

# KINESIOLOGY AND SPORT SCIENCE (KSS)

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## **KSS 1500 Physical Activity Core Concepts 1 s.h.**

Essential concepts that document the relationship between physical activity and maintaining optimal health. Personal and social implications of physical inactivity are also explored. Two KSS activity courses must be taken in addition to this course to satisfy the requirements for GER credit.

**Gen Ed:** Well Being, Social and Personal Awareness.

## **KSS 1502 Volleyball 1 s.h.**

Basic rules and fundamental skills of volleyball including serves, bump, overhead pass, and block.

## **KSS 1507 Volleyball 2 1 s.h.**

Intermediate-to-advanced volleyball skills including diving, rolling, and various team offensive and defensive strategies.

**Prereq.:** KSS 1502.

## **KSS 1508 Group Cycling 1 s.h.**

Introduction to improving fitness levels through group cycling. The emphasis in this class will be on improving cardiovascular fitness through indoor stationary cycling bicycles. All fitness levels are welcomed and will acquire fitness benefits.

## **KSS 1509 Meditation 1 s.h.**

Overview of practical meditation theory, with diverse practices culled from the world's wisdom inheritance presented as guided meditation experiences. Historical perspective, along with relevant findings of current neuroscience research which support the efficacy of meditation are considered. The practices develop heightened awareness skills, whether practiced sitting, standing, walking, or supine.

## **KSS 1510 Archery 1 s.h.**

Techniques of target archery. Selection, care, and repair of equipment.

## **KSS 1511 Badminton 1 s.h.**

Skills, mechanics, and rules of badminton.

## **KSS 1512 Bowling 1 s.h.**

Fundamentals of bowling the straight ball. Equipment selection, correction of errors, and scoring. For beginning bowlers. The bowling lanes are located off campus. Transportation to the lanes is not provided.

## **KSS 1513 Bowling 2 1 s.h.**

Intermediate bowling. Refinement of bowling skills and use of the hook delivery. Tournament planning, team strategy, and competition.

**Prereq.:** KSS 1512.

## **KSS 1514 Fencing 1 1 s.h.**

Fundamentals of foil fencing. Methods of attack and parry, and elementary bouting and judging.

## **KSS 1515 Fencing 2 1 s.h.**

Intermediate strategies and techniques of foil fencing and bouting.

**Prereq.:** KSS 1514.

## **KSS 1516 Boxing for Beginners 2 s.h.**

This course consists of learning how to properly workout like a boxer. Students will be trained to use the proper equipment, and how to stand, move, punch, and train like a boxer preparing to competitively box. Students will NOT be actually boxing another competitor.

## **KSS 1519 Racquetball 1 s.h.**

Racquetball rules and techniques for singles and doubles play. Basic strategy and skill development.

## **KSS 1520 Golf 1 1 s.h.**

Fundamental skills of golf. Includes grip, stance, swing patterns, and putting as well as rules of course play.

## **KSS 1521 Golf 2 1 s.h.**

Intermediate golf. Refinement of swing patterns, methods of instruction, correction of errors. Emphasis on the use of various clubs and types of shots.  
**Prereq.:** KSS 1520.

## **KSS 1522 Tennis 1 1 s.h.**

Fundamental skills of tennis including forehand and backhand drives and service. Basic rules, strategy, and method.

## **KSS 1523 Tennis 2 1 s.h.**

Theory and practice of intermediate-to-advanced tennis skills and play.

**Prereq.:** KSS 1522.

## **KSS 1524 Physical Fitness and Exercise Program 1 s.h.**

Discussion and participation in activities designed to develop and improve the health-related aspects of physical fitness including weight and stress control.

## **KSS 1526 Marksmanship 1 s.h.**

The safety and practice of handling firearms. Target shooting in prone, kneeling and standing positions.

## **KSS 1528 Advanced Physical Fitness and Exercise Programs 1 s.h.**

Discussion of and participation in strenuous activities designed to develop and improve the health- and performance-related aspects of physical fitness.

## **KSS 1529 Recreational Games 1 s.h.**

Fundamentals, skills, techniques, strategy, and rules of racquetball, paddle tennis, table tennis, shuffleboard, and other recreational games.

## **KSS 1530 Learn to Swim 1 s.h.**

Introduction to swimming and survival skills, floating, drown-proofing, basic swim strokes (side, elementary back, and front crawl), beginning diving, and simple aquatic games. This course is designed for the student who cannot swim; it is not open to swimmers.

## **KSS 1531 Aquatics 2 1 s.h.**

Intermediate swimming. Introduction to back crawl, breaststroke and butterfly. Techniques in underwater swimming; use of mask, snorkel and fins. Elementary lifesaving skills and refinement of basic springboard diving.  
**Prereq.:** HPES 1530.

## **KSS 1534 Fitness Swimming 1 s.h.**

Utilization of freestyle swimming stroke to improve/maintain fitness across the lifespan. Content includes stroke mechanics, turning technique, and swim training program design to meet individual fitness and health goals.

**Prereq.:** Ability to swim for 250 yards.

## **KSS 1537 Aquatic Exercise 1 s.h.**

Fitness through aquatic conditioning exercises tailored to the individual needs of the student. Open to swimmers and non-swimmers.

## **KSS 1544 Step Aerobics 1 s.h.**

Rhythmic exercise and conditioning activities performed to music, utilizing a step platform as the foundation of the workout. Designed to improve cardio-respiratory endurance and flexibility. Emphasis on understanding the five basic components of fitness and basic principles and techniques involved in step training.

## **KSS 1545 Fold and Square Dance 1 s.h.**

European and Mediterranean folk dances, American Square dances, and mixers. Beginning materials and practice.

## **KSS 1547 Flexibility and Core Training 1 s.h.**

When performed properly, flexibility can reduce injuries, help recover from injuries, correct muscle imbalances, and recover from exercise. Stretching has also been shown to promote relaxation and stress reduction. This course will cover flexibility utilizing flexbands. In addition, core work and light resistance training will be explored.

## **KSS 1548 Aerobic Dance 1 s.h.**

Rhythmic exercises and conditioning activities performed to music. Designed to improve cardiovascular fitness, flexibility, and general muscle tone.

## **KSS 1549 Varsity Competition 1 s.h.**

Credit may be obtained through competition in varsity athletic programs.

**Prereq.:** Consent of coach.

**KSS 1550 Pilates 1 s.h.**

Instruction in principles of body alignment and posture and participation as it pertains to fundamental Pilates techniques.

**KSS 1551 Student Athlete Experience 1 s.h.**

This course will provide an orientation to student athletes on understanding the demands related to life as a student athlete. This course will focus on various topics related to life-skills such as time management and study skills, campus and community leadership, sports nutrition, professionalism and etiquette, Title IX and sexual harassment, personal financial management and budgeting, and career building and interview skills.

**KSS 1552 Yoga 1 s.h.**

Instruction in principles of meditation, body alignment and posture, and participation as it pertains to fundamental yoga techniques.

**KSS 1553 Yoga 2 1 s.h.**

Builds on the groundwork of fundamental postures, breathing, present moment awareness practices, and various methods for removal of mental and physical tensions introduced in KSS 1552. Practices are drawn from the inheritance of Yoga (Hatha and Raja), for further skill development for managing health and vitality of mind and body.

**Prereq.:** KSS 1552 or consent of instructor.

**KSS 1554 Fitness Walking 1 s.h.**

Information on the benefits of walking for fitness. Health advantages, appropriate conditioning, pace, warm-up and cool-down. Practical experience in the skills needed to achieve success in developing and adhering to a walking program.

**KSS 1555 Jogging 1 s.h.**

Holistic approach to the theory and practice of jogging with emphasis on the physiological benefits.

**KSS 1556 Racquetball 2 1 s.h.**

Advanced racquetball techniques, strategy, conditioning, and mental preparation for singles, doubles, and tournament play. Emphasis on the use of various advanced shots, positioning, and officiating.

**Prereq.:** KSS 1519.

**KSS 1557 Weight Training 1 s.h.**

Introduction to progressive resistive exercise for men and women. Topics include strength training, types of equipment, exercise techniques, circuit training, competitive weightlifting, body building, and injury prevention.

**KSS 1558 Physical Fitness for Life 2 s.h.**

Participation in exercise and physical activities, and identification of resources and assessment instruments utilized in developing an individualized, well-rounded, effective, lifelong physical fitness program. One hour lecture, two hours lab.

**KSS 1559 Aerobic Conditioning Activities 2 s.h.**

Analyses and practices in activities designed to develop and improve cardiovascular endurance. Such activities include, but are not limited to, aquatics, fitness walking and jogging. One hour lecture, two hours lab.

**Prereq.:** Exercise science major, or Physical education major.

**KSS 1560 Resistance Training 2 s.h.**

Concepts and applications of progressive resistance exercise. Emphasis on advanced principles and techniques for developing muscular strength and endurance for fitness and athletic performance. Two hours lab.

**Prereq.:** major in exercise science or permission of instructor.

**KSS 1563 Rock Climbing 1 s.h.**

Instruction and participation in fundamental rock climbing techniques that include safely constructing anchor systems, employing belay methods, equipment selection, and beginning climbing skills. A weekend, off-campus field-experience is required.

**KSS 1564 Bicycling 1 s.h.**

Instruction and practice in bicycling skills, techniques, and procedures necessary for intermediate or long trips. Students must provide their own three-, five-, or ten-speed bicycle.

**KSS 1565 Self Defense 1 s.h.**

The defensive techniques of Judo and Aikido designed to counter attacks with a knife, club, gun or bare fist. Balance, control, safety, falling.

**KSS 1566 Judo 1 s.h.**

Introduction to the history, philosophy and techniques of Judo. Fundamental techniques include falls, hand and leg throws, grappling, various holds and joint locks.

**KSS 1568 Taekwondo/Karate 1 s.h.**

An introduction to the history, philosophy and techniques of taekwondo/karate. Fundamental techniques include: stances, kicks, punches, and forms.

**KSS 1569 Taekwondo Karate 2 1 s.h.**

This course consists of an advanced refinement of taekwondo/karate forms and techniques as well as the enhancement and application of their techniques. Students will be presented with advanced skills to further their knowledge of the history and traditions of this martial art. This course builds upon the basic knowledge learned from KSS 1568 (taekwondo/karate I).

**Prereq.:** KSS 1568.

**KSS 1588 Selected Activities in Kinesiology and Sport Science 1-2 s.h.**

Knowledge of and practice in a particular area of dance, fitness, or sport. Activity is announced each time the course is offered. May be repeated up to 4 s.h. with change in topic.

**KSS 1589 Scientific Basis of Fitness 2 s.h.**

Introduction to components of physical fitness and their physiological basis. Role of exercise in prevention of cardiovascular and other hypokinetic diseases. Participation and application of training principles in a variety of fitness activities. Selection and proper use of exercise equipment. One hour lecture, two hours lab.

**Prereq.:** Physical education major.

**KSS 1590 Foundations of Fitness 3 s.h.**

Students will learn the fundamentals of fitness as it relates to lifestyle choices and health. Discussion and participation in activities designed to develop and improve the health-related aspects of physical fitness including weight and stress control will be used to develop a personal fitness program through personal goals.

**KSS 1595 Introduction to Kinesiology and Sport Science 2 s.h.**

Introduction to physical education, exercise science and related professions. Includes exploration of the general concepts, goals, aims, objectives, professional organizations, scholarly literature, sub-disciplines within the field, and career employment opportunities.

**KSS 2605 Sports First Aid and Injury Prevention 3 s.h.**

Basic injury prevention, evaluation, and emergency care. Certification in ARC Standard First Aid and Adult CPR. Basic wrapping and strapping techniques used with common sports injuries. Two hours lecture, two hours lab.

**Prereq.:** Exercise science major, Wellness minor, or consent of instructor.

**KSS 2615 Methods of Teaching Rhythmic Aerobic Activity 2 s.h.**

Rhythm and movement fundamentals related to aerobic dance and step aerobics. Methods and materials of teaching rhythmic aerobic activity culminating in practical teaching experience in the classroom. One hour lecture, two hours lab.

**Prereq.:** KSS 1589.

**KSS 2618 Physical Education Practicum 2 s.h.**

A supervised experience in a minimum of 14 physical activity sub-disciplines (e.g., sports management, sporting goods industry, not-for-profit organizations, physical activity administration, physical activity skill instruction, etc.) under the direction of a qualified individual.

**Prereq.:** Physical education major and KSS 1595.

**KSS 2620 Exercise Equipment Management 1 s.h.**

Factors to consider when purchasing new or used exercise equipment, equipment repair and preventive maintenance procedures, and equipment-related risk management.

**Prereq.:** Permission of instructor.

**KSS 2625 Pedagogical Aspects of Exercise Science 3 s.h.**

Effective instructional practices and development of organizational skills and characteristics required for teaching in exercise programs. Two hours lecture, two hours lab.

**Prereq.:** KSS 1559 and KSS 1595.

**KSS 2630 Lifeguard Training 1 s.h.**

Water rescue, preventive lifeguarding techniques, emergency procedures. Red Cross certificate granted upon satisfactory completion of all requirements.

**Prereq.:** Ability to swim 300 yards continuously; tread water for 2 minutes.

**KSS 2631 Water Safety Methods for Instructors 2 s.h.**

Techniques for teaching and supervising swimming, emergency water safety, and basic water safety. Introduction to infant and preschool aquatic programs. A water safety instructor's certificate granted upon satisfactory completion of all requirements.

**Prereq.:** Current lifeguard training certificate or emergency water safety certificate.

**KSS 2632 Skin and Scuba Diving 2 s.h.**

Basic skin-diving with the use of mask, fins, and snorkel. Scuba diving skills with the use of tank and regulator. Emphasis on diving physics, physiology, lifesaving, first aid, and safety skills related to skin and scuba diving. Two hours lecture, two hours lab. Student must furnish mask, fins, and snorkel.

**KSS 2635 Open Water Scuba Diving 1 s.h.**

Practical experiences in physiological and psychological stress, underwater navigation, effects of hypothermia, decompression, repetitive diving, and rescue techniques. Students completing this course receive basic scuba certification. Five hours lecture, ten hours lab per semester.

**Prereq.:** KSS 2632.

**KSS 2637 Skin, Scuba and Openwater Diving 3 s.h.**

Basic scuba and skin-diving skills with use of tank and regulator. Practical experiences in physiological and psychological stress, effects of hypothermia, decompression, and rescue techniques related to repetitive diving. Students completing course receive basic openwater certification. Students must furnish mask, fins, and snorkel. Two days openwater field experience. Two hours lecture, two hours lab.

**KSS 2672 Biomechanics 3 s.h.**

Knowledge and methods of mechanics as they apply to the structure and function of the living human system. Muscular structure and function in relation to physical movement, analysis of fundamental movements. Includes the physical characteristics of the human body and principles of mechanical physics. Two hours lecture. Two hours lab.

**Prereq.:** BIOL 1552, BIOL 1552L or BIOL 1545, BIOL 1545L.

**KSS 2697 Camping 2 s.h.**

The specific skills and problems encountered in camping: shelter, clothing, food, transportation, and site selection. Two hours lab.

**KSS 2699 Sport in American Culture 3 s.h.**

Sport in American culture from the colonial period to the present as it relates to such areas as education, literature, film and drama, minorities, politics, professional sport, religion and urbanization.

**KSS 3700 Exercise Testing and Prescription 1 4 s.h.**

Introductory exercise leadership skills including exercise testing and prescription, and design of safe and effective programs. Includes a minimum of 30 hours of field experience in exercise testing, leadership, observation, and career exploration. Content based on American College of Sports Medicine objectives.

**Prereq.:** KSS 2625.

**KSS 3705 Statistics Research in Exercise Science 3 s.h.**

Scientific methods in exercise science including research design and statistical analyses. Experience with statistical software and understanding published research. Two hours lecture, two hours lab.

**Prereq.:** MATH 1510 or Level 45 on Math Placement Test.

**KSS 3710 Physiology of Exercise 4 s.h.**

Acute responses and chronic adaptations of the body to physiological demands of physical activity. Topics related to the optimization of performance in sport and exercise include neuromuscular and cardiorespiratory function, energy production and utilization, and environmental influences.

**Prereq.:** CHEM 1515, and BIOL 1552 or BIOL 3730; or consent of instructor.

**Concurrent with:** KSS 3710L.

**KSS 3710L Physiology of Exercise Laboratory 1 s.h.**

Experiments and basic laboratory procedures in the field of exercise physiology.

**Concurrent with:** KSS 3710.

**KSS 3720 Kinesiology and Applied Anatomy 4 s.h.**

Muscular structure and function in relation to physical movement; analysis of fundamental movements.

**Prereq.:** PHYS 1501 or PHYS 1506.

**KSS 3720L Kinesiology and Applied Anatomy Laboratory 1 s.h.**

Analysis and basic laboratory procedures in relation to physical movement and biomechanics. Two hours lab.

**Prereq.:** PHYS 1501 or PHYS 1506.

**Concurrent with:** KSS 3720.

**KSS 3725 Mindfulness 2 s.h.**

Mindfulness is a state of active, open attention on the present and the practice of being aware moment-to-moment. Students will learn techniques of mindfulness. Topics include breath awareness, sitting meditation, body scanning, walking meditation, eating meditation, yoga, loving kindness and yoga nidra.

**Prereq.:** PSYC 1560 or KSS 1590.

**KSS 3730 Exercise Testing and Prescription 2 4 s.h.**

Intermediate exercise testing, exercise prescription based on metabolic calculations and program development for special populations. Supervised field experience in exercise leadership involving 5-8 hours per week. Content based on American College of Sports Medicine objectives.

**Prereq.:** KSS 3700 and KSS 3710.

**KSS 3750 Principles of Coaching 2 s.h.**

The scientific, psychological, and management aspects of coaching. Includes ethics and management responsibilities, personnel management, community relations, conditioning, and other related topics.

**Prereq.:** Junior standing.

**KSS 3760 Strength Training and Conditioning 3 s.h.**

Scientific principles, concepts, and adaptations to resistance exercise. Practical application of lifting and spotting technique, testing procedures, program design, and organization and administration of the strength and conditioning facility. Two hours lecture, two hours lab.

**Prereq.:** KSS 1560 and KSS 3710.

**KSS 3765 Athletic Training 1 2 s.h.**

Practical and theoretical aspects of the prevention of athletic injuries. Includes supplies, wrapping and strapping, protective equipment. Emphasizes prevention, evaluation, and emergency care. One hour lecture, two hours lab.

**Prereq.:** KSS 1595 and KSS 2605.

**KSS 4803 Issues and Trends in Exercise Science 1 s.h.**

Current issues and trends and their impact on exercise science and the general public as they relate to the American College of Sports Medicine's behavioral objectives for various professional certificates.

**Prereq.:** 64 s.h. or permission of instructor.

**KSS 4805 Administration of Exercise Programs 3 s.h.**

Provides an overview of legal, management, and marketing skills necessary to implement exercise related wellness programs. Requires development of business plan including facility design and equipment selection.

**Prereq.:** KSS 3700.

**KSS 4810 Exercise Testing and Prescription 3 4 s.h.**

Clinical exercise tests (electrocardiography, pulmonary function, submaximal/maximal cardiorespiratory tests) and exercise prescription (cardiovascular, pulmonary, diabetes, stress, cancer, PVD and hypertension). Supervised experience in clinical exercise facilities nine hours during the semester. Content based on American College of Sports Medicine objectives. 4 s.h.  
**Prereq.:** KSS 3705, KSS 3730, and KSS 3710.

**KSS 4855 Organization and Administration of Kinesiology and Sport Science Programs 3 s.h.**

Organizational patterns and administrative methods in activities, including instructional programs, intramurals and recreation.  
**Prereq.:** 20 s.h. in major.

**KSS 4865 Athletic Training 2 2 s.h.**

Advanced techniques of athletic training with emphasis on evaluation, treatment and rehabilitation of athletic injuries. Topics include application of therapeutic modalities, reconditioning programs, and the role of the athletic trainer in sports medicine. One hour lecture, two hours lab.  
**Prereq.:** KSS 3765.

**KSS 4870 Exercise and Aging for Health Professions 3 s.h.**

For majors in Gerontology/Health Professions who work with older adults in exercise/physical activity programs. Emphasis on physical aspects/limitations of aging, exercise testing, prescription, and programs for the elderly. Not applicable to the major in Exercise Science.  
**Prereq.:** Senior standing or permission of instructor.

**KSS 4875 Exercise Counseling and Behavioral Strategies 4 s.h.**

Exercise Counseling and Behavioral Strategies Evidence-based theories and domains geared toward fostering change, growth, and self-actualization in exercise. The scientific foundations of basic exercise counseling and behavioral strategies that enable effective wellness coaching are explored.  
**Prereq.:** Junior standing.

**KSS 4880 Internship 8 s.h.**

A culminating experience in an approved fitness or sports-related setting under the direct supervision of a qualified individual and coordinated by a supervising faculty member. Requires 400 hours to obtain 8 s.h. May be taken concurrently with KSS 4875.  
**Prereq.:** Completion of Exercise Science core requirements through KSS 4810.

**KSS 4888 Selected Topics in Kinesiology and Sport Science 1-3 s.h.**

In-depth study of special subject matter within the field of physical education. Topic announced each time course is offered. May be repeated for a maximum of 6 s.h. with change in topic.  
**Prereq.:** 72 s.h. or consent of instructor.

**KSS 4890 Undergraduate Research 1-3 s.h.**

Research participation under the direction and guidance of a full-time faculty member. Provides the advanced student with research experience in HPES. May be repeated to a maximum of six s.h. Junior standing or permission of instructor.

**KSS 4898 Seminar KSS 1 s.h.**

Special and current problems in KSS.  
**Prereq.:** 72 semester hours.

**KSS 4899 Physiology of Exercise for Physical Education 2 s.h.**

Acute responses and chronic adaptations of the body to the physiological demands of physical activity. Prime focus is application to the teaching of physical education.  
**Prereq.:** HEPE 3766.

**KSS 4899L Physiology of Exercise for Physical Education Laboratory 1 s.h.**

Experiments and basic laboratory procedures in the field of exercise physiology.  
**Concurrent with:** KSS 4899.

**KSS 6930 Lab Instrumentation 2 s.h.**

A laboratory course designed to provide instruction and practical experience in operating laboratory equipment for the measurement of physiological parameters in the human. Two hours lecture and two hours laboratory per week.  
**Prereq.:** HEPE 4899 Physiology of Exercise for Physical Education or equivalent.

**KSS 6935 Biodynamics and Human Performance 2 s.h.**

The physiology of human exercise responses to various stress conditions such as environmental, psychosocial, disease, and maximal performance.  
**Prereq.:** HEPE 4899 or equivalent.

**KSS 6940 Exercise Program Administration 3 s.h.**

General guidelines for managing, developing, delivering and evaluating exercise programs with specific behavioral objectives for program directors, exercise leaders, and exercise technicians as established by the American College of Sports Medicine.  
**Prereq.:** KSS 3710 or permission of instructor.

**KSS 6990 Independent Study 1-3 s.h.**

Individual study and projects under faculty supervision. May be repeated to a maximum of three semester hours.  
**Prereq.:** Permission of instructor and department chair.