Exercise Science

The Exercise Science Department houses three academic majors: Athletic Training, Exercise Science, and Sports Management, and a minor in Exercise Science. The department also offers a pre-licensure program designed to prepare a student for Teacher Licensure in Physical Education and Health for Pre-K through 12th grade.

EXERCISE SCIENCE MAJOR (BS)

Exercise Science is a broad and diverse field of study. Exercise Science majors will be prepared for graduate study in Exercise Science (or related fields), as well as employment in coaching, fitness, and recreational settings.

Required General Education courses**:**

BI110	Human Anatomy and Physiology	5 credits
ES101	Concepts of Physical Fitness and Health	2 credits

Required core courses:

ES107	Beginning/Intermediate Swimming	1 credit
ES115	Folk Dance	1 credit
ES120	Foundations of Exercise Science	2 credits
ES210	Analysis & Teaching of Individual & Dual Sports	2 credits
ES220	Analysis and Teaching of Team Sports	2 credits
ES221	Essentials of Personal and Community Health	3 credits
ES226	Rules and Officiating	2 credits
ES242	Care & Prevention of Athletic Injuries	2 credits
ES253	Recreational Leadership (indoor/outdoor)	3 credits
ES255	First Aid	3 credits
ES305	Theory of Coaching Baseball *	1 credit
ES306	Theory of Coaching Basketball *	1 credit
ES307	Theory of Coaching Football *	1 credit
ES308	Theory of Coaching Soccer *	1 credit
ES309	Theory of Coaching Softball *	1 credit
ES310	Theory of Coaching Track and Field *	1 credit
ES311	Theory of Coaching Volleyball *	1 credit

(Students may choose any <u>two</u> of these one credit Theory of Coaching courses.)*

ES360	Principles of Nutrition	3 credits
ES362	Field Practicum	1 credit
ES370	Kinesiology	3 credits
ES374	Adapted Physical Education	3 credits
ES380	Psychology of Sport	2 credits
ES400	Internship	3 credits
ES420	Exercise Physiology	3 credits
ES475	Administration of Health, PE, & Athletics	3 credits
ES498	Senior Seminar	1 credit
AT440	Developing & Implementing Strength & Fitness Program	3 credits
AT440L	Developing/Implementing Strength/Fitness Program Lab	0 credit
		Total: 48 credits

Recommended Support Courses:

The following courses are strongly recommended for all Exercise Science Department majors, especially those interested in graduate study.

MA240	Elementary Statistics	3 credits
CH110	Intro to Chemistry	3 credits

EXERCISE SCIENCE MINOR

ES120	Foundations of Exercise Science	2 credits
ES210	Analysis & Teaching of Individual/Dual Sports	2 credits
ES220	Analysis & Teaching of Team Sports	2 credits
ES242	Care & Prevention of Athletic Injuries	2 credits
ES255	First Aid	3 credits
ES305-311	Theory of Coaching _____*	2 credits

*(*Choose any two of the one-credit Theory of Coaching courses.)*

ES370	Kinesiology	3 credits
ES374	Adapted Physical Education	3 credits
ES475	Administration of Health, PE, & Athletics	3 credits

Total: 22 credits

HEALTH & PHYSICAL EDUCATION (preK-12) LICENSURE

Core requirements for the Exercise Science Major** Sub-total: 45 credits
And the following courses:

ES344	Curriculum and Methods of Teaching P.E. and Health - Elementary (PreK-6)	3 credits
ES346	Curriculum and Methods of Teaching P.E. and Health - Secondary (7-12)	3 credits
ES348	Curriculum Methods of Health (PreK-12)	2 credits
		Total: 53 credits

**ES400 Internship will be waived upon satisfactory completion of ES344, ES346, and ES348.

Refer to Education section – Secondary & PreK-12 Teacher Licensure Programs – for professional education courses required

Exercise Science Course Descriptions:

ES101 Concepts of Physical Fitness and Health 2 credits
In this course we will present an overview of what God has to say about the body and our stewardship responsibility before Him in caring for the body we have been given. A study of specific health and skill-related aspects of fitness will be emphasized. This course is designed to give you the tools to either begin or maintain a lifestyle of optimal health and fitness. This is not an activity course, but activity will be a part of the course. Meets general education requirement with a grade of C- or higher. (Fall, Interterm, Spring)

ES103 Physical Activity – Team Sports 1 credit
This course is designed to give you an opportunity to participate and learn rules, strategy and techniques in a variety of selected team sports and/or activities. Activity and participation are essential parts of the course. Therefore, class attendance, participation, proper attire and a positive attitude will comprise a major portion of your grade. It is important students understand the importance of participation over the importance of competition in participating in any activity course. This course will hopefully allow the students to experience a host of activities in order to expose them to the range of activities that will promote life-long health and activity. (Fall)

ES104 Physical Activity - Bowling/Golf 1 credit
This course is designed to give you an opportunity to participate and learn rules, strategy and techniques for the sports of bowling and golf. Activity and participation are essential parts of the course. Therefore, class attendance, participation, proper attire and a positive attitude will comprise a major portion of your grade. It is important students understand the importance of participation over the importance of competition in participating in any activity course. This course will hopefully allow the students to experience the benefits of bowling and golf and will promote life-long health and activity through these two sports. Fee: $30 (Spring)

ES107 Physical Activity - Beginning and Intermediate Swimming 1 credit
A physical education activity course focusing on swimming and the lifelong benefits that can be gained from physical activity in an aquatic environment.

ES108 Physical Activity – Racquet Sports 1 credit

ES111 Physical Activity - Aerobics/Strength Training 1 credit

ES114 Physical Activity - Rhythmic and Interpretive Dance (CT114) 1 credit
Study and practice of skills in the art form concerned with communication of self-expression through movement. (Fall, odd years)

ES115 Physical Activity - Folk Dance 1 credit
Study of national dances, indigenous American dance forms and folk dances of Europe and America. Students will learn basic steps of these dance forms and analyze the meaning of folk dance as the expression of national and cultural vision. (Spring)

ES120 Foundations of Exercise Science 2 credits
This course provides an introduction to the profession including the history and philosophy of physical education. Students are introduced to the areas of academic focus, which provide the content of the profession. Current trends, career options and the relevance of Christian commitment to the profession are discussed. (Fall, Interterm)

ES210 Analysis and Teaching of Individual and Dual Sports 2 credits

This course is designed to offer exercise science majors and minors the opportunity to learn and practice the rules, strategies, skills, and etiquette of selected individual & dual sports which are commonly found in physical education programs. Emphasis is placed on the teaching and learning processes in junior and senior high. Fee: $10. (Spring)

ES220 Analysis and Teaching of Team Sports 2 credits

This course is designed to offer exercise science majors and minors the opportunity to learn and practice the rules, strategies, skills, and etiquette of selected team sports which are commonly found in physical education programs. Emphasis is placed on the teaching and learning processes in junior and senior high. (Fall)

ES221 Essentials of Personal and Community Health 3 credits

A study of the seven dimensions of health (physical, emotional, social, intellectual, spiritual, occupational, and environmental). Various topics covered include: concept of aging, nutrition, fitness, infectious and non-infectious diseases, drug, alcohol, tobacco use, and consumer health. It is essential that we recognize where health attitudes, knowledge and practice fit into our pattern of daily life. (Fall)

ES226 Rules and Officiating 2 credits

This course is designed to offer exercise science majors and minors the opportunity to learn and practice the application of rules in the officiating of different seasonal sports. Emphasis is placed on the learning of basic terminology associated with both the rules and officiating of the sports selected by the instructor. Officiating can be a great way to stay involved in sports after a performance career comes to a completion and it is also a tremendous servant leadership opportunity and a way to influence young people. Fee $20. (Spring)

ES242 Care & Prevention of Athletic Injuries 2 credits

The purpose of this course is to provide exercise science majors an overview of injury prevention techniques, emergency procedures, as well as care and treatment of athletic injuries. Fee $20. (Fall)

ES253 Recreational Leadership (Indoor-Outdoor) 3 credits

A study of leadership qualities, methods, techniques, administration and supervision of recreation activities. (Spring)

ES255 First Aid 3 credits

This course is designed to provide the citizen responder with the knowledge and skills necessary in an emergency to help sustain life, reduce pain and minimize the consequences of injury or sudden illness until professional medical help arrives. Fee $15. (Fall, Spring)

ES305 Theory of Coaching Baseball 1 credit

Theory and techniques of coaching baseball, including philosophy, fundamentals, practice organization, scouting and administrative responsibilities. (Spring, odd years)

ES306 Theory of Coaching Basketball 1 credit

Theory and techniques of coaching basketball, including philosophy, fundamentals, practice organization, scouting and administrative responsibilities. (Fall, even)

ES307 Theory of Coaching Football 1 credit

Theory and techniques of coaching football, including philosophy, fundamentals, practice organization, scouting and administrative responsibilities. (Fall, odd)

ES308 Theory of Coaching Soccer 1 credit

Theory and techniques of coaching soccer, including philosophy, fundamentals, practice organization, scouting and administrative responsibilities. (Fall, odd)

ES309 Theory of Coaching Softball 1 credit

Theory and techniques of coaching softball, including philosophy, fundamentals, practice organization, scouting and administrative responsibilities. (Spring, odd)

ES310 Theory of Coaching Track and Field 1 credit

Theory and techniques of coaching track and field, including philosophy, fundamentals, practice organization, and administrative responsibilities. (Spring, even years)

ES311 Theory of Coaching Volleyball 1 credit

Theory and techniques of coaching volleyball, including philosophy, fundamentals, practice organization, scouting and administrative responsibilities. (Fall, even)

ES344 Curriculum and Methods of Teaching Physical Education - Elementary (PreK-6) 3 credits

The purpose of this course is to provide a combination of curriculum theory and practical application of teaching physical education for grades K-6 within the context of servant leadership and/or Biblical principles. The student will develop a P.E. curriculum, unit plans, and

daily lesson plans. Practical teaching experience will be gained through peer and elementary age teaching. Recommended: Junior Standing. (Fall)

ES346/L Curriculum and Methods of Teaching Physical Education and Health - Secondary (7-12) 3 credits

The purpose of this course is to provide a combination of curriculum theory and practical application of teaching physical education for secondary students (grades 7-12) within the context of servant leadership and/or Biblical principles. Considerable hands on experience through peer-teaching activities. Concurrent with ES346L. Recommended: ES344. (Spring)

ES348 Curriculum Methods in Health (PreK-12) 2 credits

This course will present theory and practice in health education programs including aims and objectives, curriculum design, teaching styles, learning environments, liability and evaluation. Students will study and present select personal and community health topic, within the context of servant leadership and/or Biblical principles. Practical teaching experiences in classroom settings will be emphasized. Prerequisite: ES221. Recommended: ED219, ES344 or ES346. (Spring)

ES360 Principles of Nutrition 3 credits

This course is intended to be a midlevel discussion and study of the field of nutrition. Basic components of the human diet and the special needs of the physically active will be emphasized. Some discussion of the various specialty diets and supplements will also be investigated. (Spring)

ES362 Field Practicum 1 credit

Designed to give prospective majors practical experience in exercise science. Student will be required to teach an activity class. Prerequisite: Junior or Senior standing.

ES370 Kinesiology 3 credits

Kinesiology is defined as the study of human movement. We study Kinesiology to improve performance by learning how to analyze the movements of the human body and to discover their underlying principles. Three areas, which are important for a comprehensive understanding of Kinesiology, are musculo-skeletal anatomy, biomechanics and neuromuscular physiology. Safety, effectiveness and efficiency are the underlying aims in using Kinesiology for the analysis and modification of human movement. (Fall)

ES374 Adapted Physical Education 3 credits

This course deals with organizing, planning and conducting physical education for the handicapped or disadvantaged students. Special attention is given to designing programs to meet the specific individual needs of a variety of handicapped students. Demonstrating servant leadership practices and the societal and personal benefits of serving special needs students will be discussed. Prerequisite: ES210 or ES220 (Spring)

ES380 Psychology of Sport 2 credits-

This course is designed to give the student an understanding of the psychological methods and applications relating to sports. The course will help the student have a better understanding of principles of sports psychology. Included in class discussion will be: motivational variables, emotional states, personality variables, imagery, goal setting, and arousal-aggression variables. (Spring)

ES395 Topics in Exercise Science 1-3 credits

ES400 Internship 3 credits

This course is designed to enable Sterling College sports management/exercise science students to acquire work experiences during the summer months relating to the vocation they are pursuing. This experience is designed to expand on the learning experience and to integrate and reinforce skills and concepts obtained in the classroom. The internship provides a practical experience in a structured employment environment. All internships must be pre-approved through the student's advisor and Department Chair prior to the first day of the internship. A minimum of 160 hours of experience is required. Prerequisite: Junior status.

ES420 Exercise Physiology 3 credits

This course is a study of the physiological structures of the human body and their relationships to performance in physical education and athletics. Primary attention is paid to the adjustment mechanisms of the human body to exercise. Recommended: ES360. (Spring)

ES475 Administration of Health, Physical Education and Athletics 3 credits

This course is a study of school and recreational programs for men and women. Areas of study include: program management & planning, leadership, facilities, equipment, budgets, legal liability, marketing and finances and appraisal of activities of athletics and physical education. Prerequisite: Junior status. Writing Intensive. (Fall)

ES498 Senior Seminar 1 credit

An opportunity to apply the knowledge, principles, and skills gained from the Exercise Science curriculum through discussions, presentations, and the completion of a major senior project. Prerequisite: Senior status. (Fall)