

# ATHLETIC TRAINING

## Entry-Level Master of Science in Athletic Training

Athletic trainers are allied health/sports medicine professionals responsible for the prevention, recognition, evaluation, treatment and rehabilitation/reconditioning of the physically active population. Athletic trainers perform under a physician's direction and are typically employed with professional teams, colleges and universities, high schools, clinics and hospitals, industry and other various settings.

The program of study is an entry-level MS program. It is intended for students seeking certification and registration or licensure as an athletic trainer. Students must successfully complete 70 graduate credits over 23 consecutive months, including clinical experiences, and other requirements to be awarded the Master of Science in Athletic Training degree.

Students interested in athletic training should be aware that enrollment is competitive and limited to a maximum 16 students per year. Fulfillment of requirements does not guarantee admission. Selection for admission is based on several elements including academic record, professional exploration, essay, recommendations. Interviews will also be required of 3 + 2 candidates. Students must apply as a 3 + 2 candidate or have evidence of a completed bachelor's degree. However, there are no requirements in terms of the prospective student's undergraduate major.

## Programs

The Athletic Training Department offers these programs:

- Health Sciences, B.A. - Athletic Training Concentration (<http://catalog.css.edu/programs-az/health-sciences/athletic-training/health-sciences-ba-athletic-training-concentration/>)
- Athletic Training, M.S. (Entry-Level) (<http://catalog.css.edu/programs-az/health-sciences/athletic-training/athletic-training-ms-entry-level/>)

## Contact Information

atr@css.edu

## Accreditation

The Athletic Training program at The College of St. Scholastics is accredited by the:

Commission on Accreditation of Athletic Training Education (CAATE)  
2001 K Street NW, 3rd Floor North  
Washington, DC 20006

## AT Post Baccalaureate Admissions

Students apply directly to the master's program for matriculation following completion of an undergraduate degree. Requirements for admission must be completed accordingly.

- Provide evidence of at least a 2.8 cumulative and composite prerequisite GPA;
- Submit official transcript(s) of all previous graduate and undergraduate work confirming grades of C (C-/CD not acceptable) or

higher in all individual prerequisite courses. These courses must be completed prior to matriculation;

- Provide evidence of professional exploration that reflects the breadth and depth of practice settings for athletic trainers (a minimum of two athletic training practice settings addressing the needs of distinct patient populations);
- Complete a Master's of Athletic Training essay;
- Submit a minimum two Graduate Recommendation Forms, at least one of which must come from the athletic trainer who oversaw the majority of your exploration and one from a faculty in a major or science course; and
- Consideration of transfer credits is done on an individual basis.

## Conditional Admissions of AT Post Baccalaureate Admissions

Students in category 2 may be considered if there are vacant slots and the candidate falls below minimum requirements in one or more categories but otherwise shows potential for satisfactory performance in the graduate program. Students must address any deficiencies on their essay.

Post Baccalaureate applications will be reviewed on a rolling basis beginning Jan. 15 while MS in 5 applications are due Nov. 15. Upon acceptance, entry into the program begins in June. Once in the program, students must be enrolled full time, and all courses and clinical experiences must be successfully completed in the required sequence. Alterations in progression may be considered on an individual basis.

## MS in 5 Option

There will be a maximum of five slots in the program available to students through the MS in 5 option. Students enrolled at CSS may apply for the MS in 5 option during fall of their junior (or equivalent) year. Transfer candidates must complete a minimum of 12 CSS credits before application. At the conclusion of the fourth year, students will receive a BA in Health Sciences (<http://catalog.css.edu/programs-az/health-sciences/athletic-training/health-sciences-ba-athletic-training-concentration/>).

In addition to the MS in AT application materials required for post-baccalaureate admissions, students must successfully complete the following to merit consideration:

- 3.0 composite GPA and completion of 7 prerequisite courses with a minimum 3.0 GPA and no grades lower than C (C-/CD not accepted).
- One additional recommendation from CSS faculty verifying suitability for graduate studies. No score below 3 is permitted.
- Satisfactory interview with admissions committee.
- Document a minimum 50 hours of exploration with a certified athletic trainer(s). Students admitted on this basis must be prepared to commit full time to study and clinical experiences. Students that are not admitted on this basis may apply as a Post Baccalaureate or Secondary Consideration student as outlined below.

## Athletic Training Courses

### **ATR 3000 - Introduction to Athletic Training - 2 cr.**

Introduces the prospective athletic training student to career issues; terminology; injury prevention, evaluation, and treatment strategies; and orient the student to the service learning experience. Students will recognize common injuries and illnesses of the physically active, important legal concepts, and contemporary terminology.

### **ATR 3001 - Introduction to Clinical Experience in Athletic Training - 2 cr.**

Introduces the prospective athletic training student to the clinical setting with a focus on having the student reflect about various elements of the experience and potential career suitability. Students will participate in basic job tasks and become familiar with the working areas and functions of an athletic training facility and clinical care.

### **ATR 5510 - Functional Anatomy - 4 cr.**

An advanced, regional, musculoskeletal anatomy course that emphasizes the study of functional relationships among musculature, nervous tissue, vascular, and skeletal components for the extremities and axial skeleton. Cadaver dissection laboratory experience is used to enhance understanding of three-dimensional anatomical relationships for specific body regions.

### **ATR 6002 - Evaluation & Management: Lower Extremity and Lumbar Spine - 3 cr.**

An in-depth study of injuries to the lower extremity and lumbar spine including mechanism/etiology, signs, symptoms, treatment, and management will be undertaken. Evaluation procedures will be presented, practiced, and evaluated. History, inspection/observation, palpation, assessment of motion, special testing, gait analysis, posture analysis, and functional assessment will be included.

### **ATR 6003 - Foundations of Neuromuscular Function - 2 cr.**

A study of neuroanatomical structures and functions, neuropathology underlying specific clinical conditions, and theories supporting clinical treatment. Central and peripheral nervous systems are addressed at macro and micro levels. Specific focus will be on proprioception, neuromuscular, sensory, and cranial nerve function.

### **ATR 6007 - Clinical Applications of Movement Analysis - 2 cr.**

Will explore injury prevention and risk management among active populations, as well as the assessment of musculoskeletal injuries from a biomechanical perspective. Students will investigate how physics principles can be applied to quantitatively and qualitatively assess movement of the human body. Biomechanical analysis will then be used to identify, explain, and address pathomechanics that result in decreased athletic performance or injury.

### **ATR 6009 - Emergent Conditions - 3 cr.**

Prepares providers to evaluate and stabilize patients in emergency situations. Focuses on advanced techniques of rapid assessment, resuscitation, stabilization and transportation of critical patients. Development and implementation of selected prevention strategies are incorporated throughout the course.

### **ATR 6010 - Conditioning and Rehabilitation I - 3 cr.**

An introduction to the theory and science underlying strength training, conditioning, and rehabilitation for physically active individuals with a focus on training and conditioning. Elements including phase of training; strength, and conditioning; and activity requirements will be stressed. Systems (cardiovascular, musculoskeletal) and bodily regions (knee, ankle, etc.) will be integrated. Lab activities will focus on strength training, conditioning, and assessment of associated variables.

### **ATR 6011 - Career Development - 0 cr.**

A seminar designed to assist students in preparing materials for career searches and being prepared to successfully navigate the career search process. Materials including a cover letter, resume, and mock interview analysis will be created.

### **ATR 6012 - Clinical Gross Anatomy & Human Physiology - 4 cr.**

Study of the body's structure organized according to the major regions: lower limb; back and upper limb; thorax; abdomen and pelvis; and head and neck. Laboratory dissections will be utilized throughout the course. In addition to the body structure, essential concepts of physiology and mechanisms of body function are presented at various levels of organization. Emphasis is placed on understanding the integrated regulation of various body processes among the major systems.

### **ATR 6014 - Foundations of Athletic Training - 3 cr.**

Serves as an introduction to the profession of athletic training; including basic assessment, taping, and bracing skills utilized by athletic trainers.

### **ATR 6100 - Clinical I - 2 cr.**

Emphasis centers on preventative care, orthopedic and emergency assessments, and healthcare documentation. This first clinical course, in a series, utilizes patient/client interactions at various practice settings to develop and evaluate students' knowledge, skills, and clinical decision-making abilities while under preceptor supervision.

### **ATR 6102 - Evaluation and Treatment: Orthopedic Conditions - 6 cr.**

Prepares practitioners in the prevention, diagnosis and initial treatment of orthopedic pathologies of the axial and appendicular skeletal system

### **ATR 6103 - Health Promotion and Wellness I: Strength and Conditioning - 2 cr.**

Develops students to formulate wellness plans for individuals or groups, addressing both aerobic and anaerobic systems. Emphasis on screening and implementation of strength and conditioning programs for prevention and reconditioning.

### **ATR 6104 - Healthcare Documentation - 2 cr.**

Develops conceptual knowledge, medical terminology, and professional skills to document, manage, and analyze patients' health information through the adoption and implementation of interoperable health information technologies

### **ATR 6110 - Athletic Training Program Assessment I - 0 cr.**

Serves to provide integrated program assessment opportunities.

### **ATR 6203 - Professional Development I: Professional Communication - 1 cr.**

First in a three course series designed to facilitate professional growth. The course will include documentation and communication and a multifaceted developmental assessment of progression in identified foundational development areas. Students will be expected to exhibit beginning level behaviors in all areas for progression to the next level.

### **ATR 6204 - Professional Development in Athletic Training II: Screening, Diagnosis, and Treatment - 1 cr.**

Second in a three course series designed to facilitate professional growth. The course will include miscellaneous issues and interventions related to sports medicine and a multifaceted developmental assessment of progression in identified foundational development areas. Students will be expected to exhibit beginning level behaviors in all areas and some intermediate behaviors for progression to the next level.

**ATR 6205 - Therapeutic Interventions: Rehabilitative Exercise and Modalities - 6 cr.**

Prepares practitioners in the theory, principles, and evidence for the utilization of various interventions for the promotion, maintenance, and restoration of optimal health. Emphasis on the management of pain and dysfunction through the utilization of manual therapy, exercise, and therapeutic modalities.

**ATR 6206 - Health Promotion and Wellness II: Bioenergetics - 2 cr.**

Provides an overview of human nutrition with an emphasis on patient education, nutritional counseling and planning.

**ATR 6207 - Pathophysiology for Athletic Training - 2 cr.**

Covers basic pathologic conditions and principles including etiology, clinical course, and primary interventions of disorders presented in the context of disablement models.

**ATR 6208 - Clinical II - 2 cr.**

Emphasizes appropriate integration of therapeutic interventions in relation to assessment findings. The second clinical course utilizes patient/client interactions at various practice settings to develop and evaluate students' knowledge, skills, and clinical decision-making abilities while under preceptor supervision.

**ATR 6210 - Athletic Training Program Assessment II - 0 cr.**

Serves to provide integrated program assessment opportunities.

**ATR 6300 - Evaluation/Treatment: General Medical Conditions in Athletic Training - 2 cr.**

Prepares athletic trainers as primary care providers who address common diseases and disorders of the body systems, as well as selected systemic diseases in the physically active population.

**ATR 6301 - Pharmacology for Athletic Trainers - 2 cr.**

Focuses on the basic principles of biophysics, biochemistry and physiology, as related to the mechanisms of drug action, biodistribution and metabolism. Selected agents and classes of agents are examined in detail

**ATR 6302 - Evidence-Based Practice and Research - 4 cr.**

Develops clinical reasoning skills and application of evidence-based resources to problem solve as clinicians in an interdisciplinary health care team.

**ATR 6303 - Clinical III - 1 cr.**

Emphasizes pre-participation organizational activities in a secondary school and collegiate/university sports context. The third clinical course utilizes patient/client interactions at various practice settings to develop and evaluate students' knowledge, skills, and clinical decision-making abilities while under preceptor supervision.

**ATR 6400 - Healthcare Administration - 3 cr.**

Examines and provides preparation in administrative, managerial, and business duties common to athletic trainers across practice settings including program delivery, risk management, development of policies/procedures, healthcare revenue and reimbursement, and resource management

**ATR 6401 - Advanced Techniques in Athletic Training I - 2 cr.**

Provides preparation in advanced clinical practice concepts and techniques.

**ATR 6402 - Clinical IV - 4 cr.**

Emphasizes full-time, immersive clinical placements designed to reflect the daily clinical and administrative practices of an athletic trainer. The fourth clinical course utilizes patient/client interactions at various practice settings to develop and evaluate students' knowledge, skills, and clinical decision-making abilities while under preceptor supervision

**ATR 6403 - Clinical V - 1 cr.**

Emphasizes the inclusion of advanced athletic training skills and incorporation of evidence-based techniques in daily practice. The fifth clinical course utilizes patient/client interactions at various practice settings to develop and evaluate students' knowledge, skills, and clinical decision-making abilities while under preceptor supervision

**ATR 6410 - Athletic Training Program Assessment III - 0 cr.**

Serves to provide integrated program assessment opportunities.

**ATR 6501 - Evaluation and Management: Upper Extremities, Trunk, and Head - 3 cr.**

An in-depth study of injuries to the upper extremity, trunk, and head/c-spine including mechanism/etiology, signs, symptoms, treatment, and management will be undertaken. Evaluation procedures will be presented, reviewed, practiced, and evaluated. Students will be expected to successfully conduct a history, inspection/observation, palpation, assessment of motion, special testing, postural analysis, and functional assessment of the upper extremity, trunk, and head.

**ATR 6502 - Therapeutic Modalities - 2 cr.**

A review of the underlying chemistry and physics followed by in-depth study of physiological effects, indications, contraindications, and techniques of application necessary to select and utilize common therapeutic modalities in the allied health care setting. Appropriate patient position and modality set-up/application for optimal therapeutic effect will be stressed.

**ATR 6509 - Research Concepts and Proposal Development - 2 cr.**

The student will be required to conceive a topic appropriate for study, conduct a brief literature review, and devise appropriate methodology to answer the question(s) of interest. Students will also learn appropriate research concepts to collect data, interpret statistics, devise projects, and critique non-experimental research. At the conclusion of the course students will have developed a thesis prospectus sufficiently detailed for IRB (Institutional Review Board) consideration and beginning a project utilizing AMA (American Medical Association) guidelines.

**ATR 6510 - Conditioning and Rehabilitation II - 3 cr.**

An introduction to the theory and science underlying strength training, conditioning, and rehabilitation for physically active individuals. Elements including phase of training and/or tissue healing/repair; indications/contraindications of rehabilitation, strength, and conditioning; and activity requirements will be stressed. Systems (cardiovascular, musculoskeletal) and bodily regions (knee, ankle, etc.) will be integrated.

**ATR 6511 - Biopsychosocial Issues and Interventions - 2 cr.**

An introduction to biopsychosocial issues impacting the physically active. The interaction between mind and body will be the primary focus. The student will identify the appropriate role of the athletic trainer and identify when circumstances warrant referral to other healthcare/mental health providers.

**ATR 6512 - Healthcare Information Technology - 1 cr.**

A study of health information technologies with potential utility in athletic training clinical settings. The student will be prepared to identify and utilize appropriate technology to facilitate patient care.

**ATR 6513 - Capstone Experience - 4 cr.**

Provides for comprehensive evaluations of the integration of athletic training knowledge, skills, and attributes and directed research experiences emphasizing evidence-based practice techniques to answer clinical problems.

**ATR 6514 - Advanced Techniques in Athletic Training II - 2 cr.**

Covers basic principles of diagnostic imaging pertinent to clinical practice. Compares and contrasts various imaging techniques, interpretation of reports and appropriate referrals.

**ATR 6515 - Clinical VI - 2 cr.**

Emphasizes design, implementation, and management of patient care plans while monitoring patient outcomes to measure plans' effectiveness. The final clinical course utilizes patient/client interactions at various practice settings to develop and evaluate students' knowledge, skills, and clinical decision-making abilities while under preceptor supervision.

**ATR 6750 - Clinical Reasoning & Decision Making - 1 cr.**

A lab-intensive course serving as a capstone to an athletic training student's first clinical year in the athletic training program that is intended to identify individual strengths and weakness in clinical skills and abilities prior to progression to the second clinical year. Clinical decision-making and exploring rationale for clinical judgments in the areas of orthopedic diagnosis, emergency care, therapeutic interventions, and rehabilitation will be emphasized.

**ATR 6752 - Pre-Season Clinical in Athletic Training - 1 cr.**

The pre-season clinical experience for athletic training students entering their second-year in the athletic training program. Students will complete clinical skills in pre-season athletics patient settings under the supervision an assigned preceptor during a concentrated period of time in August. Integration of all athletic training skills previously learned, clinical decision-making for orthopedic patient cases, and on-field assessment and emergency care will be the focus.

**ATR 6777 - Special Topics - 2 cr.**

Focuses on emerging concepts in athletic training.

**ATR 6998 - Athletic Training & Sports Medicine Practicum - 1 cr.**

An elective practicum experience intended to provide students a concentrated exposure to a clinical setting of choice. The experience will be customized to the needs and professional goals of the students. During the experience students will practice patient care skills previously instructed under the supervision of a clinical preceptor. Students may only complete this elective course once during the duration of their enrollment in the athletic training program.

**ATR 6999 - Independent Study - 1-8 cr.**

Independent Study in Athletic Training.

**ATR 7004 - Eval & Mgt: General Medicine - 3 cr.**

A study of pathology and common disorders of the organ systems. Focus is on etiology, signs, symptoms, evaluation, and treatment of such disorders. Students will be exposed to the appropriate knowledge base and skills needed to perform basic assessments. The focus will be on differential diagnosis and making appropriate referral decisions to other healthcare providers as warranted. Screening and determination of a safe physical condition for activity will also be considered.

**ATR 7006 - Leadership & Admin in ATR - 3 cr.**

An introduction to administrative and professional practices concerning operations and personnel as they apply specifically to the athletic training setting. Additional study of topics includes leadership, development of policies/procedures, employment issues, facility design and development, and legal concerns. The course will culminate in creation of an operations binder to be combined with the project produced in ATR 7505.

**ATR 7008 - Diagnostic & Orthopedic Applic - 2 cr.**

An overview of common diagnostic, office sports medical, and surgical preparation procedures. These procedures are typically found in clinical settings and are used to supplement traditional practices by athletic trainers. The knowledge base and skills addressed encompass those performed by orthopedic and surgical technicians.

**ATR 7009 - Manual and Mechanical Interventions - 2 cr.**

Theory, clinical and scientific rationale, and application of mechanical and manual therapy techniques to address dysfunction in the physically active population. Application of manual and mechanical therapy skills in clinical practice will be emphasized heavily with consideration for indications and contraindications.

**ATR 7010 - Nutritional and Pharmacological Interventions - 2 cr.**

An overview of nutritional and pharmacological approaches to enhanced performance, healing, and recovery in physically active populations. The overall focus will be on application to clinical practice. Students will performance basic nutritional assessment, interpret findings, and make suggestions for change

**ATR 7100 - Intermediate Clinical ATR II - 2 cr.**

The first clinical experience for second-year athletic training students. Students will complete competencies, proficiencies, and clinical experiences commensurate with their level in the program under an assigned clinical instructor. Emergency care, upper extremity evaluation, modalities, and rehabilitation will be the primary focus.

**ATR 7101 - Advanced Clinical in ATR - 2 cr.**

The second of two clinical experiences for second-year athletic training students. Students will complete competencies, proficiencies, and clinical experiences commensurate with their level in the program under an assigned clinical instructor. General medical assessment and integration of all athletic training skills previously learned within curriculum will be the focus.

**ATR 7202 - Professional Development III: Issues and Interventions - 1 cr.**

Third in a three-course series designed to facilitate professional growth. The course will include issues related to populations across the lifespan in sports medicine and a multifaceted developmental assessment of progression in identified foundational development areas. Students will be expected to exhibit intermediate behaviors for progression to the next level.

**ATR 7504 - Advanced Tech in ATR - 1-4 cr.**

An introduction to advanced studies and techniques. Students will review appropriate theories and practice skills and techniques related to one or more of the athletic training practice domains. Topic areas will be offered on a rotating basis and typically include an emphasis on either evaluation, rehabilitation, or therapeutic modalities.

**ATR 7505 - Healthcare Entrepreneurship and Innovation - 3 cr.**

An introduction to the US healthcare system and principles of demonstrating value in healthcare. Students will learn foundational principles, financial operations, and strategies to innovate and create new applications in healthcare. The course will culminate in students devising a business plan for a mock organization or venture.

**ATR 7508 - Conditioning & Rehab III - 2 cr.**

Culminating course in Conditioning and Rehabilitation. Elements of common orthopedic surgical procedures and implications for rehabilitation will be addressed. Periodization of training encompassing conditioning, rehabilitation, and post-surgical rehabilitation phases will be outlined. Students will develop a final comprehensive program encompassing all phases.

**ATR 7555 - Internship - 1-8 cr.**

Internship

**ATR 7888 - Master's Thesis in ATR - 1-3 cr.**

The student will prepare a complete thesis project. The student will collect data then analyze and formulate data supported conclusions. They will then produce a manuscript and meet college requirements for a thesis. Students have the option of selecting 7888 or 7980. This option is best suited for those electing to focus on doctoral studies and a career as a researcher.

**Prerequisite Courses:** also include an approved IRB (Institutional Review Board) application.

**ATR 7980 - Capstone Project in ATR - 1,2 cr.**

The student will complete a culminating evidence based project related to the field of athletic training. Options will include, but are not limited to, case studies, literature review, group research project, etc. Students have the option of selecting 7888 or 7980. This option is best suited for those electing to focus on a career in clinical practice.

**ATR 7999 - ATR Independent Study - 1-8 cr.**

Independent Study.