

The Weber Sports Science Academy

Completion of the following curriculum earns Honors Distinction upon graduation:



Must take all four:

Anatomy and Physiology (Yearlong / 1 credit)

Anatomy is the science of structure and the relationship among structures. Physiology is the science of body functions, that is, how the body parts work. Because function can never be completely separated from structure, this course is designed to understand the human body best by studying anatomy and physiology together. By the end of this course, students should be able to understand how each structure of the body is designed to carry out a particular function and how the structure of a part often determines the function it performs. This course is offered on the Honors and College Preparatory levels. *Open to 11th and 12th grade.*

101 Strength and Conditioning (1 semester / .5 credit)

This course is designed to familiarize the student with athletic conditioning and strength training. This class will encourage students to develop knowledge in tracking and learning about resistance training as it relates to athletics. Each student will be provided a personalized weight-training program based on personal fitness goals and both individual and sports specific needs. Students will be provided quality workout opportunities based on the strength training principles taught. Topics which may be explored include systematic strength training, plyometric (explosion) training, speed & agility training, physiology of exercise, and other training methods. Tests and measurements of fitness, strength, & conditioning, as a means of evaluating progress, will be part of this course.

105 Sports Clinical or Internship (1 semester/ .5 credit)

Students develop practical and leadership skills in a pre-approved professional setting including (but not limited to) Weber Athletics, college recreation or athletic programs, community recreation agencies, sport businesses, sport facilities, athletic amateur organizations and/or professional sports teams. Students are required to complete a minimum of 60 hours of work at a pre-approved site and in the classroom.

106 Research Methods and Analysis Honors III and IV (Yearlong / 1 credit)

Students will collect and analyze data to establish the need for or document the effectiveness of exercise programs and athletic training interventions. Students investigate an original hypothesis and conduct a hands-on experiment of their choosing. (Open to 11th and 12th Grade)

Select a minimum of one of the following as your concentration: (Required)

102 Fitness Programming and Application (1 semester/ .5 credit)

Introduction to the design and implementation of exercise training programs. This course prepares students for potential careers in the field of Personal Training, and they examine the role exercise plays in both the enhancement of health and fitness as well as the improvement of athletic performance. Students develop a basic understanding of how the human body functions while physically active. Case studies are utilized to assist in the development of practical skills.

103 Sports Nutrition (1 semester/ .5 credit)

This course explores nutrition in the enhancement of health and fitness. Discussion includes the nutrient requirements for attainment and maintenance of health, disease prevention, and sports performance. The appropriate use of dietary supplements, popular diets, and causes and treatment of eating disorders and obesity will be studied. Claims targeted to the exercising population will be evaluated.

104 Athletic Training and Sports Medicine (1 semester/ .5 credit)

This course will examine methods of recognizing and caring for sport injuries, including basic physical evaluation and taping skills, purposes and procedures for adequate care of injured athletes. Athletic Training and Sports Medicine is designed for students interested in fields such as athletic training, physical therapy, medicine, fitness, physiology of exercise, kinesiology, nutrition, and other sports medicine related fields. This class work includes practical hands-on application in the following areas: prevention, treatment, and rehabilitation of sports injuries, taping and wrapping of injuries, first aid/CPR certification, emergency procedures, and sports medicine careers.