

BACHELOR OF EXERCISE AND SPORTS SCIENCE (B.E.S.S.) MAJOR IN EXERCISE AND SPORTS SCIENCE/MASTER OF SCIENCE (M.S.) MAJOR IN ATHLETIC TRAINING

The dual degree program (3/2) allows undergraduate Exercise and Sports Science students to enter the Master of Science in Athletic Training program beginning during the summer of their 4th year and earn a BESS in Exercise & Sport Science and a Master of Science in Athletic Training.

Application Requirements

The items listed below are required for admission consideration for applicable semesters of entry during the current academic year. Submission instructions, additional details, and changes to admission requirements for semesters other than the current academic year can be found on The Graduate College's website (<http://www.gradcollege.txstate.edu>). International students should review the International Admission Documents webpage (<http://mycatalog.txstate.edu/graduate/admission-documents/international/>) for additional requirements.

Admission Requirements

- completed online application
 - \$55 nonrefundable application fee
- or
- \$90 nonrefundable application fee for applications with international credentials
 - baccalaureate degree from an accredited university
- or
- Texas State Exercise & Sports Science majors who have at least a 3.0 GPA by the end of the spring semester of their junior year and who will have completed all their prescribed courses by the spring of their junior year will be eligible to apply for the program
 - official transcripts from **each institution** where course credit was granted
 - minimum 3.0 GPA in the last 60 hours of undergraduate course work (plus any completed graduate courses)
 - minimum 3.0 GPA in all pre-requisite courses. As required pre-requisite course work, there is a set of 10 pre-requisites that will prepare the student for the rigors of the program. Each of these courses is necessary for a basic understanding of the fundamentals of the various courses that the student will be taking in the professional master's curriculum. The following is the list of pre-requisites that students must have completed in their undergraduate degree or are in progress of completing prior to admission:
 - Physics I with lab
 - Chemistry I with lab
 - Introduction to Nutrition

- Introduction to Psychology
 - Introduction to Statistics
 - Exercise Physiology
 - Biomechanics
 - Medical Terminology
 - Anatomy & Physiology with lab
 - Care & Prevention (or equivalent course)
- GRE not required
 - Confirmation of 75 observation hours signed by a certified (ATC) and/or licensed (LAT) professional who has guided the observational experiences
 - resume
 - statement of purpose (maximum two pages) that discusses the student's reasons for pursuing professional master's degree in athletic training at Texas State University
 - three forms of recommendation
 - Interview process by faculty & staff

The program does not offer admission if the above requirements are not met.

Students will follow departmental requirements for admission into the professional phase of the BS in Exercise & Sports Science (pre-rehabilitation concentration). Exercise & Sports Science majors who have at least a 3.0 GPA by the spring semester of their junior year and who have completed all of their prescribed courses by the spring of their junior year will be eligible to apply for the five-year program.

Applicants to the five-year program will submit materials as other MSAT applicants by the spring deadline of their junior year and those that meet all the minimum requirements, including having earned a B or better in (AT 2298, AT 2356, AT 2400, AT 3298), along with an interview process, will receive placement in the MSAT program. The admission criteria for the five-year program will be the same as for other (post-baccalaureate) MSAT students.

General Requirements

1. Students entering Texas State with fewer than 16 hours completed after high school graduation will be required to take US 1100. All others will be exempt from taking this course but will be required to earn an additional free elective, if needed, to reach the 120 minimum total hour requirement for the awarding of a degree.
2. The general education core curriculum courses are listed in the degree plan below along with the statewide component code number. See the General Education Core Curriculum (<http://mycatalog.txstate.edu/undergraduate/general-education-core-curriculum/>) section of this catalog for the Texas State requirements and options in the core curriculum, including Honors courses.
3. The dual degree program (3/2) allows undergraduate exercise and sports science students to enter the Master of Science in Athletic Training program beginning during the summer of their 4th year and earn a BESS in Exercise & Sport Science and a Master of Science in Athletic Training.
4. Students must first be admitted in the ESS-PRS major in the Department of Health & Human Performance. Students will declare ESS-PRS with cohort code for interest in (3/2) program during freshman orientation. Students will follow departmental requirements for admission into the professional phase of the BESS

in Exercise & Sport Science. Exercise & Sport Science majors who have at least a 3.0 GPA and who will have completed all of their prescribed courses by the spring of their junior year will be eligible to apply for the five-year program (MSAT).

5. Applicants to the five-year program will submit the same materials as other MSAT applicants by spring deadline of their junior year, and those who meet all minimum requirements, including having a "B" or better in AT 2298, AT 2356, AT 2400 and AT 3298 will receive interview for admission to the program. The admission criteria for the five-year program will be the same as for other MSAT students.
6. Students continuing into the 4th year of the 3/2 program must finish the entire 120 hours and then will be eligible for the Bachelor's degree at the end of their 4th year. Students will then continue into their 5th year and be conferred the Master's degree in athletic training at the end of their 5th and final year.
7. Students in the 3/2 program will be required to complete the same two-year, 55 hour curriculum as other students admitted to the MSAT program. Students will take 99 hours of undergraduate courses and 55 hours of graduate course work, of which 21 hours will be applied to the undergraduate degree. Students are required to maintain a 3.0 GPA through the first 21 hours of graduate coursework.
8. Students that are not accepted or unable to continue with the 3/2 program may complete the remaining requirements for the BESS in Exercise & Sport Sciences Pre-Rehabilitation Concentration (ESS-PRS).
9. This degree plan has been laid out showing the students the number of hours they must take each semester in order to complete the dual degree program. The undergraduate portion of the plan is a suggested plan that must be followed closely to ensure specific courses are completed by spring of 3rd year (junior year). There may be some modifications in course order that can occur but students should consult with academic advisors for dual degree program before changes are made to ensure they are meeting degree requirements.

US 1100	1 PHIL 1305 (Language, Philosophy, and Culture Component Code 040 [TCCN PHIL 1301])	3
ESS 1100	1 ENG 1320 (Communic: Component Code 010 (TCCN ENGL 1302))	3
PSY 1300 (Social and Behavioral Sciences Component Code 080 [TCCN PSYC 2301])	3 HIM 2360	3
ENG 1310 (Communic: Component Code 010 [TCCN ENGL 1301])	3 BIO 2430	4
	14	17

Sophomore

First Hours Semester	Second Hours Semester	
PHYS 1115	1 HIST 2310 (American History Component Code 060 [TCCN HIST 1301])	3
PHYS 1315 (Life and Physical Sciences Component Code 030 [TCCN PHYS 1301])	3 POSI 2320 (Governmen Political Science Component Code 070 [TCCN GOVT 2305])	3

Course Requirements

Freshman

First Hours Semester	Second Hours Semester	
AT 2356	3 CHEM 1341 (Life and Physical Sciences Component Code 030 [TCCN CHEM 1311])	3
MATH 1315 (Mathematic Component Code 020 [TCCN MATH 1314])	3 CHEM 1141	1

HIST 1320 (American History Component Code 060 [TCCN HIST 1302])	3 COMM 1310 (Component Area Option Code 090/091 [TCCN SPCH 1311])	3
POSI 2310 (Governmen Political Science Component Code 070 [TCCN GOVT 2306])	3 ENG 2330 (Component Area Option Code 090/094 [TCCN ENGL 2332])	3
ART 2313 (Creative Arts Component Code 050 [HUMA 1315])	3 AT 2298	2
AT 2400	4 AT 3311	3
17		17

Junior

First Hours Semester	Second Hours Semester	Summer Hours	
AT 3298	2 ESS 3329	3 AT 5400	4
AT 3312	3 ESS 1179	1 AT 5320	3
NUTR 3362	3 AT 3358	3 AT 5120	1
ESS 3317	3 AT 4313	3 AT 5230	2
ESS 3117	1 PSY 3336	3	
ESS 3320	3 HP 3325	3	
ESS 3323	3		
18		16	10

Senior

First Hours Semester	Second Hours Semester	Summer Hours	
AT 5301	3 AT 5305	3 AT 5333	3
AT 5300	3 AT 5314	3 AT 5341	3
AT 5313	3 AT 5232	2	
AT 5231	2 AT 5340	3	
11		11	6

Fifth Year

First Hours Semester	Second Hours Semester	
AT 5342	3 AT 5192	1
AT 5343	3 AT 5344	3
AT 5334	3 AT 5335	3
AT 5191	1	
10		7

Total Hours: 154

Courses Offered: AT, (p. 3) ESS (p. 8)

Athletic Training (AT)

AT 1298. Orientation to Athletic Training Education.

Pre-Athletic Training majors will be introduced to the academic and clinical aspects of the CAATE accredited athletic training education program. The course is utilized as part of the rigorous student evaluation process before formal entrance into the athletic training education program.

2 Credit Hours. 1 Lecture Contact Hour. 1 Lab Contact Hour.

Grade Mode: Standard Letter

AT 2156. Taping and Bandaging Athletic Injuries.

This course focuses on the use of taping, bracing, and bandaging techniques in the prevention and care of athletic injuries.

1 Credit Hour. 1 Lecture Contact Hour. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 2260. Acute Care of Injuries and Illnesses.

This course will address the knowledge and skills related to the immediate evaluation and specialized care of acute injuries and illnesses common in sports settings. Lectures and laboratory experiences are focused on key aspects of emergency sports health care, including the rapid assessment, resuscitation, packaging and transportation of injured patients. Must be admitted to the Pre-Athletic Training major to enroll.

2 Credit Hours. 2 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 2298. Orientation to Athletic Training Profession.

The purpose of this course is to provide the student with an introduction to the academic and clinical aspects of the profession of athletic training. The course includes the history of the profession, basic knowledge and skills, principles, and techniques used by an athletic trainer. The student will participate in educational observation of clinical experiences with a certified athletic trainer to gain more knowledge of the profession of athletic training. Prerequisite: HIM 2360 with grade of "C" or better.

2 Credit Hours. 2 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 2356. Prevention and Care of Athletic Injuries.

This course focuses on the theoretical and practical aspects of the prevention, treatment, and rehabilitation of athletic injuries.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 2397. Clinical Experience in Athletic Training I.

This course addresses the topics of injury prevention and emergency management, integrated into a clinical education experience designed to assess professional behaviors, knowledge and skills, and clinical proficiency. This course combines didactic with clinical education experiences obtained under the supervision of a licensed preceptor at an on-campus clinical site. A minimum 2.75 Texas State GPA is required. Must be admitted to the Athletic Training Cohort.

3 Credit Hours. 2 Lecture Contact Hours. 15 Lab Contact Hours.

Grade Mode: Standard Letter

AT 2398. Clinical Experience in Athletic Training II.

This course integrates topics in advanced athletic injury evaluation and management into a clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills, and proficiency-based case simulations. This course combines didactic and clinical education experiences obtained under the supervision of a licensed preceptor at an on-campus clinical site. Prerequisite: AT 2397 with a grade of "C" or better and a minimum 2.75 Texas State GPA. Must be admitted to the Athletic Training Cohort.

3 Credit Hours. 2 Lecture Contact Hours. 15 Lab Contact Hours.

Grade Mode: Standard Letter

AT 2400. Functional Anatomy.

The students will learn to qualitatively analyze the movements of the human body while integrating musculoskeletal anatomy and neuromuscular physiology principles. Corequisite: BIO 2430 with a grade of "C" or better.

4 Credit Hours. 2 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3126. Applied Laboratory of Upper Extremity Injuries.

This course will present a study and critical analysis of the anatomy, injury signs and symptoms, and special tests used in the clinical evaluation of upper extremity injuries to the physically active individual. Must be admitted to the Athletic Training Program or Pre-Physical Therapy Concentration to enroll. Co-requisite: AT 3326.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Co-requisite(s): AT 3326

Grade Mode: Standard Letter

AT 3128. Applied Laboratory of Lower Extremity Injuries.

This course will present a study and critical analysis of the anatomy, injury signs and symptoms, and special tests used in the clinical evaluation of lower extremity injuries to the physically active individual. Must be admitted to the Athletic Training Program or Pre-Physical Therapy Concentration to enroll. Co-requisite: AT 3328.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Co-requisite(s): AT 3328

Grade Mode: Standard Letter

AT 3136. Applied Laboratory for Therapeutic Modalities.

This course provides students with experiences in laboratory and field applications of therapeutic modalities of all athletic injuries. Must be admitted to the Athletic Training Program or Pre-Physical Therapy Concentration to enroll. Co-requisite: AT 3336.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Co-requisite(s): AT 3336

Grade Mode: Standard Letter

AT 3146. Applied Laboratory for Therapeutic Exercise and Rehabilitation.

This course provides students with experiences in laboratory and field applications of therapeutic exercise and rehabilitation of athletic injuries. Must be admitted to the Athletic Training Program or Pre-Physical Therapy Concentration to enroll. Co-requisite: AT 3346 with a grade of "D" or better.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3298. Foundations of Athletic Training Practice.

The purpose of this course is to provide the students with a foundation in clinical skills associated with the athletic training profession. The course will include observational experiences. Prerequisite: HIM 2360 and AT 2298 both with grades of "C" or better.

2 Credit Hours. 2 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3311. Clinical Assessment I.

This course instructs students in the knowledge and skills used in the clinical evaluation of injuries and illnesses involving the head and face, brain, cervical spine, upper extremity, thorax, and pulmonary and cardiovascular systems. Prerequisite: AT 2356 with a grade of "C" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3312. Clinical Assessment II.

This course instructs students about the preliminary and secondary survey with emphasis on clinical assessment of lumbar spine and lower extremity injuries as well as abdomen, gastrointestinal, genitourinary, endocrine, dermatological, and systemic illnesses. Prerequisite: AT 3311 with a grade of "C" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3326. Evaluation Techniques of Upper Extremity Injuries.

The course will present a study and critical analysis of the anatomy, injury signs and symptoms, and specific tests used in the clinical evaluation of upper extremity injuries to the physically active individual. Co-requisite: AT 3126. Prerequisite: AT 2356, with a grade of "D" or better, Minimum 2.75 TxState GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Co-requisite(s): AT 3126

Grade Mode: Standard Letter

AT 3328. Evaluation Techniques of Lower Extremity Injuries.

The course will present a study and critical analysis of the anatomy, injury signs and symptoms, and specific tests used in the clinical evaluation of lower extremity injuries to the physically active individual. Co-requisite: AT 3128. Prerequisites: AT 2356; BIO 2430 or equivalent; Minimum 2.75 TxState GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Co-requisite(s): AT 3128

Grade Mode: Standard Letter

AT 3333. Therapeutic Interventions for Medical and Psychosocial Conditions.

This course will address the athletic training knowledge and skills required to evaluate and manage common medical conditions and psychosocial concerns found among the physically active. Lecture and laboratory experiences are focused on immediate and advanced care with emphasis on therapeutic interventions and referral. Prerequisites: BIO 1421, or BIO 1330 and BIO 1130; BIO 2430 or equivalent, all with a grade of D or better. (WI).

3 Credit Hours. 2 Lecture Contact Hours. 2 Lab Contact Hours.

Course Attribute(s): Writing Intensive

Grade Mode: Standard Letter

AT 3336. Principles and Techniques of Therapeutic Modalities.

A theoretical and evidence-based approach to the use of therapeutic modalities in physical medicine settings. Special emphasis is placed on understanding the physiological effects, indications, contraindications and clinical applications of therapeutic modalities in the treatment and rehabilitation of musculoskeletal and neurological injuries and diseases.

Co-requisite: AT 3136. Prerequisite: Minimum 2.75 Texas State GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Co-requisite(s): AT 3136

Course Attribute(s): Lab Required

Grade Mode: Standard Letter

AT 3346. Therapeutic Exercise and Rehabilitation.

A theoretical and evidence-based approach to the use of therapeutic exercise in physical medicine settings. Special emphasis is placed on understanding the physiological effects, indications, contraindications and clinical applications of therapeutic exercise in the treatment and rehabilitation of musculoskeletal and neurological injuries and diseases.

Corequisite: AT 3146. Prerequisites: AT 3326, AT 3328, PT 3400, Minimum 2.75 Texas State GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Lab Required

Grade Mode: Standard Letter

AT 3358. Clinical Pathopharmacology.

This course combines pathophysiology, the study of dynamic aspects of disease processes and study of drugs prescribed to prevent, diagnose, cure, or care for disease across the lifespan. Content includes etiology, pathogenesis, clinical presentation, implications for treatment, and pharmacological management. Prerequisite: BIO 2430 or [BIO 2451 and BIO 2452] either with a grade of "D" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3400. Gross Applied Anatomy.

This course provides a study of the structure and function of the human body with particular emphasis on the muscular, skeletal, vascular and nervous systems. Attention will be on the anatomy and physiology of the body systems focusing on understanding specific functions of body tissues. Laboratory study of the human cadaver is included. Prerequisite: AT 2400 with a grade of "C" or better.

4 Credit Hours. 2 Lecture Contact Hours. 4 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3497. Clinical Experience in Athletic Training III.

This course integrates topics in advanced athletic injury evaluation and management into a clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills, and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 2397 with a grade of "C" or better.

4 Credit Hours. 2 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Standard Letter

AT 3498. Clinical Experience in Athletic Training IV.

This course integrates topics in advanced athletic injury evaluation and management into a clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills, and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. (WI) Prerequisite: AT 2398 with a grade of "C" or better.

4 Credit Hours. 2 Lecture Contact Hours. 20 Lab Contact Hours.

Course Attribute(s): Writing Intensive

Grade Mode: Standard Letter

AT 4313. Clinical Therapeutic Interventions.

This course provides a theoretical and clinical background in the use of therapeutic interventions in physical medicine, both modalities and exercise, for patients with musculoskeletal and neurological injuries. Prerequisite: AT 3311 and AT 3312 both with a grade of "C" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 4356. Organization and Management of Athletic Training Programs.

This course addresses the organizational and administrative aspects of athletic training program management. Topics will include, but are not limited to, medical, ethical, legal, personnel and financial management, medical record keeping, facilities, supply requisition and inventory, third-party reimbursement, drug testing and other current professional issues. Prerequisites: AT 3326 with a grade of "D" or better. (WI).

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Writing Intensive

Grade Mode: Standard Letter

AT 4360. Internship in Clinical Settings.

Students will be introduced to the clinical aspects of allied health professions by being assigned to a minimum of two clinical sites. Prerequisite: AT 3311 and AT 3312 both with a grade of "C" or better and a minimum 2.75 Texas State GPA.

3 Credit Hours. 0 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Standard Letter

AT 4497. Clinical Experience in Athletic Training V.

This course integrates topics in therapeutic interventions and exercise into a clinical education experience that assesses professional behaviors, cognitive knowledge, psychomotor skills, and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 3497 with a grade of "C" or better.

4 Credit Hours. 2 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Standard Letter

AT 4498. Clinical Experience in Athletic Training VI.

This course integrates topics in nutrition, professionalism, and administration into a clinical education experience that assesses professional behaviors, cognitive knowledge, psychomotor skills, and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 3498 with a grade of "C" or better.

4 Credit Hours. 2 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5101. Graduate Assistant Development.

This course is required of all graduate assistants and provides regular in-service and planned periodic evaluations of instructional responsibilities. Graduate assistants are required to register for this course in the spring semester of their employment. This course does not earn graduate degree credit.

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.

Course Attribute(s): Graduate Assistantship|Exclude from Graduate GPA

Grade Mode: Leveling/Assistantships

AT 5120. Principles in Athletic Training.

This course builds upon current competence of health and exercise sciences to instill an evidence based, graduate-level proficiency of best practices in athletic training and healthcare.

1 Credit Hour. 1 Lecture Contact Hour. 1 Lab Contact Hour.

Grade Mode: Standard Letter

AT 5191. Capstone I.

This course is a supervised project to analyze outcomes in a defined area of clinical practice. The course includes patient outcomes data collection in a practice-based research environment. Completion of full research sequence is required for graduation.

1 Credit Hour. 1 Lecture Contact Hour. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5192. Capstone II.

This course is a continuation of the research sequence that culminates in a supervised project to analyze outcomes in a defined area of clinical practice. The course includes completion of data collection and analysis for an oral presentation and final paper and poster. Completion of this last course is required Prerequisite: AT 5191.

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5199B. Thesis.

This course represents a student's continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding.

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

AT 5201. Graduate Assistant Development.

This course is required of all graduate assistants and provides in-service and planned periodic evaluations of instructional responsibilities. Graduate assistants are required to register for this course in the fall semester of their employment. This course does not earn graduate degree credit.

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Graduate Assistantship|Exclude from Graduate GPA

Grade Mode: Leveling/Assistantships

AT 5230. Clinical Experience I.

This course will integrate topics in athletic injury evaluation, management and intervention into an immersive clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 5320.

2 Credit Hours. 0 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5231. Clinical Experience II.

This course will integrate topics in athletic injury evaluation, management and intervention into an immersive clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 5230.

2 Credit Hours. 0 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5232. Clinical Experience III.

This course will integrate topics in athletic injury evaluation, management and intervention into an immersive clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 5230; AT 5231.

2 Credit Hours. 0 Lecture Contact Hours. 20 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5299B. Thesis.

This course represents a student's continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding.

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

AT 5300. Musculoskeletal Assessment of the Lower Extremities.

This course will present students with a study and critical analysis of injury and illness signs and symptoms. Specific tests and skills used in the clinical evaluation and assessment involving the lower extremities will be included. Prerequisite: AT 5400 with a grade of "B" or better.

3 Credit Hours. 3 Lecture Contact Hours. 1 Lab Contact Hour.

Grade Mode: Standard Letter

AT 5301. Musculoskeletal Assessment of the Upper Extremity.

This course will present students with a study and critical analysis of injury and illness signs and symptoms. Specific tests and skills used in the clinical evaluation and assessment involving the upper extremities will be included. Prerequisite: AT 5400 with a grade of "B" or better.

3 Credit Hours. 3 Lecture Contact Hours. 1 Lab Contact Hour.

Grade Mode: Standard Letter

AT 5305. Musculoskeletal Assessment of Head/Face/Spine and Neurological Systems.

This course will enable the student to critically analyze the specific tests and skills used in the clinical evaluation and assessment involving the head, spine and neurological systems. Prerequisite: AT 5300 and AT 5301 and AT 5400 all with grades of "B" or better.

3 Credit Hours. 3 Lecture Contact Hours. 1 Lab Contact Hour.

Grade Mode: Standard Letter

AT 5308. Therapeutic Exercise and Rehabilitation.

This course is designed to provide both a theoretical and clinical basis for the use of therapeutic exercise in the rehabilitation setting, as well as to impart knowledge pertaining to the physiological effects, indications, contraindications and applications of therapeutic exercise in the rehabilitation of all athletic injuries. Must be admitted to the M.S. in Athletic Training Program.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5310. Proprioception and Neuromuscular Control in Rehabilitation.

This course provides for an advanced study of the concepts, theories, and current research related to proprioception, postural stability, and neuromuscular control as applied to the prevention, diagnosis, and clinical management of sport-related musculoskeletal injuries and concussions. Must be admitted to the M.S. in Athletic Training Program or instructor approval required.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5311. Biomechanics of Musculoskeletal Injury.

This course focuses on the application of biomechanical principles to the pathoetiology, diagnosis, and physiological capacity for healing of injuries to bone, ligament, tendon, cartilage, and other human tissues, with an emphasis on current injury research. Must be admitted to the M.S. in Athletic Training Program or instructor approval required.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5312. Evidence-Based Practice in Sports Medicine.

This course is designed to provide students with advanced study in the elements of evidence-based practice in sports medicine with focus on the role of accessing, retrieving, and critically appraising evidence to answer clinical questions in patient care. Must be admitted to the M.S. in Athletic Training Program or instructor approval required. Prerequisite: ESS 5346 with a grade of "C" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5313. Therapeutic Interventions I.

This course is designed to provide both a theoretical and clinical basis for the standardized systems approach to therapeutic modality applications to treat patients with musculoskeletal conditions and injury. Prerequisite: AT 5400 with a grade of "B" or better. Corequisite: AT 5301 and AT 5300 both with grades of "B" or better.

3 Credit Hours. 3 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5314. Therapeutic Interventions II.

This course is designed to examine both a theoretical and clinical basis for the standardized systems approach to therapeutic exercise applications to treat patients with musculoskeletal conditions and injury. Prerequisite: AT 5313 with a grade of "B" or better.

3 Credit Hours. 3 Lecture Contact Hours. 1 Lab Contact Hour.

Grade Mode: Standard Letter

AT 5318. Therapeutic Evaluation and Intervention.

This course explores the scientific bases of therapeutic musculoskeletal exercise and neuromuscular evaluative techniques in the rehabilitation process. Must be admitted to the M.S. in Athletic Training Program.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5320. General Medical Conditions Assessment and Care.

This course will enable the student to recognize, evaluate, differentiate and manage common systemic and traumatic conditions and diseases.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5333. Internship in Athletic Training.

This 400-hour internship provides students with professionally related experience. Students may work with diverse clinical populations in varying athletic training settings. Internship is approved and supervised by Program Coordinator or assigned faculty. Prerequisite: Departmental approval.

3 Credit Hours. 0 Lecture Contact Hours. 40 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5334. Clinical Experience IV.

This course will integrate topics in athletic injury evaluation, management and intervention into an immersive clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 5230; AT 5231; AT 5232; AT 5333.

3 Credit Hours. 0 Lecture Contact Hours. 30 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5335. Clinical Experience V.

This course will integrate topics in athletic injury evaluation, management and intervention into an immersive clinical education experience designed to assess professional behaviors, cognitive knowledge, psychomotor skills and proficiency-based case simulations. The course incorporates didactic and clinical education at an assigned clinical site under the supervision of a clinical instructor. Prerequisite: AT 5230; AT 5231; AT 5232; AT 5333; AT 5334.

3 Credit Hours. 0 Lecture Contact Hours. 30 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5340. Research Methods and Evidence Based Practice in Athletic Training.

This course is designed to provide the student with an understanding of the statistical terminology when reading and appraising research studies in order to use evidence to inform clinical practice.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5341. Pathopharmacology.

This course will examine the physiological responses and progression of injuries, illnesses, and diseases to the physically active individual. Additionally, this course will provide instruction in the principles and issues of the physiological and psychological response to the pharmacological use and/or abuse of substances. Prerequisite: AT 5320.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5342. Administration and Leadership in Athletic Training.

This course will evaluate administrative aspects of an athletic training program management such as: risk management, medical record keeping, facilities, third-party reimbursement, health informatics and other current professional issues.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5343. Interdisciplinary Approach to Athletic Training.

This course will examine the practice and educational implications of effective and efficient interprofessional teamwork and collaboration in patient care.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5344. Advanced Clinical Decision Making.

This course provides students various settings to explore aspects of patient evaluation, intervention and outcomes in a simulated learning environment. Students will identify issues in patient care including physical and psychosocial characteristics. Students will apply clinical decision-making skills learned in all courses leading up to this final semester class.

3 Credit Hours. 0 Lecture Contact Hours. 3 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5347. Independent Study in Athletic Training.

This course may be taken by a student who desires to work on a research problem or investigation in Athletic Training. The student gathers and analyzes pertinent data and submits a report of the results of the research. Repeatable once for credit. Prerequisite: ESS 5346 with a grade of "C" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5399A. Thesis.

This course represents a student's initial thesis enrollment. No thesis credit is awarded until student has completed the thesis in AT 5399B. Graded on a credit (CR), progress (PR), no credit (F) basis.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

AT 5399B. Thesis.

This course represents a student's continuing thesis enrollment. The student continues to enroll in this course until the thesis is submitted for binding.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

AT 5400. Gross Applied Anatomy.

This course will examine the structure and function of the human body with emphasis on the skeletal and muscular systems. The course focuses on anatomy and physiology of systems of special interest to students preparing to become athletic trainers. Laboratory study of the human cadaver is included.

4 Credit Hours. 3 Lecture Contact Hours. 4 Lab Contact Hours.

Grade Mode: Standard Letter

AT 5599B. Thesis.

This course represents a student's continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding.

5 Credit Hours. 5 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

AT 5999B. Thesis.

This course represents a student's continuing thesis enrollments. The student continues to enroll in this course until the thesis is submitted for binding.

9 Credit Hours. 9 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Credit/No Credit

Exercise Sports Science (ESS)**ESS 1100. Lifetime Fitness and Wellness.**

This course introduces students to the concepts of health-related physical fitness. Emphasis is placed on learning how to teach these concepts. Students will design and implement an exercise program for enhancing health-related physical fitness. Restricted to majors or minors in Exercise and Sports Science, Athletic Training, or Health and Fitness Management.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

TCCN: PHED 1164

ESS 1101. Seminar in Exercise and Sport Science.

This course provides students with an introduction to the various areas of exercise science, including interventions for healthy versus clinical populations, professional opportunities, individual awareness of professional responsibilities, familiarization with current trends and issues, and professional literature.

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1128. Aquatic Therapy.

The course addresses basic principles and concepts of aquatic therapy and aquatic emergency management. This course prepares students for the American Red Cross Basic Water Rescue Certification.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1172. Beginning Field Sports.

This course prepares students to become proficient instructors of field sports, including softball and soccer. Emphasis is on skill development, instructional practices, peer coaching, rules, terminology, offensive and defensive strategies, team organization, game play, referee skills, skills assessment, and conditioning for field sports. Restricted to majors or minors in Exercise and Sports Science, Coaching, or Health and Fitness Management.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1173A. Practicum for Teaching Individual Sports.

This course provides for real-life application of concepts learned in ESS 1310. This practicum aligns with an accompanying section of an approved Team Sports ESS/PFW Activity course. Pre-Service teachers seeking All-Level Physical Education teacher certification will gain valuable experience in planning and teaching lessons from a models-based teaching perspective. Prerequisite: ESS 1310 with grade of "C" or better.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing|Topics

Grade Mode: Standard Letter

ESS 1173B. Practicum for Teaching Team Sports.

This course provides for real-life application of concepts learned in ESS 1310. This practicum aligns with an accompanying section of an approved Team Sports ESS/PFW Activity course. Pre-Service teachers seeking All-Level Physical Education teacher certification will gain valuable experience in planning and teaching lessons from a models-based teaching perspective. Prerequisite: ESS 1310 with grade of "C" or better.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing|Topics

Grade Mode: Standard Letter

ESS 1173C. Practicum for Teaching Conditioning.

This course provides for real-life application of concepts learned in ESS 1310. This practicum aligns with an accompanying section of an approved Team Sports ESS/PFW Activity course. Pre-Service teachers seeking All-Level Physical Education teacher certification will gain valuable experience in planning and teaching lessons from a models-based teaching perspective. Prerequisite: ESS 1310 with grade of "C" or better.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing|Topics

Grade Mode: Standard Letter

ESS 1175. Beginning Jogging and Conditioning.

This course presents the proper biomechanics of jogging, safety rules, and conditioning principles relevant to the activity. Course topics include warming-up and cooling-down, hydration, monitoring and modifying intensity, training for road races, and jogging-related injuries. Students will also learn how to train individuals entering into a jogging program. Restricted to majors or minors in Exercise and Sports Science or Health and Fitness Management.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1176. Beginning Tennis, Badminton, and Other Racket Sports.

This course prepares Exercise and Sports Science majors to be proficient instructors of racket sports, including tennis and badminton. The emphasis is on the fundamentals of racket sports and program development for the beginner. Restricted to majors or minors in Exercise and Sports Science, Health and Fitness Management, or Coaching.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1178. Beginning Volleyball and Basketball.

This course prepares students to become proficient instructors of volleyball and basketball. Emphasis is on skill development, instructional practices, peer coaching, rules, terminology, offensive and defensive strategies, team organization, communication, game play, referee skills, skills assessment, and conditioning for volleyball and basketball. Restricted to majors or minors in Exercise and Sports Science, Health and Fitness Management, or Coaching.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1179. Beginning Weight Training.

This course prepares students to be proficient instructors of all forms of resistance training. Emphasis is on understanding the proper, safe, and effective techniques of weight lifting. Students will learn how to develop resistance-training programs for untrained individuals with a variety of conditions.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1201. Group Exercise Instructor Training.

This course is for students interested in becoming certified group exercise instructors. Students will learn how to safely and effectively conduct group exercise classes. Students will be trained to teach a variety of formats, such as high- and low-impact aerobics, step aerobics, kickboxing, yoga, and resistance training. Prerequisite: Major in Health and Fitness Management or consent of the instructor.

2 Credit Hours. 1 Lecture Contact Hour. 1 Lab Contact Hour.

Grade Mode: Standard Letter

ESS 1298. Foundations of Sports Medicine.

This introductory course provides an essential foundation for students beginning their course of study in the field of sports medicine. Students will understand key principles of professionalism, responsibilities, ethics and legal aspects, scope of practice, and health care job opportunities in the careers of sports medicine.

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 1310. Introduction to Teaching Physical Education.

This course is designed to provide pre-service physical educators an introduction to fundamental principles of teaching physical education in K-12 settings. Progressive steps in developing a basic understanding of pedagogical skills, physical education curriculum, and professional attributes needed to pursue the teaching profession.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 2320. Motor Development.

This course provides the exercise science and physical education student with a knowledge base in the study of changes in motor behavior across the lifespan, the processes that underlie these changes, and factors that affect them. Prerequisite: Major or minor in Exercise and Sports Science.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 2321. Curriculum Design & Implementation in Physical Activity Settings.

This course is designed to teach students how to design and implement a comprehensive physical education program in school settings. Concepts from the course can be extended to include before or after school programs as well for all grade levels (K-12).

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3117. Laboratory in Exercise Physiology.

In this laboratory course, students perform experiments that highlight the physiological responses to exercise. This course also introduces students to basic techniques in the assessment of health and human performance, including the assessment of maximal oxygen consumption, body composition, anaerobic power and capacity, muscular fitness, movement economy, and dietary intake. Prerequisite: BIO 2430 or [BIO 2451 and BIO 2452] or [BIO 3425 and BIO 3426] any with grades of "C" or better and a minimum 2.0 Overall GPA. Corequisite: ESS 3317 with a grade of "C" or better.

1 Credit Hour. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3180. Cardiopulmonary Resuscitation (CPR), First Aid, and Basic Life Support (BLS).

This course will teach the fundamentals of Cardiopulmonary Resuscitation (CPR) and First Aid. An extension of the class will include Basic Life Support (BLS) i.e. epinephrine injection, supplemental oxygen administration, and automated defibrillation administration.

1 Credit Hour. 2 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3303. Assistant Dive Instructor.

This course provides students with the technical knowledge necessary to prepare for the Assistant Diver Instructor Scuba Certification. Topics include advanced diving physiology, air station operations, assisting instructors with beginning open-water dive students, and boat diving operations. Prerequisite: PFW 1201 with a grade of "D" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3304. Divemaster.

This course provides students with the technical knowledge necessary to prepare for the National Association of Underwater Instructors Divemaster Scuba Certification. Topics include advanced diving physiology, organizing open-water dives, air station operations, assisting instructors with beginning and advanced open-water dive students, and boat diving operations. Prerequisite: Assistant Instructor Certification.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3317. Exercise Physiology.

Students learn the acute and chronic physiological responses to exercise. Emphasis is on muscle bioenergetics, muscle contractile properties, performance improvement through training and supplementation, as well as cardiopulmonary and endocrine responses to exercise. Prerequisite: BIO 2430 2430, or [BIO BIO 2451 and BIO 2452] 2452, with grades of "C" or [BIO 3425 and BIO 3426] any with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Course Attribute(s): Lab Required

Grade Mode: Standard Letter

ESS 3319. Introduction to Cardiopulmonary Exercise Physiology.

This course introduces students to the cardiovascular and pulmonary systems, discusses the physiological dynamics, control mechanisms, and system interrelationships of the cardiovascular and pulmonary systems, and explores the effects of exercise on these systems, including the physiological factors that limit exercise tolerance across the spectrum of health and chronic disease. Prerequisite: BIO 2430 or [BIO 2451 and BIO 2452] and ESS 1101 all with grades of "C" or better a minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3320. Biomechanics.

This course provides an introduction to the mechanical foundations of anatomical function and human movement. Qualitative and quantitative biomechanical analyses of human movement are introduced to inform the prescription of technique, equipment, and training interventions. Prerequisite: BIO 2430 or [BIO 2451 and BIO 2452] or [BIO 3425 and BIO 3426] all with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3321. Teaching Elementary Children Physical Activity.

This course introduces students majoring in Elementary Education and/or Exercise and Sports Science to physical education knowledge and movement concepts. It provides innovative techniques for incorporating physical activity within the elementary school setting. The course presents theory and then guides the students in applying those theories in a practical way.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3323. Psychosocial Aspects of Exercise and Sport Science.

This course examines the psychological and social theories and research related to physical activity. Emphasis is on the determinants that influence exercise behavior and sport participation.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3325. Applied Assessment of Physical Activity.

This course is designed to provide students with a theory to practice approach in the assessment of physical activity within the physical education setting. Particular emphasis is placed on empowering students to use relevant and meaningful physical activity assessments in K-12 schools. Prerequisites: ESS 1310 and ESS 2320. Restricted to majors seeking all level Teacher Certification in Physical Education.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 3329. Motor Learning.

This course provides students with an understanding of the physiological, neurological, and psychological factors affecting performance and acquisition of motor skills. Students will examine the structural components underlying the learning of motor skills and draw upon examples from sport, physical activities, and rehabilitation. Prerequisite: A minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 3340. Theory and Principles of Coaching.

This course examines the theories and principles of effective coaching, including philosophy, ethics, strategies, team motivation and organization, coach-athlete relationships, performance analysis, and the administration of facilities, personnel, and contests.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4100. Professional Development in Health and Fitness Management.

This course prepares students to obtain a health and fitness internship and to actively participate in professional development activities including conferences, development of resumes, and interaction with health and fitness professionals. Must be taken the last long semester before internship. Prerequisite: A minimum 2.0 Overall GPA.

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4101. Professional Development in Clinical Exercise Science.

This course prepares students to obtain an internship related to clinical exercise science and to actively participate in professional development activities including conferences, development of professional materials, and interaction with clinical exercise professionals. Must be taken the last long semester before internship. Prerequisite: A minimum 2.0 Overall GPA.

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4317. Fitness Assessment and Programming for Healthy Populations.

Students are presented with current information on fitness assessment and exercise programming for healthy individuals of all ages and fitness levels. Emphasis is placed on preparation for multiple certifications offered by relevant professional organizations. Prerequisites: ESS 3117 and ESS 3317 both with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4318. Fitness Assessment and Programming Practicum for Healthy Populations.

During this 80-hour practicum, students will acquire advanced knowledge and skills associated with appraising health risk, assessing fitness levels, and designing exercise programs for diverse populations through on-line, classroom, and laboratory settings as well as through field-based experiences by working in a variety of venues. Prerequisite: ESS 3117 and ESS 3317 with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4319. Fitness Assessment and Programming in Clinical Exercise Science.

This course provides students with an opportunity to develop knowledge, skills, and competence required to assess and prescribe exercise for clinical populations and to gain knowledge related to managed care and rehabilitation with clinical patients. Prerequisites: ESS 3117 and ESS 3317 both with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4320. Resistance Training and Conditioning.

This course discusses the development and evaluation of training principles and programs for diverse populations. Emphasis is placed on physiological adaptations and mechanical principles related to the application of resistance training. Prerequisites: ESS 3317 and ESS 3117 both with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 2 Lecture Contact Hours. 1 Lab Contact Hour.
Grade Mode: Standard Letter

ESS 4321. Fitness Assessment and Programming Practicum in Clinical Exercise Science.

This course presents current exercise and sports science information on testing and programming for clinical populations. This course provides fundamental knowledge, competence, and skills necessary to conduct safe and valid assessments, interventions, and rehabilitation programs for patients with health problems. Students will spend 80 hours at a practicum site. Prerequisite: ESS 1101 and ESS 3117 and ESS 3317 and ESS 3319 all with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 1 Lecture Contact Hour. 5 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4323. Adapted Physical Education.

This introductory course provides All-Level teacher certification candidates in Exercise and Sports Science with content knowledge on legal mandates, evidence-based practices, and the characteristics of selected disabilities and their considerations when designing meaningful individualized physical activity experiences to meet the students with disabilities in school settings. Prerequisites: ESS 1310, ESS 2320 and 2.75 overall GPA. (WI).

3 Credit Hours. 2 Lecture Contact Hours. 1 Lab Contact Hour.
Course Attribute(s): Writing Intensive
Grade Mode: Standard Letter

ESS 4324. Adapted Physical Activity.

This course introduces students to the field of adapted physical activity, including sport and leisure for persons with disabilities. This course provides content knowledge on how to instruct physical activities to individuals with unique needs in various settings. (WI).

3 Credit Hours. 2 Lecture Contact Hours. 1 Lab Contact Hour.
Course Attribute(s): Writing Intensive
Grade Mode: Standard Letter

ESS 4333. Fitness Assessment and Programming for Populations Requiring Special Considerations.

This course provides practical information on fitness assessment and programming for persons requiring special considerations due to their age, pregnancy, obesity, diabetes, low back pain or other health conditions. Prerequisite: ESS 1101 and ESS 3117 and ESS 3317 all with grades of "C" or better and a minimum 2.0 Overall GPA.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

ESS 4337. Independent Study in Exercise and Sports Science.

This course is for students who are interested in research related to Exercise and Sports Science. Students develop a research study, collect data, and analyze the results. Repeatable for credit with different emphasis. Prerequisites: A minimum GPA of 3.00 and special approval.

3 Credit Hours. 1 Lecture Contact Hour. 2 Lab Contact Hours.

Course Attribute(s): Exclude from 3-peat Processing

Grade Mode: Credit/No Credit

ESS 4340. Internship in Coaching.

This 220-hour internship provides students with work-related experience. Students will strengthen their coaching-related knowledge, skills, and abilities by observing and shadowing coaches as well as assisting with a range of tasks, including training athletes, managing the facilities, and organizing practices. Prerequisites: completion of all coursework required for the minor in Coaching and special approval.

3 Credit Hours. 0 Lecture Contact Hours. 15 Lab Contact Hours.

Grade Mode: Credit/No Credit

ESS 4351. Measurement & Evaluation in Exercise and Sports Science.

This course introduces students to the fundamental principles and techniques of measuring human performance related to Exercise and Sports Science, as well as evaluating and interpreting the results of exercise science and human performance tests in children and adults. Prerequisite: A minimum 2.0 Overall GPA and department approval.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 4624. Principles and Practices for Teaching Physical Education.

This course provides students with an in-depth study of theory and curriculum encompassing the design and implementation of developmentally appropriate and culturally responsive physical education programs for children and adolescents. Emphasis is on implementing evidenced-based curricula that promote youths' enjoyment of and participation in lifelong physical activity. Prerequisites: ESS 1310 and ESS 2320 and ESS 3325, all with a grade of "D" or better, and 2.75 overall GPA.

6 Credit Hours. 6 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

ESS 4660. Exercise and Sports Science Internship.

In this 400-hour internship, students will apply theoretical health and fitness management principles and concepts to an organizational setting. This course requires students to participate in a health and fitness organization/agency and complete a semester-long planning and evaluation project. (WI) Prerequisite: A minimum 2.0 Overall GPA and department approval.

6 Credit Hours. 0 Lecture Contact Hours. 25 Lab Contact Hours.

Course Attribute(s): Writing Intensive

Grade Mode: Standard Letter

ESS 4661. Internship in Clinical Exercise Science.

This course places the student in a professional work environment to apply the concepts of exercise rehabilitation in a cardiac care, respiratory therapy, or other healthcare setting, under the supervision of professionals in the field. Students are required to spend 400 hours in this internship position. Prerequisite: Department approval and a minimum 2.0 Overall GPA.

6 Credit Hours. 6 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter