development, presentation and evaluation of a course segment based on principles and concepts covered in PHTH 9673.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9994. Preliminary Examination Preparation. 1 to 6 Credit Hour.
Limited to Ph.D. in PT students who have completed all their coursework and are finishing qualifying examinations.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.

PHTH 9998. Dissertation Proposal. 1 to 3 Credit Hour.
Students are expected to prepare and submit a dissertation proposal in the form of a grant proposal and successfully defend it orally before their Dissertation Committee. As appropriate, they must obtain IRB approval for their proposed research, and submit a copy of the grant proposal to the Graduate School. Students are expected to have developed and defended their dissertation grant proposal within one year of successfully completing their preliminary examination.
Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Repeatability: This course may be repeated for additional credit.
PHTH 9999. Dissertation Research and Colloquium. 1 to 4 Credit Hour.
Limited to Ph.D. in PT students who have passed preliminary examinations. Continuous registration in the Fall and Spring semesters is required until the oral defense has been passed. Students are required to attend a colloquium held once a month to review and discuss progress to date.

Level Registration Restrictions: Must be enrolled in one of the following Levels: Graduate
Student Attribute restrictions: Must be enrolled in one of the following Student Attributes: Dissertation Writing Student
Repeatability: This course may be repeated for additional credit.