

# Graduate Studies in Athletic Training

## Overview

The Athletic Training Department houses two programs. The primary program is the Master of Science in Athletic Training, an accredited professional degree leading towards eligibility to sit for the national examination to become a certified athletic trainer (ATC). Secondly, the department houses a Master of Science in Human Movement & Function. The Master of Science in Human Movement & Function is an interdisciplinary degree with course offerings in athletic training, business, education, occupational therapy, and physical therapy. Please reference the program tab for detailed information about each program.

## Faculty

Faculty within these programs are active in their fields. Full-time faculty within the department of athletic training are certified athletic trainers with expertise as clinicians, educators, and scholars. Associated faculty have expertise in health science fields such as exercise physiology, physical therapy, occupational therapy, and sports nutrition.

## Design and Schedule

Our graduate programs are designed with an emphasis on in-person learning. Remote, hybrid or online courses offerings are limited, thus these degrees require residence in the Spokane region during most terms. Traditional academic courses are typically offered on weekdays during the working day (generally between 8am-1pm). Clinical experiences or internship schedules may include hours within the traditional work week, evenings and/or weekends.

## Mission Statement

The mission of the Whitworth University Athletic Training Program is to equip graduates with the knowledge and skills necessary to become highly proficient and professional entry-level athletic trainers. The program utilizes a multifaceted approach including quality instruction and clinical education, relational mentoring, and diverse professional experiences to develop holistic healthcare professionals and servant-leaders within the context of Christian higher education.

## Program and Student Learning Outcomes

1. Whitworth University athletic training students will demonstrate entry-level proficiency through classroom, laboratory and clinical learning experiences in the five domains of athletic training: (1) risk reduction, wellness and health literacy, (2) assessment, evaluation and diagnosis, (3) critical incident management, (4) treatment intervention, and (5) healthcare administration and professional responsibility.
2. Students will develop as a holistic healthcare professional in the context of Christian higher education.
3. Students will demonstrate progression in professional behaviors consistent with the athletic training profession and healthcare (including commitment to diversity, equity & inclusion, and interprofessional, ethical & legal practice).
4. Students will appreciate the value of participation, service and/or leadership within the athletic training profession.
5. Students will benefit from rigorous, hands-on, quality instruction from instructors with content expertise.
6. Students will learn clinical skills under the supervision of high-quality preceptors at high-quality clinical sites.
7. Students will gain clinical experience as part of a healthcare team with a variety of patient/client populations and health conditions commonly seen in AT practice.
8. Students will successfully complete the program and be well prepared to meet the challenges of entry-level employment positions.

## Admissions

All prospective students (accelerated track or two-year master's track) must complete the following admissions materials, which will be submitted to the Athletic Training Centralized Application Service (ATCAS):

- Official transcripts: Arrange for ATCAS to receive an official transcript from each college and university attended.
- CV/résumé: Upload your detailed résumé or curriculum vitae to the “documents” section of your ATCAS application.
- Personal statement: Use the following ATCAS prompt to write your personal statement and upload it as part of your application. *Describe your professional goals including why you have chosen athletic training as a career.*
- References: Applicants must arrange for two (2) references to be submitted electronically through ATCAS. Each evaluator will be contacted using an email address provided to ATCAS by the applicant.
- Observation hours: A minimum of 60 observation hours with an athletic trainer must be documented. Observation hours at two different clinical location/practice settings preferred.

Students applying to the professional phase of Whitworth's MSAT program must first complete the following admission requirements.

- Students applying directly to the two-year professional phase of the athletic training program must have a bachelor's degree from a regionally accredited institution. Current Whitworth students and transfer students applying for the five-year accelerated track must demonstrate successful completion of all undergraduate major and shared curriculum requirements prior to beginning the professional phase of the MSAT program. Completion of the pre-athletic-training track does not guarantee entry in the MSAT program.
- A successful interview with the AT program admissions committee (if needed).
- An overall grade-point average (GPA) of 3.0 or higher (if your cumulative GPA is lower than 3.0 due to first- or second-year grades, we will consider the last 90 quarter/60 semester credits as your calculated GPA).
- Completion of the prerequisite courses listed below with a grade "C" or better. Equivalent Whitworth courses are suggested in parentheses. It is the student's responsibility to check for course equivalency. Refer to the Whitworth Transfer Equivalency Information (<https://www.whitworth.edu/cms/administration/registrar/transfer-info/transfer-equivalency-information/>) or contact the Whitworth University Registrar's Office ([registrar@whitworth.edu](mailto:registrar@whitworth.edu)) for more information. Course title, credits and numbers vary by school. *Prerequisite courses must be completed prior to starting the MSAT cohort in July but do not need to be completed at the time of application.*
- **Anatomy & Physiology:** Two courses in a combined anatomy & physiology sequence (i.e., Anatomy & Physiology I & II), or one course in each anatomy and physiology; must include laboratory experience (HS 220, HS 221).
- **Exercise Physiology:** One course covering human physiology during exercise; must include a laboratory experience (HS 326 AND HS 326L).
- **Introduction to Psychology:** One course covering introductory human psychology and behavior (PY 101).
- **General/Introductory Biology:** One course emphasizing the role of cells in living systems and foundational biology principles. Lab recommended (BI 140 & BI 140L).
- **General/Introductory Chemistry:** One course covering foundations of chemistry. Lab recommended (CH 101 & CH 101L; CH 161 & CH 161L).
- **General/Introductory Physics:** One course covering basic principles of mechanics. A biomechanics course with physics principles may be accepted. Lab optional. Either algebra or calculus based is acceptable (PS 151, PS 131).

## General Policies

- Students should be familiar with graduate school policies ([http://catalog.whitworth.edu/graduate/#graduate\\_policies](http://catalog.whitworth.edu/graduate/#graduate_policies)), including specific academic standards, class attendance, suspension, appeals and graduation procedures.
- No credit toward a master's degree will be allowed for a course in which the student receives a grade of "C" or lower. A student will be required to retake (at additional expense) any required course in which s/he earns a "C" or lower. **Note:** This is a higher standard than the Whitworth graduate studies policy of "C-" or higher.
- The MSAT program does not accept any transfer courses to apply toward the completion of graduate course requirements. Exceptions may be granted on appeal for certain courses.

- Students must maintain full-time status and follow the required course sequence each term. This is an intensive, full-time program with day and evening requirements. As such, outside employment is discouraged and may not be possible while a student is completing this degree.
- The athletic training student handbook, updated annually, includes additional policies and procedures related to the MSAT program.
- For students paying graduate tuition, there are no fees associated with the MSAT program.
- For students paying undergraduate tuition (typically in the five-year accelerated program), there is an MSAT program fee. See department webpage for current fee information.
- Transportation, immunizations and personal expenses vary from student to student depending on individual circumstances and are described in the AT Program Handbook: <https://www.whitworth.edu/cms/media/whitworth/documents/academics/athletic-training/athletic-training-manual.pdf>

## Requirements for Athletic Training, M.S. (67)

AT 520	Emergency Response and Acute Care	3
AT 521	Techniques in Athletic Training	1
AT 532	Pathophysiology and Therapeutic Modalities	3
AT 534	Examination of Lower Extremity Pathology	4
AT 537	Clinical Anatomy	3
AT 544	Techniques in Manual Therapy	2
AT 545	Examination of Spine and Upper Extremity Pathology	4
AT 546	General Medical Conditions	3
AT 549	Research Methods for Evidence Based Practice	3
AT 552	Therapeutic Exercise	3
AT 559	Statistics in Health Professions Research	3
AT 561A	Exam Preparation A	0.5
AT 561B	Exam Preparation B	0.5
AT 562	Advanced Clinical Practice	3
AT 563	Administration and Business in Athletic Training	3
AT 571	Clinical Experience I	2
AT 572	Clinical Experience II	2
AT 573	Clinical Experience III	1
AT 574	Clinical Experience IV	1
AT 575	Clinical Experience V	3
AT 576	Clinical Experience VI	2
AT 577	Clinical Experience VII	1
AT 538	Seminar I	1
AT 548	Seminar II	1
AT 558	Seminar III	1
AT 568	Seminar IV	1
AT 583	Pharmacology for Athletic Trainers	2
AT 584	Psychology for Athletic Trainers	2
AT 585	Sports Nutrition	3
AT 586	Strength and Conditioning Programming	3
AT 598A	Capstone in Athletic Training	1
AT 598B	Capstone in Athletic Training (B)	1

## Program Description

The MS in Human Movement & Function is a 36-credit graduate program. The MS in Human Movement & Function focuses on knowledge, skills and abilities related to normal and abnormal

function of human bodies during movement. This degree is designed to equip graduates to apply knowledge and skills within a variety of related fields (e.g. healthcare, research, health and fitness, athletics, etc.).

## Mission Statement

The mission of the Master of Science in Human Movement & Function is to equip its graduates to serve humanity through the study of advanced human movement. Students will be prepared through academic coursework and experiential learning to apply principles of human movement. Through a curriculum that integrates theory and practice, graduates will be able to think critically and creatively in clinical, community, and sports settings.

## Student Learning Objectives

- Demonstrate advanced knowledge and skills in the field of Human Movement & Function
- Interpret, apply and synthesize current health and human movement research
- Acquire specialized knowledge within subdisciplines of human movement & function

## Degree Planning

The degree plan is designed to require coursework in foundational areas as well as provides flexibility for students to tailor elective coursework to meet their needs. Approximately half of the degree is within required categories, with the other half coming from lists of carefully selected elective courses.

### Sample student degree plan A (36 credits)

- 6 credits Anatomy & Pathophysiology requirement
- 6 credits Human Movement & Function requirement
- 6 credits Research requirement
- 18 credits Human Movement & Function electives

### Sample student degree plan B (36 credits)

- 6 credits Anatomy & Pathophysiology requirement
- 6 credits Human Movement & Function requirement
- 6 credits Research requirement
- 9 credits Human Movement & Function electives
- 9 credits Business or Education electives

## Policies

- Credits within this degree may not be applied to other graduate health science degrees (i.e. the student cannot earn a degree in Human Movement & Function AND a MSAT, DPT or OTD).
- Cost per credit will vary depending on the course prefix.
- Standard graduate policies for retention, GPA, etc. apply to this degree: <http://catalog.whitworth.edu/graduate/>
- Required prerequisite courses include two courses in a combined anatomy & physiology sequence (e.g., Anatomy & Physiology I and II), or one course in each anatomy and physiology; must include a laboratory experience (e.g. HS 220, HS 221)
- Recommended prerequisite courses one course covering introductory human psychology and behavior (e.g. PY 101) and one course emphasizing the role of cells in living systems and foundational biology principles (e.g. BI 140)

## Requirements Human Movement, M.S. (36)

Anatomy and Pathophysiology Requirement		6
AT 532	Pathophysiology and Therapeutic Modalities	
AT 537	Clinical Anatomy	
OTD 702	Interprofessional Applied Clinical Anatomy Lecture & Lab, Applied Anatomy and Kinesiology for Occupational Performance	
OTD 713	Interprofessional Applied Clinical Neurology Lecture & Lab	
DPT 701	Human Anatomy	
Human Movement and Function Requirement		6
AT 534	Examination of Lower Extremity Pathology	
AT 552	Therapeutic Exercise	
AT 586	Strength and Conditioning Programming	
DPT 710	Movement System I	
DPT 711	Movement System II	
OTD 705	Activity Analysis	
OTD 706	Assessment in Occupational Therapy	
OTD 716	Theory & Practice in Physical Disabilities	
Research Requirement		6
AT 549	Research Methods for Evidence Based Practice	
AT 559	Statistics in Health Professions Research	
DPT 750	Fundamentals of Critical Inquiry	
DPT 851	Research I	
DPT 852	Research II	
DPT 853	Research III	
OTD 710	Doctoral Experience & Capstone- Introduction	
OTD 712	Evidence Based Practice	
OTD 720	Doctoral Experience & Capstone: Literature review	
Internship		
Independent Study		
Electives in Human Movement & Function		9-18
Any 500+ level MSAT course not used above		
Any 500+ level OTD course not used above		
Any 500+ level DPT course not used above		
Internship		
Independent Study		
<b>Electives in Business:</b> Elective course availability may vary according to course offering, prerequisites may apply.		
Electives in Business		0-9
MB 501	Organizational Behavior and Leadership	3
MB 530	Entrepreneurship and New Venture Creation	3
MB 535	Optimizing Human Resources	3
MB 526	Integrated Marketing Strategies	3
MB 513	Operations and Project Management	3
MB 550	Executive Leadership	3
MB 551	Transferable Team Performance	2
MB 552	Design Thinking	1
MB 553	Leadership in Society	3

MB 540	Enterprise Risk Management	3
MB 545	Change Management	3
<b>Electives in Education:</b> Elective course availability may vary according to course offering, prerequisites may apply.		
Electives in Education		0-9
EDL 502	Team Building and Leadership Skills	3
EDL 510	Human Organizational Resources and Conflict Resolution	2
EDS 520	Exceptional Learners & Inclusion	3
EDU 502	Curriculum Design, Development and Implementation	3
EDU 501	The Psychology of Learning	3
EDU 550	Milestones in Education	3

## Courses

### **AT 520 Emergency Response and Acute Care** 3

This course provides a comprehensive survey of emergency management of sudden injury and illness, including appropriate recognition and evaluation strategies, acute care considerations (e.g. splinting, CPR), and referral. The intention is to provide the knowledge and skills necessary for the trained healthcare professional to manage an emergency situation and provide care which sustains life, reduces pain, and minimizes the consequences of injury or sudden illness until more advanced medical help arrive or the situation is resolved.

### **AT 521 Techniques in Athletic Training** 1

Survey of techniques utilized in clinical athletic training practice which are essential before the first clinical rotation. Techniques will include taping, bandaging, protective equipment & device application, and therapeutic interventions

### **AT 532 Pathophysiology and Therapeutic Modalities** 3

This course will address the effective application of therapeutic modalities in order to facilitate the healing and rehabilitation of athletic injuries. Content includes the pathology of injury to various body tissues, the healing response, and the physiological effect of therapeutic modalities commonly used in sports medicine.

### **AT 534 Examination of Lower Extremity Pathology** 4

In-depth study of primarily orthopaedic conditions affecting the lower extremities including physical examination, injury recognition, treatment, prevention and emergency management. Laboratory experiences emphasize the methods and techniques in evaluating lower extremity injuries/conditions, as well as preventative taping/bracing.

### **AT 537 Clinical Anatomy** 3

Course will include lecture and dissection of the human cadaver, emphasizing the musculoskeletal, articular, nervous and vascular systems. Emphasis will be placed on the role of anatomical structures as they relate to common pathologies in physically active populations.

### **AT 538 Seminar I** 1

The first in a series of interprofessional seminar courses, this course introduces interprofessional education collaborative (IPEC) core competencies and develops student's core competency through lecture, small group discussion, activities, presentations, and readings. Additionally, the course focuses on application of the international classification of disease framework.

### **AT 544 Techniques in Manual Therapy** 2

This course is an introduction to the principles and application of common manual therapy techniques in athletic training. Topics will include joint mobilizations, proprioceptive neuromuscular facilitation, strain-counterstrain, trigger point, and other soft-tissue techniques.

<b>AT 545 Examination of Spine and Upper Extremity Pathology</b>	<b>4</b>
In-depth study of primarily orthopaedic conditions affecting the spine and upper extremities including physical examination, injury recognition, treatment, prevention and emergency management. Laboratory experiences emphasize the methods and techniques in evaluating spine and upper extremity injuries/conditions, as well as preventative taping/bracing.	
<b>AT 546 General Medical Conditions</b>	<b>3</b>
This course prepares the athletic training student to be able to appropriately identify, evaluate, treat, refer and counsel patients who present with non-orthopedic medical conditions. Topics include (but are not limited to) medical conditions of the nervous system, urinary/reproductive system, cardiovascular/respiratory systems, endocrine system, renal system and integumentary system.	
<b>AT 548 Seminar II</b>	<b>1</b>
The second in a series of interprofessional seminar courses, this course introduces interprofessional education collaborative (IPEC) core competencies and develops student's core competency through lecture, small group discussion, activities, presentations, and readings. Additionally, the course focuses on leadership, cultural bias, and ethical practice.	
<b>AT 549 Research Methods for Evidence Based Practice</b>	<b>3</b>
This course focuses on the design of clinically-relevant original research as well as utilizing the current literature to answer a clinical question. Topics include critical review of literature, experimental methods, interpretation of basic statistics in clinical research, and writing a manuscript.	
<b>AT 552 Therapeutic Exercise</b>	<b>3</b>
Instruction on the effective application of therapeutic exercise in order to reduce disabilities, functional limitations, and impairments in a variety of athletic/patient populations. Content includes principles of therapeutic intervention design, implementation and progression for a variety of orthopedic pathologies including post-surgical care.	
<b>AT 557 Biomechanics of Human Movement</b>	<b>3</b>
This course introduces students to advanced analysis of human movement using biomechanical principles. Course will cover the fundamental principles of biomechanics, with application to human movement analysis using biomechanical software, laboratory and clinical instrumentation.	
<b>AT 558 Seminar III</b>	<b>1</b>
The second in a series of interprofessional seminar courses, this course introduces interprofessional education collaborative (IPEC) core competencies and develops student's core competency through lecture, small group discussion, activities, presentations, and readings. Additionally, the course focuses on athletic training professional structure, documents, history and future.	
<b>AT 559 Statistics in Health Professions Research</b>	<b>3</b>
This course introduces statistical concepts common in health professions research (including t-tests, ANOVA, repeated-measures ANOVA, correlation, and regression). Emphasis will be placed on selecting appropriate statistical tests, analyzing data using statistical software, interpreting results, and effectively communicating results through text, tables and figures.	
<b>AT 561A Exam Preparation A</b>	<b>0</b>
This course is a guided review aimed at improving student success on the Board of Certification (BOC) national licensure examination. Instruction will include BOC exam registration, exam formatting, as well as didactic and practical practice examinations.	
<b>AT 561B Exam Preparation B</b>	<b>0</b>
This course is a guided review aimed at improving student success on the Board of Certification (BOC) national licensure examination. Instruction will include BOC exam policies and procedures, as well as didactic and practical practice examinations.	

- AT 562 Advanced Clinical Practice** 3  
 This course focuses on integration and synthesis of athletic training knowledge into the evaluation and care of complex clinical pathologies and patients. Utilizing a case-based approach, students will acquire knowledge and skills (such as casting, suturing, interpretation of diagnostic imaging, etc.) used in advanced clinical practice.
- AT 563 Administration and Business in Athletic Training** 3  
 This course is focuses on healthcare administration and business skills necessary for success within the athletic training profession, especially how to create and comply with administrative policies and regulations that guide and govern safe and effective healthcare practice. Content includes themes of management, leadership, legal concerns, and business modeling.
- AT 568 Seminar IV** 1  
 The second in a series of interprofessional seminar courses, this course introduces interprofessional education collaborative (IPEC) core competencies and develops student's core competency through lecture, small group discussion, activities, presentations, and readings. Additionally, the course focuses on U.S. health care systems with special emphasis on the role of the athletic trainer within the system, as well as systemic opportunities and barriers affecting athletic training practice.
- AT 571 Clinical Experience I** 2  
 Clinical experience in athletic training I. Primarily involves the completion of clinical hours under the direct supervision of a licensed preceptor (athletic trainer or other healthcare provider), fulfillment of clinical competencies, and assignments integrating traditional academic coursework with clinical practice.
- AT 572 Clinical Experience II** 2  
 Clinical experience in athletic training II. Primarily involves the completion of clinical hours under the direct supervision of a licensed preceptor (athletic trainer or other healthcare provider), fulfillment of clinical competencies, and assignments integrating traditional academic coursework with clinical practice. Students will develop professional characteristics, attitudes, and communication skills. Students will have opportunities to incorporate holistic, compassionate patient care and demonstrate servant-leadership within the athletic training profession
- AT 573 Clinical Experience III** 1  
 Clinical experience in athletic training, emphasis on general medical pathologies and skills. Primarily involves the completion of clinical hours under the direct supervision of a licensed preceptor (athletic trainer or other healthcare provider), fulfillment of clinical competencies, and assignments integrating academic coursework with clinical practice.
- AT 574 Clinical Experience IV** 1  
 Clinical experience in athletic training IV, emphasis in clinical practice settings. Primarily involves the completion of clinical hours under the direct supervision of a licensed preceptor (athletic trainer or other healthcare provider), fulfillment of clinical competencies, and assignments integrating traditional academic coursework with clinical practice in rehabilitation.
- AT 575 Clinical Experience V** 3  
 Clinical experience in athletic training V. Primarily involves the completion of clinical hours under the direct supervision of a licensed preceptor (athletic trainer or other healthcare provider), fulfillment of clinical competencies, and assignments integrating traditional academic coursework with clinical practice.
- AT 576 Clinical Experience VI** 2  
 Clinical experience in athletic training VI. Primarily involves the completion of clinical hours under the direct supervision of a licensed preceptor (athletic trainer or other healthcare provider), fulfillment of clinical competencies, and assignments integrating traditional academic coursework with clinical practice.



- AT 577 Clinical Experience VII** 1  
 This immersive clinical experience is a practice-intensive experience that allows the student to experience the totality of care provided by athletic trainers. Students participate in the day-to-day and week-to-week role of an athletic trainer for a minimum of one continuous four-week period. This course primarily involves the completion of clinical hours under the direct supervision of a licensed athletic trainer, fulfillment of clinical competencies and assignments integrating traditional academic coursework with clinical practice.
- AT 583 Pharmacology for Athletic Trainers** 2  
 This course prepares the athletic trainer to safely and effectively recommend over the counter medications, recognize common prescription medications and their implications for physical activity, understand basic pharmacological principles, and act appropriately when the abuse of legal or illegal substances is suspected.
- AT 584 Psychology for Athletic Trainers** 2  
 This course equips athletic training students with the knowledge and skills to respond appropriately to psychosocial disorders and mental health emergencies, as well as address psychological factors in injury response and rehabilitation in order to facilitate return to optimal function. Emphasis is placed on developing clinician skills in communication.
- AT 585 Sports Nutrition** 3  
 This course will focus on the role of evidence-based nutrition in optimizing physical performance in active individuals. An emphasis will be placed on evaluating recent research in the field and translating this information to lay audiences.
- AT 586 Strength and Conditioning Programming** 3  
 This course is designed to be a practically-based and administrator-focused strength and conditioning experience for athletic training students. In the course of this class, students will learn basic strength and conditioning program design principles and how to perform, teach, and supervise relevant weightlifting skills and athletic assessments. Students will also learn various concepts related to the administrative aspects of strength and conditioning, such as facility design, risk management, and industry best practices. Competence with the content covered in this course, combined with pre-requisite content knowledge, should allow students to successfully sit for the Certified Strength and Conditioning Specialist exam.
- AT 598A Capstone in Athletic Training A** 1  
 This capstone experience is designed to prepare athletic training students for successful transition to entry-level employment in athletic training or further graduate education. The course will include engagement with current professional issues and reflection on professional philosophy, as well as completion of a capstone graduate project.
- AT 598B Capstone in Athletic Training B** 1  
 This capstone experience is designed to prepare athletic training students for successful transition to entry-level employment in athletic training or further graduate education. The course will include engagement with current professional issues and reflection on professional philosophy, as well as completion of a capstone graduate project.