

# EXERCISE AND SPORT STUDIES

## **ESS 100 Playing the Game: Introduction to Exercise and Sport Studies (4 Credits)**

A beginning survey course of the disciplines that address physical activity and sport. The course takes into account the general effects of physical activity and how one studies and analyzes these experiences. Course content includes an examination of behavioral, sociocultural, and biophysical experiences and professional possibilities.

**Fall**

## **ESS 107 Emergency Care (2 Credits)**

The goal of this course is to teach emergency medical care that enables the student to (1) recognize symptoms of illness and injuries; (2) implement proper procedures; (3) administer appropriate care; (4) achieve and maintain proficiency in all caregiving skills; (5) be responsible and behave in a professional manner; and (6) become certified in Community First Aid/AED and CPR for the Professional Rescuer. Enrollment limited to 10.

**Fall, Interterm, Spring, Variable**

## **ESS 110 Introduction to Sports Coaching (4 Credits)**

This course introduces students to the principles of coaching that are applicable to all sports. Content includes the following areas of sport science: pedagogy, leadership, psychology, physiology, recruiting, group dynamics, growth and development, and areas of health and wellness related to the well-being of athletes. Enrollment limited to 20. {S}

**Spring**

## **ESS 130 Stress Management: Practice and Resilience (2 Credits)**

The physical and psychological components of stress, identification of personal stress response patterns and techniques for daily stress management. Enrollment limited to 30.

**Fall, Spring**

## **ESS 137 Outdoor Leadership (2 Credits)**

Students develop leadership skills while progressing through a series of problem-solving scenarios and group initiatives. Each session focuses on experiential learning theories, history and current trends in outdoor leadership. Rock climbing, orienteering and challenge course elements are utilized to practice theoretical applications. An overnight camping experience at MacLeish Field Station challenges students to apply practical skill sets and explore leadership capacities. Enrollment limited to 12.

**Fall**

## **ESS 140 Health Behavior (4 Credits)**

The influence of behavior on health and well-being. Students examine the way in which factors such as nutrition and dietary habits, stress perception and response, and physical activity interact with the physiological processes of health, disease and aging. Enrollment limited to 40.

**Fall, Spring, Annually**

## **ESS 175 Applied Exercise Science (2 Credits)**

An experiential course designed to introduce students to applied exercise physiology and kinesiology. Such subjects as energy expenditure, energy systems, aerobic power, effort perception, applied anatomy and training principles are studied using a system of lecture and laboratory sessions. Enrollment limited to 20.

**Interterm**

## **ESS 200 Sport: In Search of the American Dream (4 Credits)**

This course helps students explore the way that sport overlaps with and directly influences many aspects of the "American Dream" such as politics, economics, and racial and gender based (in)equality. Students investigate historical and current trends in sport and have the opportunity to examine individuals who had an impact on sport and American society. {H}{S}

**Fall, Spring, Alternate Years**

## **ESS 210 Science of Human Movement (4 Credits)**

In this course, students employ mechanical principles to describe and quantify human motion in static and dynamic situations. Students are introduced to the biomechanical and neural elements that dictate movement and develop skills to analyze functional human movement activities in exercise and daily-living contexts. This course is recommended to students with an interest in athletics, physical or occupational therapy, orthopedics and biomechanics. {N}

**Fall, Spring, Annually**

## **ESS 220 Psychology of Sport (4 Credits)**

This is an introductory course designed to provide information and facilitate understanding in regard to the mental processes that promote peak performance and experience. Discussions include imagery, self-talk, competition, motivation, team cohesion, peak performance, anxiety, attention and confidence. Cultural differences and creating inclusive and accessible sport spaces are also discussed. PSY 100 is recommended but not required. {S}

**Fall, Spring, Alternate Years**

## **ESS 230 Critical Sport Media (4 Credits)**

An exploration of sporting images as projected through the media. Primary emphasis is on print and electronic journalism, including written narratives, photography, television, film and digital images. The course examines the (re)presentation and (re)production of the athletic or healthy body as the standard for fitness. The topic includes issues on embodiment, cultural symbolism, political and moral ideologies and commercialization. {S}

**Fall, Spring, Alternate Years**

## **ESS 240 Exercise and Sport for Social Change (4 Credits)**

This class is designed for students who wish to understand more about the role sport and exercise can play in relation to social justice and civil rights movements, the way that current inequities influence who is able to participate in various types of sport and exercise, and methods for addressing these inequalities and injustices. Students have the chance to learn about social justice and social change as they relate to the following topics: athlete activism, coaching, administration, participation, fairness and non-profit community based and governmental level interventions. Enrollment limited to 20. {S}

**Fall, Spring, Alternate Years**

**ESS 250 Nutrition and Health (4 Credits)**

An introduction to the science of human nutrition. Topics include digestion, absorption and transportation of nutrients in the body, and the way nutrients are used to support growth and development and maintain health. We also examine how personal dietary choices affect nutritive quality of the diet and the health of an individual. The relationship between diet and health is explored throughout the course. Special topics include diet, cardiovascular disease, body composition, bone health and vegetarianism. High school chemistry recommended but not required. Enrollment limited to 30.

**Fall, Spring, Annually**

**ESS 260 Human Anatomy and Physiology I (4 Credits)**

This course examines the structures and physiology of human body systems. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular and nervous systems, as well as the special senses. This course emphasizes the interrelationships among body systems and regulation of physiological functions. This course investigates the structure and function of the human body. Prerequisite: Bio 132, or one college-level biology, chemistry, or physics course with lab. Enrollment limited to 20. {N}

**Fall**

**ESS 261 Human Anatomy and Physiology II (4 Credits)**

This course examines the structures and physiology of human body systems. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: endocrine, cardiovascular, respiratory, immune, digestive, urinary and reproductive. This course emphasizes the interrelationships among body systems and regulation of physiological functions. Prerequisite: One college-level natural science course with lab. Enrollment limited to 24. {N}

**Spring**

**ESS 275 Exercise Design (4 Credits)**

A course designed to plan and implement exercise-training programs for adults. Students learn about applied anatomy, exercise physiology, motivational tools, behavior change, applied biomechanics, and measuring and evaluating fitness variables. During this highly experiential course, students learn to design and operate individualized programs. Students who successfully complete this course are prepared to complete the American College of Sports Medicine's Certified Personal Trainer certification. Previous experience with weight training recommended. ESS 100 or ESS 175 recommended but not required. Enrollment limited to 16,

**Fall, Spring, Variable**

**ESS 280 Applied Sports Medicine (4 Credits)**

Students review musculoskeletal anatomy, etiology of common sports injuries, injury prevention, concussion management and learn how to train individuals involved in sport to maintain health and performance. Students are introduced to different assessment tools, treatment interventions, research methods, apply new knowledge and research a common sports injury to be presented to peers. Enrollment limited to 20. {S}

**Fall, Spring, Alternate Years**

**ESS 300 Seminar: Topics in Exercise Sport Studies (4 Credits)**

Topics course. This course covers a variety of topics that relate to the fields of study in ESS. Each topic has a different focus. Regardless of the focus, students read, discuss, and critically evaluate the seminal and current research on the topic. Students learn about the principal analytic techniques and how knowledge in the area is generated. Students practice scientific writing and communication through formal and informal means using traditional and novel formats. Examples of topics include, Physical Activity and Health Epidemiology, Neuromuscular Mechanisms of Movement Disorders, Cardiovascular Health Disparities, and The Science of the Olympics. Restrictions: Juniors and seniors only. Enrollment limited to 12. Instructor permission required.

**Fall, Spring, Variable**

**ESS 300ca Seminar: Topics in Exercise Sport Studies-Current Issues in Collegiate Athletics (4 Credits)**

This course provides an in-depth view of college athletics from a management and social justice perspective delivered by a former Athletic Director at DIII as well as a DI coach. The course focuses on, but is not limited to, history, governance, the amateur model of sport, organizational structure, finances, management and the current issues in college athletics. Restrictions: Juniors and seniors only. Enrollment limited to 12. Instructor permission required.

**Fall, Spring, Annually**

**ESS 300hd Seminar: Topics in Exercise Sport Studies-Health Disparities in CVD (4 Credits)**

Restrictions: Juniors and seniors only. Enrollment limited to 12. Instructor permission required.

**Fall, Spring, Variable**

**ESS 300mb Seminar: Topics in Exercise Sport Studies-Movement, Brain and Health (4 Credits)**

This course focuses on the understanding of the relationship of movement, brain functions, and health. The class discusses not only basic human motor functions (e.g., postural control) but also neuronal parameters of motor control and its relation to health and disordered states. This course examines foundational and current research exploring neuronal control of human movement and its relation to disorders, including Parkinson's Disease, Multiple Sclerosis, cerebellar and somatosensory dysfunction. The course focuses on different methods of research in this field with a particular focus on neuroimaging and movement analysis. Prerequisite: BIO 200, NSC 210, NSC 230, ESS 210, ESS 260, or ESS 310. Restrictions: Juniors and seniors only. Enrollment limited to 12. Instructor permission required. {N}

**Fall, Spring, Alternate Years**

**ESS 300md Seminar: Topics in Exercise Sport Studies- Neuromuscular Mechanisms of Movement Disorders (4 Credits)**

A seminar that focuses on understanding the neuromuscular contributions to human movement disorders. The understanding of human postural control has been shaped by assessing neuromuscular coordination among people with a range of neurological disorders. This course examines foundational and current research exploring movement disorders of the central and peripheral nervous systems, including Parkinson's Disease, Multiple Sclerosis, cerebellar and somatosensory dysfunction. Restrictions: Juniors and seniors only. Enrollment limited to 12. Instructor permission required.

**Fall, Spring, Variable**

**ESS 300pa Seminar: Topics in Exercise Sport Studies- Physical Activity and Health (4 Credits)**

Physical activity can be a powerful medicine to prevent and treat chronic disease. How does it work? Who benefits the most? What types of physical activity are best for different diseases and conditions? This course explores the evidence underlying the relationship between physical activity and health in a variety of populations. Discussions include physical activity and sedentary behavior epidemiology, measurement and study design, chronic disease etiology, and health disparities. Emphasis is placed on critical evaluation of seminal and current research in the field. Restrictions: Juniors and seniors only. Enrollment limited to 12. Instructor permission required.

**Fall, Spring, Variable**

**ESS 310 Neuromuscular Control of Human Movement (4 Credits)**

In this course, students investigate neuromuscular mechanisms of human postural control to understand how perception and action are coupled to achieve complex movements, including locomotion. Students also evaluate how movement coordination is developed and is influenced by aging and dysfunction. Students are exposed to advanced techniques of human movement analysis and develop and test a novel research question. This course is designed for students with an interest in neuroscience, physical or occupational therapy, biomedical engineering and medicine. Prerequisites: One of ESS 210 (preferred), ESS 260, ESS 315, BIO 200, NSC 210, PSY 130 or PSY 218, or equivalent. Enrollment limited to 25. {N}

**Fall, Spring, Variable**

**ESS 315 Physiology of Exercise (4 Credits)**

Exercise, sport and outdoor activities all require energy. The study of these energetic events is the basis of this course. The class studies how the body adapts to repeated bouts of physical activity and how the body can perform a single event. This course is highly applied. Short lectures accompanied by relevant laboratory experiences. This course also counts toward the major in biological sciences. Prerequisite: BIO 200 or ESS 260 or equivalent. Enrollment limited to 12. {N}

**Fall, Spring, Alternate Years**

**ESS 340 Seminar: Current Issues in Women's Health (4 Credits)**

A course focusing on current research papers in women's health. Recent topics have included reproductive health issues, eating disorders, heart disease, depression, autoimmune disorders and breast cancer. Cannot be taken S/U. Prerequisites: ESS 140 or a strong biological sciences background. Restrictions: Juniors and seniors only. Enrollment limited to 12. Instructor permission required. {N}

**Fall, Spring, Annually**

**ESS 400 Special Studies (1-4 Credits)**

Instructor permission required.

**Fall, Spring**

**ESS 500 Foundations of College Coaching (2 Credits)**

An introduction to the principles of successful coaching at a U.S. college. This course introduces students to the basics of coaching, covering a variety of subjects including coaching philosophy; principles of teaching; physical training; motion analysis; management and administration of teams; NCAA regulations; and recruiting. This introductory course orients the student to the basics of coaching. It prepares the student for more in-depth courses in such areas as biomechanics, exercise physiology and motor learning.

**Fall, Spring, Variable**

**ESS 501 Graduate Seminar in Administration of Athletic Teams (2 Credits)**

The administration of sport and athletic teams is the major focus of this course. Topics include planning, organizing, directing and controlling various facets including scheduling, purchasing, budgeting and recruiting of a sports program. Limited to those enrolled in ESS 505 and 506.

**Fall, Spring, Alternate Years**

**ESS 502 Sport Philosophy and Ethics (2 Credits)**

This course introduces selected topics in ethics and philosophy of sport as they relate to coaching and the broader conception of sport in culture. Drawing on case studies and contemporary sources, the course examines beliefs about the value of competitive sport, its relationship to higher education and its implication for coaches. Students develop and articulate their own coaching philosophy and discuss related topics. Restrictions: ESS graduate students only. Enrollment limited to 20.

**Fall**

**ESS 503 Graduate Seminar: Legal Issues in Sport (2 Credits)**

Legal concepts in the context of sport. Selected legal issues as they relate to coaching including topics such as negligence, contract law, statutory and constitutional law, and defamation and risk analysis/management are examined. Appropriate case studies and related contemporary sources provide the platform for discussion. Restrictions: ESS graduate students only.

**Fall, Spring, Alternate Years**

**ESS 504 Collegiate Recruiting Class (1 Credit)**

This course provides an in-depth exploration of the recruiting process across all three divisions of the NCAA. The course explores the entire recruiting process including identifying prospects, understanding the product, creating a brand, networking with allies, developing a recruiting strategy, recruiting through social media, understanding NCAA recruiting rules, generating strong communication with recruits and parents, attracting recruits from diverse backgrounds, implementing creative on campus visits, managing a recruiting budget and exploring recruiting software programs. This course is designed to help each student craft the beginning stages of their recruiting philosophy and to create an overall understanding of the process. Restrictions: ESS graduate students only.

**Fall**

**ESS 505D Practical Foundations of Coaching (3 Credits)**

Assisting in the coaching of an intercollegiate team. Weekly conferences on team management, coach responsibilities and coaching aids. For first year graduate students. Restrictions: ESS graduate students only.

**Fall, Spring**

**ESS 506D Advanced Practicum in Coaching (4 Credits)**

Independent coaching and the study of advanced coaching tactics and strategy in a specific sport. This is a full-year course. For second year graduate students. Prerequisite: ESS 505D. Restrictions: ESS graduate students only.

**Fall, Spring**

**ESS 508 Counseling Basics: Skills Building for Coaches (2 Credits)**

This course offers the student a set of comprehensive skills to assist in identifying athletes who may be struggling with mental health challenges. Students learn about "red flags" or indicators that suggest an athlete may be struggling or needing outside emotional support. Symptoms related to (but not limited to) anxiety, depression, eating disorders and substance are specifically addressed. Restrictions: ESS graduate students only.

**Fall, Spring, Variable**

**ESS 509 Musculoskeletal Structure and Function of an Athlete (2 Credits)**

This course is about a detailed study of the structure and the function of the human musculoskeletal systems. In addition, a few motor control and biomechanical principles that apply to musculoskeletal movement are introduced. Students learn the skeletal system and skeletal muscles involved in athletic movements and how joints and ligaments promote and limit these movements. Restrictions: ESS graduate students only. Enrollment limited to 20.

**Fall**

**ESS 510 Biomechanics of Exercise and Sport Studies (4 Credits)**

A course in the application of biomechanics to exercise and sport. Information on linear and angular kinematics, linear and angular kinetics, and fluid mechanics is presented in order for students to analyze exercise and sport.

**Fall, Spring, Alternate Years**

**ESS 515 Physiology of Exercise and Sport (4 Credits)**

This course emphasizes the application of exercise physiology to sport. Students study bioenergetics, exercise fuels, training, environmental concerns and overtraining. A major emphasis is the development of an annual training plan for athletes. Restrictions: ESS graduate students only. {N}

**Fall, Spring, Alternate Years**

**ESS 520 Seminar in Sport Leadership for Coaches (2 Credits)**

This course provides the opportunity to explore the dynamic world of sports leadership through a national and international lens. Students are exposed to alternative perspectives of leadership including some contemporary collaborative models. Students build a personal model and philosophy of leadership that they can put to immediate use in their coaching. Restrictions: ESS majors and graduate students only.

**Fall, Spring, Alternate Years**

**ESS 550 Gender in Sport (4 Credits)**

A course designed to evaluate the role that gender norms and stereotypes have on participation, access and success in sport. Contemporary trends are linked to historical and sociological antecedents. Focus is on historical, contemporary, and future perspectives and issues in sport with a focus on gender and its intersections with other sociological constructs. Restrictions: ESS graduate students only. {S}

**Fall, Spring, Alternate Years**

**ESS 555 Sports Nutrition (2 Credits)**

This course provides students with a basic understanding of the relationships among nutrition, health and athletic performance. Students in this course apply basic nutrition science information to sports training and competition. This course focuses extensively on what coaches and athletes need to know about nutrition for optimal performance.

**Fall, Spring, Alternate Years**

**ESS 565 Seminar in Skill Acquisitions (4 Credits)**

Survey of topics relevant to skill acquisition and performance, including detailed analysis of perceptual, decision-making and effector processes. Independent research required. Restrictions: ESS graduate students only. Enrollment limited to 15. {N}

**Fall, Spring, Alternate Years**

**ESS 570 Seminar: Sport Psychology (4 Credits)**

An examination of the theory and application of psychological skills training in sport from a cognitive-behavioral perspective. Included are strategies that affect behavior, motivation, perception and self-beliefs. Leadership and group dynamics are also covered. Case studies are used to facilitate operationalizing theory. Restrictions: ESS graduate students only.

**Fall, Spring, Alternate Years**

**ESS 575 Sports Medicine Care and Prevention (2 Credits)**

Theory and practice of sports medicine with emphasis on injury prevention, protection and rehabilitation. Prerequisite: 210 or equivalent. Restrictions: ESS graduate students only. {N}

**Fall, Spring, Alternate Years**

**ESS 576 Fundamentals of Conditioning (2 Credits)**

An advanced perspective of the development of athletes' functionality, strength and movement mechanics to improve overall performance. This course reviews lifting techniques, speed mechanics, functional training and practical theory of the athletic performance model, and prepares students for applications of these principles in everyday sport coaching and for the NSCA-CSCS certification exam. Restrictions: ESS graduate students only.

**Fall, Spring, Alternate Years**

**ESS 580 Special Studies (1-4 Credits)**

Instructor permission required.

**Fall, Spring, Annually**

**ESS 590D Thesis (2-4 Credits)**

This is a full-year course. Department permission required.

**Fall, Spring**

**ESS 901ab Topics in Aquatic Activities-Advanced Beginning/Intermediate Swimming (1 Credit)**

The course focuses on the improvement of swimming skills. Performance goals include being able to swim Freestyle, Backstroke and Breaststroke and the turns associated with those strokes at a level that surpasses initial performance by the end of the semester. All students are assessed at the beginning and end of the semester. Although this is not a conditioning class, the intermediate level student receive the same stroke technique instruction with an emphasis on a greater volume of swimming which prepares the student for the next level which is swim conditioning. The pool is divided to serve the differing levels. Prerequisite: ability to swim at least one length of the pool. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 18.

**Fall, Spring, Annually**

**ESS 901sc Topics in Aquatic Activities-Swim Conditioning (1 Credit)**

Swimming workouts to improve physical fitness. Stroke improvement, exercise program design and a variety of aquatic training modalities are also included. Prerequisite: Intermediate swimming ability. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 18.

**Fall, Spring, Annually**



**ESS 902 Beginning Swimming (1 Credit)**

A course in the development of basic swimming skills and conquering a fear of the water. Priority is given to establishing personal safety and enhancing skills in the water. Students in this course learn about the basic principles of swimming in terms of buoyancy and propulsion. The primary performance goals are survival swimming skills and comfort in the water. Restrictions: A person who can swim at least one length of the pool is not eligible for this course; a maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 12.

**Fall, Spring, Annually**

**ESS 903 Springboard Diving (1 Credit)**

This class is designed to learn the basic fundamentals of springboard diving. Students develop skills in the five categories of one-meter diving while covering springboard safety and body mechanics to master basic approaches and entries. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 8.

**Fall, Spring, Annually**

**ESS 905lt Topics in Water Safety-Lifeguard Training (2 Credits)**

American Red Cross Certification in Lifeguard Training and Basic First Aid/AED (Automated External Defibrillator) and CPR for the Professional Rescuer. Prerequisites: 300-yard swim using crawl and breaststroke (goggles allowed), must tread water for 2 minutes without using the arms and retrieval of 10-pound brick from 8-foot depth (no goggles allowed) must be completed within 1 minute 40 seconds. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 10.

**Fall, Spring, Variable**

**ESS 921 Topics in Fencing-Fencing I (1 Credit)**

This beginner course in foil fencing covers basic footwork and bladework techniques for offense and defense. Students learn tactics, bouting, refereeing and use of electrical scoring equipment to prepare for a friendly in-class tournament at the end of the semester. Fencing is a fun and engaging lifelong sport that cultivates graceful fitness, quick thinking and lightning reflexes. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 16.

**Fall, Spring, Annually**

**ESS 922 Topics in Fencing-Fencing II (1 Credit)**

Building on skills learned in Fencing I (Foil) épée, sabre and the differences between each style are taught. The class covers footwork, positions, offense, defense and tactics particular to each weapon. It incorporates dynamic stretching and plyometric training to improve students' fitness with emphasis on partner drills and bouting, leading to in-class tournaments. Students also learn about the world of competitive fencing from local events to World Cups and the Olympics. Prerequisite: ESS 920aa, or equivalent. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 10.

**Fall, Spring, Variable**

**ESS 925aa Topics in Golf-Golf I (1 Credit)**

An introduction to the game of golf. Taught from "green to tee," this course teaches the basic mechanics of the swing as well as correct club selection. The initial focus of the course is directed to the "short game" and develops toward appropriate use of mid- and long irons, concluding with woods/metals. Applied rules of golf and etiquette are also addressed. Pending weather, field trip experience may be scheduled at the end of the term. Equipment is provided. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 10.

**Fall, Spring, Annually**

**ESS 940ar Topics in Outdoor Skills-Archery (1 Credit)**

This course is designed for the beginning or novice archer and uses recurve target bows and equipment. The purpose of the course is to introduce students to the basic techniques of target archery emphasizing the care and use of equipment, range safety, stance and shooting techniques, scoring and competition. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 12.

**Fall, Spring, Annually**

**ESS 940rc Topics in Outdoor Skills-Rock Climbing I (1 Credit)**

This course introduces the fundamentals of rock climbing to the beginner. It emphasizes smooth climbing technique as well as familiarity with the equipment, various knots, belaying and rappelling. Basic top-rope anchor building is also covered. Safety issues are a strong emphasis in this course. The majority of class time is spent on the Ainsworth Gym climbing wall but also includes off-campus trips. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 12.

**Fall, Spring, Annually**

**ESS 941rc Topics in Advanced Outdoor Skills-Rock Climbing II (1 Credit)**

This active course quickly reviews the fundamentals of rock climbing and top-rope anchor building, then proceeds to introduce more advanced skills with a greater emphasis on lead sport climbing and traditional gear placement. Safety issues remain a strong emphasis in this course. The majority of class time takes place off-campus at nearby cliffs. Prerequisite: Rock Climbing I, or equivalent. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 8.

**Fall, Spring, Annually**

**ESS 941wc Topics in Advanced Outdoor Skills-Whitewater Canoe (1 Credit)**

An introduction to solo and tandem whitewater canoeing. This class is taught on local rivers offering Class I and II rapids during the spring. Flatwater canoeing experience preferred. Prerequisite: satisfactory swimming skills. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 8.

**Fall, Spring, Variable**

**ESS 942 Whitewater Kayaking (1 Credit)**

An introduction to solo whitewater kayaking. This more adventurous class begins in the pool and pond with basic paddling skills, then progresses to local fast water rivers. Students should expect to run Class I and II rapids. Prerequisite: satisfactory swimming skills. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 6.

**Fall, Spring, Annually**

**ESS 945ft Topics in Physical Conditioning-Futsal (1 Credit)**

This course provides an introduction to conditioning through the lens of futsal. Students develop their foot skills and overall technical and tactical abilities of indoor soccer while learning to build endurance, speed, and agility to best succeed in this sport. This course is for all people looking to improve physical fitness in a fun, competitive environment. Enrollment limited to 20.

**Spring, Variable**

**ESS 945pa Topics in Physical Conditioning-Pilates I (1 Credit)**

A course designed to teach the mat exercises of Joseph Pilates. These exercises increase core strength, increase joint mobility and stability, and increase muscle tone and flexibility. By the end of this course students are able to develop and maintain their own Pilates matwork program. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 20.

**Fall, Spring, Annually**

**ESS 945pb Topics in Physical Conditioning-Pilates II (1 Credit)**

A course designed to teach intermediate to advanced mat exercises developed by Joseph Pilates. This course explores the history of Pilates, the benefits of Joseph Pilates matwork and the six main Pilates principles. Prerequisite: ESS 945pa, or equivalent. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 20.

**Fall, Spring, Variable**

**ESS 945sp Topics in Physical Conditioning-Self-Paced Fitness (1 Credit)**

An introduction to the principles and methods of training to improve and maintain fitness. Each student designs and follows an individualized conditioning program. Programs are tailored to the needs of the student. Each individual is monitored throughout the semester and students are expected to do most of their exercise out of class. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 20.

**Fall, Interterm, Spring, Annually**

**ESS 945wt Topics in Physical Conditioning-Weight Training (1 Credit)**

This course provides an introduction to various methods of resistance training. The focus of this class is functional strength training. Students learn specific training methods. This is an ideal course for students interested in sport, applied sports medicine and rehabilitation. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 20.

**Fall, Spring, Annually**

**ESS 946 Olympic Lifts (1 Credit)**

This course is focused on teaching and training the Olympic Lifting movements of Snatch and Clean & Jerk. The class is focused on teaching the movements and their variations in class while students also work on strength outside of class time. Prerequisite: previous knowledge of resistance training such as ESS 945wt, working with strength and conditioning as an athlete, or outside experience. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 12.

**Fall, Spring, Variable**

**ESS 947 Topics in Physical Conditioning-Running Workshop (1 Credit)**

This running-based fitness class is for runners of all levels—from beginners excited to improve to individuals who are ready to step up their training. Each class includes a running workout and running workshop. Students are introduced to different types of workouts and the rationale behind them (such as intervals, fartleks, tempos and plyometrics), and students learn how to adjust these workouts to meet their individual fitness needs. Workshop topics include form and technique, goal setting, stretching, strengthening, using heart rate monitors, injury prevention, nutrition, workout periodization and many others. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree.

**Fall, Spring, Annually**

**ESS 950 Sculling (1 Credit)**

An introduction to sculling techniques. A variety of boats are used to teach this great lifetime sport including singles and doubles. Classes are taught on Paradise Pond and the Connecticut River. Prerequisite: satisfactory swimming skills. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 10.

**Fall, Spring, Variable**

**ESS 951 Rowing on the Erg (1 Credit)**

This course is an introduction to rowing using the ergometer. All rowing occurs indoors on the ergometer. Instruction focuses on developing basic rowing proficiency related both to using the ergometer as well as those that would be transferable to water rowing. In addition, the course covers how to use the ergometer as a general fitness tool and a general overview of the sport of rowing. Enrollment limited to 12.

**Fall, Spring, Annually**

**ESS 960ta Topics in Racket Sports-Tennis I (1 Credit)**

Students are introduced to the basic strokes of tennis (forehand, backhand, volleys, serves). Singles and doubles play and basic positioning are presented. Tennis rules and etiquette are included in the curriculum. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 16.

**Fall, Spring, Annually**

**ESS 960tb Topics in Racket Sports-Tennis II (1 Credit)**

Students must have a working knowledge of the four basic tennis strokes (forehand, backhand, volleys, serves). The format for Tennis II is a “play and learn” environment. Emphasis is on positioning and basic strategies for singles and doubles. Lobs and overheads are introduced. In addition, tennis drills are presented to help students refine and practice the four basic strokes. Prerequisite: ESS 960ta. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 16.

**Fall, Spring, Annually**

**ESS 975dc Topics in Yoga-Gentle Yoga/Deep Core (1 Credit)**

This gentle yoga concentration focuses on the body's core and its multi-dimensionality. The self-care component combines contemporary and ancient understanding along with practices associated with yogic theory and anatomy, fascia anatomy and Polyvagal Theory of the Autonomic Nervous System (PTANS). Practices include: therapeutic/adaptive yoga, breathing/subtle energy techniques, awareness, soft foam rolling massage, contemplation and guided meditation. This body-positive class constellates to areas of compassion, focus, equanimity, courage and joy. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 26.

**Fall, Spring, Annually**

**ESS 975gy Topics in Yoga-Gentle Yoga (1 Credit)**

An introduction to yoga that is adaptive to the individual, gentle and slowly dynamic with a breath-centered approach. This is a practice designed to empower students, giving them tools to reduce stress and improve strength, flexibility and alignment. Injuries are accommodated. Gaining understanding from ancient yoga theory, students learn to embody experiences of focus, acceptance, courage and letting go. This positive energy is tapped into through breathing techniques, yoga poses, contemplation, meditation and deep relaxation. Practicing at all levels bestows resilience and calm. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 26.

**Fall, Spring, Annually**

**ESS 975ha Topics in Yoga-Hatha I (1 Credit)**

An introduction to yoga through basic postures, breath techniques, meditation and alignment. Designed to help students reduce stress, improve strength and flexibility, and cultivate the mind/body connection. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 26.

**Fall, Spring, Annually**

**ESS 975iy Topics in Yoga-Iyengar (1 Credit)**

This class introduces students to Iyengar method, focusing on balancing and aligning body and mind while developing strength, flexibility, endurance and optimal structural alignment. The method also develops self-awareness, intelligent evaluation, confidence and inward reflection. Students are introduced to a range of postures (asana) and breathing practices (pranayama) that address their own individual needs in addition to learning special sequences relieving symptoms of stress, fatigue and physical pain. Restrictions: A maximum of 4 credits of Exercise & Sports Study performance classes may be counted towards the degree. Enrollment limited to 26.

**Fall, Spring, Annually**

**ESS 975nn Topics in Yoga: Gentle Yoga/Neuro Narrative Yoga (1 Credit)**

Stories reside within the body, influencing bodily posture, emotions, autonomic nervous system (ANS) and outlook on life. Students learn how to strengthen their best self, mental immunity and transform uncertainty, fear and feeling of being stuck. This course helps to re-pattern internal narratives through practices tapping into the subconscious and ANS (where negative habits and beliefs reside) with playful yoga embodiment, free writing and more. The free writing is kept confidential. Yogic wisdom and neuroscience behind the practices are explained. Towards the end of each class, working individually, students create an embodied affirmation or short writing to empower mind/body possibilities, personal truths, love and resiliency. Enrollment limited to 26.

**Fall, Spring, Annually**