

## Health and Exercise Science

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The Department of Health and Exercise Science prepares students as K–12 teachers and as exercise science professionals.

Students must complete their major required courses within the health and exercise science department at The College of New Jersey unless special permission is granted by the student's program director to allow completion of a major required course at another college.

The department will not accept a grade below C in any subject required in the academic major from a transfer student.

In agreement with the College policy, a combination of transfer credits and credit by examination may not exceed 20 course units; however, the health and exercise science department reserves the right to specify certain courses which must be taken at The College of New Jersey before the student will be permitted to enroll in student teaching or a practicum and internship.

The department maintains the right and the responsibility to dismiss students from the major who have not made satisfactory progress completing the major component of the program, fulfilling department requirements, and/or teacher certification requirements.

### Requirements for the major:

Twelve units within the major are required within the Health and Exercise Science Program.

### Requirements for the exercise science option are:

HEA 160/Current Health and Wellness Issues	1 course unit
HEA 350/Nutrition and Metabolism	1 course unit
HPE 099/Emergency Care	0 course unit
HPE 172/Foundations of Exercise Science	1 course unit
HPE 203/Human Anatomy and Physiology	1 course unit
HPE 204/Anatomy and Kinesiology	1 course unit
HPE 302/Assessment and Evaluation of Human Performance	1 course unit
HPE 311/Applied Physiology	1 course unit
HPE 493/Internship	2 course units
PHE 405/Exercise for Special Populations	1 course unit
PHE 410/Exercise Physiology and Exercise Prescription	1 course unit
PHE 498/Research Seminar in Health and Exercise Science	1 course unit

#### Total 12 course units

Also required are:

BIO 181/Human Biology Form and Function	1 course unit
BIO 185/Themes in Biology	1 course unit
STA 115/Statistics	1 course unit

### Requirements for the teaching option are:

HEA Health Content Course	1 course unit
HEA 160/Current Health and Wellness Issues	1 course unit
HEA 350/Nutrition and Metabolism	1 course unit
HEA 460/Comprehensive School Health	1 course unit
HPE 172/Foundations of Health and Exercise Science	1 course unit

HPE 203/Human Anatomy and Physiology	1 course unit
HPE 204/Anatomy and Kinesiology	1 course unit
HPE 302/Assessment and Evaluation of Human Performance	1 course unit
HPE 311/Applied Physiology	1 course unit
PHE 182/Lifespan Wellness Activities	1 course unit
PHE 282/Sports Concepts and Skills	1 course unit
PHE 304/Adapted Kinetics	1 course unit
<b>Total</b>	<b>12 course units</b>

Also required are:

BIO 185/Themes in Biology	1 course unit
PSY 220/Development across the Lifespan	1 course unit
And a 7.5 course unit teacher preparation sequence	

Also required are:

PHE 180	1 course unit
HPE 292	1 course unit
HPE 390	1 course unit
HPE 392	1 course unit
HPE 490	2 course units
HPE 198	1 course unit
RAL 328	.5 course unit

### ***Certification—(0–1 course units)***

All students are required or recommended to earn certificates in the following:

- Emergency Care (Required)—no credit
- Water Safety (Recommended)—no credit
- Sport Coaching Certification—one course unit (Recommended)
- Driver Education Teacher Certification (Recommended)—one course unit
- Teacher Certification

### **Suggested First-Year Sequence (exercise science option)**

FSP First Seminar	1 course unit
BIO 181/Human Biology Form and Function	1 course unit
BIO 185/Themes in Biology	1 course unit
HEA 160/Current Health and Wellness Issues	1 course unit
HPE 172/Foundations of Health and Exercise Science	1 course unit
Liberal Learning	1 course unit
STA 115/Statistics (Liberal Learning-Quantitative Reasoning)	1 course unit
WRI 102/Academic Writing (if not exempted)*	1 course unit

*\*It is recommended that students exempted from this course take other liberal learning courses.*

**Total** **8 course units**

### **Suggested First-Year Sequence (teaching option)**

FSP First Seminar	1 course unit
BIO 181/Human Biology Form and Function	1 course unit
HEA 160/Current Health and Wellness Issues	1 course unit

HPE 172/Foundations of Health and Exercise Science	1 course unit
PHE 180/Motor Development and Elementary Movement	1 course unit
Liberal Learning	2 course units
WRI 102/Academic Writing (if not exempted)*	1 course unit

*\*It is recommended that students exempted from these courses take other liberal learning courses.*

**Total** **8 course units**

### **Program Entrance, Retention, and Exit Standards**

Every major program at the College has set standards for allowing students to remain in that program, to transfer within the College from one program to another, and to graduate from a program. The following are the standards for Department of Health and Exercise Science programs. Minimum grades are noted in parentheses.

- Retention in the program is based on the following performance standards in these “critical content courses”: HPE 172/Foundations I (C); HPE 203/Human Anatomy and Physiology (C); HEA 160/Current Health and Wellness Issues (C).
- Transfer into the program from another program within the College is based upon the following performance standards in these “foundation courses”: HEA 160/Current Health and Wellness Issues (C); BIO 181/Human Biology Form and Function; HPE 172/Foundations in HES.
- Graduation requires a GPA of 2.0.

*\*NOTE: All students in teacher preparation programs must have a 2.75 GPA for recommendation for certification to teach in New Jersey.*

### **Health and Physical Education: Teacher Preparation Option**

Applicants will be fitness tested in their freshman year, in their sophomore year as part of the admission requirements to junior-level courses, and in their junior year prior to being permitted to register for their senior student-teaching experience.

Additionally, students are required to attend at least one professional meeting/conference per semester. Proof of attendance must be submitted to the student’s adviser.

Students are prepared with a background in liberal learning. Most course work consists of specialized health and physical education subjects. Class work and activity skills are combined in the physical education courses to cover all facets of this major. Practical teaching experience is provided on the elementary and secondary levels. Majors are expected to participate in the intercollegiate, intramural, or club programs and be members of the department majors’ club, as well as state and national professional organizations.

Students who apply for transfer into the department must have established a minimum cumulative average of 2.50 for teacher-education certification preparation.

All teacher-preparation students must apply for admission to teacher education prior to the junior professional experience and:

1. Have a 2.75 overall cumulative average;
2. Have successfully completed HPE 292/Introduction to Elementary and Secondary Health and Physical Education;

3. Present evidence of involvement in professional, departmental, campus, and community activities;
4. Pass a fitness test annually;
5. Have recommendations from three full-time HES faculty members they have had in class;
6. Have demonstrated ethical and professional behavior; and
7. Earn a C- or above in major courses.

Candidates for a teacher-education certificate must have a 2.75 cumulative grade point average prior to student teaching, must meet the state hygiene/physiology requirement, and must pass the appropriate Praxis examination before the New Jersey State Department of Education will issue the appropriate certificate. Teacher-education candidates will receive a “certificate of eligibility with advanced standing” which requires a candidate to be provisionally certified for his or her first year of teaching. After one year of successful teaching, the candidate is eligible for a permanent certificate. The teacher-education candidate also will have to pay a fee during his or her first year of teaching.

The teaching option provides not only a high-quality but a cutting-edge program that is consistent with the standards of the National Association for Sport and Physical Education (NASPE) and the National Council for the Accreditation of Teacher Education (NCATE). The program culminates in the preparation of exemplary health and physical education K–12 teachers who collaborate with other professionals to teach the whole child while achieving the goals of content mastery, professionalism, and pedagogical expertise common to the preparation of all teachers. The objectives of the program present TCNJ graduates as reflective, inquiry-oriented, pre-professionals who are cognizant of equity and diversity issues, competent in their subject matter, and able to select instructional strategies best suited for the varying needs of their students.

### **Health and Exercise Science Professional Option**

Students interested in pursuing careers in health promotion, wellness, sports medicine, and other related professions such as physical therapy, cardiac rehabilitation, and exercise science will develop their academic programs on an individualized basis with their advisers.

Requirements for the Health and Exercise Science Professional Option:

1. 2.0 cumulative grade point average in major courses.
2. A grade of C– or above will be accepted for major courses.
3. A current CPR certification is required for the practicum and internship field experience.
4. Pass a fitness test annually.
5. Present departmental evidence of involvement in departmental or professional activities.

### **Pre-Physical Therapy Professional Counseling**

The health and exercise science department **does not have an approved curriculum in physical therapy**; however, the department recognizes the expanded professional career opportunities for students who successfully complete the recommended programs for physical therapy. A significant number of qualified students from this department have

been accepted into schools offering the postgraduate certificate in physical therapy. All have completed the prescribed health and exercise science curriculum at The College of New Jersey.

### **Driver Education—Teacher Certification**

(recommended elective)

Students who complete the traffic safety course, HPE 335, with a degree in a secondary school teaching discipline, will be certified to teach three phases (classroom, simulation, behind-the-wheel) in the public high schools of New Jersey. Teaching certification in driver education is highly recommended for those students planning to teach at the secondary level.

### **Health and Physical Education: Coaching Certification Option**

#### **HPE 307/Principles and Problems of Coaching**

**1 course unit**

Course includes national coaching certification requirements. Students interested in coaching at the interscholastic level are advised to complete the coaching course (PHE 307) which contains the American Sports Education Program (ASEP) certification. The ASEP certification is regarded as one of the top coaching certifications in the country.

### **Elective Physical Education**

All students are invited to elect any of the following lifetime sport activity courses for pleasure and to develop satisfactory skills for participation in adult life. These courses may be used by HES major students as electives in order to develop additional teaching skill competencies.

#### **HPE 099/Emergency Care**

**0 course unit**

(every semester)

Basic safety and emergency first-aid knowledge and skills with opportunity to attain American Red Cross CPR and first-aid certification.

#### **PHE 098/Water Safety Instructor**

**0 course unit**

(annually)

*Prerequisite:* Current senior lifesaving certification

Demonstration and analysis of American Red Cross required swimming and lifesaving skills. Theoretical principles and practical skills involved in teaching Red Cross swimming, lifesaving, and water safety courses.

#### **PHE 113/Judo**

**.25 course unit**

(every semester)

Fundamental skills, rules, and tactics.

#### **PHE 116/Yoga**

**.25 course unit**

(every semester)

Bodily postures, relaxation, breath control, and mental concentration.

#### **PHE 125/Weight Training**

**.25 course unit**

(every semester)

Fundamental skills of weight training including safety measures and an understanding and appreciation of weight training to individual and team development.

**PHE 131/Golf** **.25 course unit**

(every semester)

Development of golfing skills, plus knowledge of basic rules and etiquette. Field trips may be required at student expense.

**PHE 153/Basketball** **.25 course unit**

(every semester)

Development and use of basic skills and game strategies plus a study of the rules accompanied by introduction to applicable teaching techniques and methodologies.

**PHE 159/Softball** **.25 course unit**

(annually)

Development and use of basic skills and game strategies plus a study of the rules accompanied by introduction to applicable teaching techniques and methodologies.

**PHE 162/T'ai Chi Chuan** **.25 course unit**

(every semester)

An introductory Chinese martial arts course performed through up to 96 postures. Techniques increase balance, range of motion, general muscle tone, and are excellent for stress reduction.

**PHE 212/Tennis** **.25 course unit**

(every semester)

Basic skills: forehand and backhand drives, serve and volley, rules and strategy.

### **Major Courses**

**HEA 160/Current Health and Wellness Issues** **1 course unit**

(every semester)

Investigates a broad range of health-related problems as they affect humankind in the environment.

**HEA 350/Nutrition and Metabolism** **1 course unit**

(every semester)

Focuses on research processes and communication skills applied to the role of exercise and proper nutrition in regard to their positive influence on weight control. Techniques for evaluating energy balance and planning for weight-loss programs are discussed in light of established scientific principles and procedures.

**HEA 351/Stress Management** **1 course unit**

(every semester)

Designed to help individuals relax, energize, and cope through learning strategies for desensitization to stressful situations, enhancement of self-image, and development of scientific relaxation techniques. A small additional fee may be required.

**HEA 353/Analysis of Drug Dependencies** **1 course unit**

(every semester)

Analysis of drug dependencies and their effect on the individual and society. The use, misuse, and abuse of mood-modifying substances including tobacco, alcohol, and other drugs, both therapeutic and illicit. Implications for instruction in the public schools.

**HEA 356/Foundations of Sex Education** **1 course unit**

(every semester)

Analysis of human sexuality, including human sexual response, value clarification, contraception, abortion, reproduction, social mores, homosexuality, sex research, and sex education. Curriculum design and implementation.

**HEA 358/Perspectives on Aging, Death, and Dying** **1 course unit**

(every semester)

Analysis of personal meanings of aging, death, and dying viewed from biological, psychosocial, medical, and bioethical aspects. Roles of professionals in these areas and appraisal of current trends and research.

**HEA 391/Independent Study in Health** **1 course unit**

(every semester)

*Prerequisites:* Approval of topic by department; for advanced students  
In-depth study of a carefully defined area of health.

**HEA 456/Seminar: HIV Prevention Education** **1 course unit**

(annually)

Transmission, risk reduction, psychosocial issues, community resources and services, current research findings, and issues relevant to prevention of HIV infection.

**HEA 459/Counseling for Health Issues** **1 course unit**

(every semester)

Basic counseling techniques are applied to health-related areas. The health educator's role is examined as a counselor involved with students, schools, and the community.

**HEA 460/Comprehensive School Health** **1 course unit**

(every semester)

The programs of school and community health including their scopes, functions, organization, and administration, and their relationships to the needs of the total community are reviewed.

**HPE 172/Foundations of Health and Exercise Science** **1 course unit**

(fall)

This course is designed to introduce students to the critical issues in physical education, fitness, sports, and health promotion. Changing philosophies and basic concepts will be discussed. Professions related to physical education, sports, fitness, and health wellness will be included.

**HPE 203/Human Anatomy and Physiology** **1 course unit**

(with laboratory)

(annually—fall)

*Prerequisite:* BIO 185

Structure and function of the various tissues, organs, and systems of the human body, with applications of structural and functional relationships pertinent to the professions of health and physical education.

**HPE 204/Anatomy and Kinesiology** **1 course unit**  
(annually—spring)

*Prerequisite:* HPE 203

A second year course for both physical education and exercise science students prepares the student to understand the science of motion. This course provides students with a foundation in neuromuscular physiology, anatomy, and biomechanics that is essential for the understanding of bodily movements and athletic performance.

**HPE 221/Theory and Practice of Aerobic Exercise** **1 course unit**  
(every semester)

Cardiovascular fitness through dance and generic movement including knowledge of physiological, anatomical, and biochemical characteristics and values of aerobics. A small additional fee may be required.

**HPE 292/Introduction to Elementary and Secondary Health and Physical Education** **1 course unit**  
(with laboratory)

Observation of methods, techniques, organizational procedures, philosophies, and teaching styles currently used in elementary, middle/intermediate, and high school health and/or physical education classes. Field trips may be required at student expense. Develop competence and ability to teach complex motor skills related to dance, gymnastics, and elementary games. These experiences develop conceptual understanding.

**HPE 302/Assessment and Evaluation of Human Performance** **1 course unit**  
(with laboratory)  
(every semester)

*Prerequisites:* 2.50 GPA. Minimum of five activity courses and formal acceptance into teacher education. Current enrollment in HPE 390

An upper level course for students studying exercise science and physical education. This course is designed to provide the student with a knowledge base in descriptive and inferential statistics and a thorough understanding of both laboratory and field evaluation of various components of fitness.

**HPE 307/Principles and Problems of Coaching** **1 course unit**  
(every semester)

An analysis of the multi-faceted problems that confront the present day coach of scholastic activities. Practical solutions for these problems sought. National coaching certification ASEP is available.

**HPE 311/Applied Physiology** **1 course unit**  
(every semester)

*Prerequisites:* PHE 203, 204

Techniques, principles, and physiological requirements of exercise. Participation in individual fitness teams, development of exercise specificity in individual and group exercise programs, and the use of laboratory sessions and equipment in designing exercise protocol and assessing improved physiological function.

**HPE 335/Driver Education** **1 course unit**  
(Teacher Certification)  
(with laboratory)  
(every semester)

Methodology relating to knowledge, skill, and psychological considerations in teaching driver education. Completing this course certifies students to teach driver education in New Jersey.

**HPE 370/300-Level Selected Topics in Health** **1 course unit**  
(occasionally)

In-depth study and/or field experience in current or specialized topics proposed by the faculty and approved by the department. The course may be repeated each time the content changes.

**HPE 372/Care and Prevention of Athletic Injuries** **.5 course unit**  
(with laboratory)  
(every semester)

*Prerequisites:* PHE 203, 204

Principles, organization, and administration of training room facilities. Preventive and remedial athletic bandaging, analysis of common injuries, first-aid and rehabilitation procedures, athletic training techniques.

**HPE 390/Health and Physical Education Methods** **1 course unit**  
(every semester)

*Prerequisites:* Formal acceptance into teacher education and 2.75 GPA

Innovative strategies for facilitator/learner in the development of health and physical education programs. Emphasizes personalized and individualized learning.

**HPE 392/Theory and Practice of Health and Physical Education** **1 course unit**  
(with laboratory)  
(every semester)

*Prerequisites:* Current enrollment in HPE 390, 2.50 GPA

Prepares prospective student teachers in physical education by providing visits to public and private schools of elementary, middle, and secondary levels. Physical education programs will be observed and discussed, and some teaching experience may be provided. Field trips may be required at the student's expense.

**HPE 393/Practicum** **1 course unit**  
(every semester)

*Prerequisite:* Instructor's permission

Practical experience, observation, and participation in programs of corporate fitness/wellness, cardiac rehabilitation, physical therapy, or other health/wellness and sport promotion programs.

**HPE 470/400-Level Selected Topics in Health** **1 course unit**  
(occasionally)

In-depth study and/or field experience in current or specialized topics proposed by the faculty and approved by the department. The course may be repeated each time the content changes.

**HPE 490/Student Teaching** **2 course units**  
(full-time—first or second semester)

*Prerequisite:* Meeting of all criteria for admission to student teaching

Full semester of student teaching during the senior year with approved teachers in selected schools of the state. Direct supervision by teachers and college supervisors. Observation, participation, and responsible teaching. 2.75 grade point average is required.

**HPE 493/Internship** **2 course units**  
(every semester)

*Prerequisites:* HPE 204 and current in CPR

Emphasis upon practical experience, research, observation, participation, organization, administration, and supervision in programs of fitness, wellness, cardiac rehabilitation, physical therapy, or other health/wellness and sport promotion programs. Students may not take more than one additional course unit while doing an internship.

**HPE 498/Research Seminar in Health and Physical Education** **1 course unit**  
(every semester)

*Prerequisites:* 2.75 GPA. Concurrent enrollment in HPE 490

Program organization and administration in health and physical education. Legal foundations, personnel functions, budget and finance, facilities and equipment, public relations, and professional organizations discussed.

**PHE 180/Motor Development and Elementary Movement** **1 course unit**  
(spring )

Study of the concept and underlying principles of movement; application of these principles to sports and dance.

**PHE 182/Lifespan Wellness Activities** **1 course unit**  
(fall)

The course will present introductory skills, knowledge, teaching methodology, evaluative techniques, and resources related to conducting at least three team sports activities. Primary emphasis is on knowledge of the skills and methodology.

**PHE 282/Sport Concepts and Skills** **1 course unit**  
(every semester)

The course will present introductory skills, knowledge, teaching methodology, evaluative techniques, and resources related to conducting at least three individual and dual sports activities. Primary emphasis is on knowledge of the skills and methodology. (Suggested sports: golf, tennis, badminton, and racquetball.)

**PHE 304/Adapted Kinetics** **1 course unit**  
(with laboratory)  
(every semester)

*Prerequisites:* HPE 203, 204

Organization and administration of corrective programs in schools. Types and causes of postural deviations, postural examination procedures, corrective exercise, programs, and equipment. Experience in individual corrective procedures.

**PHE 368/Outdoor Recreation** **1 course unit**  
(every semester)

Significance of outdoor recreation. Scope of natural resources and how they may be used for people's enjoyment. The responsibilities of agencies and organizations and the current and potential future problems facing outdoor recreation. Field trips may be required at student expense.

**PHE 371/Outdoor Education** **1 course unit**  
(every semester)

Introduction to the development of outdoor recreation and school camping. Theories, practices, educational significance, organization, administration, and basic program concepts. Field trips may be required at student expense.

**PHE 391/Independent Study in Physical Education**

**variable course units**

(every semester)

*Prerequisite:* Approval of topic by department

For advanced student; in-depth study of a carefully defined area of physical education.

**PHE 405/Exercise for Special Populations**

**1 course unit**

(fall)

This course is designed to provide students with a basic understanding of functional changes of human body throughout lifespan as well as pathological process underlying various lifestyle related chronic conditions. Students will also be given the opportunity to learn to develop safe and appropriate exercise programs with an emphasis on special populations including children, elderly, pregnant women as well as those with chronic conditions including heart disease, obesity, and diabetes, etc.

**PHE 410/Exercise Physiology and Exercise Prescription**

**1 course unit**

(fall)

This course is designed to provide an in-depth discussion on adaptations of various physiological systems to exercise training. Additional emphasis will be placed on the effects of environmental factors on physiological systems and performance, nutritional concerns, and ergogenic aids. Practical applications are provided to enable students to develop exercise prescriptions for a host of competitive and recreational athletic populations.

**PHE 498/Research Seminar in Health and Exercise Science**

**1 course unit**

(every semester)

*Prerequisites:* HPE 172, HPE 203, HPE 204, HPE 311, HPE 393

An introduction to program management options for work-site health promotion systems. Emphasis will be placed on working within a corporate culture, examining the various opportunities for health promotion implementation while studying the impact these options have on human resource requirements.

Included in the course will be a unit focused on strength training and conditioning. Completion of this course, including all prerequisites, will assist in preparing the student for National Strength and Conditioning Association certification as a Certified Strength and Conditioning Specialist. NSCA examination fee at student's expense.