

# **Health Sciences Electives**

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# PhD and MS in Health Sciences Elective Course Options

Listed below are the elective options for the PhD and MSHS programs. Courses listed with a required onsite must be attended on the RMU Campus. Travel to the campus is at the student's expense. All elective courses are contingent on total enrollments to the course and course offering options may change at any time.

Students have the option to use their elective credits to receive additional certificates as listed below. Please see the certificate document for details about these certificate programs:

- Emergency & Primary Care in Athletic Training (EPCAT)- 9 credits
- Health & Wellness Coaching (HWC) 6 to 9 credits
- Healthcare Leadership & Administration (HLA) 12 credits
- Healthcare Professions Education (HPE) 12 credits
- Human and Sport Performance (HSPC) 12 credits
- Rehabilitative Science (RSC) 12 credits

Certificate (if applicable)	Course	Winter	Summer	Fall	Required Onsite	Credits
	AG 716 Neurodegenerative Disease: Addressing Participation in Occupation			Х		3
	AG 726 Productive Aging	Χ				3
	AG 738 Application of Evidence for the Provision of Care for Persons with Dementia		X			3
EPCAT	ATH 610 Advanced Emergency Applications & Care		Х			3
EPCAT	ATH 620 Advanced Primary Care & Prevention			Х		3
	FN 630 Functional Nutrition			Х		3
HLA (option)	HLA 620 Healthcare Leadership	Х	Х	Х		3
HLA	HLA 670 Organizational Behavior & Management in Healthcare	Х	Х	Х		3
HLA	HLA 700 Healthcare Legal & Ethical Issues	Х	Х	Х		3
HLA (option)	HLA 710 Management & Entrepreneurship in Healthcare	Х				3
HLA (option)	HLA 740 Healthcare Delivery	Х	Х	Х		3
HSP	HP 600 Applications of Strength & Conditioning in Sport Performance			Х		3

HSP	HP 610 Advanced Sport Performance Technology	X				3
HSP	HP 620 Methods & Programming in Strength &			Х		3
	Conditioning					
	HP 706 Sports Nutrition for Human Performance	X				3
	HP 710 Applications of Exercise Science in Tactical		Χ		YES	3
	Fitness & Performances					
	HP 714 Recovery & Regeneration		Χ		YES	3
HPE	HPE 620 Clinical Education Experiential Design &	X				3
(option)	Application for Healthcare Profession					
HPE	HPE 670 Learning Assessment & Evaluation	Х	Χ	X		3
	HPE 700 Design & Implementation of Inter-Professional		Χ			3
	Education					
	HPE 718 Climate of Higher Education		Χ		YES	3
HPE	HPE 740 Teaching & Learning Theory	Х	Χ	Х		3
HPE	HPE 752 Curriculum Design for Healthcare Professions	X		Х		3
(option)						
HPE	HPE 760 Instructional Technology Design Theory &	Х	Χ	X		3
	Application					
	HS 606 Cancer Exercise Specialist		Χ			3
HSP, RSC	HS 611 Functional Assessment of Movement		Χ			3
HLA	HS 640 Healthcare Leadership & Ethics	X	Χ			3
(option)						
	HS 650 Social Determinants of Health			Odd		3
				Years		
	HS 660 Global Health Perspectives			Even		3
				Years		
	HS 715 Concepts of Measurement*	Odd				3
	110747511	Years				
	HS 716 Evidence-Based Clinical Reasoning & Decision-	Even				3
	Making	Years		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
	HS 727 Survey Research*			X		3
	HS 730 Epidemiologic Methods*			X	\/FC	3
	HS 732 Biostatistics II*		X		YES	3
	HS 734 Qualitative Research II*		X		YES	3
	HS 735 Qualitative Interviewing Techniques*		X			2
	HS 736 Mixed Methods Integration*		Х	.,		1
	HS 742 Biostatistics III*			X		3
	HS 751 Case Series Single Subject Design*			X		3
	HS 770 Research Practicum	Х	X	X		1-3
	N 720 Neuroscience Systems^			Х		3
	N 722 Clinical Neuroscience & Contemporary Motor Models^		Х			3
	OS 740 Advanced Orthopedic Evaluation & Differential Diagnosis^			Х		3
	OS 742 Advanced Practice in Biomedical Testing & Technology^		Х		YES	

	OS 744 Orthopedic Surgical Considerations and		X		YES	3
	Therapeutic Interventions <sup>^</sup>					
	P 711 Interprofessional Global Health in Pediatrics^		Even Years		YES	3
	P 755 Pediatric Research Independent Study^		Х	Х		
RSC	RS 600 Connective Tissues & Healing			Χ		3
EPCAT, RSC	RS 611 Advanced Therapeutic Interventions	Х				3
RSC	RS 612 Motor Control & Corrective Techniques			Х		3
	WE 610 Population Health Issues		Х			3
	WE 623 Wellness Promotion & Programming	Х				3
	WE 630 Nutrition & Exercise for Health & Wellness		Х			3
	WE 700 Theories of Behavior Change			Χ		3
HWC	WE 710 Theories & Application of Wellness Coaching	Х	Х	Х		3
HWC	WE 711 Advanced Wellness Coaching*	Х	Х	Х		3
	WE 717 Integrative Therapies in Health Promotion	Х				3
HWC	WE 718 Wellness Coaching Practicum*		Х	Х		3

<sup>\*</sup>Has a Prerequisite Course

# **Elective Course Descriptions**

AG 716 Neurodegenerative Disease: Addressing Participation in Occupation (3 credits) This course will require students to examine current and emerging best practices for addressing participation in occupation for an older adult experiencing a neurodegenerative disease process. This course requires students to explore the role of occupational therapy on promoting participation in occupation for the aging population. Neurological diseases covered within this course include Alzheimer's disease, Parkinson's disease, and polyneuropathies. Students will engage in critical reasoning within forum discussions, analyzing intervention strategies, and development of a client- based case study.

# AG 726 Productive Aging

(3 credits)

This course examines evidence associated with the cognitive-behavioral aspects of aging and daily activity performance and participation needs of older adults. The course emphasizes designing and executing therapeutic and health-promoting plans by applying the best available evidence for productive aging, aging-in-place, and the prevention of injury and illness.

# AG 738 Application of Evidence for the Provision of Care for Persons With (3 credits) Dementia

This interdisciplinary course provides opportunity 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 clinical settings. Students will explore the complexities of addressing the need to promote participation and optimize quality of life for those in this growing population.

<sup>^</sup> Requires CTD Approval to take course

# ATH 610 Advanced Emergency Applications & Care

(3 credits)

This course is designed to provide an intensive study of emergency care skills in ambulatory medicine with exposure to triaging and managing urgent and emergent medical procedures in catastrophic settings. Proper fracture and joint dislocation reduction/relocation techniques, application of specialty casting and splinting techniques, and interventions used during immobilization to address movement dysfunctions are addressed. The focus is on planning for, examining, and managing immediate, emergent, and acute situations, particularly for physically active individuals.

#### **ATH 620 Advanced Primary Care & Prevention**

(3 credits)

This is an advanced course to enhance understanding of disease, disorders, illness, and other general medical conditions affecting the health of physically active individuals across the lifespan. Students will learn to recognize signs, symptoms, and predisposing factors of pathology along with appropriate interventions and establishing referral criteria. The focus is on appraising evidence on patient care, refining primary care clinical examination techniques, establishing evidence-based preventative measures, and optimizing appropriate referral decision-making.

#### FN 630 Functional Nutrition

(3 credits)

Functional medicine is an approach to treating health conditions and preventing disease through the identification and treatment of root causes for health conditions. It is founded upon the perspective that nutrition therapy considers the individual-specific information founded upon the nutrition assessment model assessing mind, body, spirit, environment, and community to promote lifestyle behavior change that will result in measurable health and wellness benefits.

#### **HLA 620 Healthcare Leadership**

(3 credits)

Concepts of leadership related to current healthcare organizations are examined. Specific concepts including communications, public relations, team building, negotiation, and conflict resolution are explored. Strategic aspects such as vision, viewpoint and admission included. Managing uncertainty is discussed in relation to healthcare organizations. Contemporary leadership challenges, communication strategies and crisis communication are explored. Leadership functions and decision-making are analyzed.

#### HLA 670 Organizational Behavior & Management in Healthcare

(3 credits)

This course supports knowledge of the theories of organizations, the use of leadership, management processes, and organizational structures and outcomes. Specific topics include governance, strategic management and marketing, human resources management, recruiting, training, process improvement, management theory, and employee wellbeing. This course is designed for future managers and leaders of healthcare organizations and those who expects to have extensive involvement with each from the perspective buyers, insurers, or policymakers. The course provides students with knowledge about how the best healthcare provider organizations deliver high quality, cost-effective healthcare, how the response to their environment, and how they reach and implement decisions about future activities.

# HLA 700 Healthcare Legal & Ethical Issues

(3 credits)

This course explores the legal and ethical issues and dilemmas in the delivery of healthcare. The principles and practical application of laws and regulations affecting operational decisions of healthcare providers, health plans, and third-party payers are discussed. Also addressed are social, moral, and ethical issues encountered in the balance of patient interests, needs and rights.

# HLA 710 Management & Entrepreneurship in Healthcare

(3 credits)

Introduces current and aspiring healthcare leaders to key dimensions of effective management and entrepreneurship. Explores professional, legal, and ethical aspects of development as healthcare professionals seeking to develop management and entrepreneurship opportunities. Synthesize of entrepreneurial and management competencies to plan and implement a simulated interdisciplinary business venture are explored.

### **HLA 740 Healthcare Delivery**

(3 credits)

This course will train healthcare leaders to implement or teach principles of delivering better healthcare at lower costs through improving clinical and non-clinical processes. This course will introduce methods and tools for conducting quality improvement projects. Also discussed will be methods of health services research, teams and teamwork, outcome measurement, and medical informatics. A key learning experience of this course will be developing and implementing a quality improvement project.

# HP 600 Applications of Strength & Conditioning in Sport Performance (3 credits)

This course will focus on the foundational applications of strength and conditioning including key theories, concepts, and scientific principles. Topics will include review of the structure and function of body systems, exercise physiology, biochemistry, anatomy, and biomechanics. Special consideration will be placed on how principles of strength and conditioning relate to various systems and client populations.

### **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 simulations and motion capture.

#### HP 620 Methods & Programming in Strength & Conditioning

(3 credits)

This course will expose students to current research on advanced methods in various venues of strength and conditioning. Students will examine current topics and various training methods currently used in the field and presented in the literature. Further, they will demonstrate appropriate implementation of advanced training methods. 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 706 Sports Nutrition for Human Performance**

(3 credits)

This course will discuss, in detail, scientific and practical applications of nutrition for sports. Integrated discussions spanning exercise physiology and nutrition on topics that relate to aerobic and anaerobic performance, health, weight gain, weight loss and recovery will be covered. Class assignments will broaden the student's knowledge, writing ability and competence at both retrieving and summarizing scientifically-based information.

# HP 710 Applications of Exercise Science in Tactical Fitness & (3 credits; 1.5 days onsite) Performance

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 & Regeneration**

(3 credits, 1.5 days onsite)

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 previous coursework

# HPE 620 Clinical Education Experiential Design & Application for Healthcare (3 credits) Professions

This course addresses the many issues germane to experiential or clinical education in the healthcare professions by reviewing the design, implementation and assessment of clinical experience in the healthcare fields. Among the topics to be covered include supervisory policies and practices, communication, feedback, developing clinical expertise and reasoning skills, professionalism, student learning documentation and mapping, preceptor/supervisor training and development, and the role of entrust able professional activities, competencies and milestones in student clinician development.

#### **HPE 670 Learning Assessment & 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. *Prerequisite: HS 740* 

#### HPE 700 Design & Implementation of Inter-Professional Education

(3 credits)

Students will acquire the best evidence available and comprehensive appreciation for the many challenges, limitations, and opportunities in designing and implementing interprofessional education. This class will investigate the available literatures on IPE from around the world and across healthcare professions: what works, what doesn't, what to expect, how to go about tackling the IPE challenge, and what to expect in the way of challenges.

# **HPE 718 Climate of Higher Education**

(3 credits, 1.5 days onsite)

This course will focus on presenting and analyzing contemporary social, political and economic issues surrounding higher education and the effects these issues have on healthcare education programs. Current challenges in healthcare education programs will also be explored. Students will learn how to successfully navigate the role of a faculty member in the higher education environment. A brief history of higher education will be included.

#### **HPE 740 Learning Theory & Design**

(3 credits)

This course incorporates a learner centered approach to course development and instructional delivery based on the best evidence of how people learn. Students will demonstrate both traditional and innovative instructional techniques and strategies for teaching in didactic settings based upon the evidence-base of best teaching practices.

#### **HPE 752 Curriculum Design for Healthcare Professionals**

(3 credits)

Students will learn how effective health professions curricula must integrate the basic and clinical sciences, connect didactic to experiential learning, be competency-based and time-variable, include andragogic underpinnings and approaches of delivery, and create meaningful program outcomes and assessment opportunities that verify quality and excellence. In addition, timely issues such as the curricular incorporation of clinical experiences/education, the sociocultural aspects of healthcare, and pertinent accreditation issues and constraints for healthcare professions will be addressed.

## HPE 760 Instructional Technology: Design, Theory, & Application

(3 credits)

This course explores the history and theory of instructional technology used in educational settings. Focus is on identifying, discussing and comparing various instructional technology utilized in the design and delivery of online, blended, and traditional classroom learning environments. Best practices of current instructional technologies utilized in higher education classrooms are systematically designed, created, shared, and reviewed.

#### **HS 606 Cancer Exercise Specialist**

(3 credits)

This course is designed for health and fitness professionals seeking to attain a higher level of mastery and work with cancer patients during and after cancer surgery and treatment and into survivorship. Participants will gain a complete understanding of the entire cancer process from diagnosis and treatment to reconstruction and survivorship. A unique and individualized programming to improve the patient's ability to cope with the mental and physical stress following cancer diagnosis and treatment is emphasized. Completion of this course will lead to the Cancer Exercise Specialist® Advanced Qualification offered by Cancer Exercise Training Institute (CETI).

#### **HS 611 Functional Assessment of Movement**

(3 credits)

The purpose of this course is to examine evidence-based, objective measures of movement patterns, proprioception, flexibility, and strength required of individuals engaged in physical activity. Students will be exposed to injury prediction/prevention research and gain clinical skills in performing a comprehensive movement assessment. Factors contributing to movement dysfunction will be identified, and techniques for movement assessment will be outlined and discussed. Through a case-based format, students will formulate and present an intervention plan to address movement dysfunctions found during functional assessments that build on the basics and focus on movement constructs that will minimize future injury risk.

#### HS 640 Healthcare Leadership & Ethics

(3 credits)

Concepts of leadership related to current healthcare organizations are examined. Specific concepts including communications, public relations, team building, negotiation, and conflict resolution are explored. Strategic aspects such as vision, viewpoint and admission included. Managing uncertainty is discussed in relation to healthcare organizations. Contemporary leadership challenges, communication strategies, ethics, and crisis communication are explored. Leadership functions and decision-making are analyzed.

#### **HS 650 Social Determinants of Health**

(3 credits)

This course is designed to help the learner gain an in-depth understanding of social determinants that influence health and well-being that include education, economic stability, health policies, access to healthcare, neighborhood environments, and social/community factors that impact health. Discussion of inequalities and health disparities will be considered along with evidence-based approaches toward mitigating health disparities.

#### **HS 660 Global Health Perspectives**

(3 credits)

This course focuses on international perspectives on health regarding healthcare, health practices, and systems issues affecting health in rural, urban, and suburban communities outside the US. The course is designed in a seminar/field experience format where students participate in synchronous and experiential activities within the US and international communities. Students will complete needs assessments, applied health-related research, and interventions for communities in international venues. Strong emphasis on understanding health issues related to specific international communities and on establishing partnerships for studying international health.

#### **HS 715 Concepts of Measurement**

(3 credits)

In this course, students will explore concepts related to the development and use of standardized measurement tools. Important concepts for exploration include validity, reliability, responsiveness of the tool, confidence intervals, as well as likelihood ratios. Various forms of assessments, including patient reported outcomes and performance-based measures, will be explored along with their respective measurement concepts. Learners will critique measurement tools in their discipline and will explore the overall

process for validating a measure. Further, learners will explore the potential reach of tools to populations or groups not tested. *Prerequisite: HS 710* 

#### HS 716 Evidence-Based Clinical Reasoning & Decision-Making

(3 credits)

This course provides an in-depth analysis of critical thinking, clinical and professional reasoning and decision-making as described in theory and experienced by practitioners. Students will engage in various independent and collaborative learning activities to critically appraise the evidence of different decision-making strategies, culminating in developing their own clinical reasoning practice statement. Students will explore their own reasoning, focused self-reflection, emotional intelligence, and personal/professional development and apply these analyses to current theories of clinical and professional reasoning. Developing a greater sense of professional self and systematic clinical reasoning and decision-making approach will facilitate students' rational, accurate, and consistent care and management of patients and clients.

#### **HS 727 Survey Methods**

(3 credits)

This course will familiarize students with the theory, development, and application of survey research design and methods. Students will learn the principles and practices of conducting survey research, including developing psychometrically sound accounting for and reducing sources of error, designing appropriate sampling strategies, assessing the reliability and validity of self-constructed questionnaires, administering surveys through various means, and analyzing and reporting survey research results. How to integrate qualitative inquiry with survey research to develop and conduct a mixed-method study, including writing results, will be emphasized. *Prerequisite: HS 722* 

#### **HS 730 Epidemiologic Methods**

(3 credits)

This course will introduce the student to important epidemiological methodology/concepts commonly used in evidence-based practice/medicine. The course will focus on the common observational designs, and common measures of disease frequency, risk association, and validity of diagnostic tests. The use and construction of receiver operating curves will be discussed. The course will also include an introduction into logistic regression and survival analysis methods in how they apply to disease outcomes/disorders. Students will conduct and apply basic epidemiological concepts using statistical software and learn how to design and develop. The student will be provided with information to aid in data collection and management. *Prerequisite: HS 710* 

#### **HS 732 Biostatistics II**

(3 credits, 1.5 days onsite)

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

#### HS 734 Qualitative Research II

(3 credits, 1.5 days onsite)

This course is the second in a two-course sequence on qualitative research methods that extends and elaborates on the topics covered in HS 720. Major approaches used in

conducting qualitative research and the application of these methods to problems and phenomena in healthcare will be examined. The emphasis of the course is on the collection, management, analysis, and interpretation of qualitative data. Exploration and application of topics such as sampling, interviewing and observation techniques, data analysis methods, and reporting of qualitative research will be addressed. Evaluation and critique of research studies utilizing qualitative methods will also be examined. *Prerequisite: HS 720* 

# HS 735 Qualitative Interviewing Techniques

(3 credits)

This course provides a theoretical framework for interviewing approaches for various situations, types of interviewing formats (e.g. focus group, evaluation interview, cultural interview) and development of interview formats. Recording, analyzing, and reporting interview data, ethical and relationship issues, and research on interviewing methods. *Prerequisite: HS 720* 

## **HS 736 Mixed Methods Integration**

(1 credit)

This course provides students with techniques used to integrate quantitative and qualitative data, analysis and results based upon a mixed methods study design. Writing tips of a mixed methods publication is also included. *Prerequisite: HS 720* 

HS 742 Biostatistics III (3 credits)

The purpose of this course is to build upon the topics introduced in Biostatistics II. This course will cover such topics as logistic regression, advanced data cleaning procedures, advanced non-parametric methods, measurement tool reliability and development of data visualizations. *Prerequisites: HS 722 & HS 732* 

#### **HS 751 Case Series Single Subject Design**

(3 credits)

This course will seek an in-depth exploration and practice regarding the mechanics, design and construction of case series and single subject research designs in a healthcare environment. Students will develop and submit a single subject/case series research design related to individual dissertation topics or to relevant clinical questions. *Prerequisite: HS* 712

#### **HS 770 Research Practicum**

(1-3 credits)

Faculty-directed clinical, basic, or applied research practicum, which may include but not limited to review of literature preparation, human subjects committee proposal development, data collection, and presentation/manuscript preparation. Graded Pass/Fail.

#### 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 & 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.

### OS 740 Advanced Orthopedic Evaluation & Differential Diagnosis

(3 credits)

This course is an advanced evidence-based diagnosis and screening course designed to facilitate highly effective clinical evaluation and accurate diagnostic decisions in orthopedic care. Advanced concepts of probability-based differential diagnosis and clinical reasoning strategies related to orthopedic practice will be presented. Current evidence of evaluation techniques and diagnostic tests for common orthopedic conditions will be explored and critically appraised. Pathology of the major body systems and regions will be described with current evidence-based practice diagnostic and screening standards.

### OS 742 Advanced Practice in Biomedical Testing & Technology (3 credits, 1.5 days onsite)

This course will focus on exploring the ever-growing number of biomedical tests, tools, and technologies marketed for utilization along the continuum of orthopedic practice. The psychometric properties, appropriateness, and clinical utility, including validity, reliability, responsiveness, sensitivity and specificity of tools, tests, and technologies will be explored. Current evidence-based testing and technology recommendations and their application to various patient populations and orthopedic settings will be presented. Students will engage in a variety of independent and collaborative learning activities to critically appraise the evidence for the use of tools, tests and technologies for enhanced decision making in orthopedic clinical care. Students will gain knowledge, skills and abilities in the utilization and implementation of select novel specialized biomedical technologies in orthopedics to include markerless 3-Dimensional motion capture.

# OS 744 Orthopedic Surgical Considerations & Therapeutic Interventions

(3 credits, 1.5 days onsite)

This course takes a learner-centered approach to enhance knowledge, skills, and abilities related to orthopedic surgical patient care. In this course, students develop advanced skills in the critical appraisal the application of orthopedic surgical research findings. Current evidence-based surgical techniques and their implications on tissue healing, pre-and post-surgical rehabilitation, return to daily living/activity timelines and short and long-term patient outcomes will be presented. Students will engage in various independent and collaborative learning activities to critically appraise the evidence for surgical patient management from direct-access indications for imaging referral to pre-operative therapeutic care and discharge. Students will bring it all together by choosing a common

surgical procedure and developing an up-to-date, evidence-based post-surgical rehabilitation protocol.

# P 711 Interprofessional Global Health in Pediatrics

(3 credits, 1.5 days onsite)

This course blends interprofessional education with global health perspectives for pediatric practitioners. Discussion and application of competencies and principles are prioritized to define and guide pediatric practice when caring for children in resource-limited settings, both locally and internationally. A framework is addressed for interprofessional training in cross-cultural competency, ethics, health equity, human rights, advocacy, capacity development, and partnership engagement. Using this framework, each student will develop and individually present a capacity-building project, including a needs assessment, from the perspective of a globally-minded, globally-competent practitioner.

#### P 755 Pediatric Research Independent Study

(3 credits)

A directed independent study option is offered to support a focused component in pediatric studies or pediatric research process not directly addressed in other courses. The focus, objectives, and activities are individually designed between the student and pediatric science concentration area director. The independent study option is offered during two online semesters but can be taken only once. (If taken for less than 3 credits, students must make up missing credits in other concentration courses.)

# RS 600 Connective Tissues & 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 611 Advanced Therapeutic Interventions**

(3 credits)

This course will expose students to cutting-edge topics in rehabilitation clinical practice to develop an integrative approach to selecting appropriate evidence-based therapeutic interventions. Emphasis will be placed on the therapeutic management of mild traumatic brain injury, cardiac conditions, and orthopedic injury. Students will analyze current research to examine evidence-based techniques, indications and contraindications, preventative measures, and operational protocols for interventions relative to progressing through healing and restoring normal function to a highly competitive state for physically active individuals. Treatment effectiveness, patient satisfaction, return to activity decision-making, and critical assessment of evidence concerning patient care will be emphasized.

#### **RS 612 Motor Control & Corrective Techniques**

(3 credits)

This course focuses on examining and analyzing scientific principles related to the mechanical understanding of motor control and the human body in motion. Emphasis is placed on principles of motor control, mobility, stability, movement patterns, and neurodevelopmental progression for patients undergoing rehabilitation. The goal is to

develop a sequential and progressive rehabilitation program based on current evidence centered on restoring movement through corrective techniques.

# WE 610 Population Health Issues

(3 credits)

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

#### WE 623 Wellness Promotion & Programming

(3 credits)

This course provides the business and human rationale for wellness promotion, health education, and public health programs. Best practice for program design, implementation, and evaluation are examined as is the development and use of needs analyses, health risk assessments, and biometric measures to educate clients/patients and guide programming. Evidence based group and individual motivational strategies are included.

#### WE 630 Nutrition & Exercise for Health & Wellness

(3 credits)

This course includes an overview of chronic diseases and associated risk factors. The effects of behaviors in the etiology and treatment of chronic diseases are examined. Emphasis is placed on the effects of modifying behaviors such as nutrition, physical activity, sleep, smoking, and alcohol use as well as stress reduction. The role of exercise and diet in integrative lifestyle medicine is explored. Basic skills in exercise prescription and nutritional intervention strategies within scope of practice are developed.

#### WE 700 Theories of Behavior Change

(3 credits; Online)

This course explores the principal theories of behavior that drive evidence-based practice in health/wellness education and coaching. Emphasis is placed on the determinants of group and individual behavior and behavioral economics in the context of health and wellness is included. Effective application of various theories to create education and/or interventions to alter behaviors of targeted groups or individuals is examined. Some synchronous sessions are required.

#### WE 710 Theories & Application of Wellness Coaching

(3 credits)

This course explores health promotion and wellness, social determinants of health, health education, and public health programs. The theoretical basis and the evidence supporting health and wellness coaching will be discussed. Theories of behavior change and wellness coaching will be evaluated. Coaching strategies to be developed include motivational interviewing, appreciative inquiry, and positive psychology. Focus will be placed on developing one-on-one practical coaching skills while emphasizing ethical and legal practice considerations. Several synchronous sessions are required.

# WE 711 Advanced Wellness Coaching

(3 credits)

This course provides an opportunity to practice and develop the health/wellness coaching competency required for teaching and practicing coaching. Knowledge and skills developed in prerequisite courses are synthesized and expanded. Emphasis is placed on the application of coaching skills, and practice sessions with feedback are included. Also included is the business of health/wellness coaching including ethics and legalities. A practical skills exam and several synchronous sessions are required. *Prerequisite: WE 710* 

# WE 717 Integrative Therapies in Health Promotion

(3 credits)

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

#### WE 718 Wellness Coaching Practicum

(3 credits)

This practicum course allows students to complete required coaching sessions while being mentored by an NBC-HWC certified coach. Emphasis is placed on mentorship oversight and providing valuable, proven tactics for new coaches transitioning to independent health and wellness coaches. Other topics including marketing, business development, social media, test preparation, and other higher-level coaching practice will be explored. This course is optional and not required to be eligible for the NBC-HWC exam. *Prerequisite: WE 711*