Bachelor of Science in Exercise Physiology

Exercise Physiology is the study of acute and chronic adaptations associated with physical activity and exercise training. The major comprises the study of how exercise impacts health and human performance and prescribing individualized exercise programs to meet participant health, fitness, and human performance goals.

A degree in exercise physiology serves as a pathway to direct employment and provides prerequisite education to pursue advanced study at the graduate level. If a future career involves movement, allied health, or medicine, then a degree in exercise physiology in appropriate.

Students in exercise physiology are involved in numerous experiential hands-on experiences and reflections, connecting the knowledge and concepts learned in the classroom to the skills and abilities required in real-world situations.

The program requires a 400-hour internship in an exercise physiology setting. Designed as a 12-credit hour senior level capstone experience, the internship allows students to apply knowledge learned in the classroom, attain work experience, and clarify work goals.

Selected Educational Outcomes

Students who graduate with a B.S.E.P. degree will be able to demonstrate:

1. Knowledge in basic functional anatomy, biomechanics, electrocardiography, and physiological responses to exercise.
2. Knowledge of nutrition and body composition as related to exercise performance and health maintenance.
3. Knowledge of electrocardiography, submaximal and maximal exercise testing procedures, and techniques related to health and fitness assessments.
4. Administrative and leadership skills for exercise programs in a variety of clinical and non-clinical settings.
5. Knowledge of assessment, evaluation, and education of various populations in clinical and non-clinical settings regarding physical activity and healthy lifestyles.
6. Knowledge of training theory and methods for developing physical abilities as they relate to athletic performance.

Examples of Outcome Assessments

Students who graduate with a B.S.E.P. degree will be able to:

1. Develop, through written, oral, and practical examinations, a scientifically based and medically safe fitness assessment and exercise prescription.
2. Interpret successfully, through written, oral, and practical examinations, the results of health and fitness assessments and demonstrate proficiency in exercise and nutrition prescription for an individualized program for exercise performance and health maintenance.
3. Demonstrate applied competency in electrocardiography interpretation, submaximal and maximal exercise testing, which includes gas analysis, body composition analysis techniques, risk stratification utilizing health and fitness assessments, and various other tests to determine aerobic and anaerobic capacity.
4. Optimize adoption of and adherence to exercise and other healthy behaviors by applying effective behavioral strategies and motivational techniques.
5. Describe the principles underlying the development of hypertrophy, strength, power, speed, agility, and anaerobic capacity for athletic performance through written, oral, and practical examinations.
6. Successfully meet VSU guidelines for academic credit for participating in an internship program.
7. Sit for the American College of Sports Medicine (ACSM) Exercise Physiologist Certification or the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist Certification.

Admission Requirements

Minimum requirements to be considered for admission to the program are:

1. a declared Exercise Physiology major
2. completion of all Core IMPACTS courses as it pertains to the Exercise Physiology curriculum
3. a grade of “C” or better in all Writing, STEM, and Field of Study courses, including lab sections.
4. a 2.00 overall grade-point average

Program Progression and Retention

Once admitted into the program, classes are taken in blocks, 1 through 4, in sequence. To be eligible for any third block courses, students must have earned a "C" or better in all first and second block courses. An exception to the third block policy is having to repeat just one second block course. To be eligible for HSEP 4510 Practicum, students must be in good academic standing, must have a returned graduation application from the Registrar, and must be currently enrolled in all remaining courses required for graduation excluding HSEP 4550 Internship. To be eligible for the fourth block internship

(HSEP 4550), students must be in good academic standing, must have a "C" or better in all third block courses, and must meet all other prerequisites for the course.

Major Requirements

A “C” or better in all B.S.E.P. coursework at the 3000 and 4000 level and a 2.0 cumulative overall grade point average.

Requirements for the Bachelor of Science in Exercise Physiology Degree

Code	Title	Hours
Core Curriculum		**60**
Core IMPACTS (See VSU Core Curriculum)		42
Exercise Physiology majors may follow D.1, D.2, or D.2.b.		
Core Field of Study		
BIOL 2251K & BIOL 2252K	Human Anatomy and Physiology I and Human Anatomy and Physiology II	8
Electives--Select 10 hours from the from the following:		10
ACED 2400	Computer Technology for the Workplace	
or CS 1000	Introduction to Microcomputers and Applications	
NURS 2700	Pathophysiology	
Course(s) in BIOL, CHEM, MATH, PHYS, or PSYC		
Professional Program Requirements		**60**
HSEP 3010	Exercise Testing and Prescription I	3
HSEP 3011	Exercise Testing and Prescription II	3
HSEP 3020	Fitness and Performance Testing in Exercise Physiology	4
HSEP 3050	Prevention of Exercise Related Injuries and Conditions	3
HSEP 3200	Nutrition for Health and Human Performance	3
HSEP 3420	Exercise Physiology	3
HSEP 3430	Structural Kinesiology	3
HSEP 3650	Applied Exercise Musculoskeletal Interventions	3
HSEP 4050	Principles of Strength and Conditioning for Athletic Performance	4
HSEP 4070	Exercise Cardiopulmonary Physiology	3
HSEP 4080	Exercise Electrocardiography	3
HSEP 4140	Professional Practices in Exercise Physiology	3
HSEP 4160	Exercise Psychology	3
HSEP 4210	Clinical Exercise Physiology	3
HSEP 4510	Exercise Physiology Practicum	4
HSEP 4550	Exercise Physiology Internship	12
Total hours required for the degree		**120**