Kinesiology

**KIN 100. Lifetime Fitness and Wellness.** 3 credits. Offered fall and spring.
This course is designed to help students adopt and maintain the behaviors associated with an active and healthy lifestyle. Through this course students will learn the importance of maintaining wellness through a physically active lifestyle. Through lectures and labs, students study and develop the behavioral patterns consistent with the current knowledge base in fitness and wellness. May be used for general education credit.

**KIN 101. Adapted Activities in Kinesiology.** 1 credit. Offered fall and spring.
Designed for students with severe medical restrictions and is adapted to individual needs. May be taken credit/no credit only. **Prerequisites:** Recommendation of university physician and permission of the department head.

**KIN 122-180. Basic Instruction Activities.** 1 credit. Offered fall and spring.
The following courses provide basic instruction in the activities listed: 121, Flying Disc Sports; 122, Road Cycling; 123, Mountain Cycling; 124, Basic Rock Climbing and Experiential Activities; 125, Tennis; 126, Golf; 128, Fencing; 129, Badminton; 131, Basic Skiing or Snowboarding; 133, Bowling; 138, Racquetball; 139, Basic Paddle Sports: Canoeing or Kayaking; 140, Basic Swimming; 145, Strength Training and Cardiovascular Conditioning; 148, Jogging; 149, Group Fitness, 151, Swim Conditioning; 152, Lifesaving Life guarding; 156, Scuba and Skin Diving; 157, Self Defense for Women; 158, Aikido; 159, Basic Aerobic Kickboxing; 162, Intermediate Swimming; 163, Intermediate Tennis; 170, Fitness Instructor Training; 174, Water Safety Instructor; 175, Wilderness First Aid; 173, Introduction to Adventure Trip Leading; 171, Basic Group Fitness Instructor Training; 172, Group Fitness Instructor Training: Mind and Body; 179, Volleyball; 180, Soccer. May be taken credit/no credit only.
For more specific course information, contact the department office (568-6145). Fees are required in certain courses to cover equipment and/or facility rental. Refer to MyMadison for prevailing fees. The university reserves the right to cancel any class should suitable facilities be unavailable and to alter fees in the event of unusual inflation. Students must furnish their own transportation to bowling, canoeing, golf and skiing classes.

**KIN 190. Basic Sports Officiating.** 1 credit. Offered fall and spring.
This course will teach the fundamentals and skills necessary for officiating sports (football, basketball, softball or soccer) at any level. It will also focus on developing an officiating philosophy, understanding the psychology of officiating, being physically prepared to officiate, understanding the responsibilities of officiating and knowing how and where to work as an official. May be taken credit/no credit only.

**KIN 199. New Directions in Kinesiology.** 1-3 credits. Offered fall and spring.
In-depth exploration of topics significant in kinesiology. Topics for each semester will be announced on MyMadison.

**KIN 201. Introduction to Kinesiology. 2 credits.**
Students are introduced to the discipline of kinesiology and recreation. They will study the effects of physical activity on human beings; survey the subdisciplines, including exercise physiology, biomechanics, motor behavior and sociological, historical and philosophical perspectives; and discuss how the discipline can be applied professionally.

**KIN 202. Biological Foundations of Kinesiology. 3 credits. Offered fall and spring.**
Introduction to the biological scientific foundations within the discipline of kinesiology and recreation. Includes applied anatomy and physiology, biomechanics and exercise physiology.

**KIN 203. Psychological Foundations of Kinesiology. 3 credits. Offered fall and spring.**
The focus of this course is on exploring psychological concepts related to participation and performance in sport and exercise contexts. Additionally, knowledge from the related discipline of motor learning will be integrated to explore psychological aspects of the learning process that take place in these domains.

**KIN 211-218. Coaching Techniques. 2 credits. Offered fall and spring.**
The following courses provide motor skills, strategy, rules and officiating techniques in the activities listed: 211, team; 212, track and field; 213, soccer; 214, football; 215, basketball; 216, individual; 217, volleyball; 218, softball.

**KIN 221-225. Skill Laboratories. 2-10 credits. Offered fall and spring.**
The skill laboratories are designed for participants who will be in a role of educating others in a particular area of movement. Each skill laboratory provides: a) basic movement skills, b) analysis of movement, c) developmentally appropriate progressions and teaching ideas, d) curriculum development, and e) microteaching opportunities. These courses are: **KIN 221. Rhythmic and Dance Activities; KIN 222. Teaching Fitness and Wellness in the Schools; KIN 223. Individual and Lifetime Activities; KIN 224. Court and Field Games; KIN 225. Wilderness and Adventure Education.**

**KIN/SRM 241. Introduction to Sport and Recreation Management. 3 credits. Offered fall and spring.**
Introduces the sport and recreation management professions in governmental, voluntary, private, public and commercial settings. Outlines development of sport and recreation and the evolution of the mega-leisure industry. Overviews professional preparation in sport and recreation management. For sport and recreation management majors, this course is a prerequisite for all upper level courses.

**KIN 242. Introduction to Sport Communication. 3 credits. Offered fall.**
This class provides a foundation for students who are pursuing a minor in sport communication. The course provides an overview about information management and how it applies to the professional sporting industry. Students will learn about careers in sport information, how an organization communicates with the media and its constituents, and how communication in sport has evolved and continues to evolve.

**KIN/SMAD 243. Sport Communication Techniques: Broadcasting. 3 credits. Offered spring.**
Study and practice of broadcast and A/V techniques applied in a variety of sport settings. **Prerequisite: KIN 242.**
KIN/SMAD 244. Sport Communication Techniques: Writing and Reporting. 3 credits. Offered fall.
Basic skills of sport writing and reporting are studied and applied. Students gain experience in a variety of sports and learn and apply skills in researching, interviewing, reporting, writing columns and features involving the world of sports. Prerequisite: KIN 242.

KIN 302. Exercise Physiology. 3 credits. Offered fall and spring.
This course is designed to help the student explore and understand the physiological changes that occur during an acute bout of exercise and as a result of chronic physical training. Students will study the role various (e.g., cardiovascular, respiratory, nervous, neuro-endocrine and renal etc.) systems play in maintaining homeostasis during physical activity. In addition, the physiology of physical performance under a range of environmental conditions will also be examined. This course must be taken concurrently with KIN 302L. Prerequisites: KIN 202 and BIO 270 or BIO 370. Corequisite: KIN 302L.

KIN 302L. Exercise Physiology Laboratory. 1 credit. Offered fall and spring.
Laboratory experiences in exercise physiology. This course must be taken concurrently with KIN 302. Corequisite: KIN 302.

KIN 303. Motor Development and Learning. 3 credits. Offered fall and spring.
This course provides understanding of motor development from early childhood through adulthood. The focus is on the constraints to development and the interaction between the environment, task and learner. The course provides an understanding of the learning processes underlying performance. Emphasis is given to the application in both teaching and coaching settings.

KIN 304. History and Philosophy of Physical Education and Sport. 2 credits. Offered fall and spring.
Introductory analysis of various theoretical approaches to the discipline of physical education fitness and sport; brief historical study of the development of school programs and sport; and debates current professional issues.

KIN 305. Psychological Foundations in Kinesiology. 3 credits. Offered fall.
The focus of this course is on exploring psychological concepts related to participation and performance in sport and exercise contexts. Additionally, knowledge from the related discipline of motor learning will be integrated to explore psychological aspects of the learning process that take place in these domains. Prerequisite: KIN 302, KIN 302L.

KIN 306. Human Biomechanics. 3 credits. Offered fall and spring.
Studies of anatomical, physical and mechanical factors, as these factors affect human movement. This course must be taken concurrently with KIN 306L. Prerequisites: BIO 290 and KIN 202. Corequisite: KIN 306L.

KIN 306L. Human Biomechanics Laboratory. 1 credit. Offered fall and spring.
This laboratory course is designed to complement and supplement the lecture course KIN 306. The course will focus on enhancing the student’s laboratory experiences in biomechanics. This course must be taken concurrently with KIN 306. Corequisite: KIN 306.

KIN 310. Instructional Methods in Physical Education. 3 credits. Offered fall.
Students will apply the affective, cognitive and psychomotor principles in class management, unit and lesson planning and instructional techniques. This course introduces students to effective teaching strategies and allows application through peer microteaching and teaching students in a school setting. Principles of self-evaluation
and reflective teaching are reinforced. **Prerequisite:** Acceptance to the PHETE program. **Corequisite:** KIN 311.

**KIN 311. Elementary Curriculum in Physical Education.** 2 credits. **Offered fall.** Theory and application of games, dance and gymnastic activities compatible with the developmental characteristics of elementary children and the educational objectives of the elementary school. **Prerequisite:** Acceptance to the PHETE program. **Corequisite:** KIN 310.

**KIN/HTH 312. The Profession of Teaching Health & Physical Education.** 2 credits. **Offered fall.** Introductory study of the roles of the teacher and the learner and the pedagogical content knowledge of health and physical education. An in-depth examination of the unique position and qualifications of the specialist in physical education and health. Systematic observations will occur.

**KIN 313. Adapted Physical Education.** 3 credits. **Offered fall.** Principles and procedures for adapting elementary physical education programs for students with physical, emotional and mental limitations. Laboratory experience included. **Prerequisite:** Acceptance to teacher education. **Corequisite:** KIN 310.

**KIN 314. Assessment in Elementary Physical Education.** 3 credits. **Offered spring.** Introductory study of developmentally appropriate authentic and formal assessment techniques unique to elementary physical education. **Prerequisite:** Admission to student teaching.

**KIN 315. Adolescent Behavior and Health for PHETE.** 3 credits. **Offered spring.** Course is designed to focus on the study of current health status and health risk behaviors of children and adolescents. Focus on epidemiological trends and behavioral and etiological factors. The application of theory will be made regarding appropriate strategies for health promotion and interventions to reduce specific health problems for teachers in public school settings. **Prerequisite:** Admission to the PHETE program.

**KIN 321. Principles of Health Fitness Assessment.** 3 credits. **Offered fall and spring.** Emphasizes the skills in conducting various health and fitness tests for assessing the five areas of health-related physical fitness (body composition, cardiorespiratory fitness, muscular strength, muscular endurance and flexibility). Interpretation of the test results will also be reviewed. This course must be taken concurrently with KIN 321L. **Prerequisite:** KIN 202. **Corequisite:** KIN 321L.

**KIN 321L. Principles of Health Fitness Assessment Laboratory.** 1 credit. **Offered fall and spring.** This laboratory course is designed to complement and supplement the lecture course KIN 321. The course will focus on enhancing the student’s exercise testing skills and knowledge with particular attention to preparing the student for the Certified Exercise Physiologist certification examination sponsored by the American College of Sports Medicine. The laboratory (KIN 321L) and lecture (KIN 321) portions must be taken concurrently. **Prerequisite:** KIN 202. **Corequisite:** KIN 321.

**KIN 322. Fundamental of Exercise Prescription.** 3 credits. **Offered fall and spring.** Emphasizes the knowledge and skills necessary to effectively develop and implement an appropriate exercise prescription for improving health-related physical fitness for apparently healthy adults. **Prerequisites:** KIN 321, KIN 321L.

**KIN 325. Kinesiology Honors Research Prep.** 3 credits. **Offered fall.**
This course is designed to provide Honors Students (Tracks 1, 2 & 3) with insight into the research carried out by current Kinesiology faculty members prior to enrolling in KIN 499 A. Students will identify a research topic suitable for their Honors Thesis, gain insight into the application of the scientific method in Kinesiology research, and interact with Kin faculty members and students actively involved in the research process. The course is by permission only.

KIN/SRM 333. Management in Sport, Recreation and Fitness Settings. 3 credits. Offered fall and spring.
This course will provide students with the knowledge to apply the management principles and theories to specific professional organizations in the sport and recreation industry. Sport and recreation management applications covered include administration principles for specific organizations, human resource management, fiscal management, marketing, and risk management. Prerequisites: KIN/SRM 241.

KIN 329. Psychological and Social Aspects of Sport. 3 credits.
A study of the psychological and sociological implications of sport and the effect of sport on the United States and other cultures.

KIN 353. Maximizing Sport Performance. 3 credits. Offered fall and spring.
This course explores current sport psychology theories, models and concepts as they relate to sport behavior and performance. Students examine the theoretical basis of cognitive sport skills and apply the information to the sport environment.

KIN 355. Introduction to Driver Education. 3 credits.
An introduction to the task of the motor vehicle operator within the highway transportation system and factors that influence performance ability. Prerequisites: Junior standing and permission of the instructor.

KIN 407/HTH 441. Rehabilitative Biomechanics. 3 credits. Offered fall and spring.
This course will examine a variety of biomechanical concepts and applications as related to the health professions. Specific attention will be given to the biomechanical aspects of the musculoskeletal system. Prerequisite: BIO 290.

KIN 410. School Health Content for PHETE. 3 credits. Offered spring.
An overview of selected topics in health content required for teacher candidates preparing to teach health education in public schools. Special emphasis will be on issues relevant to teaching those topics in schools. Prerequisite: Admission to the PHETE program.

KIN 411. Measurement and Evaluation in Kinesiology. 3 credits. Offered fall and spring.
The administration and interpretation of measurement and evaluation procedures in kinesiology and recreation.

KIN 420. Exercise Programming for Special Populations. 3 credits. Offered fall and spring.
This course will include an in-depth study of the recommended procedures for exercise testing and prescription for non-diseased special populations, children and youth, elderly, women and pregnant women. Prerequisites: KIN 302 and KIN 302L.

KIN 422. Advanced Principles of Group Exercise Leadership. 3 credits.
Theories, principles and procedures involved with leading group fitness classes. Students will gain knowledge and experience in class design and choreography development. Programming for children, older adults, pregnancy and aquatic exercise will be included. Practical and written assessments will occur throughout the semester.
Participation in group exercise classes is a requirement. Students will have the opportunity to enroll in the AFAA Primary Group Exercise Certification. Prerequisite: KIN 100, KIN 202, or permission of the instructor.

KIN 424/NUTR 455. Exercise and Nutrition in Chronic Disease. 3 credits. Offered fall and spring.
This interdisciplinary course examines the evidence-based relationship between exercise and diet patterns and behaviors, and major chronic diseases. Students will understand the epidemiology and pathogenesis of prevailing chronic diseases. Emphasis will be placed on developing exercise and dietary strategies to reduce the burden of chronic disease. Prerequisites: KIN 302, KIN 321, and KIN 322.

KIN 425. Concepts of Strength and Conditioning. 3 credits. Offered fall and spring.
Theory and application of coaching concepts in strength/conditioning training including program design, testing and specific techniques for the physical development of athletes. Designed for students interested in working with athletic populations, this course also prepares students for NSCA certification. Prerequisites: KIN 100 and KIN 202.

KIN 426. Physical Activity Behaviors. 3 credits. Offered fall and spring.
This course will focus on the theoretical and practical applications of behavior change related to healthy lifestyles with an emphasis on physical activity. In addition, course content will include a detailed investigation into the psychological and environmental factors associated with adoption and maintenance of healthy behaviors including a regular physical activity program. Prerequisite: Senior standing.

KIN 428. Advanced Topics in Exercise Science and Leadership. 3 credits. Offered fall and spring.
This course is designed to allow students to study specific topics in exercise science and leadership. Topics will be chosen each semester and reflect current research in exercise science related to clinical exercise physiology, human performance and methodologies or trends in exercise science/leadership. May be repeated once (maximum six credits) for credit when course content changes. Prerequisites: KIN 302 and KIN 302L.

KIN 429. Special Topics in Adapted Physical Education. 3 credits.
This course provides an in depth look into specific areas within the field of adapted physical education. This application-based course provides hands-on experiences that allow students to work with individuals with disabilities in a variety of settings.

KIN 430. Exercise Across the Lifespan. 3 credits.
An advanced course in exercise science that examines aspects of physical activity and exercise as they relate to specific phases of the human lifespan. This course will address the importance of physical activity for children, pregnant women, and older adults and will include an in-depth study of aspects of exercise physiology that are unique to these populations.

KIN 431. Environmental Exercise Physiology. 3 credits. Offered spring.
An advanced course in exercise physiology that examines how human physiological systems respond and adapt to exercise performed in challenging environmental conditions (i.e. high altitude, diving, hot, cold). Prerequisites: KIN 302 and KIN 302L.

KIN 432. Physiology of Endurance Performance. 3 credits. Offered spring.
This course aims to provide students with an understanding of how to utilize endurance training to maximize athletic performance. Various factors that limit endurance
performance and examine methods to overcome these factors will be explored. Emphasis will be placed on the role of seasonal periodization and program planning to maximize the long-term development of athletes. Supplemental factors that may also aid performance, such as equipment, nutrition, and ergogenic aids will be discussed. **Prerequisites:** KIN 302, KIN 302L.

**KIN 433. Exercise, Cardiovascular Disease, + ECG Assessment.** 3 credits. **Offered fall.**
This course is designed to provide students with a foundational information related to electrocardiography, diagnostic exercise testing and the effects of exercise on specific cardiovascular diseases. **Prerequisites:** KIN 302 and KIN 302L.

**KIN 436. Facilities Planning and Management in Sport and Recreation.** 3 credits. **Offered fall and spring.**
The purpose of this course is to enhance the understandings and skills necessary to be part of a facilities planning team and assume an entry-level facilities management position. **Prerequisites:** SRM 335.

**KIN 450. Principles of Coaching.** 3 credits. **Offered spring and fall.**
Concepts, competencies and principles of coaching as they relate to sports in general. Includes the personal and professional responsibilities of a coach.

**KIN 455. Methods in Driver Education.** 3 credits.
Analysis of the rules and regulations governing driver education in the Commonwealth of Virginia with application to program organization and administration, and the development and conduct of learning experiences in the classroom and laboratory. **Prerequisites:** Valid Virginia operator’s license and SRM 335.

**KIN 471. Practicum in Exercise Science and Leadership.** 3 credits.
A sequence of selected practicum experiences in exercise science and leadership, which provide the student with supervised practicum experience. May be repeated in different settings. **Prerequisite or corequisite:** KIN 302.

**KIN 472. Practicum in Sport and Recreation Management.** 3 credits.
A sequence of selected practicum experiences which provides the student with supervised practicum experience in Sport and Recreation Management. **Prerequisite:** KIN 241 or SRM 241.

**KIN 473. Practicum in Coaching.** 3 credits.
A sequence of selected practicum experiences in coaching, which provides the student with supervised practicum experience. Formerly KIN 401D.

**KIN 474. Practicum in Sport Communications.** 3 credits.
A sequence of selected practicum experiences which provides the student with supervised practicum experience in sport communications.

**KIN 480. Student Teaching in Physical Education.** 8 credits. **Offered spring.**
A supervised teaching experience at the elementary school setting that provides teacher candidates with opportunities to experience the classroom environment, grow professionally, and develop their pedagogical skills. **Prerequisite:** Acceptance to student teaching.

**KIN 481. Internship in Exercise Science and Leadership.** 4-12 credits.
A professional experience in exercise science which affords the opportunity to apply theory and methodology under qualified supervision from the cooperating agency and the university. Students may enroll for an internship experience of 4-12 credit hours,
requiring the student to complete 160-480 fieldwork hours. *Prerequisite:* Successful completion of all professional courses.

**KIN 482. Internship in Sport and Recreation Management.** 12 credits.
A full-time professional experience which affords the opportunity to apply theory and methodology under qualified supervision from the cooperating agency and the university. *Prerequisites:* [SRM 335](#), [SRM 382](#) and completion of 72 credit hours.

**KIN 490. Special Studies in Kinesiology and Recreation.** 1-3 credits each semester. *Offered fall and spring.*
Designed to give superior students in kinesiology and recreation an opportunity to complete independent study and/or research under faculty supervision. *Prerequisite:* Permission of the department head.

**KIN 499. Honors.** 6 credits. *Offered fall and spring.*
Year course.