

# Health and Exercise Science Undergraduate Course Listing

**2131 Introduction to Health and Exercise Science.** Designed to introduce students to the fundamentals of HES, including curricular disciplines, basic terminology, career opportunities, and professional associations. Students will also learn basic library research skills and a working knowledge of the support services and technologies available at the University. (F, Sp)

**2212 First Aid.** Includes the theory related to causes and prevention of accidents, as well as development of sufficient knowledge to determine the nature and extent of injuries. Training focuses on taking proper procedural steps at the proper times. Upon successful completion of the course and its specific requirements, students are awarded the American Red Cross Community First Aid and CPR Certificates. **Laboratory** (F, Sp, Su)

**2823 Introductory Nutrition.** Evaluation of basic composition of nutrients and accessory factors required for adequate human nutrition. Application of nutritional principles to the planning of normal and special dietary regimens. (F, SP)

**2913 Personal Health.** Emphasizes the health knowledge and practices needed for effective living. The course has a holistic focus on personal health and provides both an informational and behavioral basis for health promotion and disease prevention. Topics include: mental health, stress management; fitness; nutrition; alcohol, tobacco, and other drug education; sexuality; and chronic/infectious disease. (F, Sp)

**3000 Special Topics in Health and Exercise Science.** 1 to 3 hours. Prerequisite: junior standing or permission of instructor. May be repeated with change of content; maximum credit nine hours. Topics in health and exercise science not accommodated by the existing curriculum. Example: psychological factors in exercise adherence, i.e., personality traits of select exercise individuals, reinforcement procedures, personal goals as related to exercise needs, etc. (Irreg.)

**3000 Advanced Strength & Conditioning Design . Prerequisite 3873 or 4873.** This course is designed to advance the knowledge of strength and conditioning concepts learned during 3873 and/or 4873 in a more applied setting. The objective is to prepare students to confidently and specifically design strength and conditioning programs for all populations including athletes, elderly and children; as well as to successfully demonstrate and teach all lifts and conditioning drills. (Irreg.)

**3021 Sports Officiating .** Standards and principles involved in the art of officiating. Laboratory experience required. Emphasis on speedball, football, and volleyball. WNORC examinations for women. (F)

**3031 Sports Officiating.** Standards and principles involved in the art of officiating. Laboratory experience required. Emphasis on basketball, softball, baseball, and track and field. (Sp)

**3052 Theory of Baseball.** Prerequisite: 2022. The sciences of coaching baseball. Thorough coverage of the basic fundamentals of defensive and offensive baseball; coaching and teaching techniques; strategy, and administrative duties of the baseball coach. (Irreg.)

**3072 Theory of Basketball.** Prerequisite: 2022. History and technique of the game basic teaching and coaching of fundamental skills; methods of training and care of equipment. Advanced techniques in offensive and defensive strategy; psychology of handling personnel; scouting assignments. (Irreg.)

**3430 Field Experiences in Health and Exercise Science.** 1 to 4 hours. Prerequisite: junior standing or permission of department. May be repeated with change of activity or advanced position; maximum credit four hours. Field study related to student's area of interest (athletic coaching, athletic training, exercise science, health promotion, sport management) as approved by the department's field supervisor or adviser. A contract is required prior to beginning the field experience. The contract will address: statement of purpose, process of submitting reports, on-site evaluations, and written evaluations by student and site supervisor. (F, Sp, Su)

**3502 Care and Prevention of Athletic Injuries.** Prerequisite: 2212 or equivalent; three hours of biological science and three credit hours of social science. Recognition, cause, prevention, treatment, rehabilitation of athletic injuries; taping methods, protective equipment, and doctor's recommendations; equipping the training room, conditioning the athlete, practice routines and the athlete's diet. **Laboratory** (Sp)

**3503 Child and Family Health.** Prerequisite: junior standing. Examines the multifaceted determinants of health for children and adolescents, with special emphasis on the roles of the family, school and community. Topics include: body image and dieting; nutrition, obesity and physical activity; adolescent social behaviors; tobacco and alcohol use; mental health and family relationships. Gender-specific and age-appropriate prevention and intervention strategies will be discussed in relation to each of these topics. (Irreg.)

**3513 Health Promotion Program Planning .** Prerequisite: HES major or permission of instructor. Discussion of health promotion programming in disease prevention, risk reduction, and wellness. Understanding the theoretical issues related to the development and evaluation of health promotion programs and the behavioral dimensions of health promotion. (F, Sp)

**3523 Human Sexuality .** Prerequisite: 2913, Psychology 1113. An introduction to biological, psychological, and sociological concepts which form the interdisciplinary foundation for studying human sexuality. Current research findings in all areas will be emphasized. Areas of emphasis will include: personal, social, sexual, and gender identity development across the lifespan, interaction and communication within social and intimate relationships, and reproductive and other health-related sexuality issues. (F, Sp)

**3543 Health and Wellness Coaching .** Prerequisite: junior standing. Encourages participants to successfully adopt healthier lifestyle behavior. Explores the development and efficacy of health and wellness coaching and develop the ability to implement basic coaching skills when working with patients and wellness clients. (F, Sp)

**3553 Wellness in Native Communities.** Prerequisite: junior standing. Designed to explore and understand the principles of individual and community wellness from the perspective of both mainstream society and from within the cultural frame of native beliefs and values. (F, Sp)

**3563 Lifestyle Interventions .** Prerequisite: HES major or permission. Examines the relationship between individual behavior and the health status of a community. Current lifestyle intervention literature will be the focus. Application of intervention strategies will be presented for school, worksite, and community settings. (Irreg.)

**3573 Obesity and Weight Management .** Prerequisite: Zoology 2124 or permission of instructor. Provide students with knowledge of the physiology and psychology of obesity and overweight. Course is designed to educate students not only on the scientific background of obesity but how to apply this knowledge to management of obesity in the general and specific populations they will be serving. (Irreg.)

**3583 Socio Cultural Aspects of Health .** Prerequisite: junior standing. Designed to offer a comprehensive approach to understanding social injustice and its impact on health. Particular attention will be given to research emphasizing social determinants as the underlying causes of ill health in the American society. (F, Sp)

**3593 Sport and Physical Activity in Society .** Prerequisite: junior standing. Examines major theoretical perspectives and research with particular emphasis on sport and physical activity in contemporary American society. Issues to be addressed that concern physical activity and sport in our society will be the history, the role of educational institutions, social problems, gender and ethnic minorities and the media's influence on sport and physical activity. (Irreg.)

**3703 Consumer Health .** Prerequisite: junior standing. Provides an overview of the health marketplace and the processes involved in becoming an intelligent consumer of health information, products and services. (Irreg.)

**3813 Principles of Health and Fitness.** Prerequisite: HES major or permission of department. Study of the underlying principles of life sciences that contribute to an understanding of the role of physical activity in health, fitness, and sports medicine. Specific reference to an overview of public health and disease, anatomy and biomechanics, exercise physiology, health appraisal and fitness testing and programming, human development and behavior, and program management. **Laboratory** (F)

**3823 Physiology of Exercise.** Prerequisite: 3813, Zoology 2124 or 3103 or equivalent and permission. An introductory study of principles and concepts of exercise physiology. Theoretical and scientifically established mechanisms are explored that explain the body's response, adaptation, and concomitant regulation during acute and chronic exercise. Applications presented in the clinical, sport, occupational, and normal exercise settings. Focus is on an understanding of the body's function from the cellular to systemic level during exercise. An understanding of assessment and physical training principles to explain health and performance is emphasized. Specific factors that affect the physiological bases of human performance are investigated. (Irreg.)

**3843 Biomechanics..** Prerequisite: Zoology 2255, Health and Exercise Science major, or permission. The integrated study of anatomy, physiology, and mechanics with emphasis on understanding the anatomical and functional aspects of human movement in the area of health and exercise science, such as in clinical, daily living, and sport applications. (Irreg.)

**3853 Exercise Testing and Prescription .** Prerequisite: 3813, Health and Exercise Science major or permission of instructor. This course will introduce the exercise science student to the theoretical and functional techniques of graded exercise testing for functional and/or diagnostic assessment. Equal time will be spent between lecture and lab as students will be provided the theoretical background for all testing methods commonly used in both a health and fitness scenario as well as an introduction to how these methods can be used clinically. This course is designed to prepare exercise science students for the American College of Sports Medicine's Health/Fitness Instruction Certification. **Laboratory.** (F, Sp)

**3863 Exercise and Health Issues of Women .** Prerequisite: 3813 or permission of instructor. Course focuses on topics related to the effects of exercise on the health of adult women, including body composition, reproductive function and hypokinetic diseases. (Irreg.)

**3873 Principles of Personal Training .** Prerequisite: Permission of instructor. To develop an understanding of basic physiological mechanisms and application principles necessary to evaluate the acute and chronic responses and adaptations to exercise. To develop and understanding of basic skills and competencies in personal training technique and evaluation. Emphasis is placed on a healthy population with introductory concepts for special populations. (Irreg.)

**3893 Facts and Fallacies of Exercise and Nutrition .** Prerequisite; junior standing or permission of instructor. Provides meaningful and practical guidelines on how to recognize and dispel many of today's popular myths regarding exercise and nutrition. Course concepts will emphasize the proper use of scientific evidence to either dispel current topics as fallacy or confirm as fact. Sample current topics may include fads, infomercial products, weight loss, aerobic exercise, resistance exercise, dietary supplements, and exercise/sport nutrition, along with the effect of media and advertising and marketing ploys on these topics. (Irreg.)

**3960 Honors Reading.** 1 to 3 hours -. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Study of current research developments in health and sport sciences. An opportunity for the Honors' candidate to work with a faculty mentor on a research project of special interest to the student in the health and sport sciences. (F, Sp, Su)

**3970 Honors Seminar.** 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. An opportunity for the Honors' candidate to work with a faculty mentor on a research project of special interest to the student. (F, Sp, Su)

**3980 Honors Research.** 1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted honors candidate to work at a special project in the student's field. (F, Sp, Su)

**3990 Independent Study.** 1 to 3 hours. Prerequisite: one course in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)

**4213 Management in Health and Exercise Science.** Prerequisite: permission of instructor. Concentration on managerial theories, research, and their applications in health and sport organization and administration. Specific topics include organizational theories, communication, leadership, motivation, managerial skills, and functions of management, issues of policies, marketing, and financial aspects of management. (Irreg.)

**4430 Internship in Health and Exercise Science.** 4 to 8 hours. Prerequisite: junior or senior standing and twenty credit hours of HES major core, or permission of adviser. May be repeated with change in organization or advanced position with approval of adviser; maximum credit eight hours. Practical experience in administration, techniques, organizational structure and appropriate materials used with health, fitness, or sport related occupations. (F, Sp, Su)

**4523 Human Sexuality II .** Prerequisite: 3523 or permission. In-depth study of human sexuality from a biopsychosocial perspective which emphasizes the roles of biology, psychological factors, and social learning. Area studies will include sexual and gender development across the life span; interaction and communication within intimate relationships; reproductive and health-related sexuality topics; and a historical look at the evolution of mating and love relationships. In addition, students will examine the integration of human sexuality issues and education in health-related occupations. (Irreg.)

**4543 Comprehensive Stress Management .** Prerequisite: Health and Exercise Science major or permission. Helps students gain an awareness of stress and its effects, practice management techniques to reduce personal stress, and implement those techniques in their daily lives as well as the lives of others (school, community, corporation, etc.). Topics include: psychophysiology of stress, stress and disease, nutrition, personal planning and time management, cognitive restructuring, relaxation, and biofeedback. (Irreg.)

**4823 Sport and Exercise Nutrition .** Prerequisite: Health and Exercise Science major or permission of instructor. Provide students with a basic understanding of the influence of nutrition on sport and exercise performance. It will require students to integrate their knowledge of nutritional physiology, biochemistry and intermediary metabolism with that of exercise physiology and to apply this knowledge to develop a critical understanding of the nutritional and practical dietary needs of individuals participating in sport and exercise. (Irreg.)

**4833 Physiology of Exercise Laboratory.** Prerequisite: 3823 or permission. Laboratory experiments emphasizing the understanding of fundamental physiological mechanisms, regulating responses, and adaptation to exercise. Basic analytical methodologies pertaining to the energy, muscular and circulatory systems. Includes factors affecting physiological performance capacities and experimental basis of exercise assessment and training. Laboratory (F, Sp)

**4853 Chronic Disease Intervention .** Prerequisite: Health and Exercise Science major or permission. Provide students with a basic understanding of disease process in selected chronic diseases and intervention strategies for risk reduction and chronic disease prevention. Basic principles of epidemiology and chronic disease surveillance will also be covered. (Irreg.)

**4863 Physical Activity and Aging .** Prerequisite: permission of instructor. Discussion of general concepts of aging and the issues related to dying, the expected changes related to aging in the various physiological systems, i.e., body composition, cardiovascular, bone, and skeletal muscle. In addition, exercise programming concerns for the aged as well as the possible benefits of exercise during aging will be discussed. (Irreg.)

**4873 Principles of Strength and Conditioning.** Prerequisite: junior standing or permission. Designed to prepare individuals who are interested in becoming certified strength and conditioning specialists (CSCS) through the national strength and conditioning association. Instruction is provided describing the principles of development of pre-season, in-season and off season strength and conditioning programs. Course experiences will reinforce training principles and teach the basic skills necessary for certification. (F, Sp, Su)

**4933 Drug Education .** Prerequisite: 2913. Beneficial and harmful uses and effects of drugs. Motivations behind drug abuse, especially among youth, and implications of this problem on the individual, school and society. Consideration given to legislative and educational efforts. Investigation of interpersonal skills and communication interaction techniques. The use of values-clarification techniques. (Irreg.)

**4953 Senior Capstone .** Prerequisite: senior standing and permission of instructor. An integration and synthesis of the major disciplines of study in the health and exercise science. Readings, discussions and research methods will focus on applications and problem solving approaches related to contemporary policy, economic, social and ethical issues. (F, Sp) [V]

**4990 Independent Study.** 1 to 3 hours. Prerequisite: three courses in general area to be studied; permission of instructor and department. May be repeated; maximum credit six hours. Contracted independent study for topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (F, Sp, Su)