MASTER OF SCIENCE (M.S.), MAJOR IN ATHLETIC TRAINING

Degree Program
The master of science (M.S.) with a major in athletic training is designed as an advanced post-professional athletic training curriculum for the board-certified athletic trainer. The graduate student in athletic training may choose from either the thesis or the non-thesis option.

As background prerequisites, an athletic training major is expected to have graduated from an academic institution that is accredited by the Commission on Accreditation of Athletic Training Education (CAATE) or presently be certified through the Board of Certification, Inc.

Admission Policy
For information regarding admission application requirements and deadlines, please visit The Graduate College website at http://www.gradcollege.txstate.edu/at.html.

Degree Requirements
The graduate student in athletic training may choose from either the thesis (34 hours) or the non-thesis (37 hours) option.

Course Work Requirements
Non-thesis Option

<table>
<thead>
<tr>
<th>Athletic Training Course Work</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESS 5346 Research Methods in Health and Human Performance</td>
<td>3</td>
</tr>
<tr>
<td>AT 5312 Evidence-Based Practice in Sports Medicine</td>
<td>3</td>
</tr>
<tr>
<td>AT 5310 Proprioception and Neuromuscular Control in Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>AT 5311 Biomechanics of Musculoskeletal Injury</td>
<td>3</td>
</tr>
<tr>
<td>AT 5318 Therapeutic Evaluation and Intervention</td>
<td>3</td>
</tr>
<tr>
<td>AT 5307 Bioenergetics of Exercise and Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>AT 5308 Therapeutic Exercise and Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>PT 5400 Human Structure and Function</td>
<td>4</td>
</tr>
<tr>
<td>ESS 5356 Applied Statistics in Health and Human Performance</td>
<td>3</td>
</tr>
<tr>
<td>AT 5347 Independent Study in Athletic Training</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Course Work
Choose 6 hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESS 5304</td>
<td>Motor Learning and Performance</td>
<td>3</td>
</tr>
<tr>
<td>ESS 5305</td>
<td>Advanced Fitness Assessment and Exercise Prescription</td>
<td>3</td>
</tr>
<tr>
<td>ESS 5306</td>
<td>Advanced Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ESS 5307</td>
<td>Advanced Resistance Training and Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>ESS 5309</td>
<td>Biomechanics for Exercise &amp; Sports Science</td>
<td>3</td>
</tr>
<tr>
<td>ESS 5311</td>
<td>Applied Neuromuscular and Skeletal Muscle Physiology</td>
<td>3</td>
</tr>
<tr>
<td>NUTR 5364</td>
<td>The Science of Nutrition and Exercise</td>
<td>3</td>
</tr>
<tr>
<td>PT 7231</td>
<td>Anatomy II – Spine</td>
<td>3</td>
</tr>
<tr>
<td>PT 7241</td>
<td>Anatomy III - Lower Extremity</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 37

Thesis Option

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</table>

Thesis Course Work
Choose a minimum 6 hours

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<tr>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 5199B</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>AT 5299B</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>AT 5399A</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>AT 5399B</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
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<td>6</td>
</tr>
<tr>
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<td>Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

Total Hours: 34

If a student elects to follow the thesis option for the degree, a committee to direct the written thesis will be established. The thesis must demonstrate the student's capability for research and independent thought. Preparation of the thesis must be in conformity with the Graduate College Guide to Preparing and Submitting a Thesis or Dissertation. The thesis handbook may be accessed at http://www.gradcollege.txstate.edu/docs/Thesis_Diss_Guide.pdf.

Thesis Proposal
The student must submit an official Master’s Thesis Proposal form to their thesis committee. The required thesis proposal form may be obtained from The Graduate College at http://www.gradcollege.txstate.edu/gcfforms.html. After signing the form and obtaining committee members’ signatures, graduate advisor’s signature (if required by the program), and the department chair’s signature, the student must submit the thesis proposal form with one copy of the proposal attached to the dean of The Graduate College for approval before proceeding with research on the thesis. If the thesis research involves human subjects, the student must obtain exemption or approval from the Texas State Institutional Review Board prior to submitting the proposal form to The Graduate College. If the thesis research involves vertebrate animals, the proposal form must include the Texas State IACUC approval code. It is recommended the thesis proposal form be submitted to the dean of The Graduate College by the end of the student’s enrollment in 5399A.
Thesis Committee
The thesis committee must be composed of a minimum of three approved graduate faculty members.

Thesis Enrollment and Credit
The completion of a minimum of six hours of thesis enrollment is required. Enrollment for the thesis will be in course number 5399A for a student’s initial thesis enrollment and a thesis B course for each subsequent thesis enrollment in the field in which the subject matter of the thesis falls, e.g., ENG 5399A, ENG 5199B, ENG 5299B, ENG 5399B, ENG 5599B, and ENG 5999B. Preliminary discussions regarding the selection of a topic and assignment to a research supervisor will not require enrollment for the thesis course.

A student will be required to enroll in and pay the fee for at least one hour of the thesis course during any term in which the student will receive thesis supervision or guidance and/or in which the student is using university resources. Failure to register for the thesis course during a term in which supervision is received may result in postponement of graduation. After initial enrollment in 5399A, the student will continue to enroll in a thesis B course as long as it takes to complete the thesis. In the rare case when a student has not previously enrolled in thesis and plans to work on and complete the thesis in one term, the student will enroll in both 5399A and 5399B. The only grades assigned for thesis courses are PR (progress), CR (credit), W (withdrawn), and F (failing). If acceptable progress is not being made in a thesis course, the instructor may issue a grade of F. If the student is making acceptable progress, a grade of PR is assigned until the thesis is completed. The minimum number of hours of thesis credit (“CR”) will be awarded only after the thesis is filed in the Alkek Library and the librarian has electronically returned the thesis card to the office of The Graduate College.

A student who has selected the thesis option must be registered for the thesis course during the term or Summer I (during summer the thesis course runs ten weeks for both sessions) in which the degree will be conferred.

Fee Reduction
A master’s degree candidate for graduation may be eligible for a one-time fee reduction under V.T.C.A. Education Code, Section 54.054. Please refer to the section titled Fee Reduction in the Additional Fees and Expenses chapter of this catalog for more information.

Thesis Deadlines and Approval Process
Thesis deadlines are posted at the following web page: http://www.gradcollege.txstate.edu/Thes-Diss_Info/T_D_Deadlines.html. The completed thesis must be submitted to the chair of the thesis committee no later than 41 days before the date of the commencement at which the degree is to be conferred.

The following must be submitted to the office of The Graduate College no later than 24 days, not counting weekends or holidays, before the date of commencement at which the degree is to be conferred (see The Graduate College webpage for specific deadlines):

1. The Thesis/Dissertation Committee Approval form bearing original signatures of the student and all committee members.
2. One (1) copy of the thesis in final form, approved by all committee members, on standard paper (Hard-copy Submission Option) or PDF of the thesis in final form, approved by all committee members, uploaded in the on-line Vireo submission system (Vireo On-line Submission Option).

After the dean of The Graduate College approves the thesis, the process is as follows:

1. For the Vireo On-line Submission Option:
   a. No copies are required to be submitted to the Alkek Library. However, Alkek will bind copies submitted that the student wants bound for personal use. Personal copies are not required to be printed on archival quality paper. The student will take the personal copies to the Alkek Library and pay the binding fee for personal copies.

Master’s level courses in Health and Human Performance: AT

Courses Offered

Athletic Training (AT)
AT 5101. 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 spring semester of their employment. This course does not earn graduate degree credit. Graded on a credit (CR), no-credit (F) basis. about Graduate Assistant Development

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Course Attribute(s): Graduate Assistantship Exclude from Graduate GPA
Grade Mode: Leveling/Assistantships about Graduate Assistant Development

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. Graded on a credit (CR), progress (PR), no credit (F) basis. about Thesis

1 Credit Hour. 1 Lecture Contact Hour. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit about Thesis

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. Graded on a credit (CR), no-credit (F) basis. about Graduate Assistant Development

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Graduate Assistantship Exclude from Graduate GPA
Grade Mode: Leveling/Assistantships about Graduate Assistant Development

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. Graded on a credit (CR), progress (PR), no credit (F) basis. about Thesis

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit about Thesis
AT 5302. Special Topics in Athletic Training.
This course is designed to educate students in the scientific process and develop an in-depth understanding of the research process in Athletic Training.
about Special Topics in Athletic Training
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

AT 5303. Seminar in Athletic Training.
Current trends in athletic and physical education concerning the care and prevention of injuries with special emphasis on therapeutic and rehabilitation techniques. Taping and bandaging will be practiced in a laboratory situation.
about Seminar in Athletic Training
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

AT 5307. Bioenergetics of Exercise and Rehabilitation.
This course is designed to provide both a theoretical and clinical basis for the use of therapeutic exercise in physiological basis of muscular, respiratory, cardiovascular, and nervous systems in the rehabilitation of all athletic injuries. Must be admitted to the MS in Athletic Training Program or instructor approval required.
about Bioenergetics of Exercise and Rehabilitation
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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.
about Therapeutic Exercise and Rehabilitation
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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.
about Proprioception and Neuromuscular Control in Rehabilitation
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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.
about Biomechanics of Musculoskeletal Injury
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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.
about Evidence-Based Practice in Sports Medicine
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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.
about Therapeutic Evaluation and Intervention
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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.
about Independent Study in Athletic Training
Grade Mode: Standard Letter
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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.
about Thesis
Grade Mode: Credit/No Credit
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

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. Graded on a credit (CR), progress (PR), no credit (F) basis.
about Thesis
Grade Mode: Credit/No Credit
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
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. Graded on a credit (CR), progress (PR), no credit (F) basis.
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. Graded on a credit (CR), progress (PR), no credit (F) basis.
9 Credit Hours. 9 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Credit/No Credit