KINESIOLOGY  KIN

Department of Kinesiology
College of Education

101A  Swimming I  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. SA: PES 101A

Beginning swimming. Development of skills in water readiness activities, floating, back and prone glide, sculling, freestyle, backstroke, and elementary backstroke. Demonstrate knowledge of propulsion and resistance forces, correct stroke technique, and safety and emergency procedures.

101M  Great Lakes Sailing  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. SA: PES 101M

Basic sailing.

101N  Intro to Stand-up Paddleboarding, Kayaking and Canoeing  Fall, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: (KIN 101A) or Equivalent Skills

Learning to kayak, stand-up paddleboard and canoe.

102A  Judo I  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Introduction to the sport of Judo. Learn and perform basic skills including falling, throwing, hold-down, and submission hold. Competition rules of Judo.

102C  Karate I  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Introduction to the sport of Karate. Learn and perform the basic skills of kick, strike, block, stance and footwork. Self-defense, one-step and sparring techniques.

102K  Tae Kwon Do I  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Explore skill and knowledge development in the art of Taekwondo.

102M  Introduction to Kendo  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Previous experience with the martial arts.

Basic movements, history, philosophy, and concepts of the martial art of kendo. Learning kendo through its practice.

102N  Introduction to Wing Chun  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Previous experience with the martial arts.

Learning to balance, focus, and self-defense techniques of Wing Chun.

103A  Aerobic Exercise I  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Introduction to theoretical and practical principles of stretching, toning, and low impact aerobic activity that progressively improve cardiovascular strength and endurance, flexibility, coordination and body image.

103C  Aerobic Exercise, Low Impact  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Introduction to theoretical and practical principles of stretching, toning, and low impact aerobic activity that progressively improve cardiovascular strength and endurance, flexibility, coordination and body image.

103D  General Conditioning I  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Physical fitness, exercise, and health principles and practices applied to personal exercise and health programs through activities such as target heart rate monitoring, body measurements, posture analysis, and energy intake and expenditure assessments. Demonstrations and vigorous exercise activities.

103G  Power Walking  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Basic knowledge of physical fitness and healthy lifestyle principles. Muscular strength and endurance, flexibility, cardiovascular endurance, and total body health.

103R  Weight Training I  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118.

Basic level weight training principles, basic anatomy, and diet and nutrition. Enhance muscular strength, endurance and flexibility.

103S  Swim Conditioning  Fall, Spring, Summer. 1(0-2)  A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Swimming I or equivalent skills.

Cardiovascular fitness through swimming. Muscular endurance, strength and flexibility, and cardiovascular fitness. Training principles and techniques such as interval training, long distance swimming and dry land exercises. Basic nutrition and diet guidelines.
Basic understanding of distance running as a form of developing cardiovascular endurance and muscular strength and endurance for recreation and competition. Goal setting, designing workouts, injury awareness and prevention, training in adverse weather and environmental conditions and proper nutritional guidelines.

An alternative to high impact aerobics for beginning and intermediate step students. Introduction to theoretical and practical principles of stretching, toning, and step aerobic activity that progressively improve cardiovascular strength and endurance, flexibility, coordination and body image.

Introduction to boxing specific conditioning. Fundamentals and techniques.

Fundamental skills of bowling including form and technique. Terminology, rules, strategies and scoring procedures.

Beginning golf. Rules and etiquette of the game, basic swing fundamentals, and proper equipment selection.

Explore beginning aspects of horsemanship.

Begining and intermediate level hands-on learning of archery.

Increase awareness and understanding of sexual assault. Focus on defense against sexual violence. Techniques for diffusing and avoiding potentially dangerous situations. Physical self-defense skills.

Explore the beginning aspects of Yoga.

Fundamental skills, rules, and strategies of volleyball. Drills and game play.

Rules, scoring, and offensive and defensive strategies will be emphasized.

Basic skills of throwing, fielding, hitting, and base running. Rules, offensive and defensive strategies, and scorekeeping.

Basic technical and tactical soccer skills specific to the indoor soccer arena. Drills and game play.
Fundamental wheelchair sport skills. Team offensive and defensive concepts and strategies in a variety of wheelchair-based sports.

Specialized opportunities in sports and physical activities. Competence in special skills, rules, and cultural perspectives as related to various offered activities.

Intermediate swimming to refine swimming skills, backstroke, diving, and flip turns. Demonstration of freestyle, backstroke, breaststroke, elementary stroke technique and safety and emergency procedures.

Stroke and skill emphasis will be placed on sculling, learn new strokes, increase swimming fitness levels, intermediate and advanced aerobics. Introduction to theoretical and practical principles of stretching, toning, and aerobic activity that progressively improve cardiovascular strength and endurance, flexibility, coordination and body image.

Advanced judo sport skills that involve actual contest, Rondori, and contest strategies will be emphasized in order to assist the students in attaining a higher level of proficiency in Judo.

Advanced karate skills that involve actual contest and contest strategies will be emphasized in order to assist the students in attaining a higher level of proficiency in Karate.

Intermediate and advanced aerobics. Introduction to theoretical and practical principles of stretching, toning, and aerobic activity that progressively improve cardiovascular strength and endurance, flexibility, coordination and body image.

Intermediate level weight training principles, basic anatomy and muscle physiology, and nutrition and diet. Weight training programs and development of personal training programs.
116A Bowling II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Bowling I or equivalent skills.

Refine and improve basic bowling skills, while developing technique and form. Bowling rules and etiquette, spare targeting and conversions, spot or pin bowling and league playing.

116B Golf II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Golf I or equivalent skills.

Refine and further develop golf skills to improve ones game and performance. Methods of improvement include analysis of swing form, utilization of regular routines, diagnosis of individual problems, and on-course strategies of play. Different types of competition, special conditions, error shots and examine special condition play. Playing on the golf course, practicing driving, chipping, pitching, and/or putting green(s).

116C Horsemanship II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Horsemanship I or equivalent skills.

Advanced horsemanship skill training.

116S Archery II
Fall, Spring, 1(0-2) A student may earn a maximum of 8 credits. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118 if different activities or the same activities at higher levels are involved. P: KIN 106S or approval of department RB: Prior archery experience.

Advanced level hands-on learning of archery.

117B Tennis II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Tennis I or equivalent skills.

Development of intermediate and advanced strokes, footwork, and net play. Drills, strategy development, singles and doubles tournament, and psychological aspects of tennis.

118A Basketball II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Basketball I or equivalent skills.

Enhance fundamental skills and develop advanced skills. Offensive and defensive strategies, and rules of the game.

118B Ice Hockey II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Ice Hockey I or equivalent skills.

Intermediate and advanced hockey concepts, skills and strategies. Puck control, physical conditioning, team system analysis, and drill design and implementation.

118C Soccer II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Soccer I or equivalent skills.

Advanced soccer skills, drills, and matches. Game play, strategy development, and cardiovascular development.

118E Volleyball II
Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 8 credits in all enrollments for this course if different activities or the same activities at higher levels are involved. Students are limited to a combined total of 8 credits in KIN 101-108 and KIN 111-118. RB: Volleyball I or equivalent skills.

Fundamental skill refinement and advanced skill learning. Offensive and defensive strategies, rules, and officiating.

121 The Healthy Lifestyle
Fall, Spring, Summer. 3(2-2) R: Open to undergraduate students in the Athletic Training Major or in the Health Promotion Minor or in the Kinesiology major. SA: PES 121

Cardiovascular risk factors, lifestyle habits, and aerobic capacities and their relationship to optimal health and longevity. Individual physical activity required as part of the course.

125 First Aid and Personal Safety
Fall, Spring, Summer. 3(3-0) SA: PES 125

Knowledge and application of first aid concepts relating to respiratory and cardiovascular disorders, shock, wounds, burns, fractures, drug poisoning, childbirth, litigation. Preventing trauma by recognizing and avoiding safety hazards.

126 Introduction to Athletic Injury
Fall, Spring. 3(3-0) R: Open to undergraduate students in the Kinesiology major.

Basic knowledge for the recognition and prevention of athletic injuries.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Corequisites/Co-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>227</td>
<td>Observations and Introduction to Clinical Skills</td>
<td>Athletes benefit from understanding the basics of human movement and its application to sports. This course will cover the principles of athletic training.</td>
<td>R: Not open to freshmen or sophomores. SA: PES 300</td>
<td>3</td>
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<tr>
<td>228</td>
<td>Clinical Rotation and Skills Introduction to</td>
<td>This course focuses on developing an understanding of the techniques and strategies used in coaching.</td>
<td>R: Open to students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>250</td>
<td>Measurement in Kinesiology</td>
<td>Students will learn the methods and materials for measuring and evaluating physical activity.</td>
<td>R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>251</td>
<td>Principles of Human Movement</td>
<td>Basic principles governing human movement with a focus on mechanics, movement coordination and motor learning aspects.</td>
<td>R: Open to students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>300A</td>
<td>Coaching Baseball</td>
<td>Previous experience in the sports of baseball or softball is required.</td>
<td>R: Open to freshmen. SA: PES 300</td>
<td>3</td>
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<tr>
<td>300C</td>
<td>Coaching Soccer</td>
<td>Working knowledge of the sport of soccer is required.</td>
<td>R: Open to freshmen. SA: PES 300</td>
<td>3</td>
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<tr>
<td>300D</td>
<td>Coaching Basketball</td>
<td>Working knowledge of the sport of basketball is required.</td>
<td>R: Open to freshmen. SA: PES 300</td>
<td>3</td>
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<tr>
<td>300E</td>
<td>Coaching Football</td>
<td>Working knowledge of the sport of football is required.</td>
<td>R: Open to freshmen. SA: PES 300</td>
<td>3</td>
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<tr>
<td>310</td>
<td>Psychological Bases of Physical Activity</td>
<td>This course will cover the principles of physiological bases of physical activity.</td>
<td>R: Not open to freshmen. SA: PES 300</td>
<td>3</td>
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<tr>
<td>320</td>
<td>Pathology of Sports Injury</td>
<td>Students will learn about the acute and chronic effects of exercise on various body systems.</td>
<td>R: Open to students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>330</td>
<td>Biomechanics of Physical Activity</td>
<td>Students will learn about the biomechanical analysis of human movement based upon musculoskeletal structure and function.</td>
<td>R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>345</td>
<td>Sport and Exercise Psychology (W)</td>
<td>Students will learn about the psychological effects on sport, motor performance, and exercise behavior.</td>
<td>R: Open to students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>355</td>
<td>Physical Activity and Health Education for</td>
<td>Students will learn about the physical activity and health education for elementary teachers.</td>
<td>R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.</td>
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<td></td>
<td>Elementary Teachers</td>
<td></td>
<td>R: Open to students in the Athletic Training Major or in the Kinesiology major.</td>
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<tr>
<td>360</td>
<td>Physical Growth and Motor Behavior</td>
<td>Students will learn about the physical growth and motor behavior.</td>
<td>R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>365</td>
<td>Sensorimotor Control</td>
<td>Students will learn about the sensorimotor control and coordination of motor skills.</td>
<td>R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.</td>
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<tr>
<td>371</td>
<td>Introduction to Research Methods in Kinesiology</td>
<td>Research methods are crucial in Kinesiology, study design, statistics, and scientific writing.</td>
<td>R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.</td>
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<tr>
<td>400</td>
<td>Principles of Coaching I</td>
<td>Understanding the principles of coaching is essential for effective coaching.</td>
<td>R: Not open to freshmen or sophomores. SA: PES 400</td>
<td>3</td>
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<tr>
<td>401</td>
<td>Principles of Coaching II</td>
<td>Advanced theoretical and practical principles of coaching are covered.</td>
<td>R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>411</td>
<td>Laboratory Experiences in Exercise Physiology</td>
<td>Laboratory techniques for testing and evaluating individuals for aerobic fitness, muscular strength and endurance.</td>
<td>R: Open to seniors in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>421</td>
<td>Lower Body Injury Evaluation</td>
<td>Knowledge and skills needed for evaluating lower body injuries in athletic training.</td>
<td>R: Open to seniors in the Athletic Training Major or in the Kinesiology major.</td>
<td>3</td>
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<tr>
<td>422</td>
<td>Rehabilitation of Athletic Injuries</td>
<td>Rehabilitation techniques to manage athletic injuries.</td>
<td>R: Open to students in the Athletic Training Major.</td>
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<tr>
<td>423</td>
<td>Therapeutic Modalities</td>
<td>Therapeutic modalities used to manage athletic injuries and their indications and contraindications.</td>
<td>R: Open to students in the Athletic Training Major.</td>
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</tbody>
</table>
424 Psychology of Injury
Summer. 3(3-0) R: Athletic training or sport psychology R: Not open to freshmen.
Psychological aspects of athletic injuries. Sociocultural, mental, emotional, and physical behaviors of patients involved in injury rehabilitation.

425 Organization and Administration of Athletic Training
Fall. 3(3-0) P: KIN 421 and KIN 426 R: Open to students in the Athletic Training Major.
Knowledge and skills necessary for the administration of an athletic training program. Ethics, policies, procedures, insurance, liability, budgets, facilities, and record-keeping in athletic training.

426 Upper Body Injury Evaluation
Spring. 3(3-0) P: KIN 320 and KIN 421 R: Open to students in the Athletic Training Major.
Knowledge and skills needed for evaluating upper extremity injuries in athletic training. Techniques and tests for evaluating acute and chronic injuries to the upper body.

434 Psychophysiological Aspects of Kinesiology
Fall. 3(3-0) P: KIN 173 or approval of department RB: Basic concepts in kinesiology and psychology R: Not open to freshmen or sophomores.

445 Sport and Physical Activity in Society (W)
Fall, Spring. 3(3-0) P: (KIN 173) and completion of Tier I writing requirement R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major and open to graduate students in the Department of Kinesiology. SA: PES 445
Sociocultural context of and social practices in sport and physical activity.

454 Facility Planning and Construction
Spring. 3(3-0) R: Not open to freshmen or sophomores. SA: KIN 482
Planning of athletic and physical education facilities such as gymnasias, ice rinks, swimming pools, and outdoor areas. Space utilization standards and guidelines. Selection of materials and equipment.

456 Ethical Issues in Athletics
Summer. 2(2-0) R: Not open to freshmen or sophomores. SA: KIN 482
Ethics of sports at the institutional level in contemporary society. Political, social, and commercial pressures.

457 Sports and Cardiovascular Nutrition
Spring. 3(3-0) Interdepartmental with Human Nutrition and Foods. Administered by Human Nutrition and Foods. P: (HNF 150) and PSL 250 or PSL 310 or PSL 431 and (BMB 200 or BMB 401 or BMB 461 or KIN 310)
Nutrition for optimizing sport training, recovery, and performance; power, intermittent, and endurance sports. Role of nutrition, physical activity and exercise on cardiovascular and overall health.

456 Adapted Physical Activity
Fall, Spring. 3(2-2) P: KIN 173 R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major. SA: PES 465
Teaching and coaching physical activities for persons with disabilities.

490 Independent Study
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.
A: PES 490
Supervised individual or group study in various fields of emphasis in kinesiology.

491 Special Topics in Kinesiology
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Open to students with credit in KIN 493.
Current issues in Kinesiology.

492 Internship: Non-Physiologically Based
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
RB: Not open to freshmen or sophomores.
Professional internship in kinesiology under faculty supervision. Students are involved in community and corporate internships not including physiological testing of patients/clients.

493 Internship: Physiologically Based
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 4 credits in all enrollments for this course.
P: KIN 411 or concurrently RB: Completion of one of the physiologically based cognates. R: Open to seniors in the Kinesiology major. Approval of department.
Professional internship in kinesiology under faculty supervision. Students are involved in clinical, rehabilitation, and corporate programs.

494 Fieldwork
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.
P: Approval of department. SA: PES 494
Supervised practice in teaching physical education activities, coaching sports, administering sports programs, or conducting research or service activities in kinesiology.

495 Undergraduate Experiences in Research
Fall, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
R: Approval of department.
Supervised experiences in research in various fields of emphasis in kinesiology.

496 Internship: Athletic Training-Based
Fall, Spring. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.
P: KIN 125 and KIN 126 and KIN 127 R: Open to seniors in the Department of Kinesiology. Approval of department.
Professional internship in Athletic Training under faculty supervision. Observation and prevention of athletic injury in high school and collegiate athletes.

800 Pathophysiology and Functional Anatomy
Summer. 3(2-2)
Functional anatomy and pathophysiology of sports injury. Practical strategies and methods for management, development, and advancement of sport professionals, athletes, and stakeholders.

801 Emergency Procedures for Athletic Trainers
Summer. 3(2-2)
Scientific and philosophical foundations of preventive care and pre-hospital emergency care. Knowledge, critical thinking, problem solving skills, emergency care principles and associated skills in a variety of clinical and professional settings.

802 Athletic Training Practicum I
Summer. 2(1-2) P: KIN 801
Integration of learning with the associated psychomotor skills required for the practice of athletic training. Implementation of emergency action plans, preventative measures, emergency trauma, and record keeping practices in a clinical field experience under the direct supervision of a preceptor.

803 Athletic Training Practicum II
Fall. 2(1-2) P: KIN 800 and KIN 801 and KIN 802
Practicum experiences to integrate learning with the associated psychomotor skills. Anatomical palpations, emergency procedures, and clinical practices.

804 Athletic Training Practicum III
Spring. 2(1-2) P: KIN 803 and KIN 832 and KIN 833
Clinical practicum experiences for learning psychomotor skills related to Athletic Training. Lower extremity injuries, lower extremity modalities and rehabilitation, and clinical practices in a clinical field experience.

805 Athletic Training Practicum IV
Summer. 1(0-2) P: KIN 804 and KIN 836 and KIN 838
Clinical practicum experiences to integrate learning with the associated psychomotor skills. Emphasizes general medical conditions and clinical practices in a clinical field experience.

806 Athletic Training Practicum V
Fall. 2(1-2) P: KIN 805 and KIN 836 and KIN 838
Clinical practicum experiences in learning with the associated psychomotor skills required for athletic training. Upper extremity injuries, upper extremity modalities and rehabilitation, general medical conditions, pharmacology, and clinical practices.
Clinical practicum experiences for learning with the experience under the direct supervision of a preceptor.

Metabolic Responses to Exercise
Spring of even years, 3(3-0) SA: PES 810
Acute and chronic effects of exercise on metabolic processes. Role of these processes in limiting exercise performance.

Physiological Evaluation and Exercise Prescription
Spring of odd years, 2(0-4) RB: KIN 810 or concurrently SA: PES 811
Techniques in evaluation of physiological capacity and in exercise prescription for various populations.

Cardiorespiratory Responses to Exercise
Fall of even years, 3(3-0) RB: Undergraduate course work in anatomy, physiology, and exercise physiology. SA: PES 812
Acute and chronic effects of exercise on cardiorespiratory and respiratory system functions. Role of these systems in limiting exercise performance.

Neuromuscular Responses to Exercise
Fall of odd years, 3(3-0) RB: Undergraduate course work in anatomy, physiology, and exercise physiology. SA: PES 813
Acute and chronic effects of exercise on neuromuscular functions. Role of these systems in limiting exercise performance.

Essentials of Strength and Conditioning
Spring, 3(3-0) RB: Human anatomy and physiology; undergraduate courses in biomechanics and exercise physiology. R: Open to master's students in the Department of Kinesiology. Methods and techniques associated with design of strength and conditioning programs to enhance performance in sport and fitness.

Exercise Physiology Across the Lifespan
Fall of even years, 3(3-0) RB: KIN or Animal Science or Physiology or Biology backgrounds recommended
Exercise physiology from childhood, through older adulthood, including pregnancy.

Advanced Clinical Evaluation
Fall, 3(2-2) RB: Academic or clinical background in musculo-skeletal anatomy. Identification of structural pathologies. Principles and techniques applied during manual evaluation of structural pathology.

Rehabilitation Techniques for Musculoskeletal Dysfunction
Spring, 3(3-0) RB: Academic or clinical background in musculo-skeletal anatomy and injury evaluation and management. Techniques used to rehabilitate musculoskeletal dysfunctions. Skills to enhance neuromuscular function such as proprioceptive neuromuscular facilitation (PNF) and muscle-firing pattern techniques.

Injury Control in Sports and Physical Activity
Spring of odd years, 3(3-0) RB: Background in kinesiology, health, physical education or recreation. Principles of epidemiology to identify and analyze risk of injury in physical activities. Skills for decision-making in injury prevention programs.

Safety and Injury Control
Summer. 3(3-0) R: Open to graduate students in the Education Major or in the Sport Coaching and Leadership Major or in the Sport Coaching and Leadership Graduate Certificate. Health and safety of participants. Prevention, care, and management of injuries.

Lower Body Physical Assessment
Fall, 3(2-2) P: KIN 800 and KIN 801 and KIN 802
Principles of lower body physical assessment. Mechanisms of injury, the evaluation process, and testing leading to diagnosis of lower body injuries.

Lower Body Therapeutic Interventions
Fall, 3(2-2) P: KIN 800 and KIN 801 and KIN 802
Development, implementation, and evaluation of treatment plans. Therapeutic modalities and rehabilitation interventions for treating lower body injuries and general health conditions. Evidence-based approaches to therapeutic interventions.

Evidence Based Practice in Athletic Training
Fall, 3(2-2) P: KIN 800 and KIN 801 and KIN 802
Methods for critically evaluating the quality of clinical research, implementing outcomes assessment techniques, and developing interventions to improve the delivery of primary healthcare in athletic training practice.

Pharmacology for Athletic Trainers
Spring, 3(3-0) P: KIN 832 and KIN 833
Application of pharmacology to Athletic Training clinical practice. Drug-related side effects when a negative reaction is occurring, and managing instances of drug abuse in athletes.

Upper Body Physical Assessment
Spring, 3(2-2) P: KIN 832 and KIN 833 and KIN 834
Principles of upper body physical assessment. Mechanisms of injury, the evaluation process, and testing leading to diagnosis of upper body injuries.

Upper Body Therapeutic Interventions
Spring, 3(2-2) P: KIN 832 and KIN 833 and KIN 834
Evidence-based approach to development, implementation, and evaluation. Treatment plans using therapeutic modalities and rehabilitation interventions in the treatment of upper body injuries and general medical conditions.

General Medical Conditions for Athletic Trainers
Spring, 3(3-0) P: KIN 832 and KIN 833 and KIN 834
General medical conditions from the athletic training perspective. Diagnosis and treatment of patients in daily clinical practice.

Psychosocial Aspects of Physical Activity
Fall, 3(3-0) SA: PES 840
Social psychology of sport and physical activity.
Kinesiology—KIN

857 Promoting Positive Youth Development Through Sport
Fall. 3(3-0) R: Open to graduate students in the Education Major or in the Sport Coaching and Leadership Major or in the Sport Coaching and Leadership Graduate Certificate.

Educational athletic programs for youth. Positive youth development through sports. Coaching and mentoring.

858 Student-Athlete Development
Summer. 3(3-0)

Historical and contemporary issues faced by student-athletes, competencies required for student-athlete eligibility, student-athlete retention data metrics, and reflective thought and programming for student-athletes.

859 Scholastic Athletic Administration
Fall. 3(3-0) R: Open to graduate students in the Sport Coaching and Leadership Graduate Certificate or in the Sport Coaching and Leadership Major or approval of department.

Skills to direct athletic programs in secondary educational settings. Athletic policies and guidelines of facilities, equipment, budget, and structure.

860 Growth and Motor Behavior
Fall. 3(3-0) SA: PES 860


861 Growth, Maturation, and Physical Activity
Spring of even years. 3(3-0) RB: KIN 860 SA: PES 861


862 Neural Basis of Human Movement
Spring. 3(3-0)

Neural basis of sensorimotor control, investigating cortical and subcortical structure/function relationships in healthy humans, and in individuals with movement disorders.

865 Stages of Athlete Development
Spring. 3(3-0) R: Open to graduate students in the Education Major or in the Sport Coaching and Leadership Major or in the Sport Coaching and Leadership Graduate Certificate.


868 Skill Development in Athletes
Spring. 3(3-0) R: Open to graduate students in the Education Major or in the Sport Coaching and Leadership Major or in the Sport Coaching and Leadership Graduate Certificate.

Best practices in developing skills. Age appropriate approaches. Maximizing abilities of individuals and team success. Scouting methods and competitive sport approaches.

870 Physical Activity and Well-Being
Spring of even years. 3(3-0) R: Open to graduate students in the Department of Kinesiology. SA: PES 870

Relationship of physical activity to human well-being. Influence of growth, biological maturity, aging, body composition, nutrition, training, and rest on health and performance.

871 Research Methods in Kinesiology
Fall. 3(3-0) R: Open to graduate students in the Department of Kinesiology. SA: PES 871

Experimental, longitudinal, survey, and qualitative research methods in kinesiology. Writing research proposals and reports. Research ethics.

872 Coaching Science: Applied Research
Summer. 3(3-0) R: Open to master's students in the Sport Coaching and Leadership Major.

Coaching, sport leadership, science and best practices. Applied research and inquiry.

880 Sport and Leadership Practicum
Fall, Spring. Summer. 3(1-4) P: (KIN 872 and KIN 856) and (KIN 855 or concurrently) or (KIN 857 or concurrently) R: Open to master's students in the Sport Coaching and Leadership Major.

Supervised practical experiences in specific sport or leadership programs.

883 Health Care Administration for Athletic Trainers
Fall. 3(3-0) P: KIN 835 and KIN 836 and KIN 837 and KIN 838

Professional management and administrative issues in athletic training. Planning, development, organization, implementation, direction, and evaluation of health care programs. Current issues in athletic training related to professional conduct and practice.

884 Spine Evaluations and Advanced Rehabilitation
Fall. 3(2-2)

Techniques of manual clinical evaluation of the spine. Correction skills for spinal dysfunctions.

885 Sport Biomechanics
Fall. 3(3-0)

Biomechanics of tissues involved in common musculoskeletal injuries. Common methods of biomechanical assessment in athletic populations, and application of these concepts to the mechanisms of musculoskeletal injury and the approach to rehabilitation.

886 Psychology of Sports Injury and Rehabilitation
Spring. 2(2-0) P: KIN 883 and KIN 884 and KIN 885

Psychology of injury that may affect athletes. Risk, culture, pain science, adherence to rehabilitation regimens, the relationship between psychological factors and clinical outcomes, and referrals for additional support.

887 Performance Enhancement in Sport
Spring. 1(1-0) P: KIN 883 and KIN 884 and KIN 885

Athletic trainer's roles in modifying nutritional behaviors of athletes. Achieving peak performance in athletes by training and consumption of nutrients. Pre-game and post-game meals.

888 Seminar in Athletic Training
Spring. 3(2-2) P: KIN 836 and KIN 837

Scientific writing and clinical research. Case reports, critically appraised topics (CATs), or research projects to address health-related problems in Athletic Training.

890 Independent Study in Kinesiology
Fall, Spring. Summer. 1 to 6 credits.

A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to master's students. Approval of department. SA: PES 890

Individual study in an area of kinesiology under faculty supervision.

893 Internship in Kinesiology
Fall, Spring. Summer. 1 to 6 credits.

A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate students in the Department of Kinesiology. SA: PES 893 Supervised internship in sports medicine, athletic administration, coaching, or education agencies. Capstone experience option in master's degree program.

894 Field Experiences in Kinesiology
Fall, Spring, Summer. 1 to 6 credits.

A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department. SA: PES 894 Supervised graduate practicum in schools or other settings.

895 Research Ethics

896 Integrative Capstone in Sport Coaching and Leadership
Fall, Spring, Summer. 2(2-0) P: KIN 872 and KIN 880 or approval of department R: Open to master's students in the Sport Coaching and Leadership Major. Integrative capstone in coaching science, best practices, leadership, and management in sport.

897 Project in Kinesiology
Fall, Spring, Summer. 1 to 4 credits.

A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to master's students in the Department of Kinesiology. SA: PES 897 Project experience under the guidance and supervision of MSU faculty. Development of products such as technical reports, instructional media, or curriculum materials to address an educationally significant problem. Capstone experience option in master's degree program.

899 Master's Thesis Research
Fall, Spring, Summer. 1 to 6 credits.

A student may earn a maximum of 6 credits in all enrollments for this course. R: KIN 871 R: Open to graduate students in the Department of Kinesiology. SA: PES 899

Master's thesis research.
Issues in Psychosocial Aspects of Physical Activity
Fall. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. SA: PES 940
Selected issues in the psychology and sociology of sport and physical activity.

Motivational Processes in Sport and Exercise
Fall of odd years. 3(3-0) P: KIN 840 or approval of department RB: Previous graduate coursework in sport/exercise psychology, health promotion, or general psychology. R: Open to graduate students in the Department of Kinesiology or approval of department.
Motivational processes in sport and exercise settings. Antecedents and consequences of motivated behavior from theoretical, research, and application perspectives. Participation motivation in sport, intrinsic/extrinsic motivational orientations, achievement goals, and contemporary theories of exercise motivation.

Issues in Motor Behavior
Spring. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. RB: KIN 860 SA: PES 960
Selected issues in motor development, motor learning, adapted physical education, and related fields of study.

Independent Study in Kinesiology
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to doctoral students. Approval of department. SA: PES 990
Individual study in an area of kinesiology under faculty supervision.

Research Practicum in Kinesiology
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to doctoral students in the College of Education. Approval of department. SA: PES 995
Supervised research practicum. Design, execution, analysis, presentation, critique, and revision of research projects.

Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 23 credits. A student may earn a maximum of 30 credits in all enrollments for this course. R: Open to doctoral students in the Department of Kinesiology. SA: PES 999
Doctoral dissertation research.