Bachelor of Science in Exercise Physiology

The Bachelor of Science in Exercise Physiology (B.S.E.P.) degree is based on the desired educational content and outcomes (knowledge, skills, and abilities) listed by the American College of Sports Medicine (ACSM), and the National Strength and Conditioning Association (NSCA).

The B.S.E.P. degree prepares students to work in two broad career paths:
--as an exercise physiologist who utilizes exercise training programs to help individuals improve cardiovascular function, body composition, strength, flexibility, and balance as well as help toward preventing or recovering from chronic diseases; and
--as a strength and conditioning professional to help athletes improve their performance or skill in a sport and to prevent and rehabilitate injuries.

Many graduates in exercise physiology continue on to the MS or PhD in exercise physiology or advanced schooling in related fields such as physical therapy, occupational therapy, medicine, physician assistant, and chiropractic. To help students obtain the prerequisite courses for application to graduate school, the B.S.E.D. degree allows for 23 hours of elective courses in the math and science area.

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. Students are placed in hospitals, work sites, university fitness centers, athletic departments, and a variety of private, commercial, and public settings.

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.

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. Successfully meet VSU guidelines for academic credit for participating in an internship program.
6. Sit for at least one certification examination offered either by 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

Students interested in pursuing a Bachelor of Science in Exercise Physiology should declare their major as Health Sciences with an Exercise Physiology concentration. Minimum requirements to be considered for admission to the program are:

1. a declared Exercise Physiology concentration
2. completion of all courses in Areas A-F of the Core Curriculum as it pertains to the Exercise Physiology curriculum
3. a 2.50 cumulative, overall grade point average
4. a grade of “C” or better in all Area A, D, and F courses, including lab sections

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 Areas A-E (see VSU Core Curriculum)		42
Exercise Physiology majors may follow D.1, D.2, or D.2.b.		
Area F Requirements		
BIOL 2651 & BIOL 2652	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	4
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	Resistance Training and Program Development I	3
HSEP 4050	Resistance Training and Program Development II	3
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**