

KINESIOLOGY & REHABILITATION SCIENCE DEPARTMENT

Dr. Rockie Pederson, Head

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The Department of Kinesiology & Rehabilitation Science includes a nationally accredited Society of Health and Physical Educators (SHAPE) Teaching and Coaching K-12 program that is a part of the College of Education and Health's professional preparation program curricula designed to serve the students, faculty and staff of Arkansas Tech University.

The programs in the Department of Kinesiology & Rehabilitation Science are designed to prepare students for lifelong growth in the physical, intellectual, cultural, emotional and social dimensions. These goals and objectives are met through the qualified faculty's presentation of research-based information, utilizing the latest technology.

Kinesiology offers the following degree tracks:

1. Health and Physical Education Teacher Licensure: This track serves students who want to teach K-12 Health and Physical Education, with a coaching license.
2. Health and Exercise Science: This track is oriented toward preparing students to be strength/conditioning professionals, fitness professionals, and/or preparation for advanced degrees. The program offers two additional options:
 1. The Health and Exercise Science Kinesiology option includes courses in exercise programming, weight training, endurance conditioning, coaching power, speed, and agility, exercise and behavior adherence.
 2. The Health and Exercise Science Pre-Allied Health Studies option includes courses in exercise programming, additional courses in biology and chemistry, endurance conditioning, exercise physiology lab, health and fitness programming, and biomechanics.

Driver Education Program

The Driver Education Program has been designed to serve individuals preparing to be driver and traffic education teachers. Admission into the program requires a First Aid course on the applicant's college transcript. Additional information about this summer program may be obtained by calling 964 0583, ext 4901.

Rehabilitation Science

The Rehabilitation Science curriculum is accredited by the Commission on Accreditation or Allied Health Education Programs (CAAHEP). The program is designed to produce undergraduate rehabilitation generalists who have training and experience conducive to successful careers in various rehabilitation service programs. Within the Rehabilitation Science major five minors are offered:

1. Addictions
2. Aging

3. Child Welfare and Social Services
4. Disabilities Studies, and
5. Recreation Services

Students must choose at least one of these minors in order to complete the requirements for the degree.

For more information, please visit <https://www.atu.edu/krs> (<https://www.atu.edu/krs/>).

Programs

- Addictions Minor (For Rehabilitation Science Majors Only) (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/addictions-minor/>)
- Child Welfare and Social Services Minor (Only for Rehabilitation Science Majors) (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/child-welfare-social-services-minor/>)
- Disability Minor (For Rehabilitation Science Majors Only) (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/disability-minor/>)
- Health and Exercise Science, Bachelor of Science (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/health-exercise-science-bs/>)
 - Health and Exercise Science, Bachelor of Science - Kinesiology Option (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/health-exercise-science-bs/health-exercise-science-bs-kinesiology-optn/>)
 - Health and Exercise Science, Bachelor of Science - Pre-Allied Health Studies Option (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/health-exercise-science-bs/health-exercise-science-bs-pre-allied-health-studies/>)
- Health and Physical Education, Bachelor of Science (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/health-physical-education-bs/>)
- Recreation Services (For Rehabilitation Science Majors Only) (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/recreation-services-minor/>)
- Rehabilitation Science Minor (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/rehabilitation-science-minor/>)
- Rehabilitation Science, Bachelor of Science (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/rehabilitation-science-bs/>)
- Sport Coaching Minor (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/sport-coaching-minor/>)

Courses

Health and Exercise Science

HES 1002 Physical Health and Fitness

The course provides students with the opportunity to assess their current lifestyle and consider the possible consequences for the present and the future. The class provides a mechanism for change by actively involving the student in self-analysis and a trial exercise program. A grade of C or better is required for HPE majors. Two scheduled class meetings and two hours arranged. \$25 course fee. This is an activity course. No more than four hours of activity credit may be counted toward graduation. A student registering for an activities course in excess of these limits receives no credit for the additional course and the grade is not included in the computation of grade point.

Note: This course will satisfy two credit hours of PE activity.

HES 1003 Introduction to Exercise Programming

This course will introduce students to four components of fitness (muscular strength & endurance; cardiorespiratory endurance; flexibility; and body composition), the F.I.T.T. principle (Frequency - Intensity - Type - Time), basic physical adaptations, and basic strength & endurance exercises. Students will be taken through example applications of programming, led through programs by the instructor and tested on knowledge of basic programming knowledge. \$25 course fee.

HES 2003 Field-Based Experience in Health and Exercise Science

Prerequisite: Level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

The class provides the prospective Wellness/Fitness professional with an opportunity to observe on-site a community-based wellness/fitness agency or business. A combination of classroom and on-site experiences will direct the student's focus to various aspects of commercial or institutional programs and services aimed at lifestyle enhancement. Specific lecture-class meetings and at least 30 hours of observation in an agency or business setting will be required.

Note: A grade of C or better is required for Health and Physical Education majors.

HES 2013 Weight Training for Personal Trainers, High School Coaches, and Physical Education

Prerequisite: HES 1003.

This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. cleans, snatches, front squats, bent over rows, etc.) that can be integrated into a weight training for the development of muscular strength, hypertrophy, and power. Coaching and teaching strategies will be discussed and practices that includes weight training safety, exercise technique assessment, testing, and programming methods. \$20 course fee.

HES 2023 Endurance Programming and Conditioning

Prerequisite: HES 1003.

This course is designed to provide students the opportunity to understand the various methods of coaching and teaching endurance focused exercises, activities, and programming. Basic endurance principles, techniques, and application of programming will meet the instructional needs of personal trainers, strength & conditioning coaches, and sport coaches. \$20 course fee.

HES 2043 Applied Fitness Assessment and Development

Prerequisite: PE 2653 and PE 3663; level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

A survey and application of the knowledge and experiences in assessing and developing all components of physical fitness.

Note: A grade of C or better is required for Health and Physical Education majors.

HES 3003 Exercise Prescription

Prerequisite: HES 2043 or consent of department head; level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

A course designed to expose the student to the aspects of health-related and skill-related physical fitness, with particular attention given to prescribing exercise programs. Attention will be given to choosing appropriate fitness assessments, along with development of appropriate goals for clientele.

Note: A grade of C or better is required for Health and Physical Education majors.

HES 3013 Coaching Power, Speed, and Agility

Prerequisite: HES 1003.

This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. plyometrics, springs, 5-10-5, etc.) that can be integrated into a strength and conditioning program for the improvement in athletic performance. \$20 course fee.

HES 3023 Exercise Behavior and Adherence

Prerequisite: Level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

The course provides the student with the opportunity to learn about the components which impact exercise behaviors and adherence to physical exercise programs. Emphasis is placed on the identification of components which directly impact on personal motivation for the development of appropriate exercise behaviors, and the development of incentives which assist in adherence to health enhancement programs. Note: A grade of C or better is required for Health and Physical Education majors.

Rehabilitation Science

RS 2003 Introduction to Rehabilitation Science

A survey of the history, philosophy, and roles of the rehabilitation and social services movement. In addition, the course will focus on public attitudes toward people with disability, adjustment to disability, and an orientation to the various community resources which can be utilized toward the rehabilitation of people with disabilities.

Note: A grade of C or better is required for Rehabilitation Science majors.

RS 2033 Introduction to Vocational Rehabilitation

Prerequisite: RS 2003.

An overview of the history, philosophy, and legal basis of vocational rehabilitation plus an in-depth study of the case process. This class will emphasize the vocational rehabilitation process through studying closed case files and case recording procedures.

RS 2043 Introduction to Social Services

Prerequisite: RS 2003.

An introduction to the history, philosophy, and legal basis of the social services movement. This class will also emphasize the social service case process and case management practices.

RS 2163 Introduction to Addictions

Prerequisite: RS 2003, PSY 2003, SOC 1003, or consent of the instructor.
A study of drug abuse emphasizing etiology, patterns of use and abuse, and problems related to research and approaches to treatment.

RS 3013 The World of Work

Prerequisite: RS 2003.
A survey of the world of work emphasizing the role of work in our society, how disability changes one's work role, how career choices are made, and placement techniques.

RS 3073 Organization and Structure in the Rehabilitation-Human Services Setting

Prerequisite: RS 2003.
This course will provide the student with an overview of organizational and administrative structure in the rehabilitation human services setting. Additionally, it will focus on the dynamics involved in developing a successful managerial style.

RS 3083 Supported Employment Concepts and Strategies

Prerequisite: RS 2003 and 3013 or consent.
An introduction to the ideas, philosophies, models, concepts, and issues that characterize supported employment. Applications with different disability populations will be reviewed.

RS 3093 Rehabilitation Services for the Aging Adult

Prerequisite: RS 2003.
A study of aging and the elderly from a rehabilitation viewpoint. This course will focus on intervention strategies, actual and potential, that might enable other people to maximize their potential and affect the needs for institutionalization.

RS 3123 Ethics and Professional Development

Prerequisite: RS 2003.
A study of personal values, CRCC, ACA, and APA professional guidelines, and decision making models that will assist future human service practitioners to effectively deal with ethical dilemmas. This course will emphasize critical thinking and problem solving, and will utilize instructor and student generated dilemmas.
Note: A grade of C or better is required for Rehabilitation Science majors.

RS 3141 Rehabilitation Science Seminar

Prerequisite: RS 2003.
A directed seminar in an area of rehabilitation science. The specific focus will depend upon research underway, community or student need, and the unique educational opportunity available.
Note: May be repeated for credit if course content differs.

RS 3142 Rehabilitation Science Seminar

Prerequisite: RS 2003.
A directed seminar in an area of rehabilitation science. The specific focus will depend upon research underway, community or student need, and the unique educational opportunity available.
Note: May be repeated for credit if course content differs.

RS 3143 Rehabilitation Science Seminar

Prerequisite: RS 2003.
A directed seminar in an area of rehabilitation science. The specific focus will depend upon research underway, community or student need, and the unique educational opportunity available.
Note: May be repeated for credit if course content differs.

RS 3153 Assistive Technology in Rehabilitation Settings

Prerequisite: RS 2003 or consent.
A study of the types of technology devices and services available to individuals with disabilities. Emphasis will be placed on knowledge of resources, assessment of individual needs, funding of devices and services, and methods to use assistive technology to improve the quality of life for all individuals.

RS 3163 Addictions Assessment, Planning, and Treatment Strategies

Prerequisite: RS 2003 or consent of instructor.
A study and assessment of addiction disorders and related treatment planning approaches with an overview of evidence based intervention techniques and strategies. Group facilitation skills and meeting cultural issues in the group setting will be addressed.

RS 3173 Addictions and the Family

Prerequisite: RS 2003 or consent of instructor.
A study of the impact of addictions upon families, the social fabric of the nation. The course includes a review of family systems theory and family addictions counseling models.

RS 3183 Mental Health Issues in Rehabilitation Settings

Prerequisite: RS 2003.
This course is a survey of various mental health diagnoses/conditions and their influence and treatment within the field of rehabilitation services. The objective of the course is to serve as an overview of:
1. the nature of psychiatric illness/ disorder, 2. the principles and methodologies of psychiatric rehabilitation, 3. the settings in which the principles of psychiatric rehabilitation might be applied.

RS 3204 Interviewing Skills

Prerequisite: RS 2003.
This course is designed to facilitate basic mastery of core communication skills (micro skills) necessary to build meaningful and effective helping relationships. Students will need to think, be creative, and practice in order to transfer the micro skills they learn to outside the classroom. Rehabilitation Science is an applied program of study. RS 3023 is a prerequisite methods course which prepares students for field placement activities such interviewing and interpersonal communication, and geared for students who plan on providing direct client/patient services in their future careers and/or for all students who have an interest in helping and/or want to improve their interpersonal communication skills. This course is intended to challenge students to increase their self-awareness, sensitivity, and competence to communicate in authentic and sensitive ways to better connect and communicate with others from diverse backgrounds. In addition, this course will provide an introduction to person-centered counseling theory which will be used as a model throughout this principles (i.e. empathy, unconditional positive regards, and genuineness) of the person-centered approach will be emphasized.
Note: A grade of C or better is required for Rehabilitation Science majors.

RS 3243 Social Services for Individuals and Families

Prerequisite: RS 2003.
A study of the varied and numerous services offered by federal, state, and privately funded social service programs with an emphasis on protective services, foster care, and adoption services.

RS 3263 Resiliency, Vulnerability, and Crisis

Offered: Spring Prerequisite: RS 2003 Individuals with disabilities may be affected by crisis situations and trauma, and it is important to understand the immunities (strengths) and vulnerabilities (needs) that affect the ability of the person to respond to these situations.

These immunities and vulnerabilities may come from within the individual or their personal situation, or societal responses to disasters such as Covid-19, tornadoes, earthquakes, and hurricanes. This course will provide students with exposure to assessing and planning for crisis situations, both from a personal and societal perspective. Students will learn how to develop an individualized plan that builds on strengths and accesses resources.

Note: A grade of C or better is required for Rehabilitation Science majors.

Faculty

Professor

- Rockie Pederson (<https://www.atu.edu/hpe/profiles/rpederson.php>)
- Michael Waller (<https://www-old.atu.edu/hpe/profiles/mwaller3.php>)

Associate Professor

- Gina Kraft (<https://www.atu.edu/hpe/profiles/gkraft.php>)
- Brett Stone (<https://www.atu.edu/hpe/profiles/bstone10.php>)
- Erica Wondolowski (<https://www.atu.edu/behaviorsci/profiles/ewondolowski.php>)

Assistant Professors

- Dustin Dunnick (<https://www.atu.edu/hpe/profiles/ddunnick.php>)
- Randy Kirkpatrick (<https://www.atu.edu/hpe/profiles/wkirkpatrick.php>)
- Robert Stevens (<https://www.atu.edu/behaviorsci/profiles/rstevens5.php>)

Senior Instructors

- Peter Kelly (<https://www.atu.edu/hpe/profiles/pkelly.php>)
- Troy Norton (<https://www.atu.edu/hpe/profiles/tnorton.php>)

Instructors

- David Dawson (<https://www.atu.edu/hpe/profiles/ddawson3.php>)
- Mark Downey (<https://arkansastechsports.com/staff-directory/mark-downey/150/>)
- Brock Hime (<https://arkansastechsports.com/404-1.aspx?url=%2fstaff.aspx%3fstaff%3d138>)
- Nick Sheehan (<https://arkansastechsports.com/404-1.aspx?url=%2fstaff.aspx%3fstaff%3d160>)
- David Wilbers (<https://arkansastechsports.com/staff-directory/dave-wilbers/15/>)
- Shaun Wiseman (<https://arkansastechsports.com/staff-directory/shaun-wiseman/186/>)