EXERCISE AND SPORT SCIENCE (EXSS)

EXSS 50. First-Year Seminar: Discrimination and Sport. 3 Credits.
This course will examine the American ethos by looking at those who have been discriminated against in sport because of race, gender, sexual orientation, or disability.
Gen Ed: SS, US.
Grading status: Letter grade.

EXSS 51. First-Year Seminar: Entrepreneurship in Human Performance and Sport. 3 Credits.
This course will provide students an introduction to the practical entrepreneurial business tools for starting a new business (or for use in an existing organization) in the human performance and/or sport industry.
Gen Ed: EE- Field Work.
Grading status: Letter grade.

EXSS 89. First-Year Seminar: Special Topics. 3 Credits.
Course content will vary each semester.
Repeat rules: May be repeated for credit; may be repeated in the same term for different topics; 6 total credits. 2 total completions.
Grading status: Letter grade.

EXSS 141. Personal Health. 3 Credits.
Elective, open to all students. This course examines basic wellness concepts in the areas of physical fitness, nutrition, disease prevention, mental health, drug abuse, and human sexuality. Emphasis is on the individual’s responsibility for his/her own health.
Gen Ed: PL.
Grading status: Letter grade.

EXSS 175. Human Anatomy. 3 Credits.
The study of the structure of the human body with special emphasis on the musculoskeletal, articular, and nervous systems. Prosected cadaver materials are utilized to study the skeletal muscles and body viscera.
Gen Ed: PL.
Grading status: Letter grade.

EXSS 180. Physical Activity in Contemporary Society. 3 Credits.
An examination of the role of physical activity/inactivity on the health and well-being of American society.
Grading status: Letter grade.

EXSS 181. Sport and Exercise Psychology. 3 Credits.
This course exposes students to psychological aspects contributing to sport/physical activity participation and psychological outcomes of participation. It explores psychological theories and research and their application to the affective, behavioral, and cognitive outcomes of sport/physical activity participants when considering key environmental factors.
Grading status: Letter grade.

EXSS 191. Theory and Practice of Modern Dance Technique - Elementary-Level Elective. 3 Credits.
An introduction to modern dance technique, history, and philosophy focusing on the physical principles of movement and their choreographic application. Students will participate in a combination of lectures and studio time.
Gen Ed: VP.
Grading status: Letter grade.

EXSS 205. Analysis of Sport Skills I. 3 Credits.
A professional preparation course in the skills, knowledge, safety, and teaching progressions of basketball, track and field, and softball/baseball.
Grading status: Letter grade.

EXSS 206. Analysis of Sport Skills II. 3 Credits.
A professional preparation course in the skills, knowledge, safety, and teaching progressions of soccer, tennis, and volleyball.
Grading status: Letter grade.

EXSS 207. Coaching Principles. 3 Credits.
A professional preparation course for teaching and coaching. Includes basic instruction in coaching education and principles, pedagogy for coaching, conditioning for athletes, and team building.
Gen Ed: EE- Field Work.
Grading status: Letter grade.

EXSS 208. Health and Physical Education in the Elementary School. 3 Credits.
This course deals with methods and materials of health and physical education in school levels kindergarten through sixth grade. Required of elementary education majors. Does not count toward physical education major.
Grading status: Letter grade.

EXSS 211. Adapted Physical Education. 3 Credits.
A study of problems related to body mechanics and the needs of the physically handicapped student.
Grading status: Letter grade.

EXSS 220. Fitness Management. 3 Credits.
Students develop a working knowledge of theories, principles, and operating procedures involved in managing programs, staff, and facilities in the health/fitness industry, including management, marketing, operations, legal aspects.
Grading status: Letter grade.

EXSS 221. Introduction to Sport Administration. 3 Credits.
In this course, students are introduced to the policies and problems of organizing and administering sport in public and private settings.
Grading status: Letter grade.

EXSS 223. International Sport Management. 3 Credits.
Because sport cuts across all international boundaries, students must understand the global implications of the sport industry. This course introduces students to the organization, governance, business activities, and intercultural issues in international sport.
Grading status: Letter grade.

EXSS 224. Sport Sales and Revenue Production Seminar. 3 Credits.
This course will analyze and produce skills essential to the revenue production and sales process commonly found in the sport business. In this class students will develop an understanding and appreciation for the sales and revenue-production process related to a sport franchise and/or organization.
Grading status: Letter grade.

EXSS 260. Women and Sport. 3 Credits.
A broad based perspective of women’s participation in sport including history of participation, physiological differences, and socio-cultural influences including work, politics, family, economics, and gender roles and identity.
Gen Ed: SS.
Grading status: Letter grade
Same as: WGST 260.
EXSS 265. Fundamentals of Sports Medicine. 3 Credits.
This course is designed to introduce the undergraduate student to the
sports medicine profession and to provide the basic knowledge and
skills necessary to recognize, evaluate, and treat injuries to the head and
face, cervical spine, thoracic region, abdominal/urogenital region, and
extremities.
Requisites: Prerequisite, EXSS 175.
Grading status: Letter grade.

EXSS 273. Research in Exercise and Sport Science. 3 Credits.
An introduction to research in the fields of physical education, exercise,
and sport science with emphasis on understanding and application of
research findings.
Gen Ed: PL.
Grading status: Letter grade.

EXSS 276. Human Physiology. 3 Credits.
Instructor may approve equivalents for prerequisite. A lecture course in
elementary physiology, covering the various systems of the body.
Requisites: Prerequisite, EXSS 175.
Gen Ed: QL.
Grading status: Letter grade.

EXSS 275L. Human Anatomy Laboratory. 1 Credit.
Required preparation, a grade of B or better in EXSS 175. EXSS 275L
is a basic human anatomy laboratory course designed to accompany
EXSS 175. For students endeavoring to major in the allied health
professions.
Grading status: Letter grade.

EXSS 276. Human Physiology. 3 Credits.
This course is designed to develop practical competencies necessary for
effectively managing sport facilities and events while providing students
with experiential learning opportunities inside and outside the classroom.
Requisites: Prerequisite, EXSS 221.
Grading status: Letter grade.

EXSS 324. Finance and Economics of Sport. 3 Credits.
Recommended preparation, EXSS 221. This course provides an
understanding of the financial and economic growth of sport, economic
theory applied to the sport industry, and the basic principles and methods
of sound fiscal control.
Requisites: Prerequisite, ECON 101.
Grading status: Letter grade.

EXSS 325. The Role of Intercollegiate Athletics in Higher Education. 3
Credits.
This course is designed to help students interested in working in college
sports understand what that role has been and might be in the future,
with an emphasis on maximizing the educational value of intercollegiate
athletic participation and the integration of athletics with academic and
student life dimensions on college campuses.
Grading status: Letter grade.

EXSS 326. Legal Aspects of Sport. 3 Credits.
Recommended preparation, EXSS 221. This course provides a foundation
in general legal concepts and familiarizes students with the legal areas
they are most likely to encounter as managers in the sports and fitness
industry.
Grading status: Letter grade.

EXSS 327. Predictive Analytics in Sports. 3 Credits.
This course is designed to provide students with an introduction to
predictive analytics utilizing regression-based modeling approaches.
As a CURE course, students will learn the iterative process of model
building through trial and error and by working with other students on
hands-on problems. At the conclusion of this course, students will be
able to analyze sport-related data using predictive analytics, whether the
dependent variable is continuous or binary in nature.
Requisites: Prerequisite, STOR 151 or 155 with a grade of B or better.
Gen Ed: EE- Mentored Research.
Grading status: Letter grade.

EXSS 328. Sport Business Venture. 3 Credits.
This course will provide students an introduction to practical
entrepreneurial business tools for starting a new business (or for use in
an existing organization) in the sport industry.
Grading status: Letter grade.

EXSS 360. Sports Nutrition. 3 Credits.
The role of nutrition in maximizing physical performance, promoting
health, and controlling body weight. Includes individual nutritional
assessments.
Requisites: Prerequisite, EXSS 276 or NUTR 240.
Grading status: Letter grade.

EXSS 366. Evaluation of Athletic Injuries. 3 Credits.
This is an advanced athletic training course, designed to provide
the athletic training student with knowledge and skills necessary to
recognize and evaluate athletic injuries of the spine and extremities.
Requisites: Prerequisites, EXSS 175, 265, and 288.
Grading status: Letter grade.

EXSS 367. Therapeutic Modalities. 3 Credits.
This is an advanced athletic training course, designed to provide
the athletic training student with knowledge and skills necessary for treating
injuries.
Requisites: Prerequisites, EXSS 175, 265, 288, and 366.
Grading status: Letter grade.
EXSS 368. Therapeutic Exercise and Rehabilitation. 3 Credits.
This is an advanced athletic training course, designed to provide the athletic training student with knowledge and skills necessary for rehabilitating injuries.
Requisites: Prerequisites, EXSS 175, 265, 288, 366, and 367.
Grading status: Letter grade.

EXSS 369. Athletic Training Seminar. 3 Credits.
A presentation of the historical and current perspectives on athletic training, including techniques for organizing and administering athletic training programs.
Requisites: Prerequisites, EXSS 175 and 288.
Grading status: Letter grade.

EXSS 370. General Medicine in Athletic Training. 3 Credits.
Advanced course focusing on understanding instrumentation used in assessing internal injury related to sport. Pharmacology, drug testing, psychosocial interventions, and selected emergency procedures pertaining to athletic injury are also presented.
Requisites: Prerequisites, EXSS 175, 265, 276, and 288.
Grading status: Letter grade.

EXSS 376. Physiological Basis of Human Performance. 3 Credits.
Instructor may approve equivalents for EXSS prerequisites. Students must take laboratory section along with class. The application of physiological principles to sport and physical activity. Both immediate and chronic adaptations to exercise are studied. Two lecture and two laboratory hours a week.
Requisites: Prerequisites, EXSS 175 and 276.
Grading status: Letter grade.

EXSS 380. Neuromuscular Control and Learning. 3 Credits.
Instructor may approve equivalents for prerequisite. Provides introduction to neuromuscular factors controlling movement and acquisition of motor skills. Promotes application of neuromuscular control and motor learning principles to teaching of motor skills with application to rehabilitation and fields such as athletic training, physical therapy, and coaching.
Requisites: Prerequisite, EXSS 175.
Grading status: Letter grade.

EXSS 385. Biomechanics of Sport. 3 Credits.
Instructor may approve equivalents for EXSS prerequisite. The study and analysis of human movement including fundamental aspects of the musculoskeletal and articular systems. Principles of biomechanics, including application to neuromuscular fitness activities, aerodynamics in sport, hydrodynamics, rotary motion, throw-like and push-like patterns, and analysis of projectiles.
Requisites: Prerequisite, EXSS 175.
Grading status: Letter grade.

EXSS 393. Athletic Training Clinical. 1 Credit.
This field experience offers implementation of theories and practices of athletic training and sports medicine under the supervision of a certified athletic trainer.
Requisites: Prerequisites, EXSS 175, 265, and 288.
Gen Ed: EE- Field Work.
Repeat rules: May be repeated for credit. 5 total credits. 5 total completions.
Grading status: Letter grade.

EXSS 395. Undergraduate Research Course. 1-3 Credits.
Permission of the instructor. Majors preferred. Laboratory/research study addressing exercise and sport science questions. Requires final written report. Repeatable for six total credits.
Gen Ed: EE- Mentored Research.
Repeat rules: May be repeated for credit. 6 total credits. 2 total completions.
Grading status: Letter grade.

EXSS 396. Independent Studies in Exercise and Sport Science Elective. 1-3 Credits.
Required preparation, any two relevant courses. Permission of the instructor. Individually designed in-depth study in an area of interest within exercise and sport science. Available to both majors and nonmajors under the supervision of selected EXSS faculty members.
Repeat rules: May be repeated for credit. 6 total credits. 2 total completions.
Grading status: Letter grade.

EXSS 397. Critical Analysis of Literature in Sport and Exercise Psychology. 1 Credit.
This course will expose students to research in sport and exercise psychology using the C.R.E.A.T.E. (Consider, Read, Elucidate the hypotheses, Analyze and interpret the data, and Think of the next Experiment) framework. Students will follow the historical publications of one sport and exercise psychology research group to better understand the research process. Each research paper will be digested/critiqued in phases. Student will also formulate their own novel research questions and present them to the class.
Requisites: Prerequisite, EXSS 181.
Grading status: Letter grade.

EXSS 408. Theory and Application of Strength Training and Conditioning for Fitness Professionals. 3 Credits.
Instructor may approve equivalents for prerequisites. This is an intermediate- to upper-level course designed to provide students with theoretical and practical knowledge of the physiological, biomechanical, functional, and administrative aspects of designing and supervising conditioning programs for various populations.
Requisites: Prerequisites, EXSS 175 and 276.
Grading status: Letter grade.

EXSS 410. Exercise Testing and Prescription. 4 Credits.
Students must take laboratory section along with class. This is an upper division undergraduate course designed to provide the theoretical and practical knowledge in basic exercise testing and prescription for both healthy and select special populations.
Requisites: Prerequisites, EXSS 175, 276 and 376.
Grading status: Letter grade.

EXSS 420. Program Planning in Recreation Services. 3 Credits.
This experiential course covers the concepts and skills used in program planning. Students apply their program planning skills to real-life situations and implement a recreation program for a community agency. Previously offered as RECR 420.
Gen Ed: CI.
Grading status: Letter grade.

EXSS 430. Introduction to Leadership and Group Dynamics. 3 Credits.
An analysis of the techniques, methods, and motives of group and community leaders. Special attention is focused upon the roles of organizational structure, personnel policies, and in-service training programs. Previously offered as RECR 430.
Gen Ed: CI.
Grading status: Letter grade.
EXSS 450. Essentials of Corrective Exercise Training. 3 Credits.
This course provides students with knowledge and experience in designing corrective exercise programs. Students will learn to assess posture, movement quality, range of motion, and strength. Students will also learn to correct abnormalities exercises for various body parts. Knowledge will be gained via lecture and laboratory activities. Previously offered as EXSS 350.
Requisites: Prerequisites, EXSS 175 and 276.
Grading status: Letter grade.

EXSS 475. Functional Anatomy. 3 Credits.
This course provides an in-depth exploration of joint mechanics. It exposes students to motions of the cervical, thoracic, and lumbar spine as well as the extremities, and relates these concepts to movement of the body during specific activities.
Requisites: Prerequisites, EXSS 175, 276, and 385.
Grading status: Letter grade.

EXSS 478. Sports Performance Training. 3 Credits.
An upper-level course designed to provide students who have a fitness background with the theoretical and practical knowledge related to the Performance Enhancement Specialization for athletes of all ages.
Requisites: Prerequisites, EXSS 175 and 276.
Grading status: Letter grade.

EXSS 479. Performance Enhancement Specialization for Health Professionals. 1 Credit.
An upper-level course designed to provide students who have a health profession background with the theoretical and practical knowledge related to the Performance Enhancement Specialization for athletes.
Requisites: Prerequisites, EXSS 175, 276, 366, and 368.
Grading status: Letter grade.

EXSS 493. Field Experience in Sport Administration. 1-3 Credits.
This field experience offers implementation of theory and the practical application of sport administration in a sport organization workplace, under the direct supervision of a business professional.
Requisites: Prerequisites, EXSS 221 and at least two of the following: EXSS 322, 323, 324, 326; permission of the instructor required for students lacking the prerequisites.
Gen Ed: EE- Academic Internship.
Repeat rules: May be repeated for credit. 6 total credits. 2 total completions.
Grading status: Letter grade.

EXSS 576. Exercise Endocrinology. 3 Credits.
Advanced course examining the responses of the endocrine system to exercise and the adaptations that occur with exercise training. Provides the fundamentals necessary for exercise science and allied health science students to understand the integral role that the endocrine system plays in exercise.
Requisites: Prerequisites, EXSS 175, 276, and 376.
Grading status: Letter grade.

EXSS 580. Neuromechanics of Human Movement. 3 Credits.
This course explores interactions between the nervous and musculoskeletal systems via integration of concepts from neuroanatomy, neurophysiology, anatomy, neuromuscular control, and biomechanics. Topics include muscle mechanics, sensorimotor function, joint stability, movement disorders, neurocognition, and neuromuscular, control and biomechanics. Course meetings involve both lecture and laboratory content.
Requisites: Prerequisites, EXSS 175, 380, and 385.
Grading status: Letter grade.
EXSS 733. Psychological Considerations for Injury and Rehabilitation. 3 Credits.
Athletic training graduate students only. Psychological impact of injury and rehabilitation on the injured athlete. Stress from injury, coping skills for the rigors of rehabilitation, and the improvement of communication skills in order to better the relationship between the athletic trainer, the injured athlete, and the injured athlete’s coach.
Grading status: Letter grade.

EXSS 735. Sports Medicine Analysis: Special Problems Related to Sports Medicine. 3 Credits.
Permission of the instructor for nonmajors. Problem and research oriented.
Grading status: Letter grade.

EXSS 736. Clinical Methods in Athletic Training. 3 Credits.
Analysis of theories and techniques used in clinical sports medicine settings.
Requisites: Prerequisite, EXSS 730.
Grading status: Letter grade.

EXSS 737. Advanced Muscular Assessment and Treatment. 3 Credits.
Discussion of mechanical properties and healing of musculoskeletal tissues throughout the life cycle, and laboratory/seminar units concerned with assessment and treatment of musculoskeletal pathology.
Requisites: Prerequisites, EXSS 730, 732, and 736; Permission of the instructor for students lacking the prerequisite.
Grading status: Letter grade.

EXSS 738. Laboratory Techniques in Sports Medicine. 3 Credits.
This course provides an introduction to measurement techniques used in sports medicine/athletic training research. Course meetings involve lecture and laboratory sessions which encompass data collection, analysis, and interpretation techniques.
Grading status: Letter grade.

EXSS 739. Practicum in Athletic Training. 3 Credits.
Graduate standing in exercise and sport science or permission of the instructor. The implementation of theories and practices in a professional setting under the direction of a competent practitioner.
Grading status: Letter grade.

EXSS 740. Administration of Sport. 3 Credits.
Permission of the instructor for nonmajors. Policies and problems of organization and administration of athletic programs in colleges.
Grading status: Letter grade.

EXSS 742. Social Issues in Exercise and Sport. 3 Credits.
A comprehensive study of race and gender discrimination, adherence, value development, violence, and other socialization factors in youth, collegiate, and Olympic sport.
Grading status: Letter grade.

EXSS 744. Collegiate Sport Marketing. 3 Credits.
Graduate standing required. This course is designed to develop a thorough understanding of sport marketing principles and their application to collegiate athletics.
Grading status: Letter grade.

EXSS 746. Organizational and Financial Management of Sport. 3 Credits.
Graduate standing in exercise and sport science or permission of the instructor. The study of administrative structures and financial concerns of collegiate athletic programs. An intensive study of NCAA regulations is included.
Grading status: Letter grade.

EXSS 747. College Sport Facility and Event Management. 3 Credits.
This course provides students with necessary knowledge and skills to manage college-sport facilities and plan a complete sport event. Students also evaluate facility functions related to risk and event management.
Grading status: Letter grade.

EXSS 748. Legal Issues in Collegiate Sport. 3 Credits.
Provides an introduction to the United States legal system, legal principles, and legal issues related to intercollegiate athletics.
Grading status: Letter grade.

EXSS 749. NCAA Governance and Compliance. 3 Credits.
The implementation of theories and practices in a professional setting under the direction of a competent practitioner.
Requisites: Prerequisite, EXSS 740.
Grading status: Letter grade.

EXSS 750. Sport Administration Leadership Seminar I. 1 Credit.
Successful completion of first year in sport administration graduate program. An introduction of organizational leadership concepts in a practical applied context. Students will lead class discussion tying relevant current events with leadership theory.
Grading status: Letter grade.

EXSS 751. Sport Administration Leadership Seminar II. 1 Credit.
Successful completion of first year in sport administration graduate program. An introduction of organizational leadership concepts in a practical applied context. Students will lead class discussion tying relevant current events with leadership theory.
Grading status: Letter grade.

EXSS 770. Motor Learning. 3 Credits.
A study of the physical and psychological factors that influence skill acquisition and performance in sport and exercise, including applications to teaching and coaching.
Requisites: Prerequisite, EXSS 380; Permission of the instructor for students lacking the prerequisite.
Grading status: Letter grade.

EXSS 780. Physiology of Exercise. 3 Credits.
The study of the physical, biochemical, and environmental factors that influence human performance. Emphasis is placed on metabolic, cardiovascular, respiratory, muscular, and endocrine systems. Three hours of lecture and two hours of laboratory per week.
Requisites: Prerequisite, EXSS 276 or 376.
Grading status: Letter grade
Same as: HMSC 702.

EXSS 781. Clinical Exercise Prescription and Testing. 2-3 Credits.
This course concentrates on the knowledge and skills necessary for providing exercise testing and prescription in the clinical setting, emphasizing cardiac rehabilitation.
Requisites: Prerequisite, EXSS 376; permission of the instructor for students lacking the prerequisite.
Grading status: Letter grade.

EXSS 782. Nutritional Aspects of Exercise. 2-3 Credits.
Graduate standing in physical education or permission of the instructor. Exploration of the role of macronutrients and micronutrients as they apply to exercise, physical conditioning, and competition. Students obtain experience in dietary analysis as it applies to athletic populations.
Grading status: Letter grade.
EXSS 783. Assessment of Physiological Functions in Exercise. 3 Credits.
Designed to develop laboratory techniques and experimental design skills as applied to the physiology of human performance.
Requisites: Prerequisite, EXSS 780; Permission of the instructor for students lacking the prerequisite.
Repeat rules: May be repeated for credit; may be repeated in the same term for different topics.
Grading status: Letter grade.

EXSS 784. Advanced Topics in Exercise Physiology. 3 Credits.
Required preparation, completion of a graduate level exercise physiology course. Graduate standing required. This course deals with current and rapidly developing aspects of the exercise physiology field. Specifically enhancing and adding to the content area of basic physiology acquired in EXSS 780.
Grading status: Letter grade.

EXSS 785. Seminar in Exercise Physiology. 3 Credits.
Graduate standing in exercise and sport science or permission of the instructor. In-depth study of selected advanced topics in exercise physiology. Emphasis on metabolism, biochemical, and cardiorespiratory physiology, with student presentations on selected topics.
Grading status: Letter grade.

EXSS 789. Practicum in Exercise Physiology. 3-4 Credits.
The implementation of theories and practices of fitness or cardiac rehabilitation in a professional setting under the direction of an experienced practitioner.
Requisites: Prerequisite, EXSS 410L, 780, or 781; permission of the instructor for students lacking the prerequisite.
Grading status: Letter grade.

EXSS 890. Special Topics in Exercise and Sport Science. 1-3 Credits.
Graduate standing or permission of the instructor. The study of special topics directed by an authority in the field.
Grading status: Letter grade.

EXSS 990. Research in Exercise and Sport Science. 1-3 Credits.
Graduate standing in exercise and sport science or permission of the instructor. Individually designed research projects conducted by students under the direction of a graduate faculty member.
Grading status: Letter grade.

EXSS 993. Master's Research and Thesis. 3 Credits.