

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.

101T SCUBA Diving 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. RB: Swimming I or equivalent skills. SA: KIN 111F

Beginning scuba. Pool and classroom portion of open water certification.

101U 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. RB: Swimming I or equivalent skills.

Beginning-level hands-on learn to sail program.

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 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.

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.

Beginner and intermediate 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.

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.

103T Distance Running

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 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.

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- 103U Step Aerobics**
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.
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.
- 103V Boxing 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.
Introduction to boxing specific conditioning. Fundamentals and techniques.
- 106C Bowling 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.
Fundamental skills of bowling including form and technique. Terminology, rules, strategies and scoring procedures.
- 106E Golf 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.
Beginning golf. Rules and etiquette of the game, basic swing fundamentals, and proper equipment selection.
- 106G Horsemanship 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 beginning aspects of horsemanship.
- 106S Archery**
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 shooting a bow and arrow.
Beginning and intermediate level hands-on learning of archery.
- 106V Self Defense**
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.
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.
- 106W Yoga**
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 the beginning aspects of Yoga.
- 107B Racquetball 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.
Fundamental skills of racquetball including forehand, backhand, and serve. Basic rules, strategies, and scoring.
- 107E Tennis 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 basic strokes, footwork, and court positions to play singles and doubles tennis. Rules, scoring and game etiquette.
- 107G Handball**
Fall, Spring. 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 handball, including safety awareness, proper technique and etiquette, team and individual play for life-long form of exercise.
- 108A Basketball 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.
Skill drills, half court scrimmages, and full court games to improve basic skills, game play, and endurance. Basic skills, rules, and basic defensive and offensive strategies.
- 108C Ice Hockey 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.
Elementary hockey concepts, skills and strategies.
- 108F Soccer 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.
Fundamental skills and tactics of outdoor soccer. Rules, scoring, and offensive and defensive strategies will be emphasized.
- 108K Volleyball 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.
Fundamental skills, rules and strategies of volleyball. Drills and game play.
- 108P Softball 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 skills of throwing, fielding, hitting, and base running. Rules, offensive and defensive strategies, and scorekeeping.
- 108R Soccer, Indoor**
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: KIN 108H
Basic technical and tactical soccer skills specific to the indoor soccer arena. Drills and game play.
- 108W Wheelchair Sports**
Fall, Spring. 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.
Fundamental wheelchair sport skills. Team offensive and defensive concepts and strategies in a variety of wheelchair-based sports.
- 109 Specialized Sports and Physical Activities**
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.
Specialized opportunities in sports and physical activities. Competence in special skills, rules, and cultural perspectives as related to various offered activities.

- 111A Swimming 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: Swimming I or equivalent skills.
Intermediate swimming to refine swimming skills, learn new strokes, increase swimming fitness levels, and learn basic water safety and rescue techniques. Stroke and skill emphasis will be placed on sculling, freestyle, backstroke, breaststroke, elementary backstroke, diving, and flip turns. Demonstration of knowledge of propulsion and resistance forces, correct stroke technique, and safety and emergency procedures.
- 111G SCUBA Diving 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: Scuba I or equivalent skills.
Explores advanced scuba skills.
- 112A Judo 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: Judo I or equivalent skills.
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.
- 112B Karate 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: Karate I or equivalent skills. SA: KIN 102D
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.
- 113A Aerobic Exercise 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.
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.
- 113B General Conditioning 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: General Conditioning I or equivalent skills.
Improve cardiovascular endurance, body strength, flexibility, agility, balance, and rhythm through aerobic exercises, flexibility and resistance training programs. Extensive information on physical fitness, exercise, and health principles and practices.
- 113C General Conditioning III**
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: General Conditioning II or equivalent skills.
Basic principles of advanced aerobic and strength training programs. Application of knowledge in the form of an individualized exercise program. Competitive training techniques for both an aerobic and strength program.
- 113E Weight Training 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: Weight Training I or equivalent skills.
Intermediate level weight training principles, basic anatomy and muscle physiology, and nutrition and diet. Weight training programs and development of personal training programs.
- 113F Weight Training III**
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: Weight Training II or equivalent.
Advanced weight training techniques, principles, and programs. Strength training principles, anatomy and muscle physiology, nutrition and diet. Development of a personalized weight training program that incorporates the principles and guidelines.
- 113N General Conditioning IV**
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: General Conditioning III or equivalent level of aerobic fitness.
Vigorous cardiovascular program that emphasizes advanced aerobic endurance. Aerobic training principles, muscle and cardiovascular physiologies, nutrition and diet. Personalized aerobic training program.
- 113P Weight Training IV**
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: Weight Training III or equivalent skill ability.
Advanced weight training. Strength training principles, anatomy and muscle physiology, nutrition and diet. Personalized weight training program.
- 113V Boxing Conditioning II**
Fall, Spring, Summer. 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. RB: (KIN 103V) or equivalent skills
Intense boxing specific conditioning. Fundamentals and techniques.
- 113W Boxing Conditioning III**
Fall, Spring, Summer. 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. RB: (KIN 113V) or equivalent skills
Advanced boxing specific conditioning and techniques.
- 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, form and strategies. 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.

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- 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 cardiopulmonary 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.
- 127 Taping and Bracing in Athletic Injury**
Fall, Spring. 1(0-2) R: Open to undergraduate students in the Department of Kinesiology.
Introduction to taping and bracing for athletic injuries.
- 171 Athletics in Higher Education**
Fall. 1(1-0) R: Open to freshmen. SA: PES 171
Philosophy and organization of athletics. Athletics and academic achievement. Ethical issues, legal issues, social conduct, eligibility, athlete's rights and responsibilities.
- 173 Foundations of Kinesiology**
Fall, Spring, Summer. 3(2-2) R: Open to undergraduate students in the Athletic Training Major or in the Coaching Minor or in the Kinesiology major. SA: KIN 370, KIN 170
Kinesiology as a disciplinary major. Subdisciplines and professions. Historical, professional and philosophical perspectives.
- 174 Human Medical Terminology**
Spring, Summer. 2(2-0) RB: KIN 173 R: Open to undergraduate students in the Department of Kinesiology.
Foundational medical terminology with a focus on cardiovascular, pulmonary, musculoskeletal and neurological systems. Common prefixes, suffixes and root words organized by body system, structures and functions, diagnostic procedures and treatments.
- 202 Aerobic Exercise Instruction**
Fall, Spring. 3(2-3) RB: Experience in aerobic exercise. SA: PES 202
Theory and practice for aerobic exercise leaders. Functional effects of physical activity. Safe exercise techniques. Modifications and precautions for special populations. Choreography practice. Health and exercise screening. Legal issues.
- 204 Sailing and Cruising**
Fall, Spring, Summer. 2(1-3) RB: Experience in sailing small crafts. SA: PES 204
Knowledge, skills, and experience necessary to sail large vessels on inland and coastal waters. Live aboard and sail for six days and nights, traveling approximately 250 miles. Competence in sailing small crafts assumed.
- 205 Lifeguarding**
Fall, Spring, Summer. 2(1-2) RB: Competence as an advanced swimmer. SA: PES 205
Lifeguarding knowledge and skills necessary to obtain American Red Cross Lifeguarding certificate. Advanced swimming level is assumed.
- 216 Applied Human Anatomy**
Fall, Spring, Summer. 3(3-0) R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major or in the Coaching Minor. SA: PES 216
Structural anatomy of the human body. Interrelationships of structure, function, and human movement.
- 217 Applied Human Anatomy Laboratory**
Fall, Spring. 1(0-3) P: KIN 216 or ANTR 350 R: Open to students in the Athletic Training major or in the Kinesiology major. SA: PES 217
Major bones, muscles, nerves, vessels, and organs of the human body. Articulations, muscle origins, muscle insertions, and prime moving actions.
- 227 Observations and Introduction to Clinical Skills in Athletic Training**
Fall, Spring. 1 to 2 credits. A student may earn a maximum of 2 credits in all enrollments for this course. P: (KIN 125 or concurrently) and (KIN 126 or concurrently) and (KIN 127 or concurrently) R: Open to sophomores or juniors or seniors in the Department of Kinesiology.
Entry level knowledge and skills utilized by Athletic Training profession.
- 228 Clinical Rotation and Skills Introduction in Athletic Training**
Spring. 1(1-1) P: (KIN 125 or concurrently) or (KIN 126 or concurrently) or (KIN 127 or concurrently) or (KIN 320 or concurrently) R: Open to students in the Athletic Training Major.
Beginning progression of the basic hands-on clinical skills utilized by athletic trainers. Offered second half of semester.
- 250 Measurement in Kinesiology**
Fall, Spring, Summer. 3(3-0) R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major. SA: PES 250
Methods and materials for measurement and evaluation. Motor skills, physical fitness, knowledge, and attitudes associated with physical activity.
- 251 Principles of Human Movement**
Fall, Spring, Summer. 4(3-2) RB: Functional Anatomy R: Open to students in the Athletic Training Major or in the Kinesiology major.
Basic principles governing human movement with a focus on mechanics, movement coordination and motor learning aspects.
- 300A Coaching Baseball**
Fall. 2(1-2) RB: Previous experience in the sports of baseball or softball. R: Not open to freshmen. SA: PES 300A
Techniques for coaching baseball. Rules, strategies, and training. Development and evaluation of player skills. Planning, conducting, and evaluating practices.

- 300C Coaching Soccer**
 Spring. 2(1-2) RB: Working knowledge of the sport of soccer. R: Not open to freshmen. SA: PES 300C
 Techniques for coaching soccer. Developing and evaluating player and team skills. Planning, conducting and evaluating practices and games. Rules, drills, strategies and training.
- 300D Coaching Basketball**
 Fall. 2(1-2) RB: Working knowledge of the sport of basketball. R: Not open to freshmen. SA: PES 300D
 Techniques and strategies for coaching basketball. Rules, drills, and training. Development and evaluation of individual and team skills. Planning, conducting, and evaluating practices and games.
- 300E Coaching Football**
 Fall. 2(1-2) RB: Working knowledge of the sport of football. R: Not open to freshmen. SA: PES 300E
 Techniques and strategies for coaching football. Rules, drills, and training. Development and evaluation of individual and team skills. Planning, conducting, and evaluating practices and games.
- 310 Physiological Bases of Physical Activity**
 Fall, Spring. 3(3-0) P: {(PSL 431 and PSL 432) or (PSL 250 or PSL 310)} and (KIN 216 or ANTR 350) and (CEM 141 and KIN 173) R: Open to students in the Athletic Training Major or in the Kinesiology major. SA: PES 310
 Acute and chronic effects of exercise on various body systems. Principles of training, exercise prescription, and the role of physical activity in health and disease.
- 320 Pathology of Sports Injury**
 Fall. 3(3-0) P: KIN 125 and KIN 126 and KIN 127 R: Open to students in the Athletic Training Major or in the Kinesiology major. SA: PES 320
 Pathophysiology and pathomechanics of sport injury, tissue response and the healing process as they relate to management and rehabilitation of sports injury.
- 330 Biomechanics of Physical Activity**
 Fall, Spring, Summer. 3(2-2) P: (KIN 173 and KIN 251) and (KIN 216 or ANTR 350) R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major. SA: PES 330
 Biomechanical analysis of human movement based upon musculoskeletal structure and function. Mechanical principles.
- 345 Sport and Exercise Psychology (W)**
 Fall, Spring, Summer. 3(3-0) P: (KIN 173) and completion of Tier I writing requirement R: Open to juniors or seniors in the Athletic Training Major or in the Kinesiology major or in the Coaching Minor. SA: KIN 340
 Psychological effects on sport, motor performance, and exercise behavior. Influence of sport and exercise on psychological development.
- 355 Physical Activity and Health Education for Elementary Teachers**
 Fall, Spring, Summer. 3(2-2) P: TE 150 RB: KIN 121 R: Open to sophomores or juniors or seniors in the Education major or in the Special Education-Learning Disabilities major or in the Child Development major.
 Physical activity, health-related fitness, and motor skill development of children. Issues and research-based strategies in teaching physical activity and health education in elementary schools.
- 360 Physical Growth and Motor Behavior**
 Fall, Spring. 3(3-0) P: (KIN 216 or ANTR 350) and KIN 251 R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major or in the Coaching Minor. SA: KIN 260
 Physical growth and biological maturity as related to motor performance and development. Sequential progressions of fundamental motor skills. Physical fitness of children and youth. Motor abilities. Stages of skill acquisition.
- 365 Sensorimotor Control**
 Fall, Spring. 3(2-1) P: KIN 216 or ANTR 350 RB: KIN 330 R: Open to undergraduate students in the Athletic Training major or in the Kinesiology major.
 Principles of sensorimotor control, coordination, and learning of human movement, from activities of daily living to the performance of elite athletes.
- 371 Introduction to Research Methods in Kinesiology**
 Fall, Spring. 3(3-0) P: (KIN 173 and KIN 250) and (KIN 216 or ANTR 350) R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.
 Research methods as they apply to Kinesiology, study design, statistics, elements of scientific process, scientific writing
- 397 Global Soccer**
 Spring. 3(3-0) Interdepartmental with History. Administered by History.
 Soccer's evolution from British sport to global cultural phenomenon. The World Cup, nationalism, fans, playing styles, migration, women's game, media, business.
- 400 Principles of Coaching I**
 Fall. 4(4-0) R: Not open to freshmen or sophomores. SA: PES 400
 Basic principles of anatomy, biomechanics, and physiology for coaching competitive sports. Applications to athletes of different ages and abilities.
- 401 Principles of Coaching II**
 Spring. 4(4-0) R: Not open to freshmen or sophomores. SA: PES 401
 Sociological, administrative, philosophical, legal, ethical, and chemical health issues related to coaching competitive sports. Applications to athletes of different ages and abilities.
- 402 Coaching for Strength, Conditioning and Fitness**
 Summer. 2(2-0) R: Not open to freshmen. SA: KIN 300L
 Basic and advanced theoretical and practical principles of coaching/training for increased fitness and/or sports performance. Individual applications to diverse populations.
- 411 Laboratory Experiences in Exercise Physiology**
 Fall, Spring. 2(1-3) P: KIN 310 R: Open to seniors in the Athletic Training major or in the Kinesiology major. SA: PES 411
 Laboratory techniques for testing and evaluating individuals for aerobic fitness, muscular strength and endurance, body composition and other physiologic responses to exercise. Exercise program development for personal health fitness.
- 421 Lower Body Injury Evaluation**
 Fall. 3(3-0) P: KIN 320 R: Open to students in the Athletic Training Major. SA: PES 421
 Knowledge and skills needed for evaluating lower body injuries in athletic training. Techniques and tests used for evaluating acute and chronic injuries to the lower body.
- 422 Rehabilitation of Athletic Injuries**
 Fall. 3(3-0) P: KIN 320 and KIN 421 and KIN 423 R: Open to students in the Athletic Training Major. SA: PES 422
 Rehabilitation techniques to manage athletic injuries. Anatomical and neurophysiological bases of techniques. Indications and contraindications of rehabilitation protocols.
- 423 Therapeutic Modalities**
 Fall. 3(3-0) P: KIN 320 and (PHY 231 or concurrently) R: Open to students in the Athletic Training major.
 Therapeutic modalities used to manage athletic injuries and their indications and contraindications. Rationale for and techniques of using thermal and electrical modalities for athletic injuries.
- 424 Psychology of Injury**
 Summer. 3(3-0) RB: 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.
- 427 Clinical Rotations in Athletic Training**
 Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. P: KIN 125 and KIN 126 and KIN 127 and KIN 227 and KIN 320 R: Open to students in the Athletic Training major.
 Knowledge and skills used to manage, evaluate, and rehabilitate orthopedic injuries in various clinical settings including colleges, high schools, and rehabilitation clinics.
- 443 Psychophysiological Aspects of Kinesiology**
 Fall, Spring. 3(3-0) P: KIN 173 or approval of department RB: Basic concepts in kinesiology and psychology R: Not open to freshmen or sophomores.
 Interaction between psychological processes and physiological parameters in exercise science. Utilization of psychophysiological techniques for assessing psychological consequences of exercise and physical activity engagement.

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- 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 juniors or seniors 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: PES 454
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 482C
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.
- 465 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, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department. SA: PES 490
Supervised individual or group study in various fields of emphasis in kinesiology.
- 491 Special Topics in Kinesiology**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Not open to freshmen or sophomores.
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: Completion of non-physiologically based cognate: Adapted Physical Activity, Administration, Biomechanics, Communication, Growth and Motor Development, Orthotics and Prosthetics, and Psychological Aspects. R: Open to seniors in the Kinesiology major. Approval of department. Not open to students with credit in KIN 493.
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 6 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. Not open to students with credit in KIN 492.
Professional internship in kinesiology under faculty supervision. Students are involved in clinical, rehabilitation, and corporate programs.
- 494 Fieldwork**
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: 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, Spring, 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) R: Open to students in the Athletic Training Major.
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) R: Open to students in the Athletic Training Major.
Scientific and philosophical foundations of preventative 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 R: Open to students in the Athletic Training Major.
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 R: Open to students in the Athletic Training Major.
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 R: Open to students in the Athletic Training Major.
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 R: Open to students in the Athletic Training Major.
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 R: Open to students in the Athletic Training Major.
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.
- 807 Athletic Training Practicum VI**
Spring. 3(0-6) P: KIN 806 and KIN 883 and KIN 884 and KIN 885 R: Open to students in the Athletic Training Major.
Clinical practicum experiences for learning with the associated psychomotor skills required for the practice of athletic training. Immersive clinical field experience under the direct supervision of a preceptor.
- 810 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.
- 811 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.
- 812 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 cardiovascular and respiratory system functions. Role of these systems in limiting exercise performance.
- 813 Neuromuscular Responses to Exercise**
Fall of odd years. 3(3-0) RB: Undergraduate coursework 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.
- 815 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.

- 816 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.
- 820 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.
- 822 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.
- 825 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.
- 829 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.
- 832 Lower Body Physical Assessment**
Fall. 3(2-2) P: KIN 800 and KIN 801 and KIN 802 R: Open to students in the Athletic Training Major.
Principles of lower body physical assessment. Mechanisms of injury, the evaluation process, and testing leading to diagnosis of lower body injuries.
- 833 Lower Body Therapeutic Interventions**
Fall. 3(2-2) P: KIN 800 and KIN 801 and KIN 802 R: Open to students in the Athletic Training Major.
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.
- 834 Evidence Based Practice in Athletic Training**
Fall. 3(3-0) P: KIN 800 and KIN 801 and KIN 802 R: Open to students in the Athletic Training Major.
Methods for critically evaluating the quality of clinical research, implanting outcomes assessment techniques, and developing interventions to improve the delivery of primary healthcare in athletic training practice.
- 835 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.
- 836 Upper Body Physical Assessment**
Spring. 3(2-2) P: KIN 832 and KIN 833 and KIN 834 R: Open to students in the Athletic Training Major.
Principles of upper body physical assessment. Mechanisms of injury, the evaluation process, and testing leading to diagnosis of upper body injuries.
- 837 Upper Body Therapeutic Interventions**
Spring. 3(2-2) P: KIN 832 and KIN 833 and KIN 834 R: Open to students in the Athletic Training Major.
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.
- 838 General Medical Conditions for Athletic Trainers**
Spring. 3(2-2) P: KIN 832 and KIN 833 and KIN 834 R: Open to students in the Athletic Training Major.
General medical conditions from the athletic training perspective. Diagnosis and treatment of patients in daily clinical practice.
- 840 Psychosocial Aspects of Physical Activity**
Fall. 3(3-0) SA: PES 840
Social psychology of sport and physical activity.
- 849 Theory and Practice of Modern Sport Leadership**
Spring. 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.
Theories of management and organizational behavior in a sport context. Practical strategies and methods for management, development, and advancement of sport professionals, athletes, and stakeholders.
- 850 Special Topics in Sport Coaching and Leadership**
Fall. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. 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.
Issues in sport coaching and leadership.
- 852 Ethics in Sport Coaching and Leadership**
Spring, Summer. 1(1-0) 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.
Ethical decision-making processes and moral obligations of the sport coach and leaders.
- 853 Athletic Administration in Higher Education**
Fall. 3(3-0) SA: PES 853
Administrative theory, structure, and budget. Facilities, equipment, and marketing. Legal, medical, and safety aspects.
- 854 Legal and Administrative Issues for Administrators and Coaches**
Spring. 3(3-0) R: Open to students in the Education Major or in the Sport Coaching and Leadership Graduate Certificate or in the Sport Coaching and Leadership Major.
Responsibilities of administrators, directors of recreational programs and athletic coaches for providing and maintaining educationally sound athletic programs for amateur athletes. Concepts, policies and procedures that enhance the physical and psychological health of amateur athletes. Obligations for managing the risks of participation in physical activities.
- 855 Psychosocial Bases of Coaching Athletes**
Fall. 3(3-0) R: Open to graduate students in the Education Major or in the Sport Coaching and Leadership Graduate Certificate or in the Sport Coaching and Leadership Major or approval of department.
Athlete motivation, motivational climates, and the social psychology of coaching and leadership. Communication skills and leadership behaviors. Athlete mental health. Mental skills that enhance an athlete's performance.
- 856 Physical Bases of Coaching Athletes**
Summer. 3(3-0) R: Open to students in the Education Major or in the Sport Coaching and Leadership Graduate Certificate or in the Sport Coaching and Leadership Major.
Principles of anatomy, biomechanics, and physiology for coaching amateur athletes in various sports. Relationships between the biological bases of coaching and physical conditioning, and performance enhancement.
- 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
Developmental skill sequences and behavior across the lifespan. Correlates of growth, maturation, and motor behavior. Individual and gender differences.

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- 861 Growth, Maturation, and Physical Activity**
Spring of even years. 3(3-0) RB: KIN 860
SA: PES 861
Physical growth, biological maturation, and motor performance. Development of tissues and organs. Development of motor components. Influences of gender and age on growth and performance. Methods of assessment.
- 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.
Developmental analyses of stages of athletes. Early childhood through early adulthood. Motor skill, biological maturation, and physical growth issues.
- 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 R: Open to students in the Athletic Training Major.
Professional management and administrative issues in athletic training. Planning, design, 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) R: Open to students in the Athletic Training Major.
Techniques of manual clinical evaluation of the spine. Correction skills for spinal dysfunctions.
- 885 Sport Biomechanics**
Fall. 3(3-0) R: Open to students in the Athletic Training Major.
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 R: Open to students in the Athletic Training Major.
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 R: Open to students in the Athletic Training Major.
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 R: Open to students in the Athletic Training Major.
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**
Summer. 1(1-0) Interdepartmental with Counseling, Educational Psy and Special Education and Educational Administration and Teacher Education. Administered by Kinesiology. R: Open to graduate students. SA: PES 895
Identifying and resolving ethical problems in research. Collegial interactions. Authorship, publication, and reviewing practices. Data management. Ownership of data and intellectual property. Conflicts of interest. Protection of human and animal subjects. Lab safety and compliance.
- 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. RB: KIN 871 R: Open to graduate students in the Department of Kinesiology. SA: PES 899
Master's thesis research.
- 901 Grant Writing in Kinesiology**
Spring of even years. 3(3-0) R: Open to graduate students in the Department of Kinesiology or approval of department.
Preparing and writing successful federal and foundational grant applications in Kinesiology.
- 921 Biopsychosocial Aspects of Athletic Injury**
Fall of odd years. 3(3-0) R: Open to graduate students in the Department of Kinesiology or approval of department.
Biopsychosocial approach to treating patients experiencing athletic injury and undergoing rehabilitation. Application and synthesis of biopsychosocial theories and biopsychosocial therapeutic interventions into athletic injury research and clinical practice.

- 922 Assessment Methods for Physically Active Pathological Populations**
Spring of even years. 3(3-0) R: Open to graduate students in the Department of Kinesiology or approval of department.
Theoretical basis and measurement techniques commonly utilized in clinical research to assess physically active pathologic populations. Development of analytical skills needed to capture and analyze outcome measures related to human movement, clinical imaging, and muscle function.
- 923 Translation of Research Evidence**
Fall of even years. 3(3-0) R: Open to graduate students in the Department of Kinesiology or approval of department.
Critical evaluation of research evidence, clinical translation of evidence, and effective dissemination in sports medicine.
- 940 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.
- 941 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.
- 945 Latent Variable Modeling in Sport and Exercise Psychology**
Spring of odd years. 3(3-0) P: CEP 934 or approval of department RB: Introductory and intermediate courses in applied statistics. R: Open to doctoral students in the Department of Kinesiology. Approval of department.
Applied statistics within the latent variable modeling framework as applied to data relevant to psychosocial aspects of sport and physical activity.
- 960 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.
- 990 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.
- 995 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.
- 999 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.