

HEALTH AND EXERCISE SCIENCE, BACHELOR OF SCIENCE

The Bachelor of Science in Health and Exercise Science program has two tracks. Kinesiology and Pre-Allied Professional Health Studies will prepare students for strength and conditioning, fitness, and exercise/sport science professions, or preparation for advanced health care degrees.

Tracks

- Kinesiology
- Pre-Allied Health Studies

Curriculum

The matrix below is a sample plan for all coursework required for this program.

Course	Title	Hours
Freshman		
Fall		
ENGL 1013	Composition I ¹	3
MATH 1113	College Algebra (or higher)	3
BIOL 1014	Introduction to Biological Science	4
PE 1201	Orientation to Health, Physical Education, and Wellness Science	1
PE Elective		1
HES 1003	Introduction to Exercise Programming	3
Hours		15
Spring		
ENGL 1023	Composition II ¹	3
PSY 2003	General Psychology	3
PHSC 1XXX	¹	4
COMM 2173	Business and Professional Speaking	3
HLED 1513	Lifetime Health and Fitness	3
Hours		16
Sophomore		
Fall		
USHG 1XXX	U.S. History and Government ¹	3
COMS 1003	Introduction to Computer Based Systems	3
PE 2513	First Aid	3
PE 2653	Anatomy and Physiology	3
HES 2003	Field-Based Experience in Health and Exercise Science	3
PE Elective		1
Hours		16
Spring		
FAH 1XXX	Fine Arts and Humanities Courses ¹	6
ECON 2003	Principles of Macroeconomics	3
PE 3663	Kinesiology	3
HES 2013	Weight Training for Personal Trainers, High School Coaches, and Physical Education	3
PE 3661	Laboratory Experiences in Anatomy/Physiology and Kinesiology	1
Hours		16
Junior		
Fall		
AHS 2013	Medical Terminology	3
PE 3573	Prevention and Care of Athletic Injuries	3

HES 2023	Endurance Programming and Conditioning	3
PE 4033	Exercise Physiology	3
HES 2043	Applied Fitness Assessment and Development	3
Hours		15
Spring		
HLED 3203	Consumer Health Programs	3
HES 3003	Exercise Prescription	3
HES 3023	Exercise Behavior and Adherence	3
MKT 3043	Principles of Marketing	3
MGMT 3003	Principles of Management	3
Hours		15
Senior		
Fall		
HES 4003	Senior Seminar	3
HES 4063	Wellness and Fitness Programming	3
HLED 4403	Sport and Exercise Nutrition ²	3
HES 4023	Principles of Strength and Conditioning	3
HES 4013	Health and Exercise Science Practicum ³	3
Hours		15
Spring		
HES 4012	Health and Exercise Science Internship ⁴	12
Hours		12
Total Hours		120

¹ See appropriate alternatives or substitutions in "General Education Requirements (<https://catalog.atu.edu/undergraduate/general-education-requirements/>)".

² Students in the accelerated program will substitute SCS 6063 Trends in Sports Nutrition and Metabolism .

³ Students in the accelerated program will substitute SCS 6013 Measurement and Evaluation in Strength and Conditioning.

⁴ Students in the accelerated program will also take PE 6083 Research Methods and Statistics or EDFD 6003 Educational Research.

Programs

- Health and Exercise Science, Bachelor of Science - Kinesiology Option (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/health-exercise-science-bs/health-exercise-science-bs-kinesiology-optn/>)
- Health and Exercise Science, Bachelor of Science - Pre-Allied Health Studies Option (<https://catalog.atu.edu/undergraduate/programs/education-health/kinesiology-rehabilitation-science/health-exercise-science-bs/health-exercise-science-bs-pre-allied-health-studies/>)

Courses

HES 1002 Physical Health and Fitness

The course provides students with the opportunity to assess their current lifestyle and consider the possible consequences for the present and the future. The class provides a mechanism for change by actively involving the student in self-analysis and a trial exercise program. A grade of C or better is required for HPE majors. Two scheduled class meetings and two hours arranged. \$25 course fee. This is an activity course. No more than four hours of activity credit may be counted toward graduation. A student registering for an activities course in excess of these limits receives no credit for the additional course and the grade is not included in the computation of grade point.

Note: This course will satisfy two credit hours of PE activity.

HES 1003 Introduction to Exercise Programming

This course will introduce students to four components of fitness (muscular strength & endurance; cardiorespiratory endurance; flexibility; and body composition), the F.I.T.T. principle (Frequency - Intensity - Type - Time), basic physical adaptations, and basic strength & endurance exercises. Students will be taken through example applications of programming, led through programs by the instructor and tested on knowledge of basic programming knowledge. \$25 course fee.

HES 2003 Field-Based Experience in Health and Exercise Science

Prerequisite: Level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

The class provides the prospective Wellness/Fitness professional with an opportunity to observe on-site a community-based wellness/fitness agency or business. A combination of classroom and on-site experiences will direct the student's focus to various aspects of commercial or institutional programs and services aimed at lifestyle enhancement. Specific lecture-class meetings and at least 30 hours of observation in an agency or business setting will be required.

Note: A grade of C or better is required for Health and Physical Education majors.

HES 2013 Weight Training for Personal Trainers, High School Coaches, and Physical Education

Prerequisite: HES 1003.

This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. cleans, snatches, front squats, bent over rows, etc.) that can be integrated into a weight training for the development of muscular strength, hypertrophy, and power. Coaching and teaching strategies will be discussed and practices that includes weight training safety, exercise technique assessment, testing, and programming methods. \$20 course fee.

HES 2023 Endurance Programming and Conditioning

Prerequisite: HES 1003.

This course is designed to provide students the opportunity to understand the various methods of coaching and teaching endurance focused exercises, activities, and programming. Basic endurance principles, techniques, and application of programming will meet the instructional needs of personal trainers, strength & conditioning coaches, and sport coaches. \$20 course fee.

HES 2043 Applied Fitness Assessment and Development

Prerequisite: PE 2653 and PE 3663; level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

A survey and application of the knowledge and experiences in assessing and developing all components of physical fitness.

Note: A grade of C or better is required for Health and Physical Education majors.

HES 3003 Exercise Prescription

Prerequisite: HES 2043 or consent of department head; level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

A course designed to expose the student to the aspects of health-related and skill-related physical fitness, with particular attention given to prescribing exercise programs. Attention will be given to choosing appropriate fitness assessments, along with development of appropriate goals for clientele.

Note: A grade of C or better is required for Health and Physical Education majors.

HES 3013 Coaching Power, Speed, and Agility

Prerequisite: HES 1003.

This course is designed to provide students with practical knowledge of the biomechanical variables, physiological adaptations and coaching methods for drills (i.e. plyometrics, springs, 5-10-5, etc.) that can be integrated into a strength and conditioning program for the improvement in athletic performance. \$20 course fee.

HES 3023 Exercise Behavior and Adherence

Prerequisite: Level 2 courses require completion of the following with a grade of C or better: PE 1201, HES 1002, ENGL 1013, ENGL 1023, MATH 1113, BIOL 1014, and COMM 2173.

The course provides the student with the opportunity to learn about the components which impact exercise behaviors and adherence to physical exercise programs. Emphasis is placed on the identification of components which directly impact on personal motivation for the development of appropriate exercise behaviors, and the development of incentives which assist in adherence to health enhancement programs. Note: A grade of C or better is required for Health and Physical Education majors.