Rocky Mountain University of Health Professions is accredited by the Northwest Commission on Colleges and Universities (8060 165th Avenue NE Ste 100, Redmond, WA 98052-3981), an institutional accrediting body recognized by the Secretary of the US Department of Education.

The entry-level Doctor of Physical Therapy (DPT) program is accredited by the Commission on Accreditation in Physical Therapy Education (1111 North Fairfax Street, Alexandria, VA, 22314; phone: 703-706-3245; email: accreditation@apta.org).

The Commission on Collegiate Nursing Education (CCNE) has accepted the application for the initial accreditation of the Doctor of Nursing Practice (DNP) program at Rocky Mountain University of Health Professions. New applicant status signifies an affiliation with CCNE; it is not a status of accreditation.

RMUoHP reserves the right to change, without notice, any statement in this publication concerning, but not limited to, rules, policies, tuition, fees, faculty, curricula, and courses. This document is not a contract or an offer of a contract.
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ClinScD / DSc / PhD Programs

Core Courses

CC 608 Scientific/Professional Writing (1 credit)
This pass/fail course reviews PubMed, Index Medicus, other search methodologies, American Medical Association Manual of Style editorial format, the composition of a scientific/professional manuscript, and the style of Scientific/professional writing, its construction and formats.

CC 620 Biostatistics 1 (2 credits)
The purpose of this course is to introduce the student to biostatistics, the science of evaluating information in a biological setting. We will cover such topics as simple descriptive statistics, basic probability concepts, probability distributions (normal & binomial), sampling distributions, and an introduction to t-distributions.

CC 621 Biostatistics 2 (2 credits)
The purpose of this course is to build upon the topics introduced in Biostatistics 1. This course will cover such topics as interval estimation, confidence intervals, hypothesis tests, and one and two-sample t-tests. Prerequisite: CC 620.

CC 622 Biostatistics 3 (2 credits)
The purpose of this course is to build upon the topics introduced in Biostatistics 2. This course will cover such topics as correlation, simple linear regression, one-way analysis of variance, factorial designs, post-hoc tests of means and other non-parametric methods. Prerequisites: CC 620, CC 621.

CC 634 Survey of Qualitative Research (2 credits)
This course introduces the student to qualitative research methods and their applications to problems and phenomena in athletic training. Emphasis is placed on the appropriate use and differences of qualitative methods, their philosophical underpinnings, and application to clinical issues.

CC 640 Introduction to Research Methods: A Quantitative Approach (2 credits)
This course provides an introduction to general research principles and research ethics. The student will be introduced to the following topics in the research process: question formulation, principles of measurement, basic design and methodological features, issues of reliability and validity, and fundamentals of conducting a literature review. A quantitative article critique will be conducted in class and outside of class. The class format will include lecture, small group discussion, and practice.
CC 644  Evidence-based Practice  
This course is designed to prepare healthcare professionals with the knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in their careers. This course will focus on the concepts of evidence-based practice with emphasis on forming answerable clinical questions and effective literature search strategies. The evaluative approach to appraising the research literature will prepare the students to judge the evidence on: 1) the accuracy and validity of diagnostic tests and the application of important diagnostic tests in the care of a specific patient; 2) the effectiveness of clinical interventions; 3) the natural history of health-related conditions; 4) risk of harm from select preventative and therapeutic interventions. Based on presentation of case scenarios, students will be required to formulate the key question(s), rapidly search medical and health-related databases, appraise the evidence with a critical analysis and describe application of the evidence in a clinical context.

CC 741  Epidemiologic Methods  
This course will introduce the student to important epidemiological methodology/concepts commonly used in evidence-based practice/medicine. The course will focus on the common observational designs, and common measures of disease frequency, risk association, and validity of diagnostic tests. The use and construction of receiver operating curves will be discussed. The course will also include an introduction into logistic regression and survival analysis methods in how they apply to disease outcomes/disorders. Students will conduct and apply basic epidemiological concepts using statistical software, and learn how to design and develop. The student will be provided with information to aid in data collection and management. Prerequisite: CC 640.

CC 742  Proposal Writing  
The conduct of scientific inquiry requires careful planning and forethought to assure the eventual implementation of a study will successfully result in interpretable and meaningful measurements and that valid conclusions may be drawn. This course will provide students with the necessary background and experience to formulate a clearly delineated, hypothesis-driven research proposal that can be used to convince funding agencies and/or doctoral committees to support the study. In addition, this course will provide key information about the Institutional Review Board process so that the student will be able to assure a safe and ethical environment for their volunteer subjects. Students will also learn the attributes of a mixed-model study design. Prerequisites: CC 640, CC 741, CC 634.

CC 833  Dissertation Residency  
Course required to maintain continuous enrollment in the University after completion of CC 877A and CC 877B until completion of the student
dissertation. Each doctoral student will be required to complete a dissertation that is evidence-based and involves applied research of experimental, nonexperimental, or descriptive designs. Examples of dissertations include: small randomized control trials; single-case/subject designs, quasi-experimental designs, qualitative methods, survey research, epidemiological designs (cross-sectional, cohort or case-control) normative research, and correlational designs. Course may be taken multiple times for credit (as CC 833A, CC 833B, etc.).

CC 844  Dissertation Residency
Course required to maintain continuous enrollment in the University after completion of CC 899A and CC 899B until completion of the student dissertation. Each doctoral student will be required to complete a dissertation that is evidence-based and involves applied research of experimental, nonexperimental, or descriptive designs. Examples of dissertations include: randomized control trials; quasi-experimental designs, survey research, single-case/subject designs, normative research, and correlational designs. Course may be taken multiple times for credit (as CC 844A, CC 844B, etc.).

CC 877  Doctoral Dissertation
Each doctoral student will be required to complete a dissertation that is evidence-based and involves applied research of experimental, nonexperimental, or descriptive designs. Examples of dissertations include: small randomized control trials; single-case/subject designs, quasi-experimental designs, qualitative methods, survey research, epidemiological designs (cross-sectional, cohort or case-control) normative research, and correlational designs. Course is repeated once for credit (as CC 877A and CC 877B).

CC 899  Doctoral Dissertation
Each doctoral student will be required to complete a dissertation that is evidence-based and involves applied research of experimental, nonexperimental, or descriptive designs. Examples of dissertations include: randomized control trials; quasi-experimental designs, survey research, single-case/subject designs, normative research, and correlational designs. Course is repeated once for credit (as CC 899A and CC 899B).

HS 710  Evidence-based Practice
This course is designed to prepare healthcare professionals with the knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in their careers. This course will focus on the concepts of evidence-based practice with emphasis on forming answerable clinical questions and effective literature search strategies. The evaluative approach to appraising the research literature will prepare the students to judge the evidence on: 1) the accuracy and validity of diagnostic tests and the
application of important diagnostic tests in the care of a specific patient; 2) the effectiveness of clinical interventions; 3) the natural history of health-related conditions; 4) risk of harm from select preventative and therapeutic interventions. Based on presentation of case scenarios, students will be required to formulate the key question(s), rapidly search medical and health-related databases, appraise the evidence with a critical analysis and describe application of the evidence in a clinical context.

HS 712  Introduction to Research Methods: A Quantitative Approach  
This course provides an introduction to general research principles and research ethics. The student will be introduced to the following topics in the research process: question formulation, principles of measurement, basic design and methodological features, issues of reliability and validity, and fundamentals of conducting a literature review. A quantitative article critique will be conducted in class and outside of class. The class format will include lecture, small group discussion, and practice.

HS 714  Scientific/Professional Writing  
This pass/fail course reviews PubMed, Index Medicus, other search methodologies, American Medical Association Manual of Style editorial format, the composition of a scientific/professional manuscript, and the style of Scientific/professional writing, its construction and formats.

HS 720  Survey of Qualitative Research  
This course introduces the student to qualitative research methods and their applications to problems and phenomena in healthcare. Emphasis is placed on the appropriate use and differences of qualitative methods, their philosophical underpinnings, and application to clinical issues.

HS 722  Biostatistics 1  
The purpose of this course is to introduce the student to biostatistics, the science of evaluating information in a biological setting. Such topics as simple descriptive statistics, basic probability concepts, probability distributions (normal & binomial), sampling distributions, and an introduction to t-distributions will be covered.

HS 730  Epidemiologic Methods  
This course will introduce the student to important epidemiological methodology/concepts commonly used in evidence-based practice/medicine. The course will focus on the common observational designs, and common measures of disease frequency, risk association, and validity of diagnostic tests. The use and construction of receiver operating curves will be discussed. The course will also include an introduction into logistic regression and survival analysis methods in how they apply to disease outcomes/disorders. Students will conduct and apply basic epidemiological
concepts using statistical software, and learn how to design and develop. The student will be provided with information to aid in data collection and management.

**HS 732 Biostatistics 2** (3 credits)
The purpose of this course is to build upon the topics introduced in Biostatistics 1. This course will cover such topics as interval estimation, confidence intervals, hypothesis tests, and one and two-sample t-tests. *Prerequisite: HS 722*

**HS 734 Qualitative Research 2** (3 credits)
This course is the second in a two-course sequence on qualitative research methods that extends and elaborates on the topics covered in HS 720. Major approaches used in conducting qualitative research and the application of these methods to problems and phenomena in healthcare will be examined. The emphasis of the course is on the collection, management, analysis, and interpretation of qualitative data. Exploration and application of topics such as sampling, interviewing and observation techniques, data analysis methods, and reporting of qualitative research will be addressed. Evaluation and critique of research studies utilizing qualitative methods will also be examined. *Prerequisite: HS 720*

**HS 740 Teaching and Learning Theory** (3 credits)
This course incorporates a learner centered approach to course development and instructional delivery based on the best evidence of how people learn. Students will demonstrate both traditional and innovative instructional techniques and strategies for teaching in didactic and clinical settings based upon the evidence-base of best teaching practices.

**HS 750 Leadership and Policy in Healthcare** (3 credits)
This course examines ways to synthesize theoretical leadership concepts with personal and professional values embedded in a clinical practice environment. Issues of power, innovation, working with teams, change and leadership/healthcare delivery models are addressed. Themes of self-reflection, self-mastery, and interpersonal skills are explored.

**HS 752 Curriculum Development** (2 credits)
This course examines various classical and modern curriculum theorists as they apply curriculum development. Emphasis is placed on congruence between institutional mission, philosophy, and goals; professional standards; and needs and expectations of a program’s communities of interest. Students design a curriculum to meet the needs of a stated role and setting.

**HS 760 Technology and Informatics** (3 credits)
The conduct of scientific inquiry requires careful planning and forethought to assure the eventual implementation of a study will successfully result in
interpretable and meaningful measurements and that valid conclusions may be drawn. This course will provide students with the necessary background and experience to formulate a clearly delineated, hypothesis-driven research proposal that can be used to convince funding agencies and/or doctoral committees to support the study. In addition, this course will provide key information about the Institutional Review Board process so that the student will be able to assure a safe and ethical environment for their volunteer subjects. Students will also learn the attributes of a mixed-model study design.

**HS 800 Proposal Writing** (2 credits)
The conduct of scientific inquiry requires careful planning and forethought to assure the eventual implementation of a study will successfully result in interpretable and meaningful measurements and that valid conclusions may be drawn. This course will provide students with the necessary background and experience to formulate a clearly delineated, hypothesis-driven research proposal that can be used to convince funding agencies and/or doctoral committees to support the study. In addition, this course will provide key information about the Institutional Review Board process so that the student will be able to assure a safe and ethical environment for their volunteer subjects.

**HS 810 Dissertation Prep/Proposal Defense** (1 credit)
This course will prepare students for the dissertation phase of the degree program. Students will have secured a committee and have developed an outline of their dissertation topic prior to taking the course. Students will prepare and present their dissertation proposal to their peers and a panel of experts. Feedback will be provided and students will work with their committee to submit the final dissertation proposal.

**Specialty Courses by Program**

**Athletic Training**

**AT 605 Applied Exercise Science** (2 credits)
This course will emphasize the principles of conditioning and exercise science. It will provide a discussion of muscle physiology and its relationship to strength, power and endurance. Important subjects covered will include progressive resistance exercise, muscle contraction types, impact loading, plyometrics, sports conditioning for the healthy individual, and general principles of conditioning in rehabilitation. Topics to be covered will also include mobility activities (including stretching) and cardiovascular training and its application to clients. This course will be taught using both lecture and
lab experiences.

AT 606.2 Literature Review, Critique, Analysis and Synthesis (3 credits)
The student will conduct a literature search on a selected research topic (approved by the Instructor) and identify 25 pertinent research based articles. The student will review, critique and complete a one to two-page summary of each article. Findings are to be synthesized into a 10-15 page paper. In addition, the student will generate a list of statistical tools used in the data analysis of the articles.

AT 607 Preventative Measures (2 credits)
This course will expose students to contemporary topics in athletic training clinical practice such as, mild brain injury, environmental illnesses and musculoskeletal injury. Students will examine and synthesize current research on these topics and present evidence-based preventative measures in order to curb their incidence.

AT 614.2 Evidence-based Advanced Orthopaedic Assessment (2 credits)
An integral part of contemporary clinical practice is understanding the key elements of diagnostic tests as they relate to the differential diagnostic process. This course provides an advanced analysis of how to search for and appraise published reports on special tests and other aspects of the orthopaedic assessment process. Students will acquire advanced knowledge and skill in interpreting the medical literature to make informed decisions regarding the best examination procedures to use for individual patients.

AT 615.2 Evidence-based Advanced Therapeutic Interventions (2 credits)
An integral part of contemporary clinical practice is understanding the key elements of therapeutic modality applications as they relate to the healing process. This course provides an advanced analysis of how to search for and appraise published reports on therapeutic modalities and tissue healing. Students will acquire advanced knowledge and skill in interpreting the medical literature to make informed decisions regarding the best therapeutic modality applications, procedures, and protocols to use for individual patients. Prerequisite: CC 644

AT 617 Evidence-based Advanced Therapeutic Interventions (3 credits)
This course provides an advanced analysis of how to search for and appraise published reports on therapeutic modalities and tissue healing. Students will acquire advanced knowledge and skill in interpreting the medical literature to make informed decisions regarding the best therapeutic modality applications, procedures, and protocols to use for individual patients. Prerequisite: CC 644
AT 618  Preventative Measures  (3 credits)
This course will expose students to contemporary topics in athletic training clinical practice such as, mild brain injury, environmental illnesses and musculoskeletal injury. Students will examine and synthesize current research on these topics and present evidence-based preventative measures in order to curb their incidence.

AT 619.2  Qualitative Research 2  (2 credits)
This course is the second in a two-course sequence on qualitative research methods that extends and elaborates on the topics covered in AT. Major approaches used in conducting qualitative research and the application of these methods to problems and phenomena in athletic training will be examined. The emphasis of the course is on the collection, management, analysis, and interpretation of qualitative data. Exploration and application of topics such as sampling, interviewing and observation techniques, data analysis methods, and reporting of qualitative research will be addressed. Evaluation and critique of research studies utilizing qualitative methods will also be examined. Prerequisite: CC 634

AT 620.2  Learning Theory and Design  (3 credits)
This course incorporates a learner centered approach to course development and instructional delivery. Evidence-based learning theories and methods will be explored. Student learning styles and generational learning will be explored.

AT 626  Case Report Methodology  (3 credits)
This course will seek in-depth exploration and practice regarding the mechanics of designing, constructing, writing and preparing a case report/single subject design for publication. Emphasis will be on designing a case report with an appropriate purpose statement and theoretical construct.

AT 630  Motor Control and Movement Analysis  (2 credits)
Discussion and analysis of scientific principles related to the mechanical understanding of motor control and the human body in motion. Review of related literature and research in motor learning and control. The focus of this course will be on qualitative analysis of motor assessment as related to musculoskeletal assessment and physiotherapy interventions.

AT 631  Motor Control and Movement Analysis  (3 credits)
Discussion and analysis of scientific principles related to the mechanical understanding of motor control and the human body in motion. Review of related literature and research in motor learning and control. The focus of this course will be on qualitative analysis of motor assessment as related to musculoskeletal assessment and physiotherapy interventions.
AT 650.2  Extensive Therapeutic Exercise 1  (3 credits)
This course will be taught from an evidence-based perspective and serve to advance students’ clinical skills related to the musculoskeletal rehabilitation process of common sports-related dysfunction. The student will learn in-depth application of systematic movement assessment and advanced clinical problem solving for therapeutic exercise prescription. Critical thinking will be emphasized allowing students to compare and contrast protocol-based vs. criteria-based rehabilitation approaches of the extremities while emphasizing the current best evidence related to the concept of regional interdependence. 
Prerequisite: CC 644

AT 651.2  Extensive Therapeutic Exercise 2  (3 credits)
This course will be taught from an evidence-based perspective and serve to advance students’ clinical skills related to the musculoskeletal rehabilitation process with an emphasis on spinal dysfunction commonly seen in athletes. Students will be exposed to the current best evidence supporting commonly used interventions including therapeutic exercise as well as systematic therapeutic exercise prescription. Critical thinking will be emphasized, allowing students to compare and contrast core training program with an emphasis in the motor control model of spinal stabilization. The course will expose the student to the current best evidence related to the concept of regional interdependence and motor skill acquisition. 
Prerequisite: CC 644

AT 670  Learning Assessment and Evaluation  (3 credits)
This course examines a variety of assessment models and techniques used to evaluate student classroom performance, student clinical performance, instructor performance and educational programs. Students will design and execute assessment plans, interpret assessment data and develop continuous improvement plans.

AT 704.2  Curriculum Design  (3 credits)
This course prepares students to examine various classical and modern curriculum theorists and apply these theories to health care curriculum development. Students design a curriculum for their discipline.

AT 708.2  Grant Writing Practices and Principles  (2 credits)
This course is designed to provide the resources needed to research and secure grant opportunities for a variety of research and non-research efforts. An overview of the structure and process utilized in preparing grant applications will be a major focus.

AT 714.2  Dissertation Prep Course  (2 credits)
This course will prepare students for the dissertation phase of the degree program. Students will have secured a committee and have developed an outline of their dissertation topic prior to taking the course. Students will prepare and present their dissertation proposal to their peers and a panel of
experts. Feedback will be provided and students will work with their committee to submit the final dissertation proposal.

**AT 718.3  Higher Education Administration**  
(3 credits)  
This course will focus on analyzing the roles of faculty and administration in preparing the healthcare educator for leadership roles. Program accreditation is explored. Students will learn how to navigate the role of an administrator and faculty member in the higher education environment.

**Clinical Electrophysiology**

**CE 702  Case Report**  
(3 credits)  
The student will be introduced to case reports, critiquing of published case reports and instructed on the preparation of case report manuscripts. There will be an emphasis on the contribution of case reports to evidence-based practice. Student will submit a case report manuscript for publication and/or presentation/abstract at a professional meeting, such as the Annual ENMG Symposium (RMUoHP), APTA CSM, APTA Annual Conference, or APTA State meeting. Lecture, discussion, and presentation by student.

**CE 704  Anatomy and Physiology - Advanced**  
(3 credits)  
Utilizing lecture, discussion, and practical laboratory (human cadaver dissection and prosection), this course provides a review of the anatomy and physiology of the human body as it relates to the practice of clinical electrophysiologic testing. This includes study and dissection/prosection of the upper extremity, lower extremity, chest (heart and lungs), abdomen, pelvis, spine, and head/neck.

**CE 706  Directed Independent Study**  
(3 credits)  
This course is designed to facilitate the knowledge and awareness of the student in the type and extent of research that is pertinent to the field of electrophysiologic (EP) testing. It will serve to develop the student’s thought on potential directions of in-depth studies that the student may pursue in seeking the advanced degree.

**CE 708  Electromyography and Nerve Studies I**  
(3 credits)  
Utilizing case studies, lecture/discussion, and practical laboratory, this course discusses and applies practical testing utilizing electromyography (EMG) and Nerve Conduction Studies (NCS). This includes: 1) EMG examination of the upper extremities, lower extremities, and cervical/thoracic/lumbosacral paraspinals; 2) motor nerve studies of the median, ulnar, radial, axillary, spinal accessory, suprascapular, fibular, tibial, and MPN/LPN nerves; 3) sensory nerve studies of the median, ulnar, radial, lateral cutaneous nerve of the forearm (lateral antebrachial cutaneous); medial cutaneous nerve of the forearm (medial antebrachial cutaneous); sural, saphenous, superficial fibular
(peroneal) LCNT, and medial plantar and lateral plantar; and 4) late responses including median F-wave, ulnar F-wave, tibial F-wave, deep fibular F-wave, and tibial H-reflex.

The format of this course consists of literature review, lecture, discussion, case studies to be presented by both the instructor and students, and lab experience/practice.

CE 710 Nerve and Muscle Pathology I (3 credits)
This course overviews nerve and muscle pathology including demyelination, axonal degeneration, axonal sprouting, axonal regeneration and classification of nerve injuries. The course includes problem solving and correlation of normal and abnormal electromyography (EMG) and nerve conduction studies (NCS) data with specific pathological conditions including mononeuropathies, polyneuropathies, radiculopathies (cervical and lumbosacral).

Students will research assigned topics, present findings, and discuss the topics including the importance of establishing the differential working diagnosis, a preliminary step to designing a clarifying electrophysiological examination. Students will present selected case studies including a mononeuropathy, polyneuropathy, and radiculopathy.

CE 712 Electromyography and Nerve Studies II (3 credits)
Utilizing case studies, lecture/discussion, and practical laboratory, this course discusses and applies practical testing using electromyography (EMG) and Nerve Conduction Studies (NCS). Course content will include such topics as: motor conduction studies of 1) the median to second lumbrical versus the ulnar to second dorsal interosseous; 2) anterior interosseous; 3) deep ulnar branch to the first dorsal interosseous with stimulation at the wrist, below elbow and above elbow; 4) ulnar motor segmental stimulation across the elbow; 5) musculocutaneous; 6) facial nerve; 7) spinal accessory nerve; and 8) phrenic nerve. This also includes sensory conduction studies of the 1) ulnar nerve across the elbow and 2) dorsal ulnar cutaneous nerve. Special studies will include 1) H reflex recording from the flexor carpi radialis; 2) repetitive nerve stimulation; and 3) blink reflex studies.

CE 714 Nerve and Muscle Pathology II (3 credits)
This course overviews nerve and muscle pathology. The course includes problem solving and correlation of normal and abnormal electromyography (EMG) and nerve conduction studies (NCS) data with specific pathological conditions including motor neuron diseases (e.g. ALS), brachial plexopathies, lumbar plexopathies, lumbosacral plexopathies, neuromuscular junction diseases, and myopathies.

Students will research assigned topics, present findings, and discuss the topics including the importance of establishing the differential working diagnosis, a preliminary step to designing a clarifying electrophysiological
examination. Students will present selected case studies including a 1) plexopathy and 2) a motor neuron disease or myopathy or neuromuscular junction case study.

**Health Promotion and Wellness**

**WE 600 Introduction to Health Promotion and Wellness**
(2 credits)
This course will provide an overview of the concepts of health promotion, health education, public health, primary prevention, lifestyle, behavior, and wellness and, based on evidence, their relationships to each other and to secondary and tertiary care. The historical relevance of and evidence for focusing on individual and social determinants of health will be explored and an ecological model combining both approaches will be introduced. Typical intervention sites for effective health promotion programs will be discussed as well as a framework for implementing programs. Class format will include a personal wellness philosophy, lecture, and small group activities.

**WE 602 Exercise Testing & Prescription**
(2 credits)
Principles of testing and prescribing exercise for the cardiopulmonary, musculoskeletal and neurological systems based on current evidence will be reviewed and practiced as they relate to populations with and without disability. Concepts learned will include aerobic and anaerobic exercise training, muscular strength, endurance and power training, flexibility enhancement, and balance training throughout the lifespan. Class format will include lecture and lab activities, including the performance of exercise testing and prescription with an individual of the student’s choosing.

**WE 603 Research Literacy**
(1 credit)
Students will have the opportunity to read, critique, and discuss current research in health promotion. The primary purposes of this course are to enable students to be informed consumers of health promotion and wellness research, to identify and understand the critical components in research manuscripts, to coherently discuss strengths and limitations in a variety of research studies, and to determine how to incorporate sound evidence into practice. Class format will include lecture, article reviews, and presentations.

**WE 604.2 Resilience and Its Impact on Health**
(2 credits)
The concept of resilience (the ability to adapt or recover rapidly) will be explored and discussed in relationship to health and well-being. Psychological, emotional and spiritual resources, such as coping, social support, meaningful connections, sense of life purpose, optimism, commitment, control, and reframing will be defined, and the evidence for each reviewed and discussed in terms of their ability to be learned, developed, and capitalized upon to improve health status. Class format will include lecture, experiential activities, small group activities and journaling.
WE 606.2  Social Influences of Behavior Change  (3 credits)
The student will select a health-related behavior, such as physical activity, helmet or seat belt use, oral healthcare, and conduct a literature review to identify evidence for both the individual and social influences on the chosen behavior. With instructor approval of the topic, a minimum of 10 articles should be selected, annotated and utilized to write a paper in which the student will advocate for one approach as the best means to accomplish behavior change in an identified population.

WE 608  Risk Factors and Risk Reduction Strategies  (2 credits)
The evidence related to risk factors for disease due to lifestyle choices will be reviewed and discussed in this course, including but not limited to smoking, nutritional choices, obesity, inactivity, diabetes, social support, and stress. Evidence for the prevention of diseases through the adoption of healthy behaviors will also be discussed, such as osteoporosis and cancer. Strategies for adopting positive health-related behaviors will be explored. Class format will include lecture, small group activities, and a group project.

WE 609.2  Population Health Issues  (2 credits)
In this course the health issues of specific populations will be discussed, including gender and age specific populations, as well as one or two additional populations driven by class preferences. Additional populations may include shift workers, various ethnic groups, or religious groups. Health and well-being issues specific to each population selected will be discussed and explored and evidence-based strategies developed to address the issues for each population. The ecological model of health promotion will be explored. Class format will include lecture and small group activities.

WE 610  Population Health Issues  (3 credits)
In this course the health issues of specific populations will be discussed, including gender and age specific populations, as well as one or two additional populations driven by class preferences. Additional populations may include shift workers, various ethnic groups, or religious groups. Health and well-being issues specific to each population selected will be discussed and explored and evidence-based strategies developed to address the issues for each population. The ecological model of health promotion will be explored. Class format will include lecture and small group activities.

WE 614.2  Motivation and Coaching  (2 credits)
In this course, the prominent methodologies of coaching and motivation will be presented. Theories of compliance with behavior change will be explored. Application of these methods to various ages and groups will be discussed. Class format will include lecture, small group activities, and self-journaling.
WE 620  Learning Theory and Design  
This course incorporates a learner centered approach to course development and instructional delivery. Evidence-based learning theories and methods will be explored. Student learning styles and generational learning will be explored.

WE 622  Introduction to Health Promotion and Wellness & Risk Reduction Strategies  
This course will provide an overview of the concepts of health promotion, health education, public health, primary prevention, lifestyle, behavior, and wellness and, based on evidence, their relationships to each other and to secondary and tertiary care. The historical relevance of and evidence for focusing on individual and social determinants of health will be explored and an ecological model combining both approaches will be introduced. The evidence related to risk factors for disease due to lifestyle choices will be reviewed and discussed in this course, including but not limited to smoking, nutritional choices, obesity, inactivity, diabetes, social support, and stress. Evidence for the prevention of diseases through the adoption of healthy behaviors will also be discussed. Strategies for adopting positive health-related behaviors will be explored. Class format will include lecture, small group activities and projects, and a personal wellness philosophy presentation.

WE 624  Motivation, Coaching and Resilience Impact on Health  
The prominent methodologies of coaching and motivation will be presented and theories of compliance with behavior change will be explored. Application of these methods to various ages and groups will be discussed. The concept of resilience (the ability to adapt or recover rapidly) will be explored and discussed in relationship to health and well-being. Psychological, emotional and spiritual resources, such as coping, social support, meaningful connections, sense of life purpose, optimism, commitment, control, and reframing will be defined, and the evidence for each reviewed and discussed in terms of their ability to be learned, developed, and capitalized upon to improve health status. Class format will include self-journaling, lecture, small group and experiential activities.

WE 700  Theories of Behavior Change  
This course is designed to expose the student to the fundamental theories driving research and practice in health education, and to provide an opportunity for the student to put theory into practice based on current evidence. A variety of theories will be reviewed and the opportunity for the student to become familiar with the literature applying the theories provided. Working in a group, students will design a health education program based on a given theory and supported by evidence and present the findings to the class. Class format will include lecture and group activities.
WE 701  Cultural Competency in Wellness Practice  (1 credit)
The influence of culture on health and well-being will be explored in this course. Issues of cultural competency will be discussed with the aim of improving provision of care based on the evidence within the context of health promotion. Class format will include lecture, presentations, and journaling.

WE 702.2  Nutrition  (2 credits)
This course is designed to survey current nutrition issues as they relate to humans across the lifespan such as: food policy, industry trends, and resources for the non-Dietetic health practitioner to evaluate claims, research and evidence-based guidelines for nutrition, nutrigenomics, and supplements.

WE 704  Nutrition  (3 credits)
This course is designed to survey current nutrition issues as they relate to humans across the lifespan such as: food policy, industry trends, resources for the non-Dietetic health practitioner to evaluate claims, research and evidence-based guidelines for nutrition, nutrigenomics, functional foods and supplements. Effective methods of utilizing nutrition screening and assessment protocols will be addressed. Class format will include lecture, personal diet analysis, small group work, forum posts and discussions.

WE 705  Grant Writing Practices and Principles  (2 credits)
This course is designed to provide the resources needed to research and secure grant opportunities for a variety of research and non-research efforts. An overview of the structure and process utilized in preparing grant applications will be a major focus.

WE 706.2  Controversy in HPW  (3 credits)
Students will research a current topic of controversy or debate within health promotion and wellness field and write a paper on the issue. Topics may be a clinical question, policy or professional issue and need to address the concerns of all stakeholders.

WE 712.2  Financial Management & Marketing in Health Promotion  (2 credits)
The business management side of health promotion and wellness will be discussed in this course. Program development and management costs, reimbursement strategies, benchmarking, marketing, and evaluation of programs and services will be explored. Class format will include lecture, small group activities, and oral presentations.

WE 714  Health Promotion & Wellness Practice  (2 credits)
In this capstone course of the curriculum, students will combine all of the knowledge and skill learned in previous courses to create a realistic health promotion/wellness practice within the structure and limitations of their scope of practice and licensure and their current or desired practice setting. Typical
health promotion and wellness practices will be discussed and their effectiveness evaluated. Class format will include lecture, small group activities, and individual project and presentation.

WE 715.2 Integrative Therapies in Health Promotion (1 credit)
The use of complementary and alternative therapies in the context of health promotion will be explored in this course using an evidence-based approach. Topics introduced may include energy medicine (Reiki, Qi gong, healing touch), manipulative and body-based practices (massage therapy, reflexology, Rolfing, Trager bodywork, Alexander technique, Feldenkrais), or mind-body approaches (relaxation, hypnosis, visual imagery, meditation, yoga, biofeedback, tai chi, prayer). Students will select an approach to explore in greater detail and about which to present evidence-based information to their peers.

WE 716.2 Program Development for At-Risk Populations (3 credits)
Students will identify a set of “at risk” clients (cvd, osteoporosis, etc.) and develop a program for them that is based on appropriate theories, culturally sensitive and appropriate, and population specific. The student will write a paper describing the program, including the evaluation tool used, program components, client experience, expected outcomes, and evaluation.

WE 717 Integrative Therapies in Health Promotion (3 credits)
The use of complementary and alternative therapies in the context of health promotion will be explored in this course using an evidence-based approach. Topics introduced may include energy medicine (Reiki, Qi gong, healing touch), manipulative and body-based practices (massage therapy, reflexology, Rolfing, Trager bodywork, Alexander technique, Feldenkrais), or mind-body approaches (relaxation, hypnosis, visual imagery, meditation, yoga, biofeedback, tai chi, prayer). Class format includes lecture, small group work, and hands on activities.

WE 724 Doctoral Seminar (2 credits)
Each doctoral student will be required to present a dissertation proposal. Grant writing, Carnegie Classification of Institutions of Higher Learning, diversity, teaching, and Boyer’s model of scholarship will be explored.

Nursing

NU 600 Philosophy of Science (2 credits)
This course explores contemporary philosophic viewpoints on the nature of science as it relates to nursing. Concepts of logic, theories of reasoning, epistemology, and scientific validation are explored with the link of philosophy of science to Nursing’s heritage and knowledge formation.
NU 601.2  Creating an Evidence-based Practice Environment  
(2 credits)

This course underscores synthesis of the best research evidence with clinical expertise and client values to direct practice decisions for quality health outcomes. Emphasis is placed on how clinical questions are formed, finding and appraising evidence, and how evidence can be transformed to develop new clinically relevant knowledge. Models and processes of evidence-based practice are introduced to promote strategies for best practice and quality improvement of healthcare. The focus is to acquire knowledge and understanding of research evidence reported in the literature, critique findings, and apply to practice.

NU 602.2  State of Nursing Science 1  
(3 credits)

This course examines structure and growth of contemporary nursing knowledge and theory within a social context. Ideas, events, people, and writings are examined for their influence, inter-relationships and significance to nursing as students reflect on philosophies and theories that guide their practice. The process of concept analysis and theory generation will be underscored. Dialogue will center on the refinement of critical thinking skills in analyzing existing practice for theory implications. Selected concepts will be analyzed with emphasis on implications for evidence-based practice. Interrelationships among theories, practice and research will be stressed.

NU 604.2  State of Nursing Science 2  
(3 credits)

The course extends the discussion on connection of nursing research, theory, and practice. The empirical foundation of nursing practice, the analysis of nursing knowledge and theories and their applicability to applied clinical nursing practice are further explored. Dialogue centers on the refinement of critical thinking skills in analyzing existing practice for theory implications. Selected concepts will be analyzed with emphasis on implications for evidence-based practice. Prerequisite: NU 602.2

NU 608  Scientific and Professional Writing  
(1 credit)

This pass/fail course reviews use of library resources, including search methodologies for health and health-related literature. The American Psychological Association (APA) guidelines for preparation of formal papers, including composition and style of scientific/professional manuscripts, are investigated.

NU 616.2  Writing for Publication in Nursing  
(2 credits)

This course extends the professional role of change agent as students create strategies to influence care management through education of providers. Students will explore a variety of writing for publication (WFP) topics including myths, barriers, writing styles, instructions for authors, and various types of publications for nursing articles. Prior to the residency students will explore personal myths and barriers to WFP and will begin to develop some
publishable ideas. During the residency students will write and submit multiple electronic queries to nursing journals or other types of publications, and begin outlining the first draft of a product for publication based upon statements of interest by editors. The student will submit one product (chapter, article, poem narrative, EBP review) for publication consideration by the end of the course post residency.

**NU 620 Learning Theory and Design**  
(3 credits)  
This course incorporates a learner centered approach to course development and instructional delivery based on the best evidence of how people learn. Students will demonstrate both traditional and innovative instructional techniques and strategies for teaching in didactic and clinical settings based upon the evidence-base of best teaching practices.

**NU 670 Learning Assessment and Evaluation**  
(3 credits)  
This course examines a variety of assessment models and techniques used to evaluate student classroom performance and clinical performance, instructor performance, and effectiveness of educational programs. Students will design and execute assessment plans, interpret assessment data and develop closing the loop activities.

**NU 701.2 Survey of Qualitative Research 2**  
(3 credits)  
This course extends and elaborates on topics covered in CC 634. Emphasis is placed on the collection, management, analysis, and interpretation of qualitative data, including practice with coding and theme analysis. Students develop a qualitative research proposal according to qualitative proposal guidelines. *Prerequisite: CC 634*

**NU 703.2 Nursing Leadership and Healthcare**  
(3 credits)  
This course examines ways to synthesize theoretical leadership concepts with personal and professional values embedded in a clinical practice environment. Issues of power, innovation, working with teams, change and leadership/healthcare delivery models are addressed. Themes of self-reflection, self-mastery, and interpersonal skills are explored.

**NU 704.2 Healthcare Economics and Policy**  
(3 credits)  
This course explores connections between economic and social policy, and health outcomes. Financing processes and public policy agenda-setting that influence selected healthcare factors are analyzed. Complexities surrounding the development, implementation, and sustainability of health policy are examined. Students evaluate economic and health policies from a social justice perspective and apply these concepts in their roles as researcher, educator, and clinician.
**NU 706.2 Preparing the Dissertation Proposal** (2 credits)
This course provides a forum for students to explore research problem development, theoretical foundations, methodology, and data analysis to launch their dissertation research. Each student will produce a defensible dissertation proposal that will be presented as part of the course work for NU 709.2.

**NU 707 Measurement Issues in Nursing Research** (2 credits)
This course focuses on measurement in research to include the following: fit of conceptual framework to research question; application of measurement theory and psychometrics including validity and reliability in development of measurement instruments; using EBP to choose appropriate existing measurement tools; and discussion of ethical issues of measurement in research.

**NU 708.3 Developing the Role as Professional** (2 credits)
This course is capstone in nature. It is designed to synthesize key concepts underpinning the curriculum. Students have freedom to develop professional goals within the outcomes of the course to meet individual needs. The course will facilitate the students’ transition to their roles as evidence-based clinicians, nurse educators, scholars and leaders.

**NU 709.2 Colloquium in Nursing** (2 credits)
This course augments students’ individualized work with their doctoral dissertation chair and committees to provide guided study in the proposal generating process. The colloquium method provides an opportunity for doctoral students to share the most recent developments in their doctoral dissertation proposals. Each student is required to report on his/her research proposal and to critique other students' proposals.

**NU 713 Grant Writing for Healthcare Professionals** (2 credits)
This course prepares doctoral students in writing grants with a focus on procuring funds to support investigator-initiated clinical research projects. Students examine types of grant funding and identifying funding sources appropriate for researcher’s topic of interest and career trajectory. Using National Institutes of Health (NIH) grant mechanism as a model, the students learn grantsmanship. Students will complete an individual grant application that meets the guidelines of a specific funding agency.

**NU 714 Curriculum Development** (3 credits)
This course examines various classical and modern curriculum theorists as they apply nursing curriculum development. Emphasis is placed on congruence between institutional mission, philosophy, and goals; professional standards; and needs and expectations of a program’s communities of interest. Students design a curriculum to meet the needs of a stated nursing role and setting.
Orthopaedics & Sports

OS 600  Principles of Connective Tissue Injury and Repair  (2 credits)
This course will provide an overview of connective tissue injury including degenerative processes, healing, and rehabilitation implications. Understanding of the relationships among connective tissues such as bone, ligaments, cartilage, capsule tendon and muscle on a micro and macro level will be emphasized. The connections between basic science research and applications in healthcare will be emphasized. Areas of ongoing and potential research are threaded throughout the course.

OS 601.3  Regional Intensive: Spine  (3 credits)
This course will focus on the integration of basic sciences with clinical decision-making regarding current best practices in orthopaedic and sports science. The current state of the evidence will provide the framework for identifying current gaps in and potential areas for further scientific inquiry in the spine literature. The course format will include oral presentation, lectures, demonstrations and practice.

OS 603.2  Applied Exercise Science  (2 credits)
This course will emphasize the principles of conditioning and exercise science. It will provide a discussion of muscle physiology and its relationship to strength, power and endurance. Important subjects covered will include progressive resistance exercise, muscle contraction types, impact loading, plyometrics, sports conditioning for the healthy individual, and general principles of conditioning in rehabilitation. Topics to be covered will also include mobility activities (including stretching) and cardiovascular training and its application to clients seen in orthopaedic and/or sports physical therapy settings. This course will be taught using both lecture and lab experiences.

OS 604.2  Regional Intensive: Lower Leg, Ankle and Foot  (2 credits)
This course covers the clinical anatomy, biomechanics, examination, disposition and rehabilitation of injuries to the lower extremity (leg, foot, and ankle). Its focus will be on integration of basic sciences with application to clinical decision-making regarding disposition and intervention. Surgical procedures and their impact on interventions and functional progressions will also be discussed. Students will choose a specific area of interest and prepare a 20-minute presentation on the topic. Instructional modalities will include oral presentations, lecture, demonstration and practice.

OS 605.2  Regional Intensive: Hip and Knee  (2 credits)
This course covers the clinical anatomy, biomechanics, examination, disposition and rehabilitation of injuries to the hip and knee. Its focus will be
on the integration of basic sciences with application to clinical decision-making regarding disposition and intervention. Surgical procedures and their impact on interventions and functional progressions will also be discussed. Instructional modalities will include oral presentations, lecture, demonstration and practice.

**OS 606.2  Research Review, Critique and Synthesis**  
(2 credits)  
The student will conduct a literature search on a selected topic (approved by the Graduate Program Director) and identify 10 pertinent research based articles. The student will also complete a one to two-page annotated bibliography for each article in the format provided. Findings are to be synthesized into a 5 to 10 page paper applying the results to orthopaedic or sports physical therapy. The student is also expected to generate a list of statistical tools used in the data analysis in the articles.

**OS 613.3  Regional Intensive: Shoulder and Upper Quarter**  
(2 credits)  
This course emphasizes the clinical anatomy, biomechanics, examination, disposition and rehabilitation of injuries to the upper quarter. The focus is on integration of basic sciences with application to clinical decision-making regarding disposition and intervention. Surgical procedures and their impact on interventions and functional progressions will be discussed. The course will also include the application of radiology. Students will choose a specific area of interest and prepare a 20-minute presentation on the topic. The course format will include oral presentations, lectures, demonstrations, and practice.

**OS 616.2  Policy Research and Analysis**  
(3 credits)  
In this course, each student will choose a current topic of controversy or debate within orthopaedic or sports physical therapy that is of interest to you and prepare a 10-15 page paper on the issue. This can be a clinical question, policy or professional issue. The student will use a variety of resources to provide background on the issue as well as recommendations for process or outcome related to this topic. Each student should discuss the topic with the Graduate Program Director before beginning the project.

**OS 626  Case Report Writing and Submission**  
(3 credits)  
This course will seek in-depth exploration and practice regarding the mechanics of designing, constructing, writing and preparing a case report for publication. Emphasis will be on the designing a case report with an appropriate purpose statement and theoretical construct. Upon completion of the course, students will be able to construct a case report for the purpose of submission to a professional publication.

**OS 638.2  Teaching and Learning: Theory and Practice**  
(3 credits)  
Most teaching and education conducted by healthcare providers is presented to adults. Students come to classes with some pre-existing knowledge and...
adults seek out health services with some prior knowledge or understanding of the condition for which they are seeking care. Designing educational materials for adults, whether patients, peers or students, requires a different skill set than teaching younger learners. This course will focus on issues related to teaching and learning in adulthood.

**OS 680  Population Health**  (2 credits)
This course will provide the student with a larger perspective of the role and position of rehabilitation services within the larger context of the healthcare system. Rather than considering healthcare from the individual provider perspective, alternative perspectives such as a societal, third party payers, and patient will be considered. Topics include the history of the healthcare system and financing, regulation and accountability, cost containment, health and expenditures (national/international perspective), determinants of health and measurement of outcomes.

**OS 700  Theories of Behavior Change**  (3 credits)
This course is designed to expose the student to the fundamental theories driving research and practice in health education, and to provide an opportunity for the student to put theory into practice based on current evidence. A variety of theories will be reviewed and the opportunity for the student to become familiar with the literature applying the theories provided. Working in a group, students will design a health education program based on a given theory and supported by evidence and present the findings to the class. Class format will include lecture and group activities.

**OS 709.2  Grant Writing**  (2 credits)
Students will prepare a proposal for funding their dissertation work from a grant agency.

**OS 710.2  Neurobiology of Pain and Its Management**  (2 credits)
This course examines the neurobiology and current theories of pain and its management. Included is a review of the physiology of pain, peripheral and central mechanisms, and associated interventions. Information will be applied to clinical problems such as chronic back pain, fibromyalgia, myofascial pain and neurogenic pain. The course will include discussion of appropriate measurement and outcome tools, and will be taught in a lecture and case study format.

**OS 716.2  Advanced Methodological Analysis**  (3 credits)
This course will emphasize the advanced critique of the literature. Students will select 5 research papers on a topic of interest. Papers selected should use quantitative research methods. Review and abstract the paper according to established guidelines. Following the abstract process, review the methods section thoroughly. Describe how you would change the methods if you were to do the research. Be sure to include why you would make those
changes and provide references for such (i.e. changes to improve reliability, validity, etc. and cite methodology literature). This can be done in text form, table form, outline form or whatever style works for you. If there are pros and cons (as there often are) to your recommended changes (such as improving internal validity at the expense of external validity) be sure to include these relative advantages and disadvantages as well as recommendations for achieving appropriate balance.

OS 720  Foundations of Educational Practice  (3 credits)
This course is designed to facilitate the student’s development in the areas of teaching and learning (education). Three tracks are available: patient education, professional education, and/or public presentations. Students may also choose a hybrid of the three if approved by the instructor. Students will have approximately 3 months to complete the requirements for this course.

OS 722.2  Current Topics in Orthopaedic and Sports Science  (2 credits)
This course will provide students with exposure to current research topics within orthopaedic and sports science. It will also prepare students for their oral dissertation proposal defense by performing a mock proposal defense in front of their peers.

Pediatric Science

P 600.2  Seminar on High Risk Neonates and Parents  (2 credits)
An overview is provided of neonatal neuropathology, common medical conditions of developmentally at-risk neonates and theoretical frameworks for neonatal therapy practice. Risk assessment and, neonatal therapy examination and intervention methods are analyzed. Sub-specialty clinical competencies and practice guidelines are reviewed, and evidence for neonatal therapy practice is evaluated.

P 603.2  Measurement in Pediatric Therapy  (2 credits)
This course focuses on measures and instruments used in pediatric settings and in clinical research to measure clinical change. Measurement principles and psychometric properties of instruments are highlighted.

P 606.3  Literature Analysis & Synthesis  (2 credits)
This course is intended to build competency in literature analysis and synthesis in preparation for scientific writing and for the doctoral dissertation. Literature will be systematically selected based on 1) quality of the design / methods, 2) relevance to proposed dissertation instrumentation; and 3) linkage to research question(s). Selected research relevant to individual dissertation topics will be presented (power point) and synthesis paper with literature summary table will be submitted.
P 620.2 Pedagogy: Learning Theory and Design (2 credits)
This course will incorporate a learner-centered approach to course development and instructional delivery based on research of learning processes. Assessment tools and strategies used to evaluate student learning will be emphasized. Students will demonstrate traditional and innovative instructional techniques for academic and clinical settings.

P 702.3 Leadership and Consultation in Pediatric Therapy (3 credits)
Models, theories, and perspectives are analyzed for leading, managing, and consulting in pediatric therapy settings. Self-evaluation of leadership style and targeted areas for ongoing leadership development are explored. Strategies are outlined for leadership competency in media interviews, international presentations, national level platform presentations and scientific poster presentations.

P 704.2 Topics in Pediatric Pathologic and Genetic Conditions: Teaching Practicum (2 credits)
This course provides an academic teaching practicum for students to implement teaching strategies learned in the P620 Pedagogy course. A 40 – minute instructional session and 15 minute question/answer period will be videotaped for self-analysis. A reflection paper will be submitted to analyze strengths, challenges, and future presentation strategies. The topic will be individually selected from a list of pediatric pathologic and genetic conditions provided by the faculty member and will address an overview of pathophysiology, clinical course, and key evidence-based pediatric therapy management issues.

P 706.3 Grant Writing (2 credits)
Students will review grant writing strategies, select an appropriate granting agency, obtain grant application criteria and current funding priorities, and submit a proposal for obtaining funding for the dissertation research.

P 707.4 Topics in Oral-motor and Feeding Impairments in Infants with Medical Fragility (2 credits)
Examination and management of feeding and swallowing disorders in infants with respiratory, neuromuscular and oral structural impairments are reviewed with discussion of related evidence supporting or refuting practice approaches. Areas of potential research are highlighted.

P 713.3 Topics in Pediatric Movement Disorders (2 credits)
In this course, current approaches and evidence base are analyzed for managing movement disorders to include muscle tone examination, strength, and functional training to support medical and pharmaceutical management of spasticity and “mixed” tone. Pediatric therapy roles in managing tone and
movement disorders are explored and collaboration with tone/spasticity management teams and parents is addressed.

P 714.2 Single Subject Research Design 1 (2 credits)
This course provides an introduction to single subject research designs for measuring clinical change in pediatric settings. Students will develop and submit a single subject research design related to individual dissertation topics or to relevant clinical questions.

P 716.3 Dissertation Design: Conceptual Framework, Research Prospectus (3 credits)
This course on dissertation development is focused on conceptual framework concepts and design and on dissertation format and prospectus. Students will a) design a conceptual framework relating to variables in own proposed dissertation research and participate in web-based discussions on constructing conceptual frameworks; b) submit an updated dissertation prospectus according to the format in RMUoHP dissertation guidelines; due one month before P726.3 course to allow dissemination to research panel members for “mock” proposal defense; c) analyze format options in RMUoHP dissertation guidelines, select preferred dissertation format; and draft a table of contents delineating proposed chapter titles and subcategories.

P 717.2 Behavioral Theory and Intervention for Children with Disabilities (2 credits)
In this course, developmental behavior theory and behavioral interventions are reviewed with application to children with disabilities. Parent-child-pediatric therapist interactions are discussed and interactions examined between sensory systems and emotional stability during therapy and daily activities.

P 718.3 Adolescents and Adults with Cerebral Palsy: Lifespan Outcomes and Literature Analyses (2 credits)
Changes across the lifespan are examined in the musculoskeletal, cardiopulmonary, functional, vocational, social, self-esteem, and family status of adolescents and adults with cerebral palsy. Implications of this cascade of changes for pediatric therapy management are discussed with analysis of the literature on outcomes in adulthood.

P 719.2 Topics in Family Studies (2 credits)
Family system theories, theoretical and conceptual frameworks of family development and functioning, extrinsic and intrinsic factors that influence family functioning, and ecological/transactional models of child development are analyzed. Concepts of family assessment and family-centered care, culture, stress, and coping are included.
Legal and Ethical Issues in Pediatric Therapy (1 credit)
Legal, ethical, risk management, informed consent, documentation standards and employment contracts are reviewed. Expert witness and deposition procedures are discussed, and strategies for identifying and managing misconduct in the workplace are outlined.

Embryology and Fetal Development: Implications for Neonatal Care (2 credits)
An overview is provided of the development of body systems (cardiovascular, gastrointestinal, respiratory, genitourinary, musculoskeletal, face/neck region) and the basis for major anomalies of these systems is identified. Examination of embryologic and fetal development of the central nervous system and sensory systems are included with implications for preterm and other infants in neonatal intensive care units.

Seminar in Pediatric Research (3 credits)
In this seminar, students will develop and present dissertation proposals to a panel of researchers for critique and discussion. The 25 minute proposal presentations (power point format) will be followed by 20 minutes of discussion. Each presentation will be videotaped for self-assessment, and written feedback will be provided from panel members and classmates.

Topics in Sensory Processing in Infants and Children (2 credits)
An overview of new terminology and a nosology related to Sensory Processing Disorder (SPD will be presented with linkages highlighted between SPD and daily life performance difficulties). New SPD research including psychophysiological and behavioral outcomes will be discussed as well as unique patterns discriminating children with SPD from children with typical development or with other diagnoses. A new model for the treatment of subtypes of SPD will be analyzed with underlying neurological theory and clinical reasoning emphasized. Assessments for sensory and motor functioning will highlighted in theory-based decision-making during designs of intervention plans.

Advanced Qualitative Research Methods in Pediatric Therapy (2 credits)
This course extends and elaborates on topics covered in CC 634. Emphasis is placed on the collection, management, analysis, and interpretation of qualitative data, including practice with coding and theme analysis. Students will develop a qualitative research prospectus according to qualitative proposal guidelines.
P 733  Single Subject Research Design 2  (1 credit)
This course builds on P 714.2 through further discussion and analyses of single subject research methods. Students will present and discuss single subject research designs based on individual dissertation topics.

Speech-Language Pathology

AM 550  Organizational Development and Human Resources  (1 credit)
This course is designed to teach practical skills for managing human assets from the perspective of the healthcare administrator. Topics include best practices in recruiting, compensation, employment law, performance evaluation, developing and managing people successfully, and dealing with difficult conversations. Students learn how human assets have the potential to be a source of sustainable competitive advantage in high performance organizations. The course focuses on motivation, communication, decision-making, conflict resolution, and adaptation to change. Theories are applied to human resource problems and administrative processes in healthcare organizations.

SLP 601  Evidence-Based Practice in Speech-Language Pathology  (2 credits)
This course builds on HS 710 and is designed to prepare speech-language pathology students with the knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in clinical environments. This course focuses on the concepts of evidence-based practice, with emphasis on forming answerable clinical questions and effective literature search strategies. The EBP approach prepares students to find, appraise, and integrate evidence for clinical decision-making, with particular emphasis in this course on (a) prognosis for a given client, and (b) effectiveness of clinical interventions. Based on presentation of case scenarios, students will formulate the key question(s), rapidly search medical and health-related databases, select best available evidence, appraise the evidence using the EBP approach, and describe application of the evidence in a clinical context. 
Prerequisite: HS 710

SLP 602  Speech-Language Pathology Clinical Supervision 1  (2 credits)
To prepare the student with knowledge to assume the role of a speech-language pathology clinical supervisor. Topics related to supervision include its definition, history, theories and models, resources, major roles/ responsibilities/styles of clinical supervisors, diversity, and expectations/ needs of supervisees.
SLP 603  Speech-Language Pathology Clinical Supervision 2  (2 credits)
This course builds on the knowledge derived from SLP 602 by introducing students to advanced clinical teaching skills requiring critical thinking and clinical problem solving. Students will demonstrate ability to meet the needs of learners through the use of a variety of supervisory styles in a variety of clinical situations, including supervisee diversity. Students will also demonstrate effective communication and interpersonal skills, including accommodations appropriate for personal/cultural/linguistic factors and conflict resolution. Prerequisite: SLP 602

SLP 604  Speech-Language Pathology Clinical Supervision 3  (2 credits)
To prepare the student with knowledge and skills to engage in clinical teaching, specifically assuming the role of a speech-language pathology clinical supervisor through advanced knowledge and skills requiring critical thinking and clinical problem solving, including advocacy of persons with disabilities. Given supervisory contexts, the student will engage in oral and written communication about the clinical enterprise (e.g., differential diagnosis, evaluating evidence, treatment planning, outcomes measurement, clinical decision-making, and interdisciplinary presentation). Students will identify supervision needs, develop a plan of action, and engage in effective supervisory behavior that includes advocacy, and recognition of the critical role of inter-professional practice. Prerequisite: SLP 603

SLP 605  Ethics in Speech-Language Pathology  (2 credits)
This course provides a comprehensive overview of ethics in the clinical practice of speech-language pathology (SLP). Students define and distinguish moral, ethical and legal foundations in clinical practice, analyze the cardinal documents of the profession, and compare and contrast national and state ethical standards. Additional topics include theories of ethics, professional malpractice, ethical principles of research, ethical decision-making, and how ethics can impact the various environments in which SLP practice occurs.

SLP 606  Capstone 1: Speech-Language Pathology  (2 credits)
This course is designed to provide students with the foundation for successful completion of an evidence-based practice (EBP) project. This course emphasizes knowledge of current expectations for speech-language pathologists engaging in EBP in clinical practice, and familiarizing students with capstone progression, project quality and scope, and doctoral-level communication requirements.

SLP 607  Capstone 2: Speech-Language Pathology  (3 credits)
This course is designed as a culmination of the student’s learning experiences, with an emphasis on the implementation and presentation of a
complete evidence-based practice (EBP) project. Students are expected to demonstrate depth of knowledge in select areas of clinical practice through the advanced synthesis of information and expertise in interpreting and applying clinical research. The ultimate goal of the capstone project is that students will demonstrate the ability to function as independent clinician researchers and to use their knowledge and skills in order to effect systems change in professional environments. *Prerequisite: SLP 606*

**SLP 608 Program Review**

(1 credit)

This course provides a comprehensive review of the program in preparation for the comprehensive examination, with special emphasis on recent clinical, research, and professional advances in the field of speech-language pathology that would have occurred during the course of the program.
Entry-Level and Post-professional Doctorate Programs

Doctor of Nursing Practice/Family Nurse Practitioner

CC 811      Scholarly Project Residency  (4 credits)
Course required to maintain continuous enrollment in the University after completion of DNP 740 until completion of the student scholarly project. The scholarly project is the culminating learning experience in the DNP program. Learning focuses on project planning including emphasis on project management, gathering evidence, developing vision/goals/outcomes for the project, and applying theories/frameworks to structure the overall process. Course may be taken multiple times for credit (as CC 811A, CC 811b, CC 811C etc.).

DNP 630      Advanced Practice Roles  (3 credits)
This course will provide emphasis on the exploration of the advanced practice role as it relates to quality and delivery of health care in rapidly changing health care systems. Historical as well as current issues, which affect professional development including regulation of practice and professional responsibilities, will be included.

DNP 632      Evidence Based Practice I  (3 credits)
This course is the first of a three part series that includes an introduction to the concepts of evidence based practice as a major focus in healthcare. This course underscores the synthesis of the best research evidence with clinical expertise and client values to direct practice decisions for the best health outcomes.

DNP 634      Theoretical Foundations & Scholarly Inquiry  (3 credits)
This course explores the theoretical foundations of practice, the conceptual models to implementation research, and strategies to implement evidence based approaches to practice. Learning focuses on the application of theory-directed design, implementation, and evaluation while applying evidence to transform healthcare systems.

DNP 636      Informatics in Healthcare  (3 credits)
This course is designed as a survey course for the advanced practice nurse to explore major existing and emerging technologies and their potential impact. Systems are addressed that support patient centered, safe, effective, timely, efficient and equitable care. An emphasis is placed on the role that information technology supports these systems and on development and use of technologies in 21st century healthcare. Electronic medical records (EMRs), patient safety systems and web-based patient and professional education are among the topics explored.
DNP 640  **Statistics in Health Sciences**  (3 credits)
This course will provide an understanding of qualitative and quantitative statistics. The course will emphasize the conceptual application of statistics as it relates to health care however some discussion of the mathematical underpinning necessary for understanding will be included. Relevant topics to provide the student with skills to read and interpret medical literature will be included.

DNP 642  **Research Translation**  (3 credits)
This course will prepare the advanced clinician to integrate research into practice. An emphasis will be placed on how research questions are formed, finding and appraising evidence, and how research can be transformed to develop new clinically relevant knowledge. Models and processes of evidence-based practice will be included to promote strategies for best practice and quality improvement of healthcare.

DNP 644  **Organizational Behavior & Management**  (3 credits)
This course will focus on various organizations within health care. Student will explore theories and concepts of organization, leadership and business to develop and support initiatives to improve health care at the practice and systems level.

DNP 646  **Health Care Policy/Law/Ethics**  (3 credits)
The course will explore the principal ways US healthcare is structured and how law and policy affects the healthcare environment. With an understanding of law and policy the course highlights the development of effective strategies for managing the ethical dilemmas inherent in organizing evidence-based healthcare delivery at the individual, organizational and systems level.

DNP 650  **Epidemiology and Population Health**  (3 credits)
This course will provide an introduction to epidemiology that will prepare the advanced practice nurse with an understanding of epidemiological concepts as they relate to health and healthcare. Concepts that pertain to clinical practice and population health as well as implications for screening, prevention and disease control will be included.

DNP 652  **Health Care Economics**  (3 credits)
The course will explore the principal ways US healthcare is structured and financed at the national, state, and local levels. Current and emerging issues and principles of business finance related to clinical care delivery will be analyzed using case studies and participative learning experiences. Implications for advanced practice leaders will be explored.
DNP 654    Advanced Health Assessment    (3 credits)
This course will focus on advanced physical assessment, communication and
diagnostic reasoning skills for the advanced practice nurse to care for
individuals and families across the lifespan. Skills obtained in this course will
be used to analyze health and alterations in health for individuals and families
and prepare the student for independent practice.

DNP 656    Advanced Pathophysiology    (3 credits)
This course is a system-focused pathophysiology course that includes
advanced concepts of functioning as it relates the family nurse practitioner’s
ability to manage illness across the lifespan. Special attention will be given to
advanced concepts that correlate with clinical decisions related to diagnosis
and therapeutic management. Genetic, environmental and lifestyle factors
will also be included as they relate to the epidemiology of disease.

DNP 658    Scholarly Project I    (3 credits)
This course is the first of a 2-course series designed to assist students in the
development of an evidence-based capstone project. The capstone project is
the culminating learning experience in the DNP program. Learning focuses on
project planning including emphasis on project management, gathering
evidence, developing vision/goals/outcomes for the project, and applying
theories/frameworks to structure the overall process.

DNP 660    Quality Improvement in Healthcare    (3 credits)
This course will focus on theory, methods and tools necessary for advanced
practice leaders to facilitate quality improvement in healthcare. Analysis of
economic, social and political issues that affect quality in today’s healthcare
setting will be included.

DNP 662    Leadership    (3 credits)
This course examines the emerging literature on evidence-based
management, and the use of evidence in decision-making, resource
management, and strategic planning. Issues of power, innovation,
interprofessional collaboration, change, and leadership/healthcare delivery
models are addressed. Self-reflection, self-mastery, professional integrity and
credibility, interprofessional collaboration, and other leadership-related
concepts are themes that underpin the course.

DNP 664    Advanced Pharmacology I    (3 credits)
This course is designed to provide the required knowledge for safe and
appropriate prescribing for the advanced practice registered nurse. The focus
will be on providing the student the necessary skills to prepare them for
independent scripting practice.
DNP 668  Specialty Focus I (Adult)  (3 credits)
This course will provide emphasis on the recognition and management of acute and chronic conditions seen in the adult population. Included in the offering is pharmacologic as well as non-pharmacologic therapies for this patient population.

DNP 670  Scholarly Project II  (3 credits)
This course is the second of a 2-course series designed to integrate all previous course work and experiences into the implementation and evaluation of the culminating DNP scholarly project.

DNP 700  Specialty Focus II (Older Adult)  (3 credits)
This course will provide emphasis on the recognition and management of acute and chronic conditions seen in the older adult population. Included in the offering is pharmacologic as well as non-pharmacologic therapies for this patient population. Complex health care challenges specific to the older adult will be included.

DNP 702  Advanced Pharmacology II  (2 credits)
This class will build on basic knowledge obtained in Advanced Pharmacology 1 and provide the advanced practice registered nurse an in-depth understanding of prescribing for special populations across the lifespan in various health care settings.

DNP 704  Evidence Based Practice II  (3 credits)
This course is the second course in a series of evidenced based practice where the student will evaluate and apply the concepts of evidence based practice as a major focus in healthcare. This course underscores the synthesis of the best research evidence with clinical expertise and client values to direct practice decisions for the best health outcomes.

DNP 720  Specialty Focus (Pediatrics)  (3 credits)
This course will provide emphasis on the recognition and management of acute and chronic conditions seen in the pediatric population. Included in the offering is pharmacologic as well as non-pharmacologic therapies for this patient population. Strategies and interventions in education, family support and facilitated family communication will be included.

DNP 722  Evidenced Based Practice III  (3 credits)
This course is third in a series of evidenced based concepts where with student will integrate evidence based practice as a major focus in healthcare. This course underscores the synthesis of the best research evidence with clinical expertise and client values to direct practice decisions for the best health outcomes.
DNP 724  Clinical Genetics  (3 credits)
This course will provide the advanced clinician with understanding of genetics and implications for individuals and families.

DNP 726  Ambulatory Procedures  (3 credits)
This course will focus on the development of ambulatory procedure skills necessary to manage health and alterations of health of individual and families across the lifespan. Psychomotor skills will be included in this offering.

DNP 730  Scholarly Project I  (3 credits)
This course is the first of a 2-course series designed to assist students in the development of an evidence-based capstone project. The capstone project is the culminating learning experience in the DNP program. Learning focuses on project planning including emphasis on project management, gathering evidence, developing vision/goals/outcomes for the project, and applying theories/frameworks to structure the overall process.

DNP 732  Clinical Internship I  (4 credits)
This course is the first of a two series clinical practicum that prepares students for advanced nursing practice as family nurse practitioners. Students will further their skill development in the primary care of individuals and families across the lifespan with acute and chronic conditions.

DNP 740  Scholarly Project II  (3 credits)
This course is the second of a 2-course series designed to integrate all previous course work and experiences into the implementation and evaluation of the culminating DNP scholarly project.

DNP 742  Clinical Internship II  (5 credits)
This course is the second of a two series clinical practicum that prepares students for advanced nursing practice as family nurse practitioners. Students will further their skill development in the primary care of individuals and families across the lifespan with acute and chronic conditions.
Post-professional Doctor of Occupational Therapy &
Transitional Doctor of Physical Therapy

OTD Courses

CC 506.2  Qualitative Inquiry and Methodology  (1 credit)
This course introduces the student to the major approaches of qualitative research and the application of these methods to problems and phenomena in occupational therapy. Importance is placed on the appropriate use of qualitative inquiry and differences across qualitative approaches. Exploration and application of topics such as interviewing techniques and reporting of qualitative research are addressed. This course also examines the process of evaluation and critical appraisal of research studies using qualitative methods.

OTD 514.2  Occupational Therapy Capstone Seminar 2  (2 credits)
Using cooperative learning methods, students will present an overview of their professional portfolio in order to gain peer feedback on project planning for their Capstone project. Students are introduced to the basic terminology and constructs of Project Management. Final planning of the capstone project will occur. Students develop and submit a plan for their capstone project that is approved by the graduate program director or designee.

OTD 518  Designing Evidence-based Practice Frameworks:  Development and Implementation of Practice Guidelines  (1 credit)
This course focuses on the development and implementation of evidence-based therapy guidelines across a variety of settings. Emphasis is placed on the phases and steps of the complex process used to systematically develop formal practice recommendations for specific patient/client populations. An implementation plan and organizational dynamics for successful integration of these recommendations will be addressed. Prerequisites: CC 507.2, CC 527, CC 564.2

OTD 529  Capstone Project  (3 credits)
Each doctoral student will be required to complete a capstone project that reflects evidence-based practice and highlights the unique approach of an occupational therapy practice scholar. The project itself demonstrates synthesis and integration of student-selected learning outcomes and reflects exceptional performance capabilities or superior effort. It represents a logical progression of critical reasoning obtained from the portfolio development project in OTD 509. The final project will qualify for professional presentation and students will submit their project to the instructor in the form of a professional poster that includes process, outcomes, and implications for further development.
OTD 545  Legal and Ethical Issues in Occupational Therapy  (1 credit)
This course overviews important legal and professional ethical issues impacting the professional domain of occupational therapists. Topics include, among others, the legal environment, healthcare malpractice (with emphasis on its prevention), informed consent and ethical decision-making. The course highlights effective approaches and strategies for identifying, managing and reducing the risk of legal and professional ethical problems, issues and dilemmas in occupational therapy practice at the individual, organizational, and systems levels.

OTD 710  Evidence-based Practice  (3 credits)
This course prepares occupational therapists with knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in their careers. This course will focus on the concepts and process of evidence-based practice with emphasis on forming answerable clinical question, effective literature search strategies and interpretation of data, statistics and results reported in scientific literature informing occupational therapy. The evaluative approach to appraising research will prepare students to judge evidence on: 1) reliability and validity of diagnostic tests, standardized assessments and outcome measures 2) effectiveness of clinical interventions for a client; population or organization; 3) natural history of health-related conditions; and 4) risk of harm from select preventative and therapeutic interventions. Based on didactic information and presentation of case scenarios, students will be required to formulate the key question(s), rapidly search medical and health-related databases, critically appraise evidence and describe application of evidence in a clinical context.

OTD 712  Evidence Analysis and Design  (2 credits)
This course provides an overview of research design from the perspective of the hierarchy of levels of evidence. Students will examine common designs of studies from lowest to highest levels of evidence in terms of purpose of study, question formulation, methodological features and significance of findings for application in practice. Course content will foster students’ abilities to analyze the relationship between research question and study design in order to deepen an understanding of how evidence informs practice and to speculate upon design of clinically meaningful research.

OTD 714  Foundations of Practice Scholarship in Occupational Therapy  (2 credits)
A practice-scholar embeds research in their everyday practice and contributes independently or collaboratively to building the evidence base for occupational therapy practice and occupational therapy education. This course launches the student’s transition to the role of practice scholar and leader in health and human service. Students explore literature underlying the paradigm of scholarship, analyze leading models of behavioral and
system change, review literature guiding occupational therapy, and engage in self-reflection to evaluate being and becoming practice/clinical scholars in occupational therapy. Students participate in practical exercises associated with scholarly writing, professional development analysis, strategic planning and the production of works of scholarship. Students receive an introduction to the Capstone Project process in the class.

**OTD 716 Healthcare Advocacy: Policy, Legal & Ethical Context**
(2 credits)
This course raises awareness of important policy, legal and ethical issues affecting the domain and process of occupational therapy. The course examines evidence supporting ways to advocate for others as leaders in healthcare and to self-advocate to function within an ethical decision-making framework. Emphasis is placed upon a) gaining awareness of efforts to empower clients [i.e., person, population or organization] to seek and obtain resources to fully participate in occupations, b) exploring methods to influence policy change and c) examining strategies to identify, manage and reduce risk of legal and professional ethical problems.

**OTD 720 Analysis & Evidence of Participation**
(3 credits)
This course requires self-reflection upon and examination of the traditions, current trends and emerging areas of practice within occupational therapy literature, research and practice. Students engage in critical analysis of evidence and clinical reasoning in the context of a model of practice, frames of reference, health care initiatives and official documents to formulate rationales for the place of occupational therapy in health and human service. The contribution of qualitative inquiry to knowledge translation, evidence-based practice and participation as the process and outcome of occupational therapy is explored more deeply. Particular attention is paid to formulation of a qualitative inquiry statement using focus group methodology as a means of needs assessment and/or program evaluation.

**OTD 722 Measuring the Impact of Participation in Occupation**
(3 credits)
This course requires students to appraise methods of documenting the impact of participation in occupation as an ultimate outcome of occupational therapy. Course involves examination of the evaluation of a client [i.e., person, population, or organization], contextual/environmental influences and/or aspects of occupational performance to document efficacy and effectiveness of occupational therapy intervention. Students review constructs associated with psychometric quality of assessment tools and outcome measures, explore evidence of tools associated with key models of practice, critically appraise select measures, and learn trends associated with measuring goal attainment among clients. Course will also expose students to case report methodology as a product of clinical scholarship and contribution to evidence.
OTD 724  Educating in Occupational Therapy  (3 credits)
This course provides students with foundational knowledge of best evidence associated with teaching and learning in clinical and academic settings. Knowledge will be applied in modules to offer students opportunities to explore how best to teach clients [i.e., person, population, or organization], professional peers and students in academic or clinical settings. Overall content aims to expose students to a range of educational delivery mechanisms and to basics of policies and procedures per educational setting. Course will require creation of an evidence-based learning module and assessment of learning for a targeted audience.

OTD 730  Emerging Roles for OT in Primary Care & Health Promotion  (4 credits)
Building on prior courses reflecting evidence-based practice and occupational therapy principles and practice, this course emphasizes principles of program development and evaluation. Course exposes students to research associated with emerging roles for occupational therapists in health promotion, prevention and primary care. Students are challenged to conceptualize how occupational therapy can meet growing societal needs in the context of population health issues and initiatives, an occupational justice framework and models of behavior change. Mechanisms of program development such as feasibility study, proposal preparation, grant writing and business planning will be reviewed along with topics associated with reimbursement, basic survey design and program evaluation. Students will choose a program approach and target population; appraise the state of the evidence in selected realm and generate an evidence-based executive summary of a program that promotes the profession of occupational therapy as contributing to meeting the designated population’s occupational needs.

OTD 732  Advanced Practice Scholarship in Occupational Therapy  (2 credits)
This course launches student towards the initiation of the Capstone Project. Constructs examined in this course build upon foundational course and challenge students to demonstrate commitment to being/becoming practice-scholars. Through continued scholarly discourse, self-reflection, and examination of knowledge translation/transfer as a consequence of evidence-based practice, students formulate the proposal for the Capstone Project. Students generate a working draft for presentation on campus to receive peer and instructor feedback to further refine Capstone Project proposal. Instructor reviews parameters for: options for project, expected rigor, deliverables, impact of project on healthcare and occupational therapy and the process to optimize successful completion. Instruction on professional presentation and dissemination of subsequent works of scholarship are provided. Students conclude course with approval of project proposal by the Graduate Program Director or Designee.
OTD 734 Use, Design and Implementation of Evidence-Based Practice Guidelines

This course focuses on the role of evidence-based and/or clinical guidelines as a means of applying best-available evidence at the point of care. Course content is structured in terms of use of existing evidence-based guideline for case-based care planning, creation of a clinically relevant guideline or best evidence statement and implementation of evidence-based guidelines or processes into a department or system. Students apply steps of evidence-based practice, contemplate literature on overcoming barriers to evidence-based practice, and critically reflect upon stories of exemplars of evidence-based practice. Course aims to arm students with mindset and tools to exert change in practice and to justify occupational therapy’s contribution to the public’s health.

OTD 740 Leadership as an Occupation

This course examines current research and practices of leadership. Students examine the influence of emerging technologies, shifting accountabilities between providers and consumers, health care reform and occupational therapy’s Centennial Vision for 2017 in relation to evolving leadership principles and characteristics. Evidence-based tools are analyzed for their contribution to developing leadership as a meaningful activity. Issues of change, creativity and innovation, inter-professional collaboration, leadership delivery models, self-mastery, professional integrity, credibility and other leadership-related concepts are themes that underpin the course. Special emphasis is placed upon self-exploration of intentions for leading in health and human service beyond degree conferral.

OTD 742 Capstone Project

Students complete a Capstone Project reflecting the synthesis and application of evidence-based practice and occupational therapy principles learned within the RMUoHP Post-Professional OTD curriculum. The Capstone Project demonstrates achievement of GPD-approved*, student-generated learning outcomes and a product of practice/clinical scholarship that informs occupational therapy practice. The quality of the Capstone Project shall meet high standards for professional presentation and illustrate application of best available evidence and integration of curricular content. The course requires students to engage with peers online for constructive feedback and accountability. Students submit and present a summation of the Capstone Project in the form of a “virtual” professional poster according to parameters outlined during class to peers and instructor by end of course. Students conclude course with final reflections upon the learning process.
tDPT Courses

CC 505 Evidence-based Concepts of Radiographic Imaging (1 credit)

This course is designed to cover the fundamental principles of radiographic imaging procedures. Integrates the diagnostic utility of imaging procedures into clinical decision-making. Develops skills necessary to recognize common normal and abnormal radiographic findings of the extremities, spine and CNS.

CC 507.2 Critical Inquiry 1: Quantitative Issues in Published Research (1 credit)

This course will involve the study of data analysis, statistics, and results reported in scientific literature for the physical and occupational therapist. Basic and advanced topics in statistics will be reviewed with an emphasis on interpreting data analysis methods and results commonly reported by authors in occupational and physical therapy literature. Students will learn to use the course text as a reference to understand and interpret statistics reported in journal articles, and to make judgments about the appropriateness of reported methods, interpretations, and conclusions based on research design, data reported in the articles, and consideration of assumptions underlying applied statistical methods. Examples from current occupational and physical therapy literature will be cited throughout the course to illustrate concepts and improve students’ ability to interpret and critique the work of others. Foundational knowledge from this course is needed for the Evidence-based Practice concepts presented in CC 527.

CC 510.2 Pharmacology (1 credit)

This course will increase the experienced occupational and physical therapist’s understanding of the impact prescribed and OTC drugs will have on the outcome of therapy interventions. The basic text will be augmented by research studies and systematic reviews that support the use of specific medications for patients/clients who have medical conditions commonly seen by therapists. Therapists who have a general understanding about the pharmacodynamics and pharmacokinetics of commonly prescribed medications, provide a valuable resource to the medical team. Special emphasis will be placed on applying this knowledge to a spectrum of health professional practices.

CC 527 (v1) Critical Inquiry 2: Evidence-based Practice (1 credit)

This course is designed to prepare healthcare professionals with the knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in their careers. This course will focus on the concepts of evidence-based practice with emphasis on forming answerable clinical questions and effective literature search strategies. The evaluative approach to appraising the research literature will prepare the students to judge the evidence on: 1) the accuracy and validity of diagnostic tests and the
application of important diagnostic tests in the care of a specific patient; 2) the effectiveness of clinical interventions; 3) the natural history of health-related conditions; 4) risk of harm from select preventative and therapeutic interventions. Based on presentation of case scenarios, students will be required to formulate the key question(s), rapidly search medical and health-related databases, appraise the evidence with a critical analysis and describe application of the evidence in a clinical context.

**CC 527 (v2) Critical Inquiry 2: Evidence-based Practice** (2 credits)
This course is designed to prepare healthcare professionals with the knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in their careers. This course will focus on the concepts of evidence-based practice with emphasis on forming answerable clinical questions and effective literature search strategies. The evaluative approach to appraising the research literature will prepare the students to judge the evidence on: 1) the accuracy and validity of diagnostic tests and the application of important diagnostic tests in the care of a specific patient; 2) the effectiveness of clinical interventions; 3) the natural history of health-related conditions; 4) risk of harm from select preventative and therapeutic interventions. Based on presentation of case scenarios, students will be required to formulate the key question(s), rapidly search medical and health-related databases, appraise the evidence with a critical analysis and describe application of the evidence in a clinical context.

**CC 533.2 Educational Interventions in Practice** (1 credit)
This course will introduce the student to the latest evidence for planning, implementing, and assessing effective educational interventions in occupational therapist and physical therapist practice. Course content is focused on clinical application using a process model of educational intervention and includes: educational theory related to learning by children and adults, effective teaching strategies, and health promotion/disease prevention concepts. The student will also be introduced to application of Microsoft® PowerPoint in the development and delivery of multimedia presentations for private and public consumption. This course consists of in-class discussion, laboratory and lecture.

**CC 540 Marketing and Customer Service** (1 credit)
This course provides an important decision-making framework for positioning and branding healthcare services. The course considers emerging trends in healthcare and issues relevant to effective program design, distribution, pricing, and promotion. Participants will develop sound marketing, public relations, and customer service plans. The course covers the fundamentals of marketing strategy. Emphasis is placed on the application of these concepts to marketing decisions with the goal of developing or enhancing students' skills at critically thinking about marketing management issues.
Students learn how to integrate and apply marketing theory and strategies to health-service programs and practice.

**CC 564.2  Occupational & Physical Therapy Interventions: Evidence-based Practice Analysis**

Contemporary clinical practice patterns are heavily influenced by emerging evidence on the effectiveness of frequently used treatment interventions. This course empowers students to develop focused clinical questions pertinent to their individual clinical practice and utilize the most effective online search strategies of relevant medical databases. Students will learn to quickly and efficiently identify articles most likely to answer their clinical questions while implementing a practical and systematic process for critically evaluating professional journal articles. Ultimately, students obtain the essential tools to improve their confidence in selecting the most effective evidence-based interventions for individual patients.

**CC 601  Transformational Leadership**

This course examines current research and practices of transformational leadership skills and behavior. The influence of emerging technologies, shifting accountabilities between providers and consumers, and changing healthcare practices will be examined in relation to evolving leadership principles and characteristics for the 21st Century. Tools of evidence-based management will be analyzed for their contribution to developing leadership. Issues of change, creativity and innovation, inter-professional collaboration and leadership/healthcare delivery models are addressed. Self-reflection, self-mastery, professional integrity, credibility and other leadership-related concepts are themes that underpin the course.

**CC 637  Case Report Methodology**

This course will progress the clinical practitioner's knowledge of advanced case report/series methodology, both as a consumer and producer of evidence. A combination of lecture and practical exercises will include effective use of summary techniques and ranking of reports in the evidence hierarchy. The goal is to prepare the student to efficiently report his/her own clinical work in conjunction with TDPT 508 (Directed Independent Study 1) and TDPT 528.2 (Capstone Project).

**CC 744  Pharmacology**

This course will increase the experienced occupational and physical therapist’s understanding of the impact prescribed and OTC drugs will have on the outcome of therapy interventions. The basic text will be augmented by research studies and systematic reviews that support the use of specific medications for patients/clients who have medical conditions commonly seen by therapists. Therapists who have a general understanding about the pharmacodynamics and pharmacokinetics of commonly prescribed medications, provide a valuable resource to the medical team. Special
emphasis will be placed on applying this knowledge to a spectrum of health professional practices.

**TDPT 503  Foundational and Clinical Sciences**  
(1 credit) 
This course will examine the foundational sciences related to normal and abnormal structure, function, and response to injury and disease to enhance physical therapy outcomes.

**TDPT 508  Directed Independent Study**  
(4 credits) 
This progressive directed independent study project provides each student with an individually tailored opportunity for an evidence-based reflective analysis of patient care. Using the evidence-based skills and competencies gained from all courses in the first semester, this project allows the experienced physical therapist to carefully analyze care administered for a selected patient in relation to current best evidence. *Prerequisites: CC 507.2, CC 527, CC 564.2, CC 637, TDPT 544.2 (or TDPT 544.3)*

**TDPT 513  Clinical Exercise Physiology**  
(1 credit) 
This course will increase the experienced clinician’s understanding of the latest concepts in clinical exercise physiology, as well as the relationship between fitness and wellness. Evidence-based physiological principles underlying the human response to exercise are discussed as they relate to the healthy adult. Some examples are provided regarding how these principles may be affected in the adult with diabetes and cardiovascular disease. Planning, implementation, and evaluation of various tests are presented primarily in an interactive lecture format.

**TDPT 528.2  Capstone Project**  
(4 credits) 
This challenging directed independent study project allows each student to apply advanced skills in evidence-based medicine to his or her own clinical practice. A diagnostic category of patient is selected by the student for a case series. Physical therapy care is then administered for 3 consecutive patients with that diagnosis according to best evidence. The care administered in the case series is documented in the format of a suitable journal. Students not in clinical practice will be provided the opportunity to complete other evidence-based projects similar in complexity as negotiated with the Graduate Program Director.

**TDPT 544.2  Evidence-based Differential Diagnosis & Screening in Physical Therapist Practice**  
(2 credits) 
This course discusses advanced concepts of evidence-based diagnosis as related to physical therapist practice. Participants will learn diagnosis and screening strategies suitable for a wide spectrum of practice situations. A combination of lecture and interactive case-based examples helps to establish a diagnostic framework that facilitates diagnostic accuracy and successful clinical outcomes.
TDPT 571  Professionalism in Physical Therapy  (1 credit)
The elements of a doctoring profession include professionalism, or a systematic and integrated set of core values that through assessment, critical reflection, and change, guides the judgment, decisions, behaviors, and attitudes of the physical therapist, in relation to patients/clients, other professionals, the public, and the profession. The core values adopted by the profession of physical therapy will be explored in this course, including the value of professional duty, the commitment to meeting one’s obligations to provide effective care to individual patients/clients, to serve the profession, and to positively influence the health of society. Strategies for developing increased understanding and demonstration of behaviors that illustrate the core values will be developed.

Elective Track Courses

AG 550  An Integrated Biology-Psychology-Sociology-Sociology View of Aging  (1 credit)
This course will present an introduction to and literature review of the psychosocial and biological dimensions of aging, to include the major psychological theories of aging. It will include a discussion of demographics and cohorts, and include topics such as psychological theory, retirement, relationships, issues of chronicity and death and dying, environment and social support systems. Issues related to death and dying across cultures will be explored. The course format will consist of lecture and discussion.

AG 551  Aging: Neurodegenerative Diseases  (1 credit)
This course will present typical changes occurring in the aging nervous system. This will include normal changes as well as deviations from normal as they relate to function and behavior. The pathology and management of Alzheimer’s disease, Parkinson’s disease, and other disorders relevant to the older adult will be discussed. Pharmaceutical management will be included, which will be complementary to the pharmacology course (CC 510.2). The course will include case study, lecture and discussion. Prerequisite: AG 550

AG 552  Exercise Interventions for Aging Adults  (1 credit)
This course is an inquiry into physiological capacity of older adults with particular emphasis on the role of exercise as a life prolonging intervention. Focus is on the best available evidence to maintain vitality and mobility in aging adults facing problems of the cardiopulmonary, musculoskeletal and nervous systems. Interventions related to aerobic & anaerobic fitness as well as strength training, flexibility and balance will be emphasized. Prerequisite: AG 550
AG 716   Neurodegenerative Disease: Addressing Participation in Occupation  
This course requires students to examine current and emerging best practices for addressing participation in occupation for an older adult experiencing a neurodegenerative disease process. Focus will be on the integration of complex clinical reasoning and evidence appraisal regarding occupation-based practice, client-centeredness, documentation and outcome measurement in accordance with Health Care Reform and the AOTA Centennial Vision.

AG 726   Examining Occupational Therapy’s Role in Productive Aging  
This course offers students the opportunity to explore and analyze evidence associated with current and emerging areas of occupational therapy practice addressing the occupational performance needs of older adults. Course emphasizes generating therapeutic and health promoting plans for applying the best available evidence for productive aging, aging in place and prevention of injury and illness.

AG 736   Application of Evidence for Caregiving and Dementia Care  
This course provides opportunity for students to examine issues and evidence related to dementia care and family caregiving including non-pharmacologic intervention approaches, theoretical frameworks, environmental modification, caregiver education and their application in different clinical settings. Students will explore the complexities of addressing the needs to promote participation and optimize quality of life for those in this growing population.

AM 550   Organizational Development and Human Resources  
This course is designed to teach practical skills for managing human assets from the perspective of the healthcare administrator. Topics include best practices in recruiting, compensation, employment law, performance evaluation, developing and managing people successfully, and dealing with difficult conversations. Students learn how human assets have the potential to be a source of sustainable competitive advantage in high performance organizations. The course focuses on motivation, communication, decision-making, conflict resolution, and adaptation to change. Theories are applied to human-resource problems and administrative processes in healthcare organizations.

AM 570   Financial Analysis and Performance  
Students in this course will learn to apply financial concepts to case situations, and will be introduced to concepts used in corporate and small business finance. Participants learn how to read and use financial statements in order to monitor and improve financial and productivity aspects of healthcare organizations. Topics include financial statement analysis,
financial math, and forecasting, budgeting, estimation of a firm's required return, and value-added analysis. Topics are focused on financial strategies from the prospective of practice managers, healthcare administrators, lenders, and investors.

AM 590 Practice Development and Strategy (1 credit)
In a competitive healthcare environment, an organization needs a clear strategic planning process, market analysis, quality improvement plan and a solidified business plan. This course introduces basic concepts and managerial tools for improving healthcare operations. Topics such as motivation, power and influence, group behavior and teams, decision-making, conflict and collaboration, organization design, culture, and effective execution of plans are discussed. The course is divided into two distinct parts: strategy and practice management. Students are exposed to concepts and techniques firms use to develop sustainable competitive advantages. This course is designed to help students develop and enhance their managerial skills and effectiveness. Specific learning goals are to sharpen skills in problem definition, to expose students to current practice management and diagnostic models, and to refine the process students use to generate and select action alternatives to improve healthcare operations. Cases, group discussion and team exercises are used extensively in the course. During the course, students fully develop and fine-tune business plans to effectively compete.

APM 718 Essentials of Practice Management & Administration (1 credit)
This course requires students to examine and discuss concepts and managerial activities essential to operating and achieving goals within a health care organization. Critical review of literature on emerging trends in healthcare and issues relevant to effective program design, distribution, pricing, promotion, and finance will be addressed. Students will integrate evidence into lessons associated with generating a sound financial and marketing plan related to developing and/or operating a small business, clinical practice or within a corporation. Special emphasis is placed on budgeting, financial reporting and analysis, forecasting, marketing strategies, customer service, and public relations.

APM 726 Best-Practice for Organizational Development (1 credit)
In a competitive healthcare environment, an organization needs a strong strategic planning process, quality improvement plan, organizational infrastructure and a solid workforce. This course examines the process of organizational development with focus on cultivating human assets and developing and implementing a corporate strategic plan. Students review evidence associated with human resource theory and strategic planning/development theory. Lessons explore best practices in employment law, recruiting, compensation, performance evaluation, conflict resolution, corporate goal-setting, and team motivation/development.
APM 736  Productivity and Profitability for Participation  (1 credit)
This course integrates concepts and skills of administration and practice management with evidence of the core essence of occupational therapy – promotion of participation in occupation. Course aims to equip students with confidence and tools to demonstrate that operating a clinic or business in this way will promote productivity, profitability, client outcomes, and clinician satisfaction. Students synthesize and apply knowledge associated with evidence-based practice, occupation-based practice, client-centeredness, documentation, and outcome measurement to establish strategies to lead within the healthcare arena.

CHT 718  Seminar for Certified Hand Therapists  (1 credit)
This seminar will be done in a web-based format. Students will discuss their particular interests, program goals and resources used for learning. Students will have the opportunity to share articles and information on clinicians who have influenced their professional development. Students will begin directed searches of the hand therapy and hand surgery literature and will network with their hand therapy class colleagues to establish a line of communication for sharing resources. Discussions will serve as a foundation to establish definitive topics for CHT 524.2 (Advanced Concepts in Hand Therapy: Evidence-based Practice), a two-credit course to be offered in Semester 3.

CHT 726  Evidence-based Concepts of Radiographic Imaging  (1 credit)
This course is designed to cover the fundamental principles of radiographic imaging procedures. Integrates the diagnostic utility of imaging procedures into clinical decision-making. Develops skills necessary to recognize common normal and abnormal radiographic findings of the extremities, spine and CNS.

CHT 736  Advanced Concepts in Hand Therapy Evidence-based Practice  (2 credits)
This course will investigate and analyze the evidence from refereed literature and from expert clinical opinion relevant to the domain of hand therapy. Examination and intervention techniques that are utilized in the hand therapists' management of patients with musculoskeletal and neuromuscular impairments will be examined for reliability, validity and utility of selected examination components and for their effectiveness, respectively. The course will use clinical examples for an in-depth study of rationale for selected examination techniques and intervention strategies. Day 1 of Module 2 will focus on examination and Day 2 on interventions. During the course, examination and outcomes measures strategies and intervention strategies for selected diagnoses will used for an in-depth discussion of the literature that builds the foundation and supports (or refutes) the use of these techniques. The use of examination for formulating a diagnosis and prognosis will be included. For analysis of interventions, the discussion will follow along the hierarchy of evidence-based practice as defined by Sackett. For selected
examples, the discussions will also include basic science and biomechanics studies that have been designed to understand the interventions. Where areas of research are not available, the class will discuss options for clinical research related to the topic.

EDU 718  Introduction to Occupational Therapy  (1 credit)

**Educational Settings**

This course will allow the student to explore the foundations of adult learning through establishing an understanding of adult learning theory and the domains of learning. They will furthermore relate this knowledge to the Scholarship of Teaching and Learning as outlined by AOTA and Boyer’s Scholarship of Teaching. Students will foster within themselves their own teaching philosophy and develop an awareness for student learning styles.

EDU 726  The Foundations of Instructional Design  (1 credit)

This course will allow the student to gain the necessary skills required to use backward design in lesson planning, course development, developing assessment tools, writing learning and course objectives reflective of Bloom’s / Fink’s Taxonomy. The course will culminate with the student demonstrating a working knowledge of creating a learner centered syllabus and lesson plan.

EDU 736  Instructional Methods for Occupational Therapy Education  (1 credit)

This course will focus on increasing the student’s awareness of the latest trends in education including the concept of the flipped classroom, the use of technology in teaching and learning, learning management systems and program design ( hybrid, distant, and traditional classrooms). The student will explore various teaching methods (lectures, small group discussions and group task-oriented work, student led learning, guided inquiry, seminar, etc.) and managing student concerns to allow for facilitating continued learning.

P 510  Pediatric Pharmacology & Imaging  (1 credit)

In this course, pharmacodynamics and pharmacokinetics of commonly prescribed medications and over-the-counter drugs will be addressed for children receiving physical or occupational therapy. Potential drug complications of adverse effects and interactions will be reviewed. An overview of brain and musculoskeletal imaging procedures will occur with emphasis on the neonatal brain and common musculoskeletal pathology in children.

P 528  Pediatric Science Capstone Seminar  (1 credit)

In this seminar course, students will have the opportunity to present the topic and outline of proposed pediatric science capstone projects for review and feedback. Program development principles and evidence-based practice approaches to project development will be explored.
P 529.2  Pediatric Science Capstone (4 credits)
The pediatric capstone involves an individualized experience to expand knowledge, competency, and leadership in pediatrics. The project is negotiated with the instructor and can be achieved in a variety of settings (clinical, education, administration). The capstone project may target professional development from a range of experiences including program development, teaching, leadership/management, scientific writing, and subspecialty training with program development component. An alternative approach is to build on a previous capstone project. Prerequisites: CC 507.2, CC 527

P 544  Pediatric Differential Diagnosis and Medical Screening for Practitioner Referral (1 credit)
This course is designed to enhance the skill level of physical therapists working with children in conducting selected portions of an examination which include taking a history for the pediatric client, reviewing systems beyond the system(s) typically of concern to therapists, addressing health promotion with children and families, and recognizing signs and symptoms that indicate the need for a referral to another health practitioner. The student is expected to bring knowledge of tests and measures and examination procedures unique to the respective discipline.

P 603  Measurement in Pediatric Therapy (1 credit)
This course applies concepts and principles of measurement to pediatric clinical practice including instruments and clinical observation protocols to measure development, sensory and motor performance, functional tasks, quality of life, and sensory processing. Psychometric properties of instruments are analyzed and measurement of clinical change is emphasized.

P 702  Leadership In Pediatric Physical Therapy (1 credit)
Models and perspectives are analyzed for administrating, leading, and consulting in pediatric therapy settings with strategies for managing challenging work setting dynamics included. Self-reflection is conducted on personal leadership style and approaches within the framework of Goleman’s Emotional Intelligence model and Hagberg’s Real Power model.

P 703  Seminar on Children and Youth In Early Intervention and Education Environments (1 credit)
This course will include discussion and application of laws, practice guidelines, and service delivery models for early intervention and school-based practice settings. Development and use of individualized family service plans and individualized education programs are addressed. Clinical decision-making frameworks are used with peer-reviewed literature to analyze and support selected interventions through case-based presentations.
P 707.3 Management of Oral-motor and Feeding Impairments in Medically Compromised Children
This course addresses the assessment and management of feeding and swallowing disorders in children with neuromuscular and structural deficits; interventions are reviewed to support transitions to oral feeding from supplemental feeding lines. [School-based Practice]

P 712.3 Topics in Pediatric Cardiopulmonary Conditions: A Multi-system Approach
The pathophysiology and clinical management for children with cardiac or pulmonary conditions are analyzed including cardiopulmonary conditions secondary to neuromuscular disorders. The evidence base for examination and intervention is reviewed. Effects of cardiopulmonary function on multiple body systems are addressed with implications for management in varying pediatric settings.

P 713.2 Topics in Clinical & Medical Management of Pediatric Movement Disorders
This course reviews current approaches for spasticity management to include discussion of muscle tone examination, strength, and functional training to support medical and pharmaceutical management of spasticity and “mixed” tone. Pediatric therapy roles in managing tone and movement disorders are analyzed and collaboration with spasticity management teams and parents is addressed. [Early Intervention Practice]

P 721.3 Scientific Writing and Professional Presentations
An overview is provided regarding structure and process of scientific writing for the medical literature including writing mechanics, common problems in medical writing, steps in preparing for publication, and processes for research grant applications. Strategies for professional presentations (poster and platform), international presentations with an interpreter, and media interviews are reviewed.

P 723 Legal and Ethical Issues for Advanced Practice in Pediatric Physical Therapy
An overview of the American legal system is provided with focus on medical malpractice, negligence, informed consent, and HIPPA issues. Ethical considerations, risk management, and strategies for identifying and managing professional misconduct in the workplace are discussed. Documentation standards and expert witness-deposition procedures are reviewed. Each student will present a legal or ethical pediatric case exemplar from their pediatric practices.

P 724 Embryology and Fetal Development: Implications for Neonatal Care
This course provides an overview of the development of selected body systems (cardiovascular, gastrointestinal, respiratory, genitourinary,
face/neck) and the basis for major anomalies of these systems. Examination of embryologic and fetal development of the central nervous system and sensory systems are included with implications for preterm and other infants in the neonatal intensive care unit and home settings. [Neonatal/Early Intervention Practice]

P 729.3  Topics in Sensory Processing in Children  (1 credit)
This course provides an overview of new terminology and a nosology related to Sensory Processing Disorder (SPD) accepted by Interdisciplinary Council for Developmental and Learning Disorders and the Diagnostic Classification: 0-3 will be presented. Linkages between SPD and difficulties with daily life performance will be highlighted. New research findings in SPD discriminating SPD from typically developing children and children with other diagnoses will be presented including psychophysiological and behavioral outcomes. A new model for the treatment of various subtypes of SPD will be discussed based on underlying neurological theory and clinical reasoning. In addition, several assessments for sensory and motor functioning will be briefly presented and their use in theory-based decision making for intervention will be discussed. [School-based Practice]

P 735  Topics in Pediatric Gait: Seminar and Lab  (1 credit)
This course will focus on pre- and -early ambulation in a population predisposed to rapid and dramatic changes: birth to three year old children. Typical and atypical preparation for and development of ambulation will be examined in the infant and toddler. The effects of biomechanics, neuromuscular and sensory systems, orthotics, and tone management will be integrated as participants learn to build intervention strategies to address ambulation early and effectively in infants and toddlers. Clinical application will involve children with diagnoses of cerebral palsy, developmental delay, prematurity, or Down Syndrome. Course material will be presented using lecture, videos, and group problem solving. Participants will practice techniques with each other during lab sessions.

PED 716  Autism Spectrum Disorder: Addressing Participation in Occupation  (1 credit)
This course requires students to explore the role of occupational therapy on promoting participation in occupation for children with Autism Spectrum Disorder (ASD). Focus will be on analysis of current diagnostic criteria and critically questioning and appraising the state of current and emerging evidence on assessments, outcome measures and intervention to promote best practices for children with ASD.

PED 726  Examining Occupational Therapy’s Role with Children & Youth  (1 credit)
This course offers students the opportunity to explore and analyze evidence associated with current and emerging areas of occupational therapy practice
addressing the occupational performance needs of children and youth. Course emphasizes analysis and application of the best available evidence associated with contemporary and innovative occupational therapy with children living, learning and playing in diverse environments.

**PED 736 Evidence Associated with Sensory Processing in Children**
(1 credit)
This course provides an overview of contemporary terminology related to Sensory Processing Disorder (SPD) accepted by the Interdisciplinary Council for Developmental and Learning Disorders. Focus will be on examination of emerging research findings associated with discriminating SPD in children and a model of treatment based on underlying neurological theory and clinical reasoning. Students will examine best available evidence on key assessments for sensory and motor functioning along with that of theory-based decision making for intervention planning.

**Doctor of Physical Therapy**

**PT 700 Physical Therapy and Professionalism**
(3 credits)
An overview of the healthcare delivery system and of the professional roles of practicing physical therapists is presented. Students evaluate the interdisciplinary roles of medical and rehabilitation co-professionals and extenders, including, among others, medical doctors, nurses, physical, occupational and speech therapists, chiropractors, social workers, and physical therapist assistants. The history and development of modern-day physical therapy in the United States is examined in depth and includes the study of the collaborative nature of twenty first century healthcare practice.

**PT 701 Foundational Sciences 1: Human Anatomy**
(5 credits)
The study of human anatomical structures as they relate to movement and the physiological demands of activity and exercise. A regional approach to the study of structures is aided by specimens, models, and multimedia. The course is projected to have a strong interactive, online component.

**PT 704 (v1) Intervention 1: Physical Therapy Procedures**
(3 credits)
The first in a series of clinical skill courses; this introductory course focuses on basic principles and the development of psychomotor skills related to palpation, infection control, vital signs, clinical emergencies, body mechanics, positioning and draping, therapeutic massage, basic wheelchair prescription, transfers, bed mobility, and gait training of patients and clients.
PT 704 (v2)  **Intervention 1: Physical Therapy Procedures**  (2 credits)
The first in a series of clinical skill courses; this introductory course focuses on basic principles and the development of psychomotor skills related to palpation, infection control, vital signs, clinical emergencies, body mechanics, positioning and draping, therapeutic massage, basic wheelchair prescription, transfers, bed mobility, and gait training of patients and clients.

PT 705  **Critical Inquiry 1: Introduction to Research Methods**  (2 credits)
This course will present an introduction to general research principles and research ethics. The student will be introduced to the following topics in the research process: question formulation, principles of measurement, basic research design and methodological features, issues of reliability and validity, and fundamentals of conducting a literature review. This course will also serve as an introduction to evidence-based practice.

PT 707  **Physical Therapy Evaluation**  (2 credits)
This course will cover the elements of patient/client management with a focus on components of an examination and the development of the evaluation/diagnosis/prognosis process. Laboratory sessions emphasize examination skills with refinement of psychomotor skills learned during the first semester. The evaluative process will utilize the International Classification of Functioning and Disability (ICF) as the primary process for making a diagnosis and developing the prognosis/plan of care. The course also includes: introduction to documentation, history taking, examination tests and measures, outcome tools, and outcome assessments.

PT 710  **Ethics in Physical Therapy Practice**  (2 credits)
This course provides a comprehensive overview of physical therapy ethics. Students define and distinguish moral, ethical and legal duties in practice, analyze the APTA’s core values, Code of Ethics and *Guide for Professional Conduct*, and compare and contrast professional association ethical standards and state licensing board ethical standards. The four foundational biomedical ethical principles of beneficence, non-maleficence, autonomy and justice are examined and applied to practice.

PT 711  **Foundational Sciences 2: Kinesiology/Pathomechanics 1**  (4 credits)
This course will examine the study of human movement including selected anatomical, structural, and functional properties of human connective tissues, muscular tissues, nervous tissues, and skeletal structures. Focus will be on the lower quarter. Emphasis will be placed on mechanical, neuroregulatory, and muscular influences upon normal and pathological motion.

PT 712  **Evidence-based Concepts of Musculoskeletal Imaging**  (1 credit)
This course presents the latest concepts in musculoskeletal imaging as related to evidence-based diagnosis in physical therapy practice. Methods of
image acquisition and the appearance of normal anatomy and pathology are presented for a spectrum of musculoskeletal imaging modalities. Clinical application and case examples of the imaging procedures are presented.

**PT 714 Intervention 2: Physical Agents** (2 credits)
The second in the intervention series, this course focuses on the theory and physiological effects of selected physical agents/modalities, including indications and contraindications relevant to specific conditions. Biophysical Technologies include heat, cold, electrical current, light, sound, and other electromagnetic spectrum modalities, as well as intermittent compression and traction.

**PT 715 Critical Inquiry 2: Biostatistics** (2 credits)
The purpose of this course is to introduce the student to biostatistics, the science of evaluating information in a biological setting. This course will cover such topics as simple descriptive statistics, basic probability concepts, probability distributions (normal & binomial), sampling distributions, interval estimation, confidence intervals, hypothesis tests, and one and two-sample t-tests.

**PT 716 (v1) Pharmacotherapy** (2 credits)
This course will introduce basic pharmacological concepts such as pharmacotherapeutics, dynamics, and kinetics and their application to physical therapy practice. The impact of prescribed and over the counter (OTC) drugs on the outcome of therapy interventions will be explored. The course also emphasizes current evidence regarding medication/drugs and their relation to physical therapy practice.

**PT 716 (v2) Pharmacotherapy** (1 credit)
This course will introduce basic pharmacological concepts such as pharmacotherapeutics, dynamics, and kinetics and their application to physical therapy practice. The impact of prescribed and over the counter (OTC) drugs on the outcome of therapy interventions will be explored. The course also emphasizes current evidence regarding medication/drugs and their relation to physical therapy practice.

**PT 720.2 The Socio-cultural Aspects of Human Interaction** (1 credit)
General principles of human interaction, communication, and relationships are presented, including self, professional-patient, and interdisciplinary strategies for understanding adaptations to disease and disability. The development of skills to prepare students to be culturally competent in physical therapy practice is emphasized.

**PT 721 Foundational Sciences 3: Physiology/Histology** (5 credits)
A clinical approach to physiological systems most relevant to the practice of physical therapy. Content relates to the normal and abnormal muscle and nerve physiological function, growth and repair of bone and soft tissue,
cardiopulmonary system functions, nutrition and digestion, endocrine regulation of metabolism, homeostasis and kidney function. Content includes the microscopic and submicroscopic structure of mammalian tissue. The course is projected to have a strong interactive, online component.

PT 724 (v1) Intervention 3: Therapeutic Exercise (2 credits)
The third course in the intervention series, this course is designed to provide students with an overview of basic principles related to exercise, including acute and chronic physiologic adaptation to aerobic and anaerobic exercise. The impact various disease states have on exercise capacity will also be explored. In addition, the application of therapeutic exercise prescription and medical documentation will be emphasized as relates to pathologic conditions commonly seen in physical therapy practice.

PT 724 (v2) Intervention 3: Therapeutic Exercise (3 credits)
The third course in the intervention series, this course is designed to provide students with an overview of basic principles related to exercise, including acute and chronic physiologic adaptation to aerobic and anaerobic exercise. The impact various disease states have on exercise capacity will also be explored. In addition, the application of therapeutic exercise prescription and medical documentation will be emphasized as relates to pathologic conditions commonly seen in physical therapy practice.

PT 725 Evidence-based Practice 1 (2 credits)
This is the first in a four-course sequence in evidence-based practice that provides students with the foundational knowledge and skills necessary to conscientiously, explicitly, and judiciously use current best evidence in making clinical decisions. This course builds on the information from the critical inquiry series. The course focuses on the components of evidence-based practice, formulating answerable clinical questions, and accessing and performing critical appraisals of evidence relevant to clinical practice.

PT 726 Physical Therapy and the Integument (2 credits)
This course focuses on the care of the integumentary system, including burns, wounds, and decubitus ulcers, and underlying diseases which can lead to these conditions. Special attention is given to the care of individuals with insensitive limbs, and other comorbidities.

PT 727 Current Concepts in Rehabilitation (2 credits)
This course focuses on current and evidence-based concepts in rehabilitation, including motor control, motor learning, exercise prescriptions, issues of wellness and health promotion, and the effects of aging.

PT 730 Introduction to Health Promotion and Wellness (2 credits)
This course will provide an overview of the concepts of health promotion, health education, public health, primary prevention, lifestyle, behavior, and
wellness and, based on evidence, their relationships to each other and to secondary and tertiary care. The historical relevance of and evidence for focusing on individual and social determinants of health will be explored and an ecological model combining both approaches will be introduced. Typical intervention sites for effective health promotion programs will be discussed as well as a framework for implementing programs.

PT 731  Foundational Sciences 4: Kinesiology/Pathomechanics 2  
(4 credits)
This course is a continuation of Kinesiology/Pathomechanics 1, and includes the study of human movement, including selected anatomical, structural, and functional properties of human connective tissues, muscular tissues, nervous tissues, and skeletal structures. Focus is on the upper quarter and spine. Emphasis will be placed on mechanical, neuroregulatory, and muscular influences upon normal and pathological motion.

PT 733  Cardiopulmonary Physical Therapy and Exercise Science  
(3 credits)
This course will prepare the student to effectively manage patients with cardiovascular and/or pulmonary impairments and disability. Emphasis is placed on the elements of patient client management in physical therapy practice, including screening, examination, evaluation, diagnosis, prognosis, development of a plan of care, intervention, and outcomes assessment and evaluation. Concepts of exercise physiology and practical application in physical therapy are addressed.

PT 734  Musculoskeletal Physical Therapy 1  
(5 credits)
The first of two courses in this series, this course prepares the student to practice entry-level physical therapy relative to the management of musculoskeletal conditions. Information related to common orthopaedic conditions and diagnoses is presented. This course will concentrate on the lower extremities and the spine. Information regarding evidence-based approaches in critical thinking and application of psychomotor skills related to examination, evaluation, diagnosis, prognosis, intervention, and outcomes assessment is emphasized. A primer on differential diagnosis and evaluation tools is presented to help students recognize problems that are beyond the physical therapy scope of practice and when/how to refer appropriately within the healthcare community.

PT 735  Evidence-based Practice 2  
(2 credits)
The second in a four course series, this course builds on all previous course work in EBP and is designed to prepare physical therapy students with the knowledge, skills and abilities necessary to make independent judgments about the validity of clinical research and to implement evidence-based clinical practice in their clinical rotations. This course will focus on the concepts of evidence-based practice, with emphasis on forming answerable
clinical questions and effective literature search strategies. The evaluative approach to appraising the research literature will prepare the students to judge the evidence on: 1) the accuracy and validity of diagnostic tests and the application of important diagnostic tests in the care of a specific patient; 2) the effectiveness of clinical interventions; 3) the natural history of health-related conditions; 4) risk of harm from select preventative and therapeutic interventions. Based on presentation of case scenarios, students will be able to formulate the key question(s), rapidly search medical and health-related databases, appraise the evidence with a critical analysis and describe application of the evidence in a clinical context.

PT 736  Prosthetics, Orthotics and Amputee Training  (2 credits)
This course focuses on care of the patient who has had an amputation or condition that requires external support, including care related to underlying conditions and comorbidities. Topics such as care of residual limb, prosthetics and orthotics, and associated care and training will be discussed.

PT 737  Current Concepts in Rehabilitation 2  (1 credit)
The second of two current concepts courses, this course focuses on varying topics related to current practice in Physical Therapy including teaching and learning, clinical education, professionalism, and specialty practice topics.

PT 738  Physical Therapy Experience (6 weeks)  (5 credits)
The first of four clinical education courses, this course is designed to facilitate socialization of DPT students to the clinical environment and to apply knowledge and basic skills developed up to this point in the curriculum in a real world setting. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and aspects of patient care.

PT 738.2  Physical Therapy Experience (6 weeks)  (6 credits)
The first of four clinical education courses, this course is designed to facilitate socialization of DPT students to the clinical environment and to apply knowledge and basic skills developed up to this point in the curriculum in a real world setting. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and aspects of patient care.

PT 740  Management Sciences in Physical Therapy  (3 credits)
This course examines current issues and trends in physical therapy clinical management. Specific topics include: (1) healthcare malpractice and business, contract, criminal, and education law concepts and case, statutory and regulatory law; (2) informed consent; (3) organizational theory, behavior, and culture; (4) leadership and management principles; (5) human resource
management issues; (6) healthcare finance; (7) marketing of PT professional services; and (8) information, quality, and risk management.

PT 741  Foundational Sciences 5: Neuroscience  (4 credits)
This course includes the study of human neuroanatomy and neurophysiology, with emphasis on the relationship between structure, function, and control of the human nervous system in normal and diseased states.

PT 742  Pathophysiology  (2 credits)
This course expands on concepts introduced in anatomy and physiology and focuses on pathophysiology and disease frequently seen in physical therapy practice.

PT 744  Musculoskeletal Physical Therapy 2  (5 credits)
The second of two courses in this series, this course prepares the student to practice entry-level physical therapy relative to the management of the musculoskeletal conditions. This course will concentrate on the upper extremities, trunk and the cervical spine. Information related to common orthopaedic conditions and diagnoses is presented. Information regarding an evidence-based approach in critical thinking and application of psychomotor skills related to examination, evaluation, diagnosis, prognosis, intervention, and outcomes assessment is emphasized. A primer on differential diagnosis and evaluation tools is presented to help students recognize problems that are beyond the physical therapy scope of practice and how/when to refer appropriately within the healthcare community.

PT 745  Evidence-based Practice 3  (1 credit)
This is a web-based course performed in conjunction with the clinical internship. The student will be expected to formulate a clinical question based on a patient case or cases seen on the clinical rotation. The student will submit a Critical Appraisal of Topic (CAT) demonstrating the application of EBP principles related to the care of an individual patient.

PT 746  Differential Diagnosis/Physical Assessment  (2 credits)
This course builds on examination, evaluation, and screening knowledge and skills introduced in previous courses focusing on differential diagnosis/physical assessment as it applies to physical therapy. This course covers concepts of probability-based differential diagnosis and presents the evidence for diagnosis using properties of diagnostic tests such as sensitivity, specificity, likelihood ratios, and predictive values. Pathology of the major body systems and regions will be covered with current evidence-based practice diagnostic standards as they are available in the professional literature.
PT 754  Neuromuscular Physical Therapy  (5 credits)
The first of two courses in this series, this course prepares the future physical therapist to effectively manage patients with neuromuscular dysfunction. Students will apply the elements of patient/client management in physical therapy practice, including screening, examination, evaluation, diagnosis, prognosis, plan of care, intervention, and outcomes assessment to the patient with neuromuscular dysfunction. The emphasis in this first course will be on the pediatric patients developing toward adulthood.

PT 755  Evidence-based Practice 4  (2 credits)
This is a web-based course performed in conjunction with the clinical internship. The student will be expected to formulate a clinical question based on a patient case or cases seen on the clinical rotation. The student will submit a Critical Appraisal of Topic (CAT) demonstrating the application of EBP principles related to the care of an individual patient. At the conclusion of the final clinical rotation the students will present their CAT's to their peers in a concise professional manner.

PT 764  Neuromuscular Physical Therapy 2  (5 credits)
The second of two courses in this series, this course prepares the future physical therapist to effectively manage patients with neuromuscular dysfunction. Students will incorporate and build upon concepts and skills developed in the first course. Students will learn to effectively manage adult patients with specific neurological diagnoses. Emphasis will be placed on using an evidence-based approach to developing knowledge and skills in managing a variety of common conditions, including spinal cord injury, cerebrovascular accident, vestibular dysfunction, traumatic brain injury, and multi-system neurologic conditions. The effects of aging and Geriatric neurological conditions will also be considered.

PT 774  Research  (2 credits)
The conduct of scientific inquiry requires careful planning and forethought to assure that the eventual implementation of a study that will successfully result in interpretable and meaningful measurements and that valid conclusions may be drawn. This course will provide students with the necessary background and experience to formulate a clearly delineated, hypothesis-driven or question-related research proposal that can be used to convince funding agencies and/or doctoral committees to support the study. In addition, this course will provide key information about the Institutional Review Board process so that the student will be able to assure a safe and ethical environment for their volunteer subjects.

PT 788 (v1)  Clinical Internship 1 (15 weeks)  (11 credits)
The second of four clinical education courses, this course is designed to incorporate knowledge and skills obtained and enhanced during the first short term clinical experience and synthesize information and skills developed in
the final didactic portion of the curriculum. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and all aspects of patient care and most aspects of patient/client management. It is anticipated that the student PT should be able to carry a caseload and work independently (with appropriate supervision) with most simple and many complex patient types by the end of this clinical experience.

PT 788 (v2)  **Clinical Internship 1 (15 weeks)**  
(13 credits)
The second of four clinical education courses, this course is designed to incorporate knowledge and skills obtained and enhanced during the first short term clinical experience and synthesize information and skills developed in the final didactic portion of the curriculum. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and all aspects of patient care and most aspects of patient/client management. It is anticipated that the student PT should be able to carry a caseload and work independently (with appropriate supervision) with most simple and many complex patient types by the end of this clinical experience.

PT 798 (v1)  **Clinical Internship 2 (15 weeks)**  
(11 credits)
The third of four clinical education courses, this course is designed to incorporate knowledge and skills obtained and enhanced during the first two clinical experiences and synthesize/appraise information and skills developed in the final didactic portion of the curriculum. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and all aspects of the patient/client management model appropriate to the setting. It is anticipated that the student PT will be able to demonstrate entry-level performance by the end of this clinical experience, for the particular setting in which the student is assigned.

PT 798 (v2)  **Clinical Internship 2 (15 weeks)**  
(13 credits)
The third of four clinical education courses, this course is designed to incorporate knowledge and skills obtained and enhanced during the first two clinical experiences and synthesize/appraise information and skills developed in the final didactic portion of the curriculum. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and all aspects of the patient/client management model.
appropriate to the setting. It is anticipated that the student PT will be able to demonstrate entry-level performance by the end of this clinical experience, for many of the criteria.

**PT 799 (v1) Clinical Internship 3 (15 weeks) (15 credits)**
This final clinical education course is designed to incorporate knowledge and skills obtained and enhanced during the first three clinical experiences and synthesize/appraise information and skills developed in the final didactic portion of the curriculum. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and all aspects of the patient/client management model appropriate to the setting. It is anticipated that the student PT will be able to demonstrate entry-level performance by the end of this clinical experience, for the particular setting in which the student is assigned.

**PT 799 (v2) Clinical Internship 3 (15 weeks) (13 credits)**
This final clinical education course is designed to incorporate knowledge and skills obtained and enhanced during the first three clinical experiences and synthesize/appraise information and skills developed in the final didactic portion of the curriculum. Students will participate in direct patient care while being instructed and supervised by clinical faculty members. Student activities may include, but are not limited to, patient examination, patient treatment, patient and family education, article presentations, and all aspects of the patient/client management model appropriate to the setting. It is anticipated that the student PT will be able to demonstrate entry-level performance by the end of this clinical experience.
Master of Science Programs

Health Science Core

**HS 502 Applied Exercise Physiology** (3 credits)
This course explores the effects of exercise on normal and abnormal neurological, muscular, articular, and skeletal tissues. Focus is on exercise strategies to improve neuromuscular coordination, endurance, vascularity, strength, power, and task activities. Topic areas will include assessment and diagnostic skill development according to evidence-based strategies. Class lectures and laboratory demonstrations will be based on the evidence for effective and efficient exercise programs.

**HS 504 Research Methods for Evidence-Based Practice** (3 credits)
This course will prepare healthcare professionals with the knowledge, skills and abilities necessary to implement evidence-based practice in their careers. This course will focus on the concepts of evidence-based practice with emphasis on forming answerable questions and effective literature search strategies.

**HS 506 Data and Decision-Making** (3 credits)
This course will focus on the use and application of statistics commonly found in the field of exercise science. Topical areas include but are not limited to determining appropriate statistical tests to perform, interpreting results and determining appropriate follow-up tests as needed. Emphasis is on design of experiments and appropriate statistical test usage, and interpretation of results.

**HS 508 Lifespan and Sports Nutrition Concepts** (3 credits)
In this course, the student will gain a greater appreciation for the nutritional needs and concerns of a variety of special populations often encountered by the healthcare professional. These can include but will not be limited to the: female athlete, adolescent athlete, aging athlete, disabled athlete, cultural and ethnic athletics, etc. The practitioner will learn both advanced physical assessment skills as well as techniques in nutritional assessment. Special emphasis will be placed on evidence-based practice for nutritional intervention.

**HS 520 Injury Prevention/Recognition** (3 credits)
This course will provide the healthcare professional with advanced health assessment skills including the comprehensive history, assessment of signs and symptoms, and pathologic changes. The course will integrate the latest assessment tests and measures and laboratory tests used to design prevention as well as treatment plans. This course will include analyses of and assessment procedures for common athletic orthopedic conditions of the
upper and lower extremity. It will emphasize the appropriate teaching strategies for the instruction of assessment procedures.

**HS 522  Applications of Strength and Conditioning (3 credits)**
This course will focus on the foundational nature of strength and conditioning. Topics will include exercise physiology, biochemistry, anatomy and biomechanics. Special consideration will be placed on how principles of strength and conditioning relate to various areas.

**HS 602  Educational Theory and Practice (3 credits)**
This course will provide the experienced professional with the latest evidence for effective teaching strategies and learning styles for a diverse population from children to adults (both young and old) engaged in a range of avocations and vocations (athletics to academics). The course will include active discussion on the evolving role of the professional as an educator.

**HS 604  Healthcare History, Administration, Law & Leadership (3 credits)**
This course will focus on a broad spectrum of practice issues and topics concerning healthcare professionals. Common and conflicting aspects of the interests of each of the specialties represented in the course will be openly discussed with the goal of greater cross specialty understanding. History of the healthcare system, legislative issues, career progression, technological advances, leadership, and special legal and ethical issues facing each specialty will be presented and discussed.

**HS 620  Program Design as related to Strength and Conditioning (3 credits)**
This course will examine the outcomes associated with differential resistance training regimens. Emphasis is placed on training principles centered around periodization, variation, and progression of the acute program variables of frequency, intensity, volume, and rest across cycles of training to prevent overtraining and promote optimization of performance in various areas.

**HS 684  Health Science Practicum (3 credits)**
Students may elect to complete a practicum and capstone project or research intensive thesis project under the guidance of the Graduate Program Director and research committee. The project will be specifically related to the student's professional and academic goals.

**HS 686  Health Science Thesis (3 credits)**
Students may elect to complete a practicum and capstone project or research intensive thesis project under the guidance of the Graduate Program Director and research committee. The project will be specifically related to the student's professional and academic goals. *Course is repeated once for credit (as HS 786A and HS 786B).*
HS 711  Graduate Residency  (3 credits)
Course required to maintain continuous enrollment in the University after completion of HS 786A and HS786B until completion of the student thesis. Course may be taken multiple times for credit (as HS 711A, HS 711B, etc.).

Concentration Courses

Pediatric Exercise Science

PS 520  Pediatric Injury Prevention/Recognition  (3 credits)
This course will provide the healthcare professional with advanced health assessment skills including the comprehensive history, assessment of signs and symptoms, and pathologic changes. The course will integrate the latest assessment tests and measures and laboratory tests used to design prevention as well as treatment plans. This course will include analyses of and assessment procedures for common athletic orthopedic conditions of the upper and lower extremity. It will emphasize the appropriate teaching strategies for the instruction of assessment procedures in pediatric exercise science.

PS 522  Applications of Strength and Conditioning in Pediatrics  (3 credits)
This course will focus on the foundational nature of strength and conditioning. Topics will include exercise physiology, biochemistry, anatomy and biomechanics. Special consideration will be placed on how principles of strength and conditioning relate to various areas.

PS 531  Growth, maturation and development in Pediatrics  (3 credits)
This course will focus on the influence of pediatric development on exercise. Topics will include the range of growth, maturation and development changes among pediatrics, specifically their role in motor control, injury risk, exercise adherence, skill acquisition, and performance.

PS 612  Pediatric Pedagogical Strategies  (3 credits)
The purpose of the course will be to instruct the Ped Ex Sc students on the most suitable teaching strategies to help children achieve health and fitness through exercise and physical activity. The course will specifically look at strategies such as establishing the learning environment, engagement strategies, safety, corrective techniques, and task compliance among others.

PS 620  Program Design for Sport Performance  (3 credits)
This course will examine the outcomes associated with differential resistance training regimens. Emphasis is placed on training principles centered around
periodization, variation, and progression of the acute program variables of frequency, intensity, volume, and rest across cycles of training to prevent overtraining and promote optimization of performance in various areas. This course also requires that the student participates in a practicum/internship based on the application of program design.

Rehabilitative Science

RS 600  Connective Tissue and Healing  (3 credits)
This course provides an overview of connective tissue injury including degenerative processes, healing, and rehabilitation implications. Understanding of the relationships among connective tissues such as bone, ligaments, cartilage, capsule, tendon and muscle on a micro and macro level will be emphasized. Sports injuries, issues of aging, and rehabilitation principles in special populations will also be included. These principles will be applied to treatment procedure choices in rehabilitation.

RS 602  Educational Theory and Practice  (3 credits)
This course will provide the experienced professional with the latest evidence for effective teaching strategies and learning styles for a diverse population engaged in a range of avocations and vocations. The course will include active discussion of learning design for groups and individuals as a clinician and preceptor/clinical instructor.

RS 607  Preventative Measures  (3 credits)
This course will expose students to contemporary topics in athletic training clinical practice such as, mild brain injury, environmental illnesses and musculoskeletal injury. Students will examine and synthesize current research on these topics and present evidence-based preventative measures in order to curb their incidence.

RS 614  EBP Orthopedic Assessment and Diagnostic Procedures  (3 credits)
This course provides an advanced analysis of how to search for and appraise published reports on special tests and other aspects of the orthopedic assessment process. Students will acquire knowledge and skill in interpreting the medical literature to make informed decisions regarding the best examination procedures to use for individual patients. Evidence-based procedures used to diagnose orthopedic pathology including radiographs, MRI, CT Scan, nerve conduction velocity testing and diagnostic ultrasound will be included.

RS 615  Functional Assessment and Rehabilitation in Sport  (3 credits)
The purpose of this course is to examine evidence-based objective measures of proprioception, flexibility and strength required of individuals engaged in sport. Through a case-based format, students will formulate and present...
rehabilitation interventions to address physical impairments found during functional assessment.

Sports Performance

SP 510  Sport and Exercise Psychology (3 credits)
This course will provide an overview of psychological and social issues related to exercise, including concepts, principles, and theories, and their application in the practice of promoting and supporting regular exercise participation and positive health behaviors. The course will specifically examine the field of sport psychology, emphasizing the role of psychology in sport, the influence of psychology on performance, how participation in sport influences the psychological characteristics of the individual.

SP 520  Sports Injury Prevention/Recognition (3 credits)
This course will provide the healthcare professional with advanced health assessment skills including the comprehensive history, assessment of signs and symptoms, and pathologic changes. The course will integrate the latest assessment tests and measures and laboratory tests used to design prevention as well as treatment plans. This course will include analyses of and assessment procedures for common athletic orthopedic conditions of the upper and lower extremity. It will emphasize the appropriate teaching strategies for the instruction of assessment procedures for sport performance.

SP 522  Applications of Strength and Conditioning in Sports Performance (3 credits)
This course will focus on the foundational nature of strength and conditioning. Topics will include exercise physiology, biochemistry, anatomy and biomechanics. Special consideration will be placed on how principles of strength and conditioning relate to various areas.

SP 610  Advanced Sport Performance Technology (3 credits)
This course will focus on technologies that have been developed to reach human interests or goals related to a particular sport. It will focus on the types, and appropriate selection and use of technology by which sport performance coaches attempt to improve training and competitive surroundings and enhance overall athletic performance. The course will provide knowledge and application of using specialised equipment and the latest modern technologies to perform tasks more efficiently, such as equipment, athletic sports gear (clothing and footwear), advanced computer stimulations and motion capture.

SP 620  Program Design for Sport Performance (3 credits)
This course will examine the outcomes associated with differential resistance training regimens. Emphasis is placed on training principles centered around periodization, variation, and progression of the acute program variables of
frequency, intensity, volume, and rest across cycles of training to prevent overtraining and promote optimization of performance in various areas. This course also requires that the student participates in a practicum/internship based on the application of program design.