Rocky Mountain University of Health Professions is accredited by the Northwest Commission on Colleges and Universities (NWCCU; 8060 165th Avenue NE Ste 100, Redmond, WA 98052-3981), an institutional accrediting body recognized by the Secretary of the U. S. 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 Doctor of Nursing Practice program and post-graduate APRN certificate program at Rocky Mountain University of Health Professions is accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036, 202-887-6791.

The Accreditation Review Committee on Education for the Physician Assistant (ARC-PA) has granted Accreditation-Provisional status to the Rocky Mountain University of Health Professions Physician Assistant Program sponsored by Rocky Mountain University of Health Professions. Address: 12000 Findley Road, Suite 150, Johns Creek, GA, 30097, email: arc-pa@arc-pa.org; Website: http://www.w.arc-pa.org/.

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**ROCKY MOUNTAIN UNIVERSITY of HEALTH PROFESSIONS**

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ClinScD / DSc Programs

Core Courses

CC 833  Dissertation Residency  (6 credits)
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 877  Doctoral Dissertation  (4 credits)
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).

HS 710  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.

HS 710 (v2)  Evidence-based Practice  (3 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.

**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.

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.

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)
This course is designed for the advanced clinician to explore major existing and emerging technologies and their potential impact on health care and health care education. 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/education. Current technology used for online/blended and face to face learning experiences will be analyzed and discussed.
**HS 760 (v2) Technology and Informatics** (2 credits)
This course is designed for the advanced clinician to explore major existing and emerging technologies and their potential impact on health care and health care education. 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/education. Current technology used for online/blended and face to face learning experiences will be analyzed and discussed.

**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.

**Athletic Training**

**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.

**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 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 640 Connective Tissue and Injury Repair: An Evidence Based Approach  (3 credits)
This course provides an evidence based approach to 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 and preventative training.

AT 652 Extensive Therapeutic Exercise  (3 credits)
This course will explore the current best evidence related to the continuum of athlete care associated with rehabilitation and return to play decision-making. Evidence-based injury rehabilitation will be instructed through a system of screening, testing, and assessment, as well as a progressive continuum of fundamental movements. The system will serve to guide corrective exercise intervention strategies to restore optimal movement patterns. Students will be exposed to injury prediction/prevention research and gain clinical skills in performance of the Functional Movement Screen, Y Balance Test along with discussing a neurodevelopmental model for corrective exercise progressions. 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. Students will work together to develop return to sport models that build on the basics but also focus on movement constructs that will minimize future injury risk.

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 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. Upon successful completion of this course, the student will be able to:
1. Identify areas of research presently conducted in the field of EP testing.
2. Inventory specific areas of research in the field of EP testing.
3. Conduct library research in a specific area of study in the field of EP testing.
4. Formulate a “review of literature” dealing with a specific area of study in the field of EP testing at the conclusion of this course.

**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. Upon successful completion of this course, the student will be able to identify and describe the following:

- Mononeuropathy – median mononeuropathy at or distal to the wrist (CTS), ulnar nerve mononeuropathy at the elbow (UNE), classification systems for CTS and UNE
- Polyneuropathies – diabetic
- Hereditary Motor and Sensory Neuropathies
- Multifocal motor neuropathy
- Cervical radiculopathy – C7, C6, C5, C8
- Lumbar radiculopathy – L5, S1, L2-4

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

**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.

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

**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. Upon successful completion of this course, the student will be able to identify and describe the following:

- Brachial plexopathy – root, trunk, division or cord
- Lumbar and lumbosacral plexopathy
- Motor neuron disease – ALS
- Myopathy – hereditary, metabolic, inflammatory
- Neuromuscular junction disease – myasthenia gravis, myasthenic syndrome

The format of this course consists of literature review, lecture, discussion, and case studies to be presented by the instructor and students as applicable.

**Health Promotion and Wellness**

**WE 610 Population Health Issues**

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 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** (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.

**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 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 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.

**Human and Sport Performance**

**HP 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 specialized 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.
HP 702  Applied Sports Science  (3 credits)
This course reviews the various disciplines that play important roles in sports performance enhancement including biomechanics, motor learning, exercise physiology, and sport psychology. In addition, sociological aspects will be discussed regarding applications of science to different populations including athletes and tactical personnel. Applied projects will assist the student in taking foundational knowledge and applying it to real world sports scenarios to solve problems, enhance training, reduce injuries, or improve performance. Lecture, discussion, and presentation by student.

HP 704  Methods and Programming in Strength and Conditioning  (3 credits)
This course will expose students to advanced methods in various venues of strength and conditioning. Current research and practice are examined for advanced training strategies in use at different levels of competition. Students will examine different methods currently in use in the field and discussed in the literature on selected topics and demonstrate appropriate implementation of advanced training methods. Additionally, this course will refine the students’ ability to construct an advanced training program designed to enhance performance in specific ways. The student will demonstrate the ability to critically analyze and alter a training program.

HP 708  Advanced Coaching Theories and Practices  (3 credits)
Methods and tactics for improving performance through coaching continue to evolve. This course will examine the evolving literature and coaching practices combining theories from motor learning, sport psychology, occupational therapy, and sport coaching. Students will become more familiar with the foundational concepts underlying these theories and methods as well as review the literature supporting them.

HP 710  Applications of Exercise Science in Tactical Fitness and Performance  (3 credits)
This course will introduce students to the various methods and strategies for improving performance in military, law enforcement, and fire department venues. Topics such as injury prevention and tactical job preparation will be discussed with students completing applied projects in selected tactical operations. Tactical fitness research and literature will serve as the content for developing professionals capable of supporting the tactical field with evidence-based practice.

HP 714  Recovery and Regeneration  (3 credits)
This course will examine the science and history behind various advanced methods of recovery and regeneration techniques for the human body. The evidence will be reviewed in numerous topics including nutritional strategies, sleep habits, hydrotherapies, cryotherapy, sports supplementation, nutrient timing, and massage therapy. Through an evidence led approach, students will demonstrate the ability to evaluate and identify various types of fatigue, prescribe the appropriate regeneration modality, and periodize a recovery program based upon the principles learned in HP 704 (Methods and Programming in Strength and Conditioning).
**Neurologic Rehabilitation**

**N 700 Introduction to Health Populations**  
(3 credits)  
This course will provide an understanding of fundamental concepts of health, wellness, screening for risks, and the theoretical bases underlying behavior change. Emphasis will be placed on epidemiology, the International Classification of Function (ICF) model, health disparities, cultural competence and risk factor assessment, as a means of promoting healthful behavior and lifestyle modification through patient education. Students will explore special needs within populations or health care communities where expanded physical therapy services could have a positive impact on the well-being or function of individuals.

**N 720 Neuroscience Systems**  
(3 credits)  
This course will focus on the structure and function of the central nervous system. It is designed to provide a survey of the functional components of the nervous system and an understanding of the functional brain at a systems level; specifically integrate aspects of neuroanatomy with physiology to allow association of brain areas with the various functions. Items to be discussed include the areas and mechanisms of the brain that process sensory and motor information. The brain’s reaction to sensory input as well as the ability of the brain to adapt and change as a result of input will be highlighted. In addition, various diseases/injuries will be explored to provide an understanding of normal and pathophysiological brain function.

**N 722 Clinical Neuroscience and Contemporary Motor Models**  
(3 credits)  
This course will serve to review, update, and synthesize evidence from the neurosciences as a foundation for clinical practice, as well as explore the fundamental principles, limitations, and clinical implications of the theories of motor control and motor learning influencing clinical practice. It will include the incorporation of constructs from motor learning and motor control theories into therapeutic intervention for individuals with a variety of movement problems resulting from neurological dysfunctions. Trends in models of service delivery: medical, educational, community, and social models, will be analyzed and approached from a modern evidence-based perspective.

**N 724 Neurological Screenings and Outcomes Assessment**  
(3 credits)  
This course will explore the selection, utilization, and interpretation of screening and outcome assessments within the current healthcare environment including standardized tools for assessment of health status based on the validity, reliability and responsiveness of the instrument, and how the assessments relate to the ICF model.

**N 726 Management of Individuals with Neurological Dysfunctions**  
(3 credits)  
This course will focus upon comprehensive management of the individual with CNS, degenerative and vestibular disorders including. A review of pathophysiology, disease specific assessment tools, and therapeutic intervention will incorporate: 1) contemporary evidence supporting practice and intervention in the management of CNS
dysfunction and treatment, and 2) consideration of goals of the treatment team. A review of biomechanical considerations and pathokinesiological analysis of movement along with contemporary evidence supporting practice and intervention in biomechanics will be included.

N 728 Neuro-rehabilitation for Individuals with CVA, Brain, and Spinal Cord Injuries
This course will present evidence-based rehabilitation concepts for individuals post CVA, TBI and SCI incorporating examination, evaluation, diagnosis, prognosis, and intervention in addition to reexamination, outcomes, and criteria for discharge. Case management discussions will include neuropsychological considerations in the rehabilitation process. HP 708 Advanced Coaching Theories (3 credits; 1 day On-site)

N 730 Neuropharmacology, Diagnostic Imaging and Technology in Neuro-rehabilitation
This course presents a review of basic principles of pharmacology and imaging. It will explore the impact of functional brain imaging and pharmacology in the management, and therapeutic monitoring of patients with common neurological disorders. Mechanisms of action and implications of specific drugs on the neuro-rehabilitation process will be discussed and students will gain the ability to search and interpret evidence about the uses and efficacy of brain imaging and pharmacological agents as they relate to neurorehabilitation. An overview of new technology solutions integrating multiple sensors (such as body tracking) and effectors (muscle stimulation), interfaces (virtual reality) and functional games that have validity for rehabilitation will be presented and analyzed.

Speech-Language Pathology

SLP 601 Evidence-Based Practice in Speech-Language Pathology (2 credits)
This course 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.
SLP 602 (v1) Speech-Language Pathology Clinical (2 credits)
Supervision 1
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 602 (v2) Speech-Language Pathology Clinical (3 credits)
Supervision 1
This course is designed 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, resources, major roles/responsibilities/styles of clinical supervisors, diversity, and expectations/needs of supervisees; the supervision of graduate students, speech-language pathology assistants, Clinical Fellows, and other rehabilitation professionals will be discussed.

SLP 603 (v1) Speech-Language Pathology Clinical (2 credits)
Supervision 2
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.

SLP 603 (v2) Speech-Language Pathology Clinical (3 credits)
Supervision 2
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 and ethical decision-making. Students will also demonstrate effective communication and interpersonal skills, including accommodations appropriate for personal/cultural/linguistic factors and conflict resolution. Students will examine the research questions and methodology in the supervision literature. Students will identify supervision needs, develop a plan of action, demonstrate supervisory competence, and engage in effective supervisory behavior that includes advocacy, and recognition of the critical role of inter-professional practice.

SLP 604 Speech-Language Pathology Clinical (2 credits)
Supervision 3
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.

**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 (v1) 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 606 (v2) Capstone 1: Speech-Language Pathology** (3 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, familiarizing students with capstone progression, project quality and scope, and doctoral-level communication requirements. Each student is expected to develop the introduction, literature review, and method for the capstone project, and, if appropriate, submit the project to the institutional review board.

**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.

**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.
SLP 711  Capstone: Professional Development I  
This course is designed to assist students in the capstone phase of their academic program.

SLP 726  Best Practice for Organizational Development:  
Speech-Language Pathology  
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.
Doctor of Nursing Practice/Family Nurse Practitioner

CC 811A  Scholarly Project III  (4 credits)
This course is the third of a 3-course series designed to implement and evaluate of the DNP scholarly project. This culmination of this course is the successful defense of the scholarly project. Semesters of Doctoral Residency Credit for Scholarly Project (CC 811B, CC 811C, etc.- one course per semester) as needed

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 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 I) (5 credits)
Students will apply knowledge of advanced health assessment, pathophysiology, pharmacotherapeutics, and non-pharmacotherapeutics in recognition and management of acute and chronic primary care conditions most often seen in the adult (25 to 65 years of age) population. Genetic, age, gender, and cultural influences will be considered as differential diagnosis and treatment plans are proposed. Laboratory findings, diagnostic studies and primary care procedures associated with the common conditions will be explored.

DNP 700 Specialty Focus II (Adult II) (5 credits)
Students will continue to apply knowledge of advanced health assessment, pathophysiology, pharmacotherapeutics, and non-pharmacotherapeutics in recognition and management of acute and chronic primary care conditions most often seen in women’s and men’s health and in the older adult (65 plus years of age) population. Genetic, age, gender, and cultural influences will be considered as differential diagnosis and treatment plans are proposed. Laboratory findings, diagnostic studies and primary care procedures will be integrated. The physical and social aspects of aging, as well as palliative and end-of life care, will be explored.

DNP 702 Advanced Pharmacology II (2 credits)
This course builds on the synthesis of knowledge gained from Advanced Pharmacology I. Students focus on prescribing and monitoring pharmaceutical and alternative therapeutic agents in select conditions commonly encountered by the advanced practice nurse. This course integrates evidence-based prescribing, as well as ethical and legal aspects of pharmacotherapeutics.

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 708 Health Promotion and Preventive Care (3 credits)
This course will direct the student in the examination of published guidelines designed to integrate and institute evidence based clinical prevention and health services for individuals, aggregates, and populations across the life span.

DNP 720 Specialty Focus III (Pediatrics) (5 credits)
Students will continue to apply knowledge of advanced health assessment, pathophysiology, pharmacotherapeutics, and non-pharmacotherapeutics in recognition and management of acute and chronic primary care conditions most often seen in the pediatric (0 to 24 years of age) population. Genetic, age, gender, and cultural influences will be considered as differential diagnosis and treatment plans are proposed. Laboratory findings, diagnostic studies and primary care procedures associated with the common conditions will be explored. Developmental milestones, variations in laboratory findings and prescriptive approaches will be explored. 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 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 coursework 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. Students are guided through the application processes for recognition and certification as a family nurse practitioner.
Doctor of Occupational Therapy

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(v1) 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. 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. 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 712(v2) Evidence Analysis and Design (3 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. 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. 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  (2 credits)
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  (2 credits)
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  (3 credits)
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.

Elective Track Courses

AG 716  Neurodegenerative Disease: Addressing Participation in Occupation  (1 credit)
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.

**APM 718 Essentials of Practice Management & Administration**  
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**  
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**  
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.

**CC 744  Pharmacology** (1 credit)
This course will increase the experienced occupational therapist’s understanding of the pharmacodynamics and pharmacokinetics of commonly prescribed medications and their impact on patients and therapeutic outcomes. Students will review research studies and systematic reviews that support the use of specific medications for patients/clients who have medical conditions commonly seen by occupational therapists to facilitate applying this knowledge in practice.

**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  
**Educational Settings**  
(1 credit)  
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.

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.

WRK 716  **Concepts and Models of Return-to-Work**  (1 credit)
This course requires students to examine the relationships among impairment, disability and return-to-work. Students will explore the application of the World Health Organization’s (WHO) International Classification of Functioning, Disability and Health framework (ICF) and the *Occupational Therapy Practice Framework Domain & Process-III (Framework-III)*. In addition there will be an emphasis on the new concept of the margin of maneuver in return-to-work/stay-at-work (RTW/SAW), as well as motivational, readiness and efficacy aspects of returning to work. Focus will be on the integration of complex clinical reasoning and evidence appraisal regarding occupation-based practice in RTW/SAW, client-centeredness, and the AOTA *Centennial Vision*.

WRK 726  **Evidence-based Return-to-Work Approaches**  (1 credit)
This course will provide an evidentiary basis for return-to-work/stay-at-work including: integration of clinical and occupational interventions; early intervention; work accommodations; workplace interventions; participatory ergonomics; collaborating with stakeholders; and organizational and policy approaches.

WRK 736  **Measurement and Methodological Issues in Return-to-Work/Stay-at-Work**  (1 credit)
This course offers students the opportunity to explore and analyze evidence associated with current and emerging areas of the practice of directly addressing return-to-work/stay-at-work (RTW/SAW) needs of people who want or need to include this occupational performance in their lives after an injury or a disease. This course emphasizes the measurement of work limitations, RTW/SAW outcomes, assessing work demands, grading of RTW/SAW work tasks, and program evaluation.

WRK 746  **Best Return-to-Work/Stay-at-Work Interventions and Practices in Key Diagnoses**  (1 credit)
This course will review best RTW/SAW practices for people who present with the most prevalent and challenging diagnoses such as chronic pain, brain injury, stroke, transient mental illness, spinal cord injury, low vision, cancer, serious mental illness, fibromyalgia and chronic fatigue syndrome.
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   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, nonmaleficence, autonomy and justice are examined and applied to practice.

**PT 711 Foundational Sciences 2: Kinesiology/Pathomechanics 1**
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**
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**
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**
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 Pharmacotherapy**
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**
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 (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 and technology, emerging issues, and future opportunities in Physical Therapy including but not limited to teaching and learning, clinical education, professional and interprofessional responsibilities, and specialty practice.

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 740 (v1)  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 740 (v2)  Management Sciences in Physical Therapy (2 credits)
This course examines current issues and trends in physical therapy clinical management. Specific topics include: (1) leadership and management principles; (2) human resource management issues, including: recruitment, selection, and retention of staff and managerial human resources; leadership; supervision, and delegation; performance appraisal; training and development activities; compensation issues; management-labor relations; grievance and discipline; workplace safety; and employment law and regulations; (3) health care finance, including clinical budgeting, financial statements and ratios, and reimbursement issues; (4) marketing of PT professional services; and (5) 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)
The final course in the evidence-based practice series, this is a limited residency course that includes distance and online coursework while students are on a clinical internship, as well as on-campus presentation and evaluation activities. Students will develop and present evidence of their knowledge, skills, and abilities in applying evidence-based practice to patient management in a clinical setting.
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)
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  **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  **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  **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 Physician Assistant Studies

PAS 501  Applied Human Anatomy  (4 credits)
This course emphasizes the clinical application of human anatomy. Students learn to recognize normal anatomic structures and become familiar with common anatomic variations. This course covers topographical, radiological, and gross anatomy content pertinent to everyday primary care clinical practice. The cadaver laboratory offers hands-on-learning, facilitating abstraction of anatomical relationships and spatial orientation. Recognition of abnormal and pathologic findings is consistently stressed throughout the course, providing an applicable foundation for effective diagnostic evaluation and therapeutic intervention.

PAS 502  Biomedical Science  (4 credits)
This course is an overview of physiologic and pathophysiologic processes influencing the human body. Part of the course emphasizes genetic, molecular, and cellular level mechanisms while other content focuses on disease manifestation at the organ and systems levels. Basic principles of cell biology, histology, embryology, immunology, and molecular genetics are covered. Included also is an introduction to general pathology, infectious processes, nutrition, and environmental effects on the human organism. Case studies assist students in applying relative principles in clinical situations, and initiate the process of understanding dysfunction and pathology in clinical settings. Recognition of alterations of normal function is highlighted throughout.

PAS 503  History and Physical Exam  (3 credits)
This course challenges students to develop the knowledge and skills necessary to competently elicit a comprehensive, as well as problem-specific, medical history. Students are taught principles of physical examination and develop foundational skills including inspection, auscultation, percussion, and palpation. A focus on normal exam findings is emphasized to provide students a solid foundation for recognition of abnormal findings in later courses and eventual practice. Recording and documentation of medical records is introduced and practiced. This course focuses on adult exam and documentation. Specific material for pediatric and geriatric examination is addressed in their respective courses.

PAS 504  Primary Care Fundamentals  (2 credits)
This course provides students with a strong foundation for practicing primary care clinical medicine. Providing holistic, relationship-centered patient care is emphasized. Clinical medicine topics covered include pervasive diseases encountered, diagnosed, and managed in the primary care setting, such as diabetes mellitus, hypertension, and lipid disorders. Common diagnostic and health maintenance laboratory studies are also explored, including but not limited to, complete blood count, basic metabolic panel, kidney function tests, liver function tests, lipid panels, and thyroid testing. Tailoring care to individual patients is discussed, particularly principles related to treating patients with
chronic disease states, enabling students to subsequently consider disease processes of organ-systems in the context of patients with common underlying comorbidities.

PAS 505  Digital Literacy & Reflective Practice  (1 credit)
This course addresses the ever-changing use of technology in academic and healthcare settings. Students are empowered to become more effective and efficient learners and clinicians by grasping critical digital concepts and mastering several technologies. An emphasis on learning theory serves as a consistent thread for the duration of this course, with particular focus on how the latest technologies can support evidence-based educational approaches to maximizing learning in adults. Students discover how they can optimize patient care through reflective practice, high proficiency digital literacy, and dedication to evidence-based practice and lifelong-learning. Topics covered include but are not limited to: personal knowledge management, leveraging information architecture, and cloud-based data synchronization. Moreover, students are challenged via clinical case vignettes to apply learned skills, demonstrating proficiencies related to using point-of-care clinical information resources and problem-solving through collaborative networking.

PAS 506  Clinical Pharmacology Core  (3 credits)
This course serves as a primer for future courses geared toward specific disease states, challenging students to learn core pharmacologic concepts foundational for subsequent utilization of pharmacotherapeutics in patient-centered practice. Principles of pharmacokinetics and pharmacodynamics are presented. Other topics include drug nomenclature, drug classification schemas, drug interactions, adverse drug reactions, autonomic nervous system pharmacology, analgesics and pain management principles, and individualized approaches to pharmacologic management of disease. Content related to prescriptive powers and prescriptive writing requirements is also provided.

PAS 511  Professional Development 1  (1 credit)
This course is the first in a series designed to integrate the principles of professionalism, ethics, profession-specific issues, and the business of medicine, with the practice of medicine. Students are instructed in academic and intellectual honesty and professional conduct in relation to academics and clinical practice. Specific focus areas include history of the physician assistant profession, professionalism, medical ethics, and working as part of a healthcare delivery team.

PAS 512  Professional Development 2  (1 credit)
This course is the second in a series designed to integrate the principles of professionalism, ethics, profession-specific issues, and the business of medicine, with the practice of medicine. Emphasis of this course is on the role healthcare providers play in the areas of public health, preventive medicine, and health maintenance.

PAS 513  Professional Development 3  (1 credit)
This course is the third in a series designed to integrate the principles of professionalism, ethics, profession-specific issues, and the business of medicine, with the practice of medicine. This particular course evaluates health care disparities and provider sensitivity to cultural diversity, socioeconomic differences, and their impact on
health and wellness. Complementary and alternative medical practice methods are also examined with particular attention given to integrative and preventive approaches.

PAS 514  Professional Development 4  (1 credit)
This course is the fourth in a series designed to integrate the principles of professionalism, ethics, profession-specific issues, and the business of medicine, with the practice of medicine. This course examines many of the legal and practice-based issues of healthcare including: electronic data management, rules and regulations, confidentiality, certification and licensure, as well as infection control & personal safety.

PAS 515  Professional Development 5  (1 credit)
This course is the fifth in a series designed to integrate the principles of professionalism, ethics, profession-specific issues, and the business of medicine, with the practice of medicine. This particular course occurs during the final didactic semester just prior to students engaging in the final two full-time supervised clinical practice experiences (SCPEs) semesters. The focus during this course is developing skills needed to become a lifelong learner through practice-based learning/self-improvement and developing awareness of health policy and current trends/issues. Also discussed are the critical topics of risk management, error prevention, patient safety, and quality improvement.

PAS 516  Professional Development 6  (1 credit)
This course is the sixth in a series designed to integrate the principles of professionalism, ethics, profession-specific issues, and the business of medicine, with the practice of medicine. This particular course covers the organizational and economic elements of systems-based practice. This course also focuses on cost-effective and efficient health care, case management, healthcare delivery systems, as well as coding and billing.

PAS 517  Professional Development 7  (1 credit)
This course is the seventh in a series designed to integrate the principles of professionalism, ethics, profession-specific issues, and the business of medicine, with the practice of medicine. The focus of this final course in the series is on the professional expectations and responsibilities facing new physician assistant graduates. Students continue to cultivate the skills necessary for future career development and growth. Topics include curriculum vitae/resume development, job searching, interviewing, employment contracts, credentialing, privileging, mentoring, leadership development, and sustaining the PA profession.

PAS 601  Behavioral Dynamics  (3 credits)
This foundational course explores the psychosocial aspects of medicine. Students develop interpersonal and communication skills necessary to effectively communicate with patients and other healthcare professionals. Treatments are discussed from a biopsychosocial perspective with reference to psychotherapies, psychopharmacology, and environmental intervention. Recognition and management of common psychiatric and psychosocial problems encountered in primary care are highlighted. Indications for referral and hospitalization are discussed. Topics covered include but not be limited to:
anxiety disorders, mood disorders, psychosis, substance use disorders, personality disorders, eating disorders, and psychiatric emergencies and crises. Case-based learning and role-play is employed to provide enhanced understanding of applying evidence-based practices to individual patient needs and circumstances.

PAS 602  Hematology/Oncology  
(2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of hematology and oncology. Focus includes commonly encountered medical issues affecting hematopoiesis, hemostasis, and the lymphoid organs. Topics emphasized include clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, disease management, and clinical course of common disorders. This course also includes introductory oncology content, with a focus on the global clinical aspects of cancer screening, diagnosis, staging, and therapeutic intervention. Organ-specific cancers are primarily discussed in corresponding CM modular courses.

PAS 603  Endocrinology  
(2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of endocrinology. Commonly encountered medical problems primarily affecting metabolism and organs of the endocrine system are examined. Topics emphasized include clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, management, and clinical course of common diseases.

PAS 604  Infectious Disease  
(2 credits)
This course is a clinical medicine (CM) modular course emphasizing global considerations related to approaching infectious disease. Content includes mechanisms of transmission and pathogenicity, methods of diagnosis, antimicrobial pharmacotherapy, common and systemic clinical presentations, and methods for infection control and prevention. Common bacterial, viral, fungal, and parasitic pathogens are explored. Organ-specific and demographic predominant infectious diseases are primarily discussed in corresponding CM modular courses.

PAS 605  Eyes, Ears, Nose, Throat (EENT)  
(2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of diseases and disorders of the eyes, ears, nose, and throat (EENT). Topics emphasized include clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, management, and clinical course of common diseases.

PAS 606  Cardiovascular/EKG  
(4 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of cardiovascular medicine. Commonly encountered medical problems primarily affecting the cardiovascular system are examined. The clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, management, and clinical course of these conditions are explored. During this course students learn fundamentals
of interpreting electrocardiograms (EKG), including recognition of common abnormal EKG patterns and differentiation from normal and normal variant EKG tracings.

PAS 607 Pulmonology (2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of pulmonology. Commonly encountered medical problems primarily affecting the pulmonary system are examined. The clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, management, and clinical course of these conditions are explored.

PAS 608 Genitourinary (2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of the genitourinary system. Focus for this course includes examination of commonly encountered genitourinary issues. Topics emphasized include clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, disease management, and clinical course of common diseases.

PAS 609 Gastroenterology (2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of gastroenterology. Commonly encountered medical problems primarily affecting the gastrointestinal system are examined. The clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, management, and clinical course of these conditions are explored.

PAS 610 Pediatrics (3 credits)
This course examines important aspects of primary care pediatrics including assessment of the child patient, preventive health, and pediatric diseases and conditions. Specific issues of the newborn and older child are presented in such areas as perinatal care, child development & behavior, congenital & genetic disorders, pediatric infectious disease, pediatric respiratory issues, pediatric emergencies, injuries, and parenting. Pediatric pharmacotherapy are explored with emphasis on indications, contraindications, and medication dosing in relation to disease process type and patient demographics. The student also learns assessment techniques specific to the pediatric population.

PAS 611 Neurology (2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of neurology. Focus for this course includes examination of commonly encountered neurologic issues. Topics emphasized in this course include clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, disease management, and clinical course of common diseases.
PAS 612  Musculoskeletal  (3 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of musculoskeletal conditions, injuries, and disease processes. Focus for this course includes examination of commonly encountered musculoskeletal issues. Emphasis on proper examination and special exam tests for common musculoskeletal issues are discussed. Topics emphasized include clinical presentation, epidemiology, pathophysiology, patient assessment, diagnosis, pathology, therapeutic interventions, disease management, and clinical course of common diseases. Fundamental aspects of interpreting imaging studies such as x-rays, MRI, and CT scans are developed. Identification of common fractures, subluxation, dislocations, and muscular abnormalities common in primary care are discussed.

PAS 613  Surgery  (1 credit)
This course focuses on basic surgical concepts related to primary care as well as surgical specialties. The intent is to familiarize students with surgical concepts, topics and technique. Students learn to recognize signs and symptoms that may require surgical intervention. This course also emphasizes risk management for preoperative patients, pre- and postoperative care, wound assessment, and wound management.

PAS 614  Geriatrics  (2 credits)
This course provides a foundation for addressing medical problems commonly seen in the aging and elderly population. Additional instruction on preventive medicine, health maintenance, mobility limitations and access to healthcare, therapeutic interventions, medication awareness, and quality of life issues are emphasized. Instruction related to death and dying is also provided.

PAS 615  Women's Health  (2 credits)
This course addresses important aspects of women’s health with an emphasis on obstetrical, gynecologic, and preventive care. Content includes a thorough exploration of physiology, pathophysiology, disease states, management options, and screening guidelines for women's health issues. Obstetrics focuses on the principles of prenatal, perinatal, and post-natal care. Complications arising in pregnancy and management of the more common emergent problems that occur in pregnancy are discussed.

PAS 616  Emergency Medicine  (3 credits)
This course provides fundamental instruction on the recognition and management of life-threatening patient presentations. Problem-based case studies and team-based activities are utilized extensively in this course. Team work, collaboration, cooperation, and valuing interdisciplinary contributions to managing patients is emphasized. BLS and ACLS certification is included as part of this course.

PAS 617  Dermatology  (2 credits)
This course is a clinical medicine (CM) modular course using an organ-systems approach to facilitate student learning in the study of dermatology. Focus revolves around commonly encountered dermatologic disorders. Topics emphasized in this course include clinical presentation, epidemiology, pathophysiology, patient
assessment, diagnosis, pathology, therapeutic interventions, disease management, and clinical course of common diseases.

**PAS 691   Evidence-Based Practice Essentials** (2 credits)
This course is the first in a series designed to challenge students to develop clinical reasoning skills, think critically, enhance interpersonal and communication skills, apply evidence-based resources, and problem-solve as clinicians and as members of an interdisciplinary health care team. Serving as a prelude to the applied clinical reasoning sequence of courses, the focus for this particular course centers on concepts of evidence-based practice. Foundational principles of epidemiology, biostatistics, and research design are emphasized to empower students with skills to critically evaluate the medical literature and apply quality information to the care of unique patients.

**PAS 692   Applied Clinical Reasoning: Acute Care** (3 credits)
This course is the second in a series designed to challenge students to develop clinical reasoning skills, think critically, enhance interpersonal and communication skills, apply evidence-based resources, and problem-solve as clinicians and as members of an interdisciplinary healthcare team. Students are challenged with simulated cases where they develop clinical skills evaluating standardized patients. Cases are acute care in nature and emphasis is placed on the following: developing differential diagnoses, developing assessments and plans, the medical chart, medical documentation, and informed consent. Students give oral case presentations and integrate aspects of preventive care and public health in the context of acute care.

**PAS 693   Applied Clinical Reasoning: Longitudinal Care** (2 credits)
This course is the third in a series designed to challenge students to develop clinical reasoning skills, think critically, enhance interpersonal and communication skills, apply evidence-based resources, and problem-solve as clinicians and as members of an interdisciplinary healthcare team. Building upon patient care skills developed from the acute care focus, this course challenges students to evaluate and manage standardized patients in the context of longitudinal care. Key content areas include: establishing patients in the primary care setting, admission orders, inpatient management, progress notes, discharge summaries, rehabilitative care, palliative care and end-of-life issues, and utilization of an electronic healthcare record.

**PAS 694   Applied Clinical Reasoning: Interprofessional Care** (2 credits)
This is the final applied clinical reasoning course in the series specifically designed to challenge students to develop clinical reasoning skills, think critically, enhance interpersonal and communication skills, apply evidence-based resources, and problem-solve as clinicians and as members of an interdisciplinary health care team. In this course, PA students develop professional collaborative relationships with students from other health professions programs. Case-based scenarios and standardized patient simulations are designed to facilitate a team approach to patient-centered care. Students are challenged to rely on the strengths of students from other disciplines to solve complex medical cases. Emphasis is also placed on further developing interpersonal and communication skills.
PAS 699  Pre-Clinical Seminar  (0 credits)
This course evaluates students’ readiness to proceed into the final two semesters of supervised clinical practice experiences (SCPEs). Students are expected to have a strong depth and breadth of knowledge and skills in the basic medical and clinical sciences and must demonstrate essential cognitive and technical abilities learned in previous courses in order to proceed to SCPEs.

PAS 700  Clinical Rotation Preparatory Seminar  (2 credits)
This course includes daily learning experiences for the first two weeks of the second summer semester and is designed to prepare students for their first full-time clinical rotation. Critical patient-care principles and concepts covered during the first three semesters are reviewed. New content focuses predominantly on the pragmatics of optimizing one’s learning opportunities during supervised clinical practice experiences (SCPEs). Topics include but are not limited to: self-care, electronic medical record access, interacting with and understanding the perspectives of preceptors, critical learner attributes of motivation, eagerness, professionalism, and work ethic, utilizing a learner-driven hypothesis and interrogative approach to developing preliminary assessments and plans supported with clinical science rationale, and refining oral case presentations.
Students also learn to perform male and female genitourinary examinations using professional models. Finally, this course houses content related to HIPPA, OSHA, understanding clinical and hospital hierarchy, as well as the logistics of participating in SCPEs including patient logging requirements, completion of preceptor evaluations, and programmatic procedures related to housing, completing rotation specific assignments, and taking end-of-rotation examinations.

PAS 701  Clinical Rotation (Family Medicine/Primary Care)  (4 credits)
The first supervised clinical practice experience (SCPEs) is intentionally designed to place students into the real world of full-time patient care while in the midst of their didactic studies. Students are immersed in the experience of modern medical practice as they evaluate patients and employ their evidence-based practice skills to access, interpret, and apply high quality information at the point-of-care, thus facilitating the clinical problem-solving emphasis of the program’s experiential-based curriculum. This experience empowers students with stronger clinical perspectives for the remainder of their didactic studies thereby preparing them to grasp concepts of greater complexity. As a result, faculty are able to design and implement more complex learning experiences for the remaining didactic courses and students are better prepared for and achieve greater depth of understanding resulting in better preparation to more fully engage in their final nine rotations thereafter.

PAS 702  Clinical Rotation  (4 credits)
Please refer to listing of supervised clinical practice experience types below

PAS 703  Clinical Rotation  (4 credits)
Please refer to listing of supervised clinical practice experience types below
Supervised Clinical Practice Experiences

The final nine clinical practice experiences (SCPEs) serve as the culminating learning activities for students in the physician assistant program. During each rotation students work with certified practicing clinicians (referred to as preceptors) and actively participate in the delivery of patient-centered care as part of the health care team. Each four-week core clinical practice rotation provides an opportunity to learn, understand, and gain supervised experience in practing principles associated with rotation specific experiences. Brief descriptions of each SCPE type is included below (please note: students have already completed a Family Medicine or Primary Care rotation)

- **Family Medicine Rotation**: The focus of this rotation is holistic, outpatient-based, relationship-centered care of patients of all ages. Emphases include management of commonly encountered primary care conditions, evidence-based preventive practices, and patient education.
- **Primary Care Rotation (Behavioral and Mental Health Care emphasis)**: Focus areas include diagnosis and treatment of mental health disorders (pharmacotherapeutic and psychotherapeutic), health promotion and
wellness, and appreciating the dynamic bidirectional influences between the psychosocial and all aspects of health and disease.

- **Primary Care Rotation (Rural and/or Underserved Care emphasis):** The focus of this preceptorship is evaluation and management of commonly encountered primary care conditions in a rural and/or medically underserved setting for patients of all ages and cultural backgrounds.

- **Internal Medicine Rotation:** The focus of this preceptorship is providing longitudinal health care for patients with chronic health problems.

- **Pediatrics Rotation:** The focus of this preceptorship is acute and preventive health care for pediatric patients.

- **Obstetrics/Gynecology Rotation:** Focus for this preceptorship includes obstetrical, gynecologic, and women’s preventive care.

- **Emergency Medicine Rotation:** Emphasis of this preceptorship is evaluation and management of emergent medical conditions in the emergency department setting.

- **General Surgery Rotation:** This rotation provides exposure to the operating room setting and function. The focus of this preceptorship is on evaluation and care of patients with commonly encountered conditions requiring surgical management.

- **Inpatient Selective Rotation:** This mandatory rotation includes a focus on providing care in the inpatient setting and may be chosen from available medical or surgical (sub)specialty preceptorships with significant inpatient populations.

- **Open Elective Rotation:** This mandatory elective rotation provides students the opportunity to gain experience in a specific area of interest and may include a medical or surgical (sub)specialty, academic medicine, or medical research.
Master of Science in Health Science

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 684  Health Science Capstone Project  (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  (4 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.).

**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 Pediatrics  (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 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 615 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. Instructor: Adam Feit, MS, C.S.C.S.

**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.
Transitional Doctor of Physical Therapy

Pediatric Science

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 527  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 637  Case Report Methodology  (1 credit)
This course will progress the clinical practitioner’s knowledge of advanced case report/series methodology, as both a consumer and producer of evidence. In this web-based course, emphases will be placed on effective use of summary techniques and ranking of reports in the evidence hierarchy. The goal is to prepare students to efficiently report their own clinical work in conjunction with TDPT 508 (Directed Independent Study) and P529.2 (Pediatric Science Capstone).
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 a program development component. An alternative approach is to build on the previous directed independent study project from semester 2. A soft-bound technical report of the project and a scientific poster layout are submitted.

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 564  Evidence-based Analysis of Interventions in Pediatric Physical Therapy Practice  (1 credit)
This course empowers students to develop focused clinical questions pertinent to their individual clinical practices and use 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 confidence in selecting the most effective evidence-based interventions for pediatric patients.
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 712.3 Topics in Pediatric Cardiopulmonary Conditions: A Multi-system Approach (1 credit)
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 Pediatric Movement Disorders (1 credit)
In this course, current approaches are reviewed for managing movement disorders to include discussion of muscle tone examination, strength, and functional training to support medical and pharmaceutical management of spasticity and “mixed” tone. Pediatric physical therapy roles in managing tone and movement disorders are analyzed and collaboration with tone/spasticity management teams and parents is addressed.

P 721.3 Scientific Writing and Professional Presentations (1 credit)
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 (1 credit)
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.

P 735 Topics in Pediatric Gait: Seminar and Lab
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.

TDPT 508 Directed Independent Study
This directed independent study project provides each student with an individually tailored opportunity for an evidence-based reflective analysis of pediatric patient care. Using the evidence-based skills and competencies gained from courses in the first semester, this project allows the pediatric physical therapist to carefully analyze care administered for a selected patient related to current best evidence. Prerequisites: CC 507.2, CC 527, CC 564, CC 637, P 544.