Core Courses

**RS 6173/8133 Rehabilitation Sciences I**
Prerequisite: Permission. The course provides an analysis of contemporary theories and conceptual frameworks for rehabilitation science and policy issues in rehabilitation of individuals with disabilities. The course has an interdisciplinary focus and includes contributions from epidemiology, rehabilitation, disability, and health and wellness literature. Students will develop a broad perspective of rehabilitation as a multifaceted and multilevel entity that requires multidisciplinary approach. 3 credits

**RS 6273/8233 Rehabilitation Sciences II**
Prerequisite: Rehabilitation Sciences I. This course is designed to provide the student with applications of the theoretical constructs of rehabilitation presented in Rehabilitation Science I. Emphasis will be placed on methodological underpinnings used to gather information for diagnosis and to develop rehabilitation programs, innovations in conceptualizing intervention, the role of technology in rehabilitation, and documenting rehabilitation outcomes. Experts from disciplines associated with rehabilitation will facilitate class discussions on the various topics. The course is also intended to help the student advance knowledge in the field of rehabilitation science through evidence-based perspective papers. 3 credits

**RS 5143 Research Methods in Rehabilitation Sciences**
Prerequisite: Permission. This course covers basic research methods, including formulation of research questions, preparation of a literature review, development of a research proposal, and basic techniques of data collection and analysis. Students will design a study during the course. 3 credits

**RS 8153 Clinical Reasoning and Instruction**
Prerequisite: Permission. This class is part of the core course work for the post-professional clinical doctoral degree. It investigates two important aspects of being a doctoral-level practitioner: clinical reasoning and its related elements, and teaching novice practitioners in both the clinic and classroom environments. 3 credits

**RS 5970 Seminar in Rehabilitation Sciences**
Prerequisite: Permission. Students read, analyze, synthesize, discuss, and apply literature related to research and current and emerging practice in rehabilitation sciences and related fields. 1-2 credits

Specialization

**AHS 5153 Foundations of Evidence-Based Practice**
Prerequisite: Permission. The purpose of this course is to prepare students to use the scientific literature to make sound, evidence-based patient management decisions. The course focuses on skills needed to find, understand, appraise, and apply the scientific literature. 3 credits

**AHS 6193 Behavioral Approach to Motor Learning**
Prerequisite: Permission. The purpose of this course is to explore mechanisms of skill acquisition. Behavioral, cognitive, and motor components of novel and skilled movement will be discussed. The contribution of memory, problem solving, attention, and motivation to motor learning will be explored. Social cognition and cognitive psychology will form the theoretical basis for this course. Motor learning will be presented in the context of teaching caregivers. Specific applications will be made to the
presence of mental illness, mental retardation, and dementia. 3 credits

**RS 6133 Program Evaluation and Development**
Prerequisite: Permission. This course focuses on the role of a physical therapist or occupational therapist as a consultant, administrator, or supervisor, responsible for the design, planning, organization, development, and evaluation of services intended for children and adults with disabilities, and their families. The focus of program evaluation and development is at a program rather than individual level of service provision. The course draws heavily on literature from disciplines other than PT and OT, and health services evaluation. Specific pre-requisites include skills and knowledge necessary to evaluate efficacies of various PT and OT interventions, application of evidence-based and best practices, research methodology, and statistics. Topics such as needs assessment, formative and outcome research, process evaluation, monitoring, cost analysis, program development and planning, and methods of program development will be covered. Students will gain practical experience through completion of a program evaluation and development project in one setting of choice. Overall the course prepares students to serve as consultants in the areas of program planning, development, and evaluation. 3 credits

**AHS 6173 Qualitative Research**
Prerequisite: Permission. This course addresses the application of qualitative methodology to answer appropriate clinical questions. Students gain an overview of the methods of design, data collection, data analysis, data interpretation, and study rigor. Students present a Power Point presentation of a qualitative research design and implement a portion of the data collection and analysis. 3 credits

**RS 6433 Measurement and Assessment**
Prerequisite: Permission. This course is designed to enhance students’ knowledge and skills in measurement and evaluation as they relate to assessment of individuals with various disabilities and their environments. The first part of the course covers measurement theory, advanced measurement concepts, principles of testing, and test construction and their applications in rehabilitation. The second part focuses on application of test and measures as data gathering approaches in assessment of body functions and structures, activity, and participation levels of individuals with or at risk for disabilities. The theoretical framework for assessment, including outcome evaluation, is based on the International Classification of Functioning, Disability and Health (ICF). Another objective of the course is to enhance the students’ skills in selecting tests appropriately and interpreting the data and test findings. To this end students will learn to critique tests/tools used to assess individuals with disabilities. Overall the course prepares students to serve as effective team leaders in the areas of assessment and evaluation. 3 credits

*Musculoskeletal-specific Specialization*

**RS 5153 Biomechanics**
Prerequisite: Permission. The objective of this on site course is to teach the use of biomechanics principles to solve clinical problems. Basic knowledge of mathematics, physics, and kinesiology is expected and will be utilized. A review of statics, dynamics and strength of materials will be covered. The topics include kinematics, kinetics, mechanical work, power and energy, muscle biomechanics, soft tissue biomechanics, orthopedic biomechanics, electromyography, biomechanical measurements, and signal processing. 3 credits
RS 6233 Applied Radiology and Diagnostic Testing
Prerequisites: Permission. This web-based course about selected diagnostic imaging is designed for the rehabilitation professional. Clinical reasoning in history-taking and clinical evaluative skills are utilized, and enhanced. Students will learn and apply information from diagnostic imaging and testing, to enhance clinical reasoning when forming diagnoses and prognoses and directing plans of care. 2 credits

RS 6153 Differential Diagnosis in Rehabilitation Sciences
Prerequisites: Permission. This web-based course in differential diagnosis is designed for the rehabilitation professional. Clinical reasoning in history-taking and clinical evaluative skills are expected, utilized, and enhanced. Students will apply screening approaches in the intake process for medical conditions that interfere with therapy intervention or required medical attention prior to receipt of therapy. Diagnostic imaging, clinical laboratory, and other diagnostic testing that impact client/patient performance will be integrated into the process. 2 credits

RS 6113 Physiology of Rehabilitation (Anatomy & Physiology of the Axial Skeleton)
Prerequisites: Permission. This is an on-site course building on the core knowledge of cadaveric gross anatomy, biomechanics, neurology and functions of the muscles associated with the bones which make up the axial skeleton. The core knowledge will be briefly reviewed and then discussed in greater detail as it relates to the functions and relationships of the musculoskeletal system. Also stressed will be clinical muscular and skeletal conditions which produce loss of function and impairments. 3 credits

RS 5950 Practicum - Internships
Prerequisites: Permission. This is an on-site advanced clinical experience in preparation for specific, advanced skills in orthopedic and/or sports physical therapy. 2-4 credits (2 credits minimum)

Pediatric-specific Specialization

RS 5263 Family and Diversity
Prerequisite: Permission. Participants in this course will explore the theoretical basis for assessing and developing supports for children and families. The theories used for this course include Family Systems, Ecological Framework, and Family Competence. Classes will include web-based lecture, discussion of case studies and group discussion of theory, emerging literature, and current topics of interest. The course instructors will share their expertise in working with families of children with special needs in a variety of contexts. 3 credits

RS 5443 Early Intervention and School Based Practice
Prerequisite: Permission. This course is designed to prepare students with the knowledge, skills, and attitudes needed to provide team-oriented, family-centered early intervention and related services for students birth through 21 with disabilities. The course will emphasize pertinent federal legislation and regulations, and current issues and best practices in early intervention, special education, and related services. 3 credits

RS 5483 Topics in Assistive Technology
Prerequisite: Permission. This problem-based course prepares students to make team-oriented decisions in assistive technology and provides opportunities for practical experience and study in areas of assistive technology of particular interest to the student, such as augmentative and alternative communication, computer access, and positioning and mobility. This course often is part of the summer institute in Oklahoma City. 3 credits
**RS 6263 Community Assessment & Analysis**  
Prerequisite: Permission. This course is designed to prepare students with the knowledge and skills necessary for community assessment and analysis. 3 credits

**RS 5950 Practicum (in Early Intervention/Related Services) (Leadership Practicum)**  
Prerequisite: Permission. This course provides students with opportunities to participate in activities that advance their applied knowledge and skills in a manner relevant to their individual educational goals. The practicum may focus on, but is not limited to, teaching, other leadership activities, research, policy development, and other activities relevant to early intervention and school-based practice. 2 credits

*Doctoral Thesis*

**RS 8430 Doctoral Thesis in Rehabilitation Sciences**  
Prerequisite: Permission. Students complete a doctoral thesis that culminates in preparation of a manuscript for publication. The purpose of the thesis is for students to conduct an in-depth study on a topic or question related to practice, education, or policy. Variable credit; Student are required to enroll in at least 2 credits per semester when enrolling in RS 8430.

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