

BACHELOR OF ARTS (BA) DEGREE WITH A MAJOR IN SPORTS MEDICINE AND EXERCISE PHYSIOLOGY

Program Learning Outcomes for the BA Degree with a Major in Sports Medicine and Exercise Physiology

Upon completing the BA degree with a major in Sports Medicine and Exercise Physiology, students will be able to:

1. Explain anatomical, physiological, and biomechanical principles related to sports medicine and exercise physiology including prevention, diagnosis, and treatment of injuries and disease.
2. Translate fundamental principles of human nutrition to practical application in exercise and sport.
3. Apply theoretical and practical knowledge of psychological factors in sport, exercise, rehabilitation, and performance settings.
4. Demonstrate the ability to work in a collaborative environment and disseminate information about sports medicine and exercise physiology through the preparation and delivery of effective presentations employing proper use of technology.
5. Analyze sports science and exercise physiology research, including physical activity research, through identification and critical evaluation of relevant scientific literature.
6. Design and conduct research studies applying appropriate methodologies and ethical standards including collecting, analyzing, and interpreting data in sports medicine and exercise physiology related classroom and laboratory settings.

Requirements for the BA Degree with a Major in Sports Medicine and Exercise Physiology

For general university requirements, see [Graduation Requirements \(https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/\)](https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/). Students pursuing the BA degree with a major in Sports Medicine and Exercise Physiology must complete:

- A minimum of 14 courses (43 credit hours) to satisfy major requirements.
- A minimum of 120 credit hours to satisfy degree requirements.
- A minimum of 8 courses (25 credit hours) taken at the 300-level or above.

The courses listed below satisfy the requirements for this major. In certain instances, courses not on this official list may be substituted upon approval of the major's academic advisor or, where applicable, the department's Director of Undergraduate Studies. (Course substitutions must be formally applied and entered into Degree Works by the major's [Official Certifier \(https://registrar.rice.edu/facstaff/degreeworks/officialcertifier/\)](https://registrar.rice.edu/facstaff/degreeworks/officialcertifier/).) Students and their academic advisors should identify and clearly document the courses to be taken.

Summary

| Code | Title | Credit Hours |
|---|-------|--------------|
| Total Credit Hours Required for the Major in Sports Medicine and Exercise Physiology | | 43 |
| Total Credit Hours Required for the BA Degree with a Major in Sports Medicine and Exercise Physiology | | 120 |

Degree Requirements

| Code | Title | Credit Hours |
|--|---|--------------|
| Core Requirements ¹ | | |
| HEAL 103 | NUTRITION | 3 |
| KINE 300 | HUMAN ANATOMY WITH LAB | 4 |
| KINE 301 | HUMAN PHYSIOLOGY | 3 |
| KINE 302 | BIOMECHANICS | 3 |
| KINE 310 | PSYCHOLOGICAL ASPECTS OF SPORT AND EXERCISE | 3 |
| KINE 311 | MOTOR LEARNING | 3 |
| KINE 319 | STATISTICS FOR THE HEALTH PROFESSIONAL | 3 |
| KINE 321 | EXERCISE PHYSIOLOGY | 3 |
| KINE 440 | RESEARCH METHODS | 3 |
| Elective Requirements | | |
| Select 5 elective courses (see course list below) | | 15 |
| Total Credit Hours for the Major in Sports Medicine and Exercise Physiology | | 43 |
| Additional Credit Hours to Complete Degree Requirements* | | 46 |
| University Graduation Requirements (https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/) * | | 31 |
| Total Credit Hours | | 120 |

Footnotes and Additional Information

* **Note:** [University Graduation Requirements](https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/) include 31 credit hours, comprised of Distribution Requirements (Groups I, II, and III), FWIS, and LPAP coursework. In some instances, courses satisfying FWIS or distribution requirements may additionally meet other requirements, such as the Analyzing Diversity (AD) requirement, or some of the student's declared major, minor, or certificate requirements. [Additional Credit Hours to Complete Degree Requirements](https://ga.rice.edu/undergraduate-students/academic-policies-procedures/graduation-requirements/) include general electives, coursework completed as upper-level, residency (hours taken at Rice), and/or any other additional academic program requirements.

¹ The Core Requirements include detailed exposure to human anatomy and human physiology. In addition, students receive coursework in research methods, motor learning, statistics, exercise physiology, and sports psychology.

Course List to Satisfy Requirements

Elective Requirements

To fulfill the elective requirements for the Major in Sports Medicine and Exercise Physiology, students must complete a total of 5 elective courses (minimum of 15 credit hours) from the course list below. This list of electives is drawn from course offerings that are both within the Department of Kinesiology and other academic departments. Kinesiology elective courses include courses in epidemiology, case studies in human

performance, motor control, advanced exercise physiology and preventive medicine, sports nutrition, medical terminology and psychology of sports injury. Electives from other departments include courses in chemistry, physics, biology and biochemistry, which may also be utilized as medical school prerequisites.

| Code | Title | Credit Hours |
|--------------------------------------|--|--------------|
| Elective Requirements | | |
| Select 5 courses from the following: | | 15 |
| BIOS 201 | INTRODUCTORY BIOLOGY I | |
| BIOS 202 | INTRODUCTORY BIOLOGY II | |
| BIOS 211 | INTERMEDIATE EXPERIMENTAL CELLULAR AND MOLECULAR BIOSCIENCES | |
| BIOS 301 | BIOCHEMISTRY I | |
| BIOS 302 | BIOCHEMISTRY II | |
| BIOS 311 | EXPERIMENTAL BIOCHEMISTRY | |
| BIOS 313 | EXPERIMENTAL SYNTHETIC BIOLOGY | |
| BIOS 372 | IMMUNOLOGY | |
| CHEM 121 | GENERAL CHEMISTRY I | |
| or CHEM 111 | AP/OTH CREDIT IN GENERAL CHEMISTRY I | |
| CHEM 123 | GENERAL CHEMISTRY LABORATORY I | |
| or CHEM 113 | AP/OTH CREDIT IN GENERAL CHEMISTRY LAB I | |
| CHEM 122 | GENERAL CHEMISTRY II | |
| or CHEM 112 | AP/OTH CREDIT IN GENERAL CHEMISTRY II | |
| CHEM 124 | GENERAL CHEMISTRY LABORATORY II | |
| or CHEM 114 | AP/OTH CREDIT IN GENERAL CHEMISTRY LAB II | |
| HEAL 132 | MEDICAL TERMINOLOGY | |
| HEAL 407 | EPIDEMIOLOGY | |
| KINE 120 | SCIENTIFIC FOUNDATIONS OF KINESIOLOGY | |
| KINE 320 | HUMAN PHYSIOLOGY LAB | |
| KINE 326 | PHYSICAL ACTIVITY EPIDEMIOLOGY | |
| KINE 351 | ADVANCED HUMAN ANATOMY LAB | |
| KINE 375 | SPORTS MEDICINE & EXERCISE PHYSIOLOGY INTERNSHIP | |
| KINE 403 | SPORT NUTRITION | |
| KINE 410 | CASE STUDIES IN HUMAN PERFORMANCE | |
| KINE 412 | MOTOR CONTROL | |
| KINE 415 | PSYCHOLOGICAL ASPECTS OF SPORTS INJURY & REHABILITATION | |
| KINE 419 | MOVEMENT DISORDERS | |
| KINE 421 | ADVANCED TOPICS IN EXERCISE PHYSIOLOGY AND PREVENTIVE MEDICINE | |
| KINE 430 | SPORTS INJURY: EVALUATION, MANAGEMENT, AND TREATMENT | |
| KINE 495 | INDEPENDENT RESEARCH IN SPORTS MEDICINE & EXERCISE PHYSIOLOGY | |
| KINE 498 | SPECIAL TOPICS IN SPORTS MEDICINE | |
| PHYS 101 | MECHANICS (WITH LAB) ¹ | |
| PHYS 102 | ELECTRICITY & MAGNETISM (WITH LAB) ¹ | |

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| PHYS 125 | GENERAL PHYSICS (WITH LAB) ¹ |
| PHYS 126 | GENERAL PHYSICS II (WITH LAB) ¹ |
| PSYC 202 | INTRODUCTION TO SOCIAL PSYCHOLOGY |
| PSYC 203 | INTRODUCTION TO COGNITIVE PSYCHOLOGY |
| PSYC 321 | DEVELOPMENTAL PSYCHOLOGY |

Footnotes and Additional Information

¹ The Kinesiology department has determined that credit awarded for PHYS 141 *CONCEPTS IN PHYSICS I* and credit awarded for PHYS 142 *CONCEPTS IN PHYSICS II* are not eligible for meeting the requirements of the Sports Medicine and Exercise Physiology major.

Transfer Credit

For Rice University's policy regarding transfer credit, see [Transfer Credit \(https://ga.rice.edu/undergraduate-students/academic-policies-procedures/transfer-credit/\)](https://ga.rice.edu/undergraduate-students/academic-policies-procedures/transfer-credit/). Some departments and programs have additional restrictions on transfer credit. Requests for transfer credit must be approved for Rice equivalency by the designated transfer credit advisor for the appropriate academic department offering the Rice equivalent course (corresponding to the subject code of the course content). The Office of Academic Advising maintains the university's official list of [transfer credit advisors \(https://oaa.rice.edu/advising-network/transfer-credit-advisors/\)](https://oaa.rice.edu/advising-network/transfer-credit-advisors/) on their website: <https://oaa.rice.edu>. Students are encouraged to meet with the applicable transfer credit advisor as well as their academic program director when considering transfer credit possibilities.

Departmental Transfer Credit Guidelines

Students pursuing the major in Sports Medicine and Exercise Physiology should be aware of the following departmental transfer credit guideline:

- Required core coursework must be taken at Rice. Requests for transfer credit will only be considered for elective coursework.

Additional Information

For additional information, please see the Department of Kinesiology website: <https://kinesiology.rice.edu/>.

Academic Honors

The university recognizes academic excellence achieved over an undergraduate's academic history at Rice. For information on university honors, please see [Latin Honors \(https://ga.rice.edu/undergraduate-students/honors-distinctions/university/\)](https://ga.rice.edu/undergraduate-students/honors-distinctions/university/) (*summa cum laude*, *magna cum laude*, and *cum laude*) and [Distinction in Research and Creative Work \(https://ga.rice.edu/undergraduate-students/honors-distinctions/university/\)](https://ga.rice.edu/undergraduate-students/honors-distinctions/university/). Some departments have department-specific Honors awards or designations.

Unique Programs

Rice-UTSPH Public Health Scholars

Rice undergraduate students interested in pursuing a Master of Public Health (MPH) degree at the University of Texas Health Science Center at Houston (UTHealth School of Public Health (UTSPH)) may apply to the Rice-UT Public Health Scholars Program. This unique coordinated program enables accepted Rice students to earn credit towards their Rice undergraduate degree (BA or BS with any major), and to accelerate in the completion of their UTSPH Master of Public Health degree to within one year after completing their Rice undergraduate degree. For

more information on the Rice-UTSPH Public Health Scholars Program, please see the *Rice-UT Public Health Scholars Program* tab on the [Dean of Undergraduates website \(https://dou.rice.edu/student-resources/public-health-scholars-program/\)](https://dou.rice.edu/student-resources/public-health-scholars-program/).

Rice-UTMB Physical Therapy Scholars

Beginning in Fall 2023, a program agreement is in effect between the Sports Medicine and Exercise Physiology (SMEP) program at Rice University and the Department of Physical Therapy at the University of Texas Medical Branch at Galveston (UTMB). This unique Rice-UTMB Physical Therapy Scholars Program (Rice-UTMB PTS) offers an opportunity for qualified SMEP students who have identified physical therapy as a career choice to receive preference during the admission process into the UTMB Doctor of Physical Therapy Program. For more information on the Rice-UTMB Physical Therapy Scholars Program, please see the [Department of Kinesiology website \(https://kinesiology.rice.edu/\)](https://kinesiology.rice.edu/).

Additional Information

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