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. 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 101A
Beginning sailing. 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.

101N Introduction to Aquatic Paddle Sports
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: (KIN 101A) or Equivalent Skills Learning to kayak, stand-up paddle board 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: (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. SA: KIN 111F
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.
**Kinesiology—KIN**

**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.  
Intense boxing specific conditioning. Fundamentals and techniques.

**105B Gymnastics 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 introduction to all aspects of gymnastics including apparatus and tumbling/floor exercises. Perform routines in the vaults, balance beam, parallel bars, rings, pommel horse, and floor. Simple body mechanics and skill progression and analysis. Proper warm-up and cool-down, and spotting techniques.

**105D Tumbling and Floor 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.  
Tumbling and floor exercises performed by routine on a large mat. Basic skills and develop agility, balance, strength, and flexibility. Correct body preparation, spotting techniques, and mechanical principles gymnastics. Skill progression and analysis are emphasized.

**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.  
**106M Tai Chi**  
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.  
Roles and characteristics of Tai Chi. Development of strength, flexibility and balance through the learning of basic skills and sets of Tai Chi.

**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.  
Fundamental archery skills and how these skills are integrated into different divisions of figure skating.

**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 Basketball I
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. SA: KIN 108H
Fundamental wheelchair basketball skills. Team offensive and defensive concepts and strategies.

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.

111B Swimming 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: Swimming II or equivalent skills.
Advanced swimming to refine swimming skills, learn new strokes, increase swimming fitness levels, and learn basic water safety and rescue techniques. Develop and refine skills in sculling, freestyle, backstroke, breaststroke, butterfly, and sidestroke, as well as dives and 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.

111U SCUBA Open Water Certification
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.
Advanced skill and knowledge development in advanced water-related activities.

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 anaerobic and aerobic exercises. 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 anaerobic 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 skills.
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.

113K Strength and 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: Strength and Conditioning I or equivalent skills.
Weight training and general conditioning. Vigorous cardiovascular program that combines work on aerobic endurance and emphasizes muscular strength and endurance.

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.
115B Tumbling and Floor 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. RB: Tumbling I or equivalent skills. Intermediate to advanced tumbling, gymnastics and dance skills. Correct body preparation, spotting techniques, and mechanical principles of gymnastics. Performance improvements, skill progression and skill analysis are emphasized.

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 one’s 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.

116D Ice Skating 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 Skating I or equivalent skills.
Introduction to intermediate skating skills and how these integrate into different divisions of figure skating.

116F Triathlon Training
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.
Advanced conditioning in triathlon activities.

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) 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(0-3) 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 Training
Fall, Spring. 3(3-0) R: Open to undergraduate students in the Athletic Training Major or in the Kinesiology major.
Basic knowledge for the recognition and prevention of athletic injuries.

127 Taping and Bracing in Athletic Training
Fall, Spring. 1(0-2) R: Open to undergraduate students in the Department of Kinesiology.
Introduction to taping and bracing in Athletic Training.

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, 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 Department of Kinesiology. SA: KIN 370, KIN 170
Kinesiology as a disciplinary major. Subdisciplines and professions. Historical, professional and philosophical perspectives.

202 Aerobic Exercise Instruction
Fall, Spring. 3(2-3) RB: Experience in aerobic exercise. SA: PES 202

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. 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. 3(3-0) R: Open to students in the Athletic Training major or in the Kinesiology major. 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 128 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. 3(3-0) R: Open to undergraduate students in the Department of Kinesiology. SA: PES 250

Methods and materials for measurement and evaluation. Motor skills, physical fitness, knowledge, and attitudes associated with physical activity.

300A Coaching Baseball
Fall, Spring. 2(1-2) R: Previous experience in the sport of baseball or softball. R: Not open to freshmen. SA: PES 300A


300C Coaching Soccer
Spring. 2(1-2) R: Working knowledge of the sport of soccer. R: Not open to freshmen. SA: PES 300C


300D Coaching Basketball
Fall, 2(2-0) R: Working knowledge of the sport of basketball. R: Not open to freshmen. SA: PES 300D


300E Coaching Football
Fall, 2(2-0) R: Working knowledge of the sport of football. R: Not open to freshmen.

SA: PES 300E


310 Physiological Bases of Physical Activity
Fall, Spring. 3(3-0) P: (KIN 173 and CEM 141) and (KIN 216 or ANTR 350) and PSL 250) or (PSL 431 and PSL 432) 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, Spring. 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 216 or ANTR 350) and PHY 231 or PHY 231C or PHY 183 or PHY 183B or PHY 193H) R: Open to juniors or seniors in the Department of Kinesiology. 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. 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 R: Open to undergraduate students in the Athletic Training major or in the Kinesiology major. SA: KIN 260


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 juniors or seniors in the Department of Kinesiology.

Research methods as they apply to Kinesiology, study design, statistics, elements of scientific process, scientific writing

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 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. R: 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.

445 Sociocultural Analysis of Physical Activity (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.

453 Administration of Intramural Sports Programs
Spring. 3(2-2) R: Not open to freshmen or sophomores. SA: PES 453
Organization and administration of intramural programs in educational settings. Philosophy, planning, scheduling, budgeting, facilities, officiating, exercise fitness, marketing, risk management, computer applications, and required practical experience in administering intramural programs.

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 gymnasia, 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 or HNF 250 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 seniors in the Department of Kinesiology. SA: PES 465
Teaching and coaching physical activities for persons with disabilities.

482E History of the Modern Olympic Games
Summer. 2(2-0) Olympic philosophies, ideals and history. Modernization and changes to the Olympic Games. Professional and amateur sports. Political controversies and achievements.

482F Exercise Psychology
Summer. 3(3-0) Role of psychology in exercise and physical activity. Psychological antecedents and outcomes of exercise. Technology's influence on exercise and physical activity.

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. RB: Completion of non-physiologically based cognates: 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.

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 cognates: 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 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.

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: Undergraduate coursework in bio-mechanics and exercise physiology. R: Open to masters 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) P: KIN 310 or (PSL 431 and PSL 432) or (ANS 435 and PSL 445) 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 and physiology or completion of an advanced clinical course in musculo-skeletal anatomy and physiology.

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.
Clinical/Professional Experience in Athletic Training
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. RB: Undergraduate major in athletic training and participation in the graduate athletic training concentration in Kinesiology. R: Open to graduate students in the Kinesiology major. Knowledge and critical thinking skills. Managing athletic training services program. Clinical skills for the prevention and management of athletic injuries.

Safety and Injury Control
Summer. 3(3-0) P: KIN 872 or concurrently R: Approval of department. Health and safety of participants. Prevention, care, and management of injuries.

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

Stress Management Techniques in Athletics

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.

Legal and Administrative Issues for Administrators and Coaches
Spring. 3(3-0) 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.

Psychosocial Bases of Coaching Athletes
Fall. 3(3-0) Responsibilities of athletic administrators, directors of recreational programs and athletic coaches for the sociological, psychological, philosophical, developmental, and instructional principles for coaching amateur athletes. Development of a coaching philosophy and application of scientific findings to practical situations.

Physical Bases of Coaching Athletes
Summer. 3(3-0) Principles of anatomy, biomechanics, and physiologic for coaching amateur athletes in various sports. Relationships between the biological bases of coaching and physical conditioning, and performance enhancement.

Promoting Positive Youth Development Through Sport
Fall. 3(3-0) P: KIN 872 or approval of department R: Approval of department. Educational programs for youth. Positive youth development through sports. Coaching and mentoring.

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.

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.

Growth, Maturation, and Physical Activity

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.

Stages of Athlete Development

Skill Development in Athletes
Spring. 3(3-0) P: KIN 872 R: Approval of department. Best practices in developing skills. Age appropriate approaches. Maximizing abilities of individuals and team success. Scouting methods and competitive sport approaches.

Physical Activity and Well-Being
Spring of even years. 3(3-0) 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.

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.

Coaching Science: Applied Research
Summer. 3(3-0) R: Approval of department. Coaching, sport leadership, science and best practices. Applied research and inquiry.

Sport and Leadership Practicum
Fall. Spring. Summer. 3(1-4) P: KIN 872 and KIN 855 and (KIN 855 or concurrently) or (KIN 857 or concurrently) R: Approval of department. Supervised practical experiences in specific sport or leadership programs.

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 masters students. Approval of department. SA: PES 890 Individual study in an area of kinesiology under faculty supervision.

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.

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.

Research Ethics

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 masters 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.

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: Open only to masters 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.
Kinesiology—KIN

980 Issues in Teaching Undergraduate Kinesiology
Fall of odd years. 3(3-0) R: Open to doctoral students in the Department of Kinesiology. Using cooperative, active learning techniques in classrooms. Developing critical thinking skills in kinesiology students. Principles of instruction and classroom logistics related to learning. Strategies in planning, implementing, and evaluating course material.

981 Mentored Teaching in Undergraduate Kinesiology
Spring of even years. 3(1-4) A student may earn a maximum of 6 credits in all enrollments for this course. P: KIN 980 R: Open to doctoral students in the Department of Kinesiology. Mentored experience in teaching undergraduate major courses in kinesiology. Seminar discussion of relevant issues in teaching. Classroom assessment techniques. Strategies of cooperative, active learning, and critical thinking for undergraduates.

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.