

# EXERCISE SCIENCE (EXE)

## 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/>)

## EXE 600 Selected Topics (1-6 Credits)

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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 606 Current Literature in Exercise and Sport Science (1-3 Credits)

*David B. Falk College of Sport*

Current books, periodicals, and peer-reviewed articles. Literature review, library research, and research proposal preparation.

## EXE 615 Worksite Health Promotion (3 Credits)

*David B. Falk College of Sport*

Double-numbered with EXE 415

Principles and applications of health promotion in the workplace.

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 627 Exercise Testing and Interpretation (3 Credits)

*David B. Falk College of Sport*

Double-numbered with EXE 427

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.

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

## EXE 636 Scientific Principles of Conditioning (3 Credits)

*David B. Falk College of Sport*

Double-numbered with EXE 436

Development of physical conditioning programs based on scientific principles.

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

## EXE 652 Advanced Metabolic Exercise Testing (3 Credits)

*David B. Falk College of Sport*

Double-numbered with EXE 452

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.

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 655 Kinesiology for Athletic Performance and Injury Prevention (3 Credits)

*David B. Falk College of Sport*

Double-numbered with EXE 455

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.

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

## EXE 656 Human Performance in Extreme Environments (3 Credits)

*David B. Falk College of Sport*

Double-numbered with EXE 456

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.

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

## EXE 670 Experience Credit (1-6 Credits)

*David B. Falk College of Sport*

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing. Repeatable

## EXE 671 Pediatric Obesity (3 Credits)

*David B. Falk College of Sport*

Double-numbered with EXE 471

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.

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

**EXE 675 Internship Pre-Planning (0 Credits)**

*David B. Falk College of Sport*

Double-numbered with EXE 375

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 686 Systemic Physiology and Exercise (3 Credits)**

*David B. Falk College of Sport*

Immediate and chronic effects of exercise on the cardiovascular, respiratory, excretory, endocrine, and nervous systems. Laboratory experiences.

**EXE 690 Independent Study (1-6 Credits)**

*David B. Falk College of Sport*

Exploration of a problem, or problems, in depth. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor(s) and the department.

Repeatable 6 times for 6 credits maximum

**EXE 693 Research Methods in Exercise and Sport Science (3 Credits)**

*David B. Falk College of Sport*

Quantitative research designs and analyses in exercise and sport sciences. Written and oral research report preparation and presentation.

Prereq: EXE 606 and EDU 647 Please review Class Notes within Class Search Results - Class Section > View Details.

**EXE 700 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 753 Cardiovascular Physiology (3 Credits)**

*David B. Falk College of Sport*

The principles of cardiac function, blood flow, oxygen transport, and metabolism with emphasis given to the adaptations to acute and chronic exercise training.

Prereq: EXE 685 Please review Class Notes within Class Search Results - Class Section > View Details.

**EXE 764 Internship in Exercise Science (3-6 Credits)**

*David B. Falk College of Sport*

Full-time experience in exercise science under the guidance of a professional and a faculty member.

Repeatable 3 times for 6 credits maximum

**EXE 773 Exercise Endocrinology (3 Credits)**

*David B. Falk College of Sport*

Integrates endocrine physiology and exercise on the endocrine system. Focus on the glands producing hormones, the target organs, mechanisms, and how both acute and chronic exercise impact hormone action.

Prereq: EXE 685 Please review Class Notes within Class Search Results - Class Section > View Details.

**EXE 785 Energy, Metabolism and Exercise (3 Credits)**

*David B. Falk College of Sport*

Probable causes for differences in muscle-fiber types in relationship to exercise. Total body metabolism during exercise.

**EXE 795 Skeletal Muscle Physiology (3 Credits)**

*David B. Falk College of Sport*

Emphasizing basic muscle microanatomy and physiology and advanced applied muscle physiology topics.

Prereq: EXE 685 Please review Class Notes within Class Search Results - Class Section > View Details.

**EXE 997 Master's Thesis (1-6 Credits)**

*David B. Falk College of Sport*

Repeatable 1 times for 6 credits maximum

**EXE 999 Dissertation (1-15 Credits)**

*David B. Falk College of Sport*

Repeatable