

# Kinesiology

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The Kinesiology (KINES) program equips students with the academic knowledge and practical experiences needed to improve human performance and promote physical activity throughout a lifetime. Students will be prepared to excel in athletic, fitness, teaching or health-related professions. The program also emphasizes the importance of maintaining a healthy lifestyle through proper exercise and nutrition and ensuring such a lifestyle is an integral part of the overall educational experience.

## Kinesiology Degree (2 Track Options)

1. Kinesiology (General)
2. Exercise Science Concentration

Students who select the Kinesiology (General) option have a wide variety of career options within the field of human movement and wellness depending on their major and minor course selections. The Exercise Science concentration provides a background in the biological sciences necessary for additional graduate study in Exercise Physiology or entry into an allied health professional school. Students should work with their mentor to ensure specific prerequisites are met.

## Degree Plans Offered in Kinesiology

Major in Kinesiology

Major in Kinesiology with a Concentration in Exercise Science

Minor in Kinesiology

Austin College Teaching Program Certification Track

**A major in kinesiology** consists of:

### Required Core Courses (2 courses)

- \_\_\_\_\_ KINES 121 Introduction to Exercise and Sport Studies
- \_\_\_\_\_ KINES 495 Senior Conference

### Required Electives (6 courses)\*

- \_\_\_\_\_ KINES 246 Nutrition for Health & Physical Activity
- \_\_\_\_\_ KINES 260 Intermediate Directed Study
- \_\_\_\_\_ KINES 353 Teaching Movement Education in the Elementary School
- \_\_\_\_\_ KINES 354 Teaching Methods in the Secondary School
- \_\_\_\_\_ KINES 360/460 Advanced Directed Study
- \_\_\_\_\_ KINES 364 Biomechanics of Human Movement
- \_\_\_\_\_ KINES 462 Physiological Responses to Exercise
- \_\_\_\_\_ KINES 471 Administration of Athletics, Physical Education, and Recreation
- \_\_\_\_\_ KINES 490 Independent Study
- \_\_\_\_\_ KINES 492 Independent Study Off-Campus/NSOC
- \_\_\_\_\_ BIOL 300 level or higher
- \_\_\_\_\_ \*Two courses above must be at the 300 level or higher

**Total Credits Requirement = 8 course credits**

**A major in kinesiology with a concentration in exercise science** consists of:

**Required Core Courses (7 courses)**

- \_\_\_\_\_ KINES 121 Introduction to Exercise and Sport Studies
- \_\_\_\_\_ KINES 246 Nutrition for Health & Physical Activity
- \_\_\_\_\_ KINES 364 Biomechanics of Human Movement
- \_\_\_\_\_ KINES 462 Physiological Responses to Exercise
- \_\_\_\_\_ BIOL 115 Evolution, Behavior, and Ecology OR CHEM 111 General Chemistry I OR PHY 106 Physics for Health Sciences II
- \_\_\_\_\_ BIOL 116 Introductory Cell Biology
- \_\_\_\_\_ BIOL 234 Anatomy and Physiology

**Electives (1 course)**

- \_\_\_\_\_ BIOL 322 Comparative Vertebrate Anatomy
- \_\_\_\_\_ BIOL 351 Extreme Physiology
- \_\_\_\_\_ BIOL 352 Systemic Physiology

**Total Credits Requirement = 8 course credits**

**A minor in kinesiology** consists of:

**Required Courses (2 courses)**

- \_\_\_\_\_ KINES 121 Introduction to Exercise and Sport Studies
- \_\_\_\_\_ KINES 495 Senior Conference

**Electives (3 courses)**

- \_\_\_\_\_ KINES any level
- \_\_\_\_\_ KINES any level
- \_\_\_\_\_ KINES 300 level or higher

**Total Credits Requirement = 5 course credits**

**Austin Teacher Program Requirements for EC-12 Teaching Certification**

- \_\_\_\_\_ KINES 121 Introduction to Exercise and Sports Studies
- \_\_\_\_\_ KINES 246 Nutrition for Health & Physical Activity
- \_\_\_\_\_ KINES 353 Teaching Movement Education in the Elementary School
- \_\_\_\_\_ KINES 354 Teaching Methods in the Secondary School
- \_\_\_\_\_ KINES 495 Senior Conference

**Total Credits Requirement = 5 course credits**

## **COURSES**

### **KINES 121 Introduction to Exercise and Sport Studies**

An introduction and presentation of the basic facts and beliefs concerning the field of exercise and sport studies (historically known as physical education). Attention is focused on professional opportunities in the field of exercise and sport studies. (Fall and spring)

**KINES 246 Nutrition for Health & Physical Activity**

This course provides the student with the basic concepts of nutrition and gives them the knowledge to construct eating behaviors that improve health, fitness and sport. Topics covered include macronutrients, their sources, needs and functions at rest and during physical activity; vitamins, minerals, and other supplements; and energy balance, weight management and eating disorders. Individual behaviors will be closely examined through self-assessment tools. Requirements met: Social Sciences Breadth/Discover. (Each year)

**KINES 260 Intermediate Directed Study**

Student investigation of topic of interest working in collaboration with a faculty member resulting in significant oral and written work. See On-Campus Learning Opportunities for more information. PREQ: Freshman January term or Sophomore standing. Special permission required. Offered in variable course credit from 0.25-1.00.

**KINES 294 Intermediate Student Research**

Intended for less experienced students to develop and execute a research project related to kinesiology, beyond the constraints of the normal classroom, suitable for public dissemination on or off campus under mentorship of a faculty member. Typically this work results in a formal presentation, written work, or creative works. Course credit varies from 0-1.00. PREQ: Instructor permission required.

**KINES 353 Teaching Movement Education in the Elementary School**

Construction of movement tasks in rhythm and game skill movement for children in grades K-6. PREQ: Kinesiology 121 or Education 225. (Each fall)

**KINES 354 Teaching Methods in the Secondary School**

A study of the skills and techniques required to design and implement effective instructional programs in physical education at the secondary school level. PREQ: Kinesiology 121 or Education 225 (Each spring)

**KINES 360/460 Advanced Directed Study**

Student investigation of topic of interest related to the major or minor working in collaboration with a faculty member resulting in significant oral and written work. See On-Campus Learning Opportunities for more information. PREQ: Junior or Senior standing. Special permission required. Offered for variable course credit from 0.25-1.00.

**KINES 364 Biomechanics of Human Movement**

This course introduces students to the basic mechanical principles of physical activity, exercise, and sport. It will provide a foundation for improving human performance through proper biomechanics and for identifying, analyzing, and solving problems related to human movement by combining the study of anatomy, physiology and mechanics. PREQ: Biology 234. (Each fall)

**KINES 394/494 Advanced Student Research**

Intended for advanced students to develop and execute a research project related to kinesiology suitable for public dissemination under mentorship of a faculty member. Students are expected to present the results of their research in a public forum. Typically this work results in a formal presentation, written work, or creative works. Offered for variable course credit from 0-1.00. PREQ: Instructor permission required.

**KINES 462 Physiological Responses to Exercise**

This course examines how the structures and functions of the body are altered in response to *acute* and *chronic* bouts of exercise. An understanding of how the body responds to the stress of exercise is critical for the exercise physiologist, fitness expert, coach, physical educator, as well as other allied health care professionals. Major topics include energy metabolism; cardiorespiratory, neuromuscular, and neuroendocrine responses; environmental factors; body composition and weight control; and nutrition for optimizing performance.

Practical applications of topics, as it applies to fitness and sport, will be emphasized. PREQ: Biology 234. (Each spring)

### **KINES 471 Administration of Athletics, Physical Education, and Recreation**

Organizing and administering programs in physical education, athletics, and recreation. Special attention is given to personnel and program administration in both the highly competitive and the recreational context. PREQ: Kinesiology major or minors only. (Offered on an occasional basis)

### **KINES 490 Independent Study**

Student-driven independent work to produce a high quality body of work such as paper, report, art project, etc. See On-Campus Learning Opportunities for more information. PREQ: Junior or Senior standing. Special permission required. Offered in variable course credit from 0.25-1.00.

### **KINES 492 Independent Study Off-Campus/NSOC**

Student-driven independent study in a topic related to the major completed at an off-campus site. See Off-Campus Learning Opportunities for more information. PREQ: Junior or Senior standing. Special permission required. Offered in variable course credit from 0.25-1.00.

### **KINES 495 Senior Conference**

PREQ: Senior Kinesiology major or minors only. (Each Fall and spring)

## **PHYSICAL FITNESS**

Austin College believes that physical fitness and an understanding of a healthy lifestyle should be an integral part of the overall educational experience. This requirement for graduation may be met by participation in a lifetime sports class, approved college transfer or for non-academic credit by successful participation in an intercollegiate varsity sport.

### **LS 010 Intercollegiate Varsity Athletics**

Successful participation in a varsity athletic team sport will fulfill the physical fitness requirement. Participants will not receive academic credit. Austin College offers varsity sports in men and women's soccer, men and women's swimming and diving, men and women's tennis, men and women's basketball, men's and women's cross country and track, women's volleyball, men's football, men's baseball, women's softball and men and women's water polo. Zero course credit. Requirements met: Life Sports competency.

### **LS 115 Lifetime Sports**

Basic physical skills development in a variety of selected sports activities. Sample activities: aerobic conditioning, aerobic dance, golf, racquet sports, swimming, and strength training. (Graded on S/D/U basis). May be repeated for a total of one course credit unit when content varies. 0.25 course credit unit. Requirements met: Life Sports competency. (Each fall and spring)