HAX

Health and Rehabilitation Sciences

HAX 600: Doctoral Seminar
Provides a venue for faculty and doctoral students to discuss all aspects of their research. Researchers will present different branches of translational science and discuss linkage between research agendas. Provides opportunity for data to be viewed and analyzed by investigators with different perspectives and tools for analysis. Offered in the Fall. S/F graded
May be repeated 1 times FOR credit.

HAX 602: The International Classification (ICF) of Health Across the Lifespan
Introduces the dynamic interaction that takes place between health, disability and contextual factors as identified in the International Classification of Functioning, Disability and Health (ICF) model. This model will be examined from the perspective of clinical and translational science for individuals from the prenatal period through senescence. Offered in the Fall.
3 credits, Letter graded (A, A-, B+, etc.)

HAX 620: Rehabilitation and Disability
Introduces the Science of Rehabilitation and the Science of Disability. Presents models of rehabilitation and disability research and discusses controversies and commonalities between these areas. Forms the groundwork of future coursework in rehabilitation and movement sciences.
3 credits, Letter graded (A, A-, B+, etc.)

HAX 632: Teaching and Learning
This course will introduce students to adult learning principles and strategies for effective teaching of cognitive psychomotor and affective skills and behaviors in academia. Individual teaching/learning philosophical orientations, characteristics of the adult learner, learning styles, self-directed learning, and reflective practice will be explored.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HAX 634: Motor Learning and Motor Control
This course will introduce the various theories underlying human motor control. Students will actively synthesize and analyze current theory and research related to motor control and skill acquisition through examination of relevant literature. This course places emphasis on determining the implications of this work for future research, educational and/or clinical practice. Includes early and contemporary theory, skill acquisition facilitation, practice, feedback, transfer of training, modeling, part vs whole training, imagery, implicit learning, explicit learning and memory systems.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HAX 635: Biomechanics and Movement I
Introduces students to principles and interrelationships of biomechanics and movement. Includes physical biomechanics of the extremities as a foundation from which to apply biomechanical principles. Involves learning to use mathematical approaches to solving static problems and lay the groundwork for solving dynamic biomechanical problems. Reinforces biomechanical theoretical concepts and mathematical models with lab experiments that involve the manipulation of 3D kinematic, kinetic and EMG data.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HAX 646: Social Behavior and Community Health Change
Examines the nature of the behavior that takes place within social systems and how to effectuate change in these systems. Analysis of behavior and possibilities for change will be placed in the context of health and public health questions and will draw upon theories of organizational behavior, leadership, and mechanisms for action.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HAX 653: Research Methods: Design and Statistics
This course presents process and skills needed to develop independent research studies, including but not limited to, formulating a research question or hypothesis, conducting literature searches, critically appraising scientific literature, and selecting appropriate research designs and methods. This information will be presented in the context of protecting human subjects and health information based on the policies and procedures of the Committee on Research Involving Human Subjects (CORIHS) and IACUC.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HAX 656: Qualitative Research
Students will learn the basic principles and techniques of effective analysis and interpretation of the merits of qualitative data. Examines how qualitative research captures complex phenomena that span the international classification of function (ICF) and impact on quality of life, illness/injury experience and recovery. Students will learn the strengths and limitations of qualitative analysis and how it complements quantitative analysis. Emphasizes several methods to represent data, such as the mixed method approach, and students will apply a range of analysis techniques through research exercises.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HAX 668: Emerging Topics in Disability Studies
Focuses on the intersections of disability with other emerging area studies such as gender, class, sexuality, race and global studies. Encompass study of different emerging disciplinary areas of disability studies in the social sciences, health sciences, humanities, business, and technology. Explores the connections between disability activism, art, and scholarship in the 21 century. Traces emerging regional distinctions in disability studies research and scholarship, especially between Northern and Southern Countries.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.

HAX 693: Directed Readings
Provides faculty directed readings and guided discussion to synthesize selected content related to the current course curriculum and/or the students' research interests. Through the guided readings, the students will learn foundational and advanced theoretical constructs that will be important underpinnings of their future studies and doctoral research. Specifically, studies may focus in the concentration areas of rehabilitation and movement science, disability studies or behavioral and community health.
A critical analysis of readings may include theoretical constructs, methodologies, and/or interpretation of results. The course will include analytical writings and a summative paper.
3 credits, Letter graded (A, A-, B+, etc.)
May be repeated for credit.