COLLEGE OF GRADUATE STUDIES

BRIDGEWATER STATE UNIVERSITY

BRIDGEWATER, MA 02325

MASTER'S DEGREE IN ATHLETIC TRAINING

PREREQUISITE CONTENT CLASSES:

COURSE	COLLEGE	COMPLETED
Anatomy & Physiology I *(4 credits)*		
Anatomy & Physiology II *(4 credits)*		
Biology *(4 credits)*		
Physics I *(4 credits)*		
Physics II *(4 credits)*		
Chemistry I *(4 credits)*		
Chemistry II *(4 credits)*		
Nutrition *(3 credits)*		
Statistics *(3 credits)*		
Introduction to Athletic Training *(3 credits)*		
Introductory or Sport Psychology *(3 credits)*		
Kinesiology/Biomechanics *(4 credits)*		
Exercise Physiology *(4 credits)*		
Taping and Bracing *(3 credits)*		
Health and Wellness *(3 credits)*		
EMT-B Credential		

**Detailed descriptions listed below

COUSE DESCRIPTIONS

(Click here for the link to the BSU Course Catalogue website)

Anatomy & Physiology I
BIOL 251 - Human Anatomy and Physiology I
(4 credits)
Prerequisite: BIOL 100 or BIOL 102 with a minimum grade of "B-"; or BIOL 121 or BIOL 122 with a minimum grade of "C-"; or consent of instructor
This course is an intensive study of the biochemistry and cellular structures of tissues; the integumentary, skeletal and muscle systems; joints, fundamentals of the nervous system; the peripheral, central and autonomic nervous systems and the special senses. Three hours of lecture and one three-hour laboratory per week. Offered fall semester.

Anatomy & Physiology II
BIOL 252 - Human Anatomy and Physiology II
(4 credits)
Prerequisite: BIOL 100 or BIOL 102 with a minimum grade of "B-"; or BIOL 121 or BIOL 122 with a minimum grade of "C-"; and BIOL 251 with a minimum grade of "C-"; or consent of instructor
This course is an intensive study of the structure and function of the heart, circulatory system and blood; and the organ systems including lymphatic, endocrine, respiratory, digestive and reproductive systems. Three hours of lecture and one three-hour laboratory per week. Offered spring semester.

General Biology I
BIOL 121 - General Biology I
(4 credits)
Prerequisite: MATH 140/140E or MATH 141 or MATH 142 or MATH 150 or MATH 161/161E, any of which may be taken concurrently; or mathematics placement test; or consent of department chairperson; or consent of instructor. Restricted to majors in biology, chemistry and computer science; and minors in biology.
Co-requisite: BIOL 150
This core course in the Biology major is an introduction to the concepts of molecular and cellular biology, reproduction, metabolism, genetics and mechanisms of evolution. Three hours of lecture and one three-hour laboratory weekly.

Physics I
PHYS 243 - General Physics I
(4 credits)
Prerequisite: MATH 151 or MATH 161/161E, which may be taken concurrently
This is a calculus-based beginning course in physics that emphasizes the study of kinematics, dynamics and heat. Three hours of lecture and one three-hour laboratory weekly; or six hours of combined lecture and lab taught in a studio style, weekly.

Physics II
PHYS 244 - General Physics II
(4 credits)
Prerequisite: PHYS 243
This course is a calculus-based study of electricity, magnetism and light. Three hours of lecture and three hours of laboratory weekly; or six hours of combined lecture and lab taught in a studio style, weekly.

Chemistry I
CHEM 141 - Chemical Principles I
(4 credits)
Prerequisite: MATH 140/140E or higher, which may be taken concurrently
The first of a two-semester course sequence designed for students majoring in physical and biological sciences, this course will help students build a solid foundation in chemical facts and fundamental principles needed for intermediate and advanced courses in biology, chemistry, geological sciences and physics. Topics covered include properties of solids, liquids and gases, atomic and molecular structure, chemical nomenclature and bonding, stoichiometry, gas laws and aqueous solution chemistry. Laboratory work emphasizes physical and chemical measurements and quantitative analysis. Three hours of lecture, one hour of recitation, and three hours of laboratory weekly. Offered fall semester and summer session.

Chemistry II
CHEM 142 - Chemical Principles II
(4 credits)
Prerequisite: CHEM 141 with a minimum grade of "C-" and MATH 140/140E or higher
The second of a two-semester course sequence designed for students majoring in physical and biological sciences, this course will help students build a solid foundation in chemical facts and fundamental principles needed for intermediate and advanced courses in biology, chemistry, geological sciences and physics. Topics covered include properties of solutions, kinetics, chemical equilibrium including applications to acid/base chemistry, solubility, buffers and other aqueous ionic equilibria, free energy and thermodynamics. Laboratory work emphasizes physical and chemical measurements and quantitative analysis. Three hours of lecture, one hour of recitation, and three hours of laboratory weekly. Offered spring semester and summer session.

Nutrition
ATTR 410 Nutritional Concepts for Health Care Practitioners
(3 credits)
This course presents an overview of the relationship between nutrition and exercise during training and competition. Students will learn and apply sports nutrition concepts such as energy metabolism, nutrient requirements, dietary assessment and recommendations, meal planning and weight management. In addition, research studies which suggest the evidence and the rationale for the current nutritional recommendations will be reviewed. Offered fall semester.

Statistics
PSYC 201 - Statistics for Psychology
(3 credits)
Prerequisite: PSYC 100 and MATH 100 or higher (except First and Second Year Seminars and MATH 408); or consent of instructor
Statistics for Psychology is primarily a course that will introduce students to the application of statistics to the research process in psychology. Statistics are used to describe and to critically evaluate information. The two branches of statistics, descriptive and inferential statistics, will be covered in this course. Specific procedures that may be covered include measures of central tendency and variability, visual description of data, z-scores, correlation and linear regression, basic probability, parametric tests such as z-tests, t-tests, analysis of variance (ANOVAs), and non-parametric tests such as the chi-square test.

Introduction to Athletic Training
ATTR 240 - Introduction to Athletic Training
(3 credits)
This course introduces the athletic training major into the field of athletic training including their role in providing sports injury management, taping and use of immobilization devices, basic injury evaluation and rehabilitation principles. Two hours of lecture and two hours of laboratory weekly.

Introductory to Psychology
PSYC 100 - Introductory Psychology
(3 credits)
This is a survey of the different processes such as perception, sensation, learning and emotion, with a discussion of the underlying physiological processes as well as an introduction to the more complex areas such as personality development, psychopathology, social influences and testing. Methods of investigation and research will be integrated with the above topics. Offered either semester.

Kinesiology/Biomechanics
PHED 385 - Biomechanics
(4 credits)
This course introduces the student to the concepts and principles of biomechanics as they relate to sport and recreational skills. Three hours of lecture and one two-hour laboratory weekly.

Exercise Physiology
PHED 401 - Physiology of Exercise
(4 credits)
This course includes the study of systems, their interrelationships and adjustments during exercise and as a result of training. Emphasis is on current research findings and what remains to be discovered in a human as a moving being. Three hours of lecture and one two-hour laboratory period weekly. May be taken for graduate-level credit.

Protective Techniques in AT/ Taping and Bracing
ATTR 100 - Athletic Taping and Bracing
(3 credits)
This course is designed for students who wish to apply to the Athletic Training Education Program (ATEP). Content will include basic athletic taping and bracing techniques commonly used to prevent athletic related injuries in the physically active population. Students will be educated on the variety of protective equipment that is utilized in athletic populations in addition to rehabilitative settings. Students will be expected to complete specific taping, bracing and padding techniques as well as equipment inspection, fitting and removal at a competent level prior to being accepted into the athletic training education program.

Emergency Medical Technician Training –Basic (EMT-B)
For information on becoming EMT Basic certified click here

Health and Wellness
HEAL 102 - Health and Wellness
(3 credits)
Attitudes and practices as they influence effective living: common adult health problems; community health standards and services; special problems of community health.