

**Texas A&M University  
Department of Health and Kinesiology**

**Master of Science in Athletic Training  
Curriculum Plan**

|                |                     |
|----------------|---------------------|
| <b>Courses</b> | <b>Credit Hours</b> |
|----------------|---------------------|

**Required Research Core (7 hours):**

|           |                                     |   |
|-----------|-------------------------------------|---|
| KINE 601  | Reading Research (Research Methods) | 3 |
| KINE 690S | Theory of Kinesiology (Statistics)  | 3 |
| KINE 681  | Seminar                             | 1 |

**Required Athletic Training Core (53 hours):**

|          |  |   |
|----------|--|---|
| ATTR 651 | Clinical Education I   | 2 |
| ATTR 652 | Clinical Education II  | 3 |
| ATTR 653 | Clinical Education III   | 3 |
| ATTR 655 | Clinical Education V   | 3 |
| ATTR 656 | Clinical Education VI  | 3 |
| ATTR 660 | Prevention and Care of Athletic Injuries                                       | 3 |
| ATTR 661 | Prevention and Care of Athletic Injuries Lab                                   | 1 |
| ATTR 662 | Clinical Examination and Diagnosis-Lower Extremity                             | 3 |
| ATTR 663 | Clinical Examination and Diagnosis-Lower Extremity Lab<br>with Cadaver Anatomy | 1 |
| ATTR 664 | Clinical Examination and Diagnosis-Upper Extremity                             | 3 |
| ATTR 665 | Clinical Examination and Diagnosis-Upper Extremity Lab<br>with Cadaver Anatomy | 1 |
| ATTR 666 | Physical Rehabilitation  | 3 |
| ATTR 667 | Physical Rehabilitation Lab  | 1 |
| ATTR 668 | Therapeutic Modalities   | 3 |
| ATTR 669 | Therapeutic Modalities Lab   | 1 |
| ATTR 670 | General Medical Conditions and Therapeutic Medication                          | 3 |
| ATTR 671 | Organization and Administration in Athletic Training                           | 3 |
| ATTR 672 | Professional Preparation and Issues in Athletic Training                       | 3 |
| ATTR 673 | Manual Therapy in Athletic Training  | 2 |
| KINE 628 | Nutrition in Sports and Exercise   | 3 |
| KINE 629 | Physiology of Strength and Conditioning  | 3 |
| KINE 685 | Directed Studies   | 2 |

Total: 60 hours

**Course Descriptions**

- ATTR 651 Clinical Education I. 2 credits**  
Integration of clinical competencies with classroom instruction and a supervised field based experience in athletic training to link theory into practice.  
Prerequisite: Enrollment in MS athletic training program.
- ATTR 652 Clinical Education II. 3 credits**  
Integration of clinical competencies with classroom instruction and a supervised field based experience in athletic training to link theory into practice.  
Prerequisite: ATTR 651, ATTR 660, ATTR 661 with a C or better.
- ATTR 653 Clinical Education III. 3 credits**  
Integration of clinical competencies with classroom instruction and a supervised field based experience in athletic training to link theory into practice.  
Prerequisite: ATTR 652, ATTR 662, ATTR 663, ATTR 668, ATTR 669 with a C or better.
- ATTR 655 Clinical Education V. 3 credits**  
Integration of clinical competencies with classroom instruction and a supervised field based experience in athletic training to link theory into practice.  
Prerequisite: ATTR 654, ATTR 664, ATTR 665, ATTR 671 with a C or better.
- ATTR 656 Clinical Education VI. 3 credits**  
Integration of clinical competencies with classroom instruction and a supervised field based experience in athletic training to link theory into practice.  
Prerequisite: ATTR 655, ATTR 666, ATTR 667, ATTR 670 with a C or better.
- ATTR 660 Prevention and Care of Athletic Injuries. 3 credits**  
Prevention strategies and procedures, recognition and care of common injuries and conditions. Foundational concepts and principles of the athletic training profession are included. Prerequisite: Enrollment in MS athletic training program.
- ATTR 661 Prevention and Care of Athletic Injuries Lab. 1 credit**  
Laboratory to accompany ATTR 660; application of theories and skill practice.
- ATTR 662 Clinical Examination and Diagnosis-Lower Extremity. 3 credits**  
Pathomechanics, clinical examination, diagnosis and appropriate medical referral of orthopedic injuries and other conditions to the lower extremity and spine.  
Prerequisite: Enrollment in MS athletic training program.
- ATTR 663 Clinical Examination and Diagnosis -Lower Extremity Lab. 1 credit**  
Laboratory to accompany ATTR 662; application of theories and skill practice.  
Prerequisite: Enrollment in MS athletic training program. Course includes cadaver lab.

- ATTR 664 Clinical Examination and Diagnosis-Upper Extremity. 3 credits**  
Pathomechanics, clinical examination, diagnosis and appropriate medical referral of orthopedic injuries and other conditions to the upper extremity, head and cervical spine. Prerequisite: ATTR 662 with a C or better.
- ATTR 665 Clinical Examination and Diagnosis -Upper Extremity Lab. 1 credit**  
Laboratory to accompany ATTR 664; application of theories and skill practice. Prerequisite: Enrollment in MS athletic training program. Course includes cadaver lab.
- ATTR 666 Physical Rehabilitation. 3 credits**  
The study of physical rehabilitation theory and techniques used as a therapeutic intervention for orthopedic injuries and conditions. Prerequisite: Enrollment in MS athletic training program.
- ATTR 667 Physical Rehabilitation Lab. 1 credit**  
Laboratory to accompany ATTR 666; application of theories and skill practice. Prerequisite: Enrollment in MS athletic training program.
- ATTR 668 Therapeutic Modalities. 3 credits**  
A detailed study of modern therapeutic devices used in the treatment and rehabilitation of orthopedic injuries and conditions. Prerequisite: Enrollment in MS athletic training program.
- ATTR 669 Therapeutic Modalities Lab. 1 credit**  
Laboratory to accompany ATTR 668; application of theories and skill practice. Prerequisite: Enrollment in MS athletic training program.
- ATTR 670 General Medical Conditions and Therapeutic Medication. 3 credits**  
Pathophysiology, assessment, and appropriate intervention and referral for general medical conditions and disabilities; common diagnostic tests and imaging assessment tools including commonly used therapeutic medications. Prerequisite: Enrollment in MS athletic training program.
- ATTR 671 Organization and Administration in Athletic Training. 3 credits**  
Organization and administration of athletic training services including financial, human resources, facility, information technology and risk management. Prerequisite: Enrollment in MS athletic training program.
- ATTR 672 Professional Preparation and Issues in Athletic Training. 3 credits**  
Knowledge and skills for successful pursuit of athletic training credentials, employment and continuing professional competencies; emphasis on current topics and issues contributing to the professional preparation of athletic training. Prerequisite: Enrollment in MS in athletic training program.

- ATTR 673 Manual Therapy in Athletic Training. 2 credits**  
Manual therapy theory and techniques used as a therapeutic intervention for orthopedic injuries and conditions; indications and contradictions for the use of manual therapy; skill development in soft tissue assessment; application of manual and tool assisted techniques.
- KINE 601 Reading Research (Research Methods). 3 credits**  
Instruction in, and development of, research skills through the study of published reports and readings in kinesiology.
- KINE 628 Nutrition in Sports and Exercise. 3 credits**  
Interaction between nutrition, exercise, and athletic performance: including: biomechanical and physiological aspects of nutrition and exercise; nutrition for training and competition; exercise and oxidant stress; nutritional supplements and ergogenic acids; and, nutritional aspects of body composition and weight control. Prerequisite: Graduate classification; BIOL 320; KINE 433 or approval of instructor.
- KINE 629 Physiology of Strength and Conditioning. 3 credits**  
Physiological, bio-mechanical, and metabolic aspects of muscular strength and conditioning programs for various athletic and non-athletic populations; review of resistance training based on scientific literature; promote the use of a structured scientific approach in the prescription of progressive resistance training. Prerequisite: Graduate classification, BIOL 320; KINE 433 or approval of instructor.
- KINE 681 Seminar. 1 credit**  
Reports and discussions of topics of current interest in kinesiology.
- KINE 685 Directed Studies. 2 credits**  
Directed study of selected problems in athletic training.
- KINE 690S Theory of Kinesiology (Statistics). 3 credits (S/U)**  
Theory and design of research problems and experiments in various subfields of the discipline; communication of research proposals and results; evaluation of current research of faculty and students and review of current literature.

**Course Sequence**

|   |   |   |   |
|---|---|---|---|
|   |   | <b>Summer 1st year (2<sup>nd</sup> session)</b> |   |
|   |   | ATTR 660 Prev and Care of Athl Injuries         | 3 |
|   |   | ATTR 661 Prev and Care of Athl Injuries Lab     | 1 |
|   |   | ATTR 651 Clinical Education I                   | 2 |
|   |   | <b>6 hours</b>                                  |   |
| <b>Fall 1<sup>st</sup> year</b>                 |   | <b>Spring 1<sup>st</sup> Year</b>               |   |
| ATTR 652 Clinical Education II                  | 3 | ATTR 653 Clinical Education III                 | 3 |
| ATTR 662 Clin Exam and Diagnosis-LE             | 3 | ATTR 671 Organization and Admin in Athl Tr      | 3 |
| ATTR 663 Clin Exam and Diagnosis Lab-LE         | 1 | ATTR 664 Clin Exam and Diagnosis-UE             | 3 |
| ATTR 668 Therapeutic Modalities                 | 3 | ATTR 665 Clin Exam and Diagnosis Lab-UE         | 1 |
| ATTR 669 Therapeutic Modalities Lab             | 1 | KINE 681 Seminar 1                              | 1 |
| KINE 601 Reading Research                       | 3 |   |   |
| <b>14 hours</b>                                 |   | <b>11 hours</b>                                 |   |
| <b>Summer 2nd year (1<sup>st</sup> session)</b> |   |   |   |
| KINE 628 Nutrition in Sports and Exercise       | 3 |   |   |
| KINE 690S Theory of Kinesiology (Stats)         | 3 |   |   |
| <b>6 hours</b>                                  |   |   |   |
| <b>Fall 2<sup>nd</sup> year</b>                 |   | <b>Spring 2<sup>nd</sup> year</b>               |   |
| ATTR 655 Clinical Education V                   | 3 | ATTR 656 Clinical Education VI                  | 3 |
| ATTR 670 General Med Cond and Ther Med          | 3 | KINE 629 Phys of Strength & Cond                | 3 |
| ATTR 666 Physical Rehabilitation                | 3 | ATTR 672 Professional Prep and Issues Athl Tr   | 3 |
| ATTR 667 Physical Rehabilitation Lab            | 1 | KINE 685 Directed Studies                       | 1 |
| ATTR 673 Manual Therapy in Athletic Tr          | 2 |   |   |
| KINE 685 Directed Studies 1                     | 1 |   |   |
| <b>13 hours</b>                                 |   | <b>10 hours</b>                                 |   |