

EXERCISE SCIENCE (EXE)

EXE 185 Concepts of Fitness (3 Credits)

David B. Falk College of Sport

Acquaints students with basic knowledge, understandings, and values of physical activity as it relates to optimal and healthful living. Course also seeks to instill an appreciation and desire for a healthy and physically active lifestyle.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 195 Introduction to Exercise Science (3 Credits)

David B. Falk College of Sport

Topics in exercise science including exercise physiology, mechanics of human motion, motor behavior, sports psychology.

Shared Competencies: Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

EXE 200 Selected Topics (1-6 Credits)

David B. Falk College of Sport

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable 6 times for 6 credits maximum

EXE 282 Motor Behavior Across the Lifespan (3 Credits)

David B. Falk College of Sport

Psychological and physiological processes that affect motor performance. Motor control, motor learning and motor development across the lifespan.

Prereq: EXE 195

Shared Competencies: Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>)

EXE 285 Measurement and Evaluation in Exercise Science (3 Credits)

David B. Falk College of Sport

Course covers measurement and evaluation techniques, emphasizing reliability and validity. The goal is to develop understanding of test selection, application, and interpretation in exercise science and health.

Coreq: EXE 195

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

EXE 299 Exercise & Health Promotion (3 Credits)

David B. Falk College of Sport

The concept of "Exercise & Health Promotion" will be introduced to develop scientific skills to demonstrate how exercise principles and interventions apply to, and benefit both short- and long-term health outcomes (prevention/treatment of disease).

Prereq: BIO 216

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 300 Selected Topics (1-6 Credits)

David B. Falk College of Sport

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable 6 times for 6 credits maximum

EXE 335 First Aid (1 Credit)

David B. Falk College of Sport

Standard first aid instruction leading to certification.

EXE 336 Cardiopulmonary Rescue (1 Credit)

David B. Falk College of Sport

Basic life support for cardiac arrest victims: skill training in artificial compression of the heart, artificial ventilation of the lungs.

EXE 338 Advanced First Aid and CPR/AED (2 Credits)

David B. Falk College of Sport

Basic life support for breathing and cardiac emergencies; controlling bleeding and managing shock; behavioral emergencies, pregnancy and childbirth, oxygen administration, suction and remote location first aid and first aid skills

EXE 339 Physiology of Exercise (3 Credits)

David B. Falk College of Sport

Principles of physiology as applied to exercise. Laboratory experiences.

Prereq: EXE 195 and BIO 216 and 217

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

EXE 344 Becoming a Personal Trainer (3 Credits)

David B. Falk College of Sport

Scientific principles of foundational human movement, muscle physiology, and exercise performance to safely and effectively prescribe exercise to improve quality of life, cardiovascular health, functional movement and muscular strength to a variety of clientele.

Prereq: BIO 216 and BIO 217

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 375 Internship Pre-Planning (0 Credits)

David B. Falk College of Sport

Double-numbered with EXE 675

Pre-planning for matching and securing an internship. Course facilitates access to the Tevera Internship system via BlackBoard.

Repeatable 4 times for 0 credits maximum

EXE 380 International Course (1-12 Credits)

David B. Falk College of Sport

Offered through SUABroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUABroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript.

Repeatable

EXE 400 Selected Topics (1-6 Credits)

David B. Falk College of Sport

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable 6 times for 6 credits maximum

EXE 408 Analysis of Human Motion (3 Credits)

David B. Falk College of Sport

Structures and mechanical analysis of human movement as related to physical activity. Laboratory experience.

Prereq: (BIO 216 and 217) or EXE 395

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

EXE 415 Worksite Health Promotion (3 Credits)*David B. Falk College of Sport*

Double-numbered with EXE 615

Principles and applications of health promotion in the workplace.

Prereq: EXE 195

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>)

EXE 417 Prevention and Care of Athletic Injuries (3 Credits)*David B. Falk College of Sport*

Sports medicine: the prevention and care of athletic injuries. Equipment, nutrition, rehabilitation, first aid, follow-up care, taping, and use of protective padding.

Prereq: EXE 195 AND BIO 216 AND BIO 217

Shared Competencies: Communication Skills (<https://coursecatalog.syracuse.edu/shared-competencies/communication-skills/>)

EXE 427 Exercise Testing and Interpretation (3 Credits)*David B. Falk College of Sport*

Double-numbered with EXE 627

The administration of standardized exercise tests for the evaluation of health and fitness status. Presentation of both laboratory and field tests. Includes exposure to exercise tests and equipment use. Additional work required of graduate students.

Prereq: EXE 339

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

EXE 435 Introduction to Sports Psychology (3 Credits)*David B. Falk College of Sport*

History, theories, and principles of sport behavior and personality; psychological skills and techniques for improving individual and team performance.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 436 Scientific Principles of Conditioning (3 Credits)*David B. Falk College of Sport*

Double-numbered with EXE 636

Development of physical conditioning programs based on scientific principles.

Prereq: EXE 195 and BIO 216 and BIO 217

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

EXE 452 Advanced Metabolic Exercise Testing (3 Credits)*David B. Falk College of Sport*

Double-numbered with EXE 652

Advanced methods in metabolic exercise testing for students interested in the history, deep theory, and hands-on methodologies related to oxygen consumption/energy expenditure measurements in nutrition and sport science. Additional work required for Graduate students.

Prereq: EXE 339

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

EXE 455 Kinesiology for Athletic Performance and Injury Prevention (3 Credits)*David B. Falk College of Sport*

Double-numbered with EXE 655

An integration of applications of the dynamics of human movement, with emphasis on anatomical and mechanical considerations, their applications, and how they relate to athletic performance and injury prevention. Additional work required of graduate students.

Prereq: BIO 216 AND BIO 217

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 456 Human Performance in Extreme Environments (3 Credits)*David B. Falk College of Sport*

Double-numbered with EXE 656

Examines human physiological response to several of the most common environmental stressors. Includes high-altitude, temperature extremes, diving physiology, and shifts in diurnal rhythm i.e., exposure to light/dark cycles. Additional work required for graduate students.

Prereq: EXE 339 and BIO 216

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 457 Exercise and Aging (3 Credits)*David B. Falk College of Sport*

The influence of aging on physical performance and the consequences of exercise on the physiological processes associated with aging.

Prereq: EXE 339

EXE 462 Cardiac Rehabilitation (3 Credits)*David B. Falk College of Sport*

Exercise training and prescription for individuals with cardiovascular disease.

Prereq: EXE 339

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 464 Internship in Exercise Science (1-6 Credits)*David B. Falk College of Sport*

Internship experience in Exercise Science. Permission of instructor required.

Repeatable 6 times for 6 credits maximum

Shared Competencies: Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

EXE 470 Experience Credit (1-6 Credits)*David B. Falk College of Sport*

Participation in a discipline- or subject-related experience. Students must be evaluated by written or oral reports or an examination. Limited to those in good academic standing.

Repeatable

EXE 471 Pediatric Obesity (3 Credits)*David B. Falk College of Sport*

Double-numbered with EXE 671

Physiologic, genetic, psychosocial, environmental, and economic causes and consequences of pediatric obesity will be covered. Potential interventions including behavioral, pharmacologic, and surgical aspects will be discussed. Additional work is required for graduate students.

Prereq: EXE 339

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>)

EXE 480 International Course (1-12 Credits)*David B. Falk College of Sport*

Offered through SUABroad by educational institution outside the United States. Student registers for the course at the foreign institution and is graded according to that institution's practice. SUABroad works with the S.U. academic department to assign the appropriate course level, title, and grade for the student's transcript.

Repeatable

EXE 490 Independent Study (1-6 Credits)*David B. Falk College of Sport*

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and department.

Repeatable

EXE 499 Capstone Project (1-3 Credits)*David B. Falk College of Sport*

Completion of an Honors Capstone Project under the supervision of a faculty member.

Repeatable 3 times for 3 credits maximum

EXE 500 Selected Topics (1-6 Credits)*David B. Falk College of Sport*

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester.

Repeatable 6 times for 6 credits maximum

EXE 516 Exercise Prescription: Health and Disease (3 Credits)*David B. Falk College of Sport*

Exercise prescription for health and fitness in the apparently healthy and a variety of clinical populations.

Prereq: EXE 339 Please review Class Notes within Class Search Results - Class Section > View Details.

EXE 517 Pathophysiology (3 Credits)*David B. Falk College of Sport*

Physiology of disease processes emphasizing metabolic, cardiovascular, and neuromuscular pathophysiology. Suggested for students pursuing careers in clinical exercise physiology.

Prereq: BIO 216 and 217 and EXE 339 Please review Class Notes within Class Search Results - Class Section > View Details.

EXE 519 Metabolic Aspects of Physical Activity (3 Credits)*David B. Falk College of Sport*

Examines metabolic processes that influence or are affected by acute and chronic physical activity. Emphasis on metabolism and human physical performance.

Prereq: EXE 339 Please review Class Notes within Class Search Results - Class Section > View Details.

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)