

EXSC 112**Health and Fitness**

2 Credit Hours

This course introduces the fundamentals of health and wellness through life long physical activities while increasing your awareness of overall fitness. This course is designed at an introductory level to cover relevant health and fitness topics and is designed to provide information to create awareness of and motivation toward development of positive health and fitness behaviors. The practice of long-term positive health and fitness behaviors are essential to an individual's physical, mental, emotional, and social well-being. Offered fall and spring.

EXSC 120**First Aid and Athletic Injuries**

3 Credit Hours

This course is designed as an introduction to athletic training and sports medicine. The course offers instructional and practical application in the skills and techniques necessary for prevention, evaluation, treatment, and rehabilitation and care of athletic injuries. The course also offers techniques used in emergency first aid as related to athletics. Contact hours include athletic training room observation, and the shadowing of certified athletic trainers' day to day responsibilities. The student will also be offered the practical application of various taping methods. Offered fall and spring.

EXSC 130**Introduction to Exercise Science**

3 Credit Hours

Students will be introduced to a broad array of topics related to the field of exercise science through an introductory review of body systems and physiological concepts. Students will gain an understanding and appreciation for the processes of response and adaptation which enhance both health and fitness through regular exercise. Career options, history and philosophy, professional organizations, research methods, and professional issues will be examined. Offered fall and spring.

EXSC 200**Anatomy and Physiology I**

3 Credit Hours

Pre/Corequisite: C (RQ) EXSCL-200

This course will introduce students to the concepts of anatomy and physiology of the human body. This course will cover the integration and function of the cells, tissue, organs and other systems of the body. Students taking this course will be preparing for a career in the allied health professions.

EXSCL 200**Anatomy and Physiology I Lab**

1 Credit Hour

Pre/Corequisite: C (RQ) EXSC-200

This course is designed to complement and reinforce the concepts of anatomy and physiology through in depth lab exercises. Topics such as the identification of the tissues, muscles, bones and their functions within the context of the human system will be discussed. Students taking this course will be preparing for a career in allied health professions.

EXSC 201**Anatomy and Physiology II**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-200 and EXSCL-200 and C (RQ) EXSCL-201

This course is a continuation in the series of anatomy and physiology courses. This course integrates furthering concepts in the human body including the function of cells, tissues, organs and other systems. Students taking this course will be preparing for a career in the allied health professions.

EXSCL 201**Anatomy and Physiology II Lab**

1 Credit Hour

Pre/Corequisite: P (RQ) EXSC-200 and EXSCL-200 and C (RQ) EXSC-201

This course is a compliment and reinforcement of anatomy and physiology concepts through in-depth lab exercises. Topics such as the identification of muscles, tissues, bones and aspects. Investigation into how the body reacts to stressors on the respiratory, cardiorespiratory and overall homeostasis of the body will be explored. Students taking this course will be preparing for a career in the allied health professions.

EXSC 203**Nutrition for Sport**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130

This course will focus on the physiological use of nutrients on the body. This course will investigate the use of proper nutrition as it applies to human performance, activities for daily living and prevention of injury and illness. Other topics will include supplementation to nutrition, eating disorder and body composition. Offered fall.

EXSC 210**Motor Behavior**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130

This course investigates how motor development affects motor learning through the lifespan of human beings. This course explains how motor development and learning creates a framework in which skill acquisition is obtained for various sport skills and activities for daily living. Offered spring.

EXSC 275**Exercise Physiology for Sport**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130 and C (RQ) EXSCL-275

This course builds upon the introduction to the body systems and physiological concepts. An in-depth look into how the body responds to acute and chronic exercise emphasizes the bioenergetics of the cardiovascular, respiratory, and neuromuscular system responses to physical stress. This didactic course has a laboratory component. Offered fall.

EXSCL 275**Exercise Physiology for Sport Lab**

1 Credit Hour

Pre/Corequisite: P (RQ) EXSC-130 and C (RQ) EXSC-275

This is a laboratory course that builds upon the didactic lectures of how the body responds to acute and chronic exercise emphasized the bioenergetics of the cardiovascular, respiratory, and neuromuscular system responses to physical stress. Emphasis is placed on practical application of learned theories within the lectures. Offered fall.

EXSC 295**Research Methods for Allied Health**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130 ENGL-120

This course introduces research terminology and various methods used in evidence-based research. Students will develop an understanding of the research process that occurs within the health sciences. Students will become proficient in the critical appraisal process of qualitative and quantitative studies by implementing various evaluation tools. Offered fall.

EXSC 300**Special Topics**

2 to 3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130

This course presents varying subject matter related to current trends and issues in allied health dependent upon student interest and faculty resources. Junior or senior status.

EXSC 319**Biomechanics**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130 EXSC-210

This course focuses on structural kinesiology and the study of both skeletal and muscular structures as they are involved in the science of movement. Students will learn about the effects of physical activity on health and performance, the evolution of physical activity and sport, and the physiological and social factors that influence an individual's participation in physical activity and sport. Students will review the anatomy of the skeletal and muscle systems, understand the terminology used to describe joint movements and body part locations, gain knowledge in the planes of motion in relation to human movement, and describe and understand the various types of joints in the human body and their characteristics. Formerly Kinesiology.

EXSC 327**Measurement and Evaluation**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130

This course introduces students to proper measurement and evaluations in exercise. Students will measure performance in the areas of health, fitness and sports. This course will investigate the use of evidence-based practice in coming to valid and reliable conclusions based on evaluations. Offered fall.

EXSC 335**Sport Psychology**

3 Credit Hours

Pre/Corequisite: P (RQ) PSYCH-101

Sport Psychology examines the interaction between psychological variables and performance in athletic and physical activities. The American Psychological Association, Division 47 - Society for Sport, Exercise and Performance Psychology-contributes to the standards of this course. The objective of this course is to survey theories and practical skills that contribute to performance in sports. Offered fall and spring.

EXSC 366**Strength and Conditioning Theory**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130

This course is a culmination of the study of program and design and its application of exercise science. This course is designed to prepare students to program and design based off of proper assessments, evidence-based research and needs analysis. This course also serves as a preparation course to take the CSCS exam. Offered fall.

EXSC 380**Field Experience**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130 EXSC-210 EXSC-366 EXSC-390 and P (RQ) EXSC-203 OR PE-124

The Internship Program for Exercise Science at Saint Xavier University provides the opportunity for students to develop and apply exercise science knowledge, skills, and abilities in a supervised University approved setting. The course is intended for student to observe and gain practical experience in a professional environment. Prerequisites: All core courses 130, 203, 210, 366, and 390. Offered fall, spring, and summer.

EXSC 385**Program and Design for Sport**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130

This course will focus on advanced theories of program and design for sport. This course will investigate different program methodologies based on sport, individual and team sports. Further investigation will look at factors that affect the sport and the athlete's performance on and off the field. Offered spring.

EXSC 390**Exercise Science Senior Seminar**

3 Credit Hours

Pre/Corequisite: P (RQ) EXSC-130 EXSC-319

Students are provided an overview of contemporary issues, trends, theories, and research related to exercise science. This course is a capstone course designed to integrate the student's prior academic experience in exercise science. Students will bridge the foundational curricular experience with professional preparedness and/or professional certification. The course is delivered in a seminar format to encourage student participation and interaction with peers and faculty. Offered fall and summer.