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# COURSE DESCRIPTIONS

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## STRENGTH CONDITIONING STUDIES

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### **SCS 6013: Measurement and Evaluation in Strength and Conditioning**

Prerequisites: Prerequisites: B or better in the following courses: PE 6033 Exercise Physiology, PE 6053 Biomechanics, and PE 4523.

An advanced investigation of measurement and assessment theory along with the study of various test and measurement protocols used in strength and conditioning, exercise, and sport. Testing in the cognitive, psychomotor, health-fitness, and affective domains will be reviewed. Criteria for selection of tests including validity, reliability, objectivity, and utility. Basic statistical methods as applied to strength and conditioning with particular emphasis on interpretation and evaluation of results will be emphasized.

### **SCS 6023: Scientific Foundations of Strength and Conditioning**

Prerequisites: Prerequisites: B or better in the following courses: PE 6033 Exercise Physiology and PE 6053 Biomechanics.

An intensive advanced course integrating the principles of Exercise Physiology, Biomechanics, and Exercise Psychology as they relate to strength and conditioning programs.

### **SCS 6033: Strength and Conditioning Program Design and Development**

Prerequisites: B or better in the following courses: PE 3663, PE 4033, and WS 4023.

An advanced course that integrates scientific principles and practical applications related to designing a safe and effective strength and conditioning training program. Tenets from Exercise Physiology, Biomechanics, and Exercise Psychology will be reviewed as design principles are covered.

### **SCS 6043: Techniques for Development of Hypertrophy, Strength, and Power**

Prerequisite: A grade of B or better in PE 6033 Exercise Physiology or PE 6053 Biomechanics.

An intensive course designed to assist trainers and coaches in developing the ability to teach proper resistance training techniques. Scientific research dealing with the development of hypertrophy, strength, and power will be explored.

Note: This is a 5 week summer course with 3 weeks spent on-campus.

### **SCS 6053: Techniques for Development of Speed, Agility, Reaction Time and Endurance**

Prerequisite: A grade of B or better in PE 6033 Exercise Physiology or PE 6053 Biomechanics.

An intensive course designed to assist trainers and coaches in teaching various techniques designed to enhance flexibility, speed, agility, reaction time, and glycolytic and aerobic endurance.

Note: This is a 5 week summer course with 3 weeks spent on-campus.

### **SCS 6063: Trends in Sports Nutrition and Metabolism**

An advanced study of nutrition as a means to enhance performance in exercise and sport.

Note: This is a 5 week summer course with 3 weeks spent on-campus.

### **SCS 6083: Instructional Strategies for Strength Coaches**

This course focuses on effective sport pedagogy. Students will gain experience in a range of pedagogical skills including designing learning experiences, task presentation, content analysis, strategies for developing the learning environment, assessment of athlete/client performance, and systematic observation techniques for analyzing and improving teaching.

### **SCS 6093: Exercise Science Seminar**

This course is designed to enhance the student's ability to critically analyze and evaluate contemporary strength and conditioning literature.

### **SCS 6103: Professional Project**

Prerequisite: Requires the prior completion of 27 hours towards the SCS degree. The professional project should be developed and must be approved by the Graduate Program Director prior to enrolling in this course.

The Professional Project is the capstone course for the Master of Strength and Conditioning Studies degree, serving as the integrative culmination of the program. The student is responsible for producing a substantial piece of independent research, a significant professional creative project, or a meaningful internship.