# Athletic Training, MS

**Program Description**

The mission of the Master of Science in Athletic Training (MSAT) program of Texas A&M University is to produce professional level BOC Certified Athletic Trainers (ATC) who are knowledgeable, skilled, and reflective and who, by virtue of effective communication, critical thinking and ethical practice, are able to render sound clinical judgments concerning patient/client needs. Through quality instruction and based on a strong foundation of scientific principles and evidence-based medicine, the program will successfully prepare graduates for careers in athletic training.

**Outcome 1 – Knowledge and skills - Prepare athletic training students to meet the academic and clinical competencies necessary to successfully challenge the Board of Certification (BOC) examination.**

Students will demonstrate understanding and application of the academic clinical competencies which include: Risk Reduction, Wellness and Health Literacy; Assessment, Evaluation and Diagnosis; Critical Incident Management; Therapeutic Intervention; and Healthcare Administration and Professional Responsibility.

### Measure 1.1 – BOC Exam

**Data Collection:** Program Director (PD) accesses overall scores and scores from each of the 5 testing domains available from the Commission on Accreditation of Athletic Training Education (CAATE) in May or receives scores from students receiving exam results depending on when they take the exam.

**Methodology or data analysis strategy:** Program data is already aggregated on the BOC exam report which provides total program scores, and total program scores for each of the 5 testing domains. The program director will compare results to the measurement target and discuss the results with program faculty at the end of year assessment meeting.

#### Target 1.1

100% of students will pass the exam on the first try.

#### Target 1.1.2

At least 80% of students will score 75% or above across all of the 5 exam domains on the BOC exam which are aligned with the BOC Practice Analysis 8th ed.:

Domain I: Risk Reduction, Wellness, and Health Literacy
Domain II: Assessment, Evaluation and Diagnosis
Domain III: Critical Incident Management
Domain IV: Therapeutic Intervention
Domain V: Healthcare Administration and Professional Responsibilities

#### Finding 1.1: Partially Met

Part I: 100% (16/16) of students passed the BOC Examination in 2024 for the first time. The average score for students in the MSAT program was 661.54 +/- 69.5 with 800 high and 580 low score, compared to all candidate average score 537 +/- 98.9 with 800 high and 200 low.

Part II: BOC and CAATE have changed their policy regarding program director access to student exam results data. No longer will specific scores be posted per domain, instead student performance per domain is listed as 'comparable', 'marginally lower', or 'marginally higher'. Therefore, we can no longer use 75% as a target. Instead we will change our target language accordingly. Although, programs are not informed of what correlates to 'comparable', we will use that language in place of "75%". Therefore, the new target is "At least 80% of students will score 'comparable', or 'marginally higher' across all of the 5 exam domains on the BOC exam."

56% (9/16) of students scored 'comparable' or above across all of the 5 exam domains on the BOC exam. The number of students out of 16 who scored 'comparable' are shown below.

Domain I: Risk Reduction, Wellness, and Health Literacy - 100% (16/16)
Domain II: Assessment, Evaluation and Diagnosis - 87.5% (14/16)
Domain III: Critical Incident Management - 81% (13/16)
Domain IV: Therapeutic Intervention - 87.5% (14/16)
Domain V: Healthcare Administration and Professional Responsibilities - 81% (13/16)

The target for this SLO was partially met in that 100% of students passed the BOC exam on their first try. This is consistent with previous years and is the most important outcome.

However, the target of 80% of students scoring 75% or above on each of the 5 domains could not be determined the way the original target was worded. Due to the change in student score reporting from percentage performance to 'comparable', 'marginally lower', or 'marginally higher", it is more difficult to directly compare results for Part II of this SLO. Results of the 2023 BOC exam demonstrated that the target was met with 80% or more students scoring 75% or higher for each domain. Although having met the target, the lowest performing domains on the 2023 BOC exam were DI, and DIV at 80%. Results of the 2024 BOC exam show that the lowest performing domains were DIII, and DV which are historically strong domains. Therefore, it may not be valid to compare current results using a different reporting structure, with previous results.

## Measure 1.2 – Year One Comprehensive Review Exam

**Data Collection:** An online comprehensive review exam is created by the faculty with multiple questions representing content from each of the 5 practice domains (listed below) of athletic training from the Board of Certification Practice Analysis 8th ed. This document is the blueprint for the Board of Certification Examination which is the certification exam that students sit for at the end of their program to earn the ATC credential. Questions are created that represent content from the first year of the program (summer/fall/spring/summer) and coded to the domain. At the beginning of the fall semester of their 2nd year in the program, students take this comprehensive review exam. The exam is scored automatically by the exam software. The Program Director downloads and analyzes the results.

Domain I: Risk Reduction, Wellness, and Health Literacy
Domain II: Assessment, Evaluation and Diagnosis
Domain III: Critical Incident Management
Domain IV: Therapeutic Intervention
Domain V: Healthcare Administration and Professional Responsibilities

**Methodology or data analysis strategy:** The program director will aggregate and compute the data to obtain descriptive statistics for each of the 5 test domains.

### Target 1.2

80% of students will receive a 70% or above in each of the 5 domains on the comprehensive review exam.

### Finding 1.2: Met

81% (13/16) of students received a 70% or above on the comprehensive review exam: (3/16) received 80%, (10/16) received 70%, with 3 students receiving scores of 57%, 65%, and 66%.

In the previous year, 92% (12/13) of students scored 70% or above on the comprehensive review exam compared to only 81% this cycle. However, considering that 100% of students passed the BOC examination that this cumulative exam prepares them for, the program is not concerned about the difference between year. It is interesting to note, that the student who received the lowest score on the comprehensive review exam, also was the lowest performing student on the BOC exam, although they did pass the first time.

## Measure 1.3 – Clinical Competency

**Data Collection:** Students are evaluated by preceptors on clinical competencies using eValue learning modules for the competencies contained in the Athletic Training-Mastery and Assessment of Competency (AT-MAC) in the following courses ATTR 652, 653, 655, 656. Students are scored as 'Competent', or 'Not Competent' for each critical element of the competency. If they received 'Competent' for each critical element, they receive a final score of 'Competent' for the competency.

**Methodology or data analysis strategy:** At the end of each semester, the Program Director aggregates the competency data for each clinical class.

### Target 1.3

100% of students will be scored 'competent' for all critical elements of semester specific clinical competencies the semester assigned.

### Finding 1.3: Met

100% of students (30/30) were scored 'competent' for all critical elements of semester specific clinical competencies the semester assigned.

Students are evaluated on clinical competencies each semester and as was the case in previous assessment cycles, 100% of students were scored as 'competent' for all competencies. This provides the program key information regarding the success of the manner and mode of competency preparation in associated classes. Findings are consistent across multiple years demonstrating the program's effectiveness in preparing students to be clinically competent.

## Measure 1.4 – Domain Exams

**Data Collection:** Students in ATTR 672 Professional Preparation and Current Issues class, complete 5 online faculty created domain specific exams during the last semester of the program. Domain Exams are MSAT faculty created online exams through Canvas representing the 5 practice domains of athletic training identified by the Board of Certification Practice Analysis 8th ed. This document is the blueprint for the Board of Certification Examination which is the certification exam that students sit for at the end of their program to earn the ATC credential.  The exam is created with answers, by the program faculty and automatically graded by the exam software.  The questions are written by program faculty using reference sources (textbooks, articles and position statements) listed in the Board of Certification candidate resource guide.

**Methodology or data analysis strategy:** The program director will aggregate and compute the data to obtain descriptive statistics for each of the 5 test domains.

### Target 3.1

100% of students will receive a 70% or above on each 5 domain specific exams.

### Finding 3.1: Partially Met

100% of students will receive a 70% or above on each of the 5 domain specific exams. Results of the exams are shown below.

DI: 81% (14/16) students scored 70% or above; (2/16) - 90%, (6/16) - 80%; (6/16) - 70%, (1/16) -60%, (1/16) - 50% - not met

DII: 69% (11/16) students scored 70% or above; (2/16) - 90%, (3/16) - 80%, (6/16) - 70%, (5/16) - 60% - NOT MET

DIII: 100% (16/16) students scored 70% or above; (4/16) - 90%, (10/16) - 80%; (2/16) - 70% - met

DIV: 56% (9/16) students scored 70% or above; (2/16) - 90%, (3/16) - 80%, (4/16) - 70%, (6/16) - 60%, (1/16) - 50% - NOT MET

DV: 94% (15/16) students scored 70% or above; (2/13) - 90%, (9/16) - 80%; (3/16) - 70%, (1/16) -60% - not met

The domain exams that are given in preparation to sit for the BOC examination are intended to be more challenging than the board exam in order for students to not become

complacent in their studying. It is also to help them recognize their weaknesses or "knowledge gaps" to focus their exam preparation toward specific content and topics that they need to improve. Therefore, the target for this SLO is set intentionally high so the program can recognize patterns of student weaknesses that the program can address prior to the BOC exam test date. In the previous 2 assessment cycles, 4/5 domains did not reach the stated target with DIII being the only domain where the target was met during the last 3 cycles. The comparison of findings shows consistency with the "knowledge gaps" which are expected at the point in the program this exam is taken, but the 100% BOC pass rate demonstrates that the approach the program takes to "gap fill" is effective. The program may consider increasing the difficulty of the DIII exam considering the lower performance in this domain on the 2024 BOC exam.

## Use of Results

Most of the targets within the Student Learning Outcomes (SLOs) were fully or partially met, indicating that the program has been successful, as evidenced by a 100% pass rate on the Board of Certification (BOC) examination. This success can be attributed in part to the preparation leading up to the exam. However, due to differences in BOC exam reporting between 2023 and 2024, it is challenging to determine if the outcome labeled as "comparable" in 2024 is equivalent to the previous outcome of "75%." Therefore, we will focus on BOC preparation exam results in our action plan. The domain exams are intentionally more challenging than the board exam to keep students engaged in their studies. It's expected that not all students will meet the targets, and those scoring below 70% will meet with the Program Director (PD) for review and possible tutoring. The previous target was set at 60%, which was inadequate for identifying those needing support. The 100% pass rate on the BOC exam indicates that our remediation strategy is effective. However, we recognize that meeting the target in all domains may be rare but is intentional.

We would like to see improved performance on the BOC preparation exams, particularly in Domains II (DII) and IV (DIV), as these domains comprise the largest percentage of the BOC examination. Given their greater weight, they cover more content and require more time within the curriculum. While the program emphasizes these domains through the number of classes, clinical experiences, and various evaluations, we feel that students still need more direct application of knowledge as they approach the BOC exam window. In the past, during the ATTR 672 Professional Preparation and Current Issues course, where students take the BOC prep exams, reviews of these domains were conducted based on student questions, rather than being proactively structured. Starting in spring 2025, the course instructor will create short iClicker quizzes per domain with questions representing areas students tend to struggle. The course instructor will then design review sessions focused on the quiz results before students take the online BOC prep exam. The program will continue to track outcomes in this area, with the goal of increased student scores on their BOC prep domain exams, but more importantly, improvements in the BOC exam results per domain compared between 2024 and 2025 using the same reporting structure.

Full-time faculty that teach in the Master of Science in Athletic Training (MSAT) program participate in the program assessment plan and review. Annually the program director compiles and analyzes the data for the SLOs and drafts report. The MSAT faculty meet annually at the end of spring semester, to discuss the report findings and develop action plans for improvement if needed which are also placed into the report. Additional stakeholders are consulted with if needed (e.g., administrators, preceptors, alumni, etc.).

## Status Update on a Previous Action

Changes were made in the spring 2024 ATTR 672 Prof Prep and Current Issues course with more time given for review of DIV with the expectation of higher performance on the BOC prep exam in this domain as well as on the BOC examination. There was no significant difference in outcome between years resulting in DIV still be a low performing domain. The goal is to see improvements in this domain resulting from the current action plan. In addition, the program will continue to track this SLO and will conduct a deeper analysis of the tasks within DIV based on the BOC Practice Analysis 8th ed. in order to identify the specific knowledge and skills students need further support.