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SCR 35



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Testimony by: Michelle Cleary PhD, ATC, Associate Professor
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Relating to Athletic Trainers
SCR 35, Athletic Trainer Licensing Act
Position: Support

Members of the Committee:

As Director of the Entry-Level Graduate Athletic Training Education Program at the University of Hawaii, Manoa, I am writing in support of **SCR 35, Athletic Trainer Licensing Act** relating to licensure of Certified Athletic Trainers and to provide facts on the educational preparation of these highly qualified health care professionals. Athletic Trainers are highly educated and credentialed health care professionals and endorsing their scope of practice through regulation consistent with other health care professionals in the State of Hawaii is in the best interest of the public and consumer safety.

FACT: Athletic trainers are recognized health care professionals.

ATCs are highly qualified, multi-skilled health care professionals and have been part of the American Medical Association's Health Professions Career and Education Directory for more than a decade. Athletic trainers are assigned National Provider Identifier (NPI) numbers like all other health care professionals. Additionally, the American Academy of Family Physicians, American Academy of Pediatrics and American Orthopedic Society for Sports Medicine – among others – are all strong clinical and academic supporters of athletic trainers.¹

FACT: An independent national board certifies athletic trainers.

The independent Board of Certification Inc. (BOC) nationally certifies athletic trainers. Unlike personal training with multiple routes and multiple credentials, BOC Certification is the "gold standard" credential required to practice Athletic Training and is regulated by licensure in 43 other states. In Hawaii, the presence of the BOC certified athletic trainer is standard practice in professional and intercollegiate sports and mandated in every public high school. Board of Certification (BOC) Certified Athletic Trainers (ATC) are medical professionals who specialize in the prevention, assessment, diagnosis, treatment, and rehabilitation of injuries to athletes and others who are engaged in everyday physical activities. Athletic trainers care for physically active individuals in secondary schools, colleges and universities, professional athletic teams, hospitals, private clinics, and industrial settings under the direction of a physician. Across the nation and increasingly in Hawaii, more than 50% of Athletic Trainers provide health care services, including rehabilitation, in settings other than the traditional education-

based athletic setting. The athletic trainer functions in cooperation with medical personnel, athletic personnel, individuals involved in physical activity, parents, and guardians in the development and coordination of efficient and responsive athletic health care delivery systems.¹ Sports medicine clinics and physicians offices employ ATCs to provide associated rehabilitation and surgical care. These sports medicine clinics have ATCs on staff in addition to orthopedic surgeons, physician assistants, physical therapists, and other health care professionals.²

Athletic trainers must pass an examination and hold an entry-level bachelor's or master's degree to become a certified athletic trainer. To retain certification, credential holders must obtain 75 hours of medically related continuing education credits every three years and adhere to Standards of Professional Practice. The BOC is accredited by the National Commission for Certifying Agencies.¹

Successful completion of an accredited Entry-Level Athletic Training Education Program is required for eligibility for the BOC examination. Those who pass the exam are certified and their certification is retained as long as they meet the continuing education requirements set by the BOC. **The Role Delineation Study, Fifth Edition**³ defines the current entry-level knowledge, skills and abilities required for practice in the profession of athletic training. The BOC Examination evaluates candidates on the following domains of clinical practice:

- Prevention,
- Clinical Evaluation and Diagnosis,
- Immediate Care,
- Treatment, Rehabilitation and Reconditioning
- Organization and Administration
- Professional Responsibility

FACT: Nearly 70 percent of athletic trainers have a master's or doctoral degree. Certified athletic trainers are highly educated. Nearly 70 percent of ATC credential holders have a master's degree or higher advanced degree. Reflective of the broad base of skills valued by the athletic training profession, these master's degrees may be in athletic training (clinical), education, exercise physiology, counseling, health care administration or health promotion. This great majority of practitioners who hold advance degrees are comparable to other allied health care professionals.¹

FACT: All certified athletic trainers have at least a bachelor's degree from an accredited college or university. Athletic trainers are health care professionals similar to physical, occupational, speech language and other therapists. All certified or licensed athletic trainers must have a bachelor's or master's degree from an accredited college or university in order to practice athletic training. As of 2004, all new candidates for the BOC exam must have a degree from an accredited athletic training program that include established academic curricula. Academic programs are accredited through an independent process by the Commission on Accreditation of Athletic Training Education (CAATE).¹

The CAATE accredited Entry-Level Athletic Training Education Program at the University of Hawaii is housed in the Department of Kinesiology and Rehabilitation Science. Please see the attached Program Description and Competency and Proficiency information for additional details.

The Entry-Level Athletic Training Education Program mission is to prepare graduate students to become BOC certified athletic trainers and scholarly practitioners in the athletic training profession. The Program consists of classroom instruction, practicum/laboratory instruction, clinical experience, and research experiences in which the athletic training content areas of prevention and acute care, diagnosis, therapeutic modalities, rehabilitation, administration, professional development, medical conditions, pharmacology, nutrition, psychosocial intervention and referral are developed and inculcated.

Graduate students seeking BOC certification must complete a minimum of 62 credits, as well as pre-requisite courses and clinical observation requirements. The specific course requirements are identified in the Professional Education Program Academic Plan and the Clinical Education Plan (see attached). Graduation is contingent upon all program requirements being met, and a grade point average of no less than 3.0 (4.0 scale). In addition to a degree in Kinesiology or related field, the Program requires 2 years and 2 summers of full-time study or 6 semesters of course work with clinical experience under the direct supervision of an "Approved Clinical Instructor" (ACI).

FACT: The following educational content standards are required for athletic training degree programs. Students must receive formal instruction in the following specific subject matter areas:

Basic and Applied Sciences:

- Human anatomy
- Human physiology
- Chemistry
- Biology
- Physics
- Statistics and research design
- Exercise physiology
- Kinesiology/biomechanics

Professional Content:

- Risk management and injury prevention
- Pathology of injuries and illnesses
- Orthopedic clinical examination and diagnosis
- Medical conditions and disabilities
- Acute care of injuries and illnesses
- Therapeutic modalities
- Conditioning, rehabilitation, and referral
- Pharmacology
- Psychosocial intervention and referral
- Nutritional aspects of injuries and illnesses
- Health care administration

FACT: The National Athletic Trainers' Association has identified the Athletic Training Educational Competencies and Clinical Proficiencies (Competencies) as necessary for effective performance as an entry-level certified athletic trainer.

The Competencies and Proficiencies provide educational program personnel with the knowledge and skills to be mastered by students in an entry-level athletic training educational program. The Competencies provide the entry-level certified athletic trainer with the essential knowledge and skills needed to provide athletic training services to patients of differing ages and genders and work, and lifestyle circumstances and needs. The Commission on Accreditation of Athletic Training Education (CAATE), requires that the Competencies be used for curriculum development and education of the student enrolled in an accredited entry-level education program.

The Content Areas are instructed, practiced, and evaluated in the Core Academic Courses including a series of three orthopedic assessment courses (Lower Extremity;

Upper Extremity; and Head, Neck, and Spine) and two clinical skill Lecture/Lab format courses (Therapeutic Modalities, Therapeutic Exercise). Additional courses cover the remaining C&P Content Areas of athletic training. The Clinical Education Plan consists of a series of four Practicum and Clinical Experience courses where the application of knowledge and skills, learned in classroom and laboratory settings, are applied to actual practice on patients under the supervision of a Clinical Instructor.

Below is a table of the content areas and the courses dedicated to instructing and evaluating students on knowledge and skills in each of these areas. See attached Program Description document for more details.

Table 1. UH Entry-Level Athletic Training Curricular Plan

Content Areas	1 st Instructed & Evaluated	2 nd Instructed & Evaluated
0. Foundational Behaviors of Professional Practice	KLS 609 - 612	KLS 609 - 612
1. Risk Management and Injury Prevention	KLS 415	KLS 399, 393, 609
2. Pathology of Injuries and Illnesses*	KLS 420, 421, 615	KLS 393, 394, 493, 494
3. Orthopedic Clinical Examination and Diagnosis*	KLS 420, 421, 615	KLS 393, 394, 493, 494
4. Medical Conditions and Disabilities	KLS 619	KLS 493, 611
5. Acute Care of Injuries and Illnesses	KLS 415	KLS 393, 609
6. Therapeutic Modalities	KLS 617	KLS 394, 610
7. Conditioning and Rehabilitative Exercise*	KLS 618	KLS 493, 611
8. Pharmacology	KLS 619	KLS 493, 611
9. Psychosocial Intervention and Referral*	KLS 619	KLS 493, 611
10. Nutritional Aspects of Injuries and Illnesses	KLS 619	KLS 493, 611
11. Health Care Administration	KLS 419	KLS 393, 609
12. Professional Development and Responsibility	KLS 419, 622	KLS 393, 609, 494, 612

Bold indicates Clinical Education Courses

*Example provided

FACT: ATCs provide rehabilitation services that improve patient functional and physical outcomes.

Results from a nationwide Medical Outcomes Survey demonstrate that care provided by ATCs effects a significant change in all outcomes variables measured, with the greatest change in functional outcomes and physical outcomes. The investigation indicates that care provided by ATCs generates a change in health-related quality of life patient outcomes. (Ref: Albohm MJ, Wilkerson GB. An outcomes assessment of care provided by certified athletic trainers. *Journal of Rehabilitation Outcomes Measure* 1999; 3 (3):51-56.)

In addition, the results of a comparative analysis of care provided by certified athletic trainers and physical therapists in a clinical setting indicated ATCs provide the same levels of outcomes, value and patient satisfaction as physical therapists in a clinical setting. Patient satisfaction ratings are more than 96 percent when treatment is provided

by ATCs. (Ref: *Reimbursement of Athletic Training* by Albohm, MJ; Campbell, Konin, pp. 25).

Testimonials from Physicians on the Educational Preparation of ATCs¹

“The educational background of a certified athletic trainer is the perfect preparation for assisting an orthopedic surgeon. The knowledge of musculoskeletal anatomy, function and clinical experience in the diagnosis and treatment of musculoskeletal disorders is virtually unmatched, even amongst medical students. I believe that ATCs are the best physician extenders, and I use them in that role daily.”

– Ron Clark, medical director, Valparaiso (Ind.) Orthopedic Clinic

“I realized early on in my career that ATCs are the only health care professionals who devote their entire education and professional lives to taking care of active people. My patients experience excellent outcomes as a result of therapy provided by ATCs. My patients love working with them. ATCs are a value added service to my practice. I could not do without them.”

– Thomas D. Kohl, medical director, family practice physician; director, Sports Medicine, Comprehensive Athletic Treatment Center, Wyomissing, Pa.

If I can be of further assistance, please do not hesitate to contact me at the email or phone number below.

Respectfully Submitted,

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Reference Cited:

1. The FACTS about Certified Athletic Trainers. From the National Athletic Trainers Association website: www.nata.org. Accessed on February 28, 2009.
2. National Athletic Trainers Association information for students: <http://www.nata.org/student/index.htm>. Accessed on February 28, 2009.
3. BOC candidate Handbook from: www.bocatc.org. Accessed on February 28, 2009.

Examples of Clinical Proficiencies Instructed and Evaluated in an Entry-Level Athletic Training Education Program

The Professional Education Plan encompasses all aspects of the student's academic classroom and clinical experiences. The Professional Education Plan consists of Formal Education/Didactic instruction and the Clinical Education Plan including Clinical Education Courses and Clinical Experiences. The Professional Education Plan incorporates the competencies and the proficiencies (C&P) from the 2006 NATA Educational Competencies (4th Edition) containing 12 C&P Content Areas. The following are examples of the approximately 1200 competencies and proficiencies.

Pathology Competencies

PA-C1 Describe the essential components of a typical human cell. Include the normal structure and the function of each component and explain the abnormal symptoms associated with injury, illness, and disease.

PA-C2 Explain gross cellular adaptations in response to stress, injury, or disease (e.g., atrophy, hypertrophy, differentiation, hyperplasia, metaplasia, and tumors).

PA-C3 Explain normal and abnormal circulation and the physiology of fluid homeostasis.

PA-C4 Identify the normal acute and chronic physiological and pathological responses (e.g., inflammation, immune response, and healing process) of the human body to trauma, hypoxia, microbiologic agents, genetic derangements, nutritional deficiencies, chemicals, drugs, and aging affecting the musculoskeletal and other organ systems, and musculoskeletal system adaptations to disuse.

PA-C5 Describe the etiology, pathogenesis, pathomechanics, signs, symptoms, and epidemiology of common orthopedic injuries, illnesses and diseases to the body's systems.

PA-C6 Describe the body's responses to physical exercise during common diseases, illnesses, and the injury.

Diagnosis Clinical Proficiencies

DI-CP1 Demonstrate a musculoskeletal assessment of upper extremity, lower extremity, head/face, and spine (including the ribs) for the purpose of identifying (a) common acquired or congenital risk factors that would predispose the patient to injury and (b) a musculoskeletal injury. This will include identification and recommendations for the correction of acquired or congenital risk factors for injury. At the conclusion of the assessment, the student will diagnose the patient's condition and determine and apply immediate treatment and/or referral in the management of the condition. Effective lines of communication should be established to elicit and convey information about the patient's status. While maintaining patient confidentiality, all aspects of the assessment should be documented using standardized record-keeping methods.

DI-CP1.1 Foot and Toes

DI-CP1.2 Ankle

DI-CP1.3 Lower Leg

DI-CP1.4 Knee (tibiofemoral and patellofemoral)

DI-CP1.5 Thigh

DI-CP1.6 Hip/Pelvis/Sacroiliac Joint

DI-CP1.7 Lumbar Spine

- DI-CP1.8 Thoracic Spine
- DI-CP1.9 Ribs
- DI-CP1.10 Cervical Spine
- DI-CP1.11 Shoulder Girdle
- DI-CP1.12 Upper Arm
- DI-CP1.13 Elbow
- DI-CP1.14 Forearm
- DI-CP1.15 Wrist
- DI-CP1.16 Hand, Fingers & Thumb
- DI-CP1.17 Head and Face
- DI-CP1.18 Temporomandibular Joint

Therapeutic Modalities Clinical Proficiencies

TM-CP1 Synthesize information obtained in a patient interview and physical examination to determine the indications, contraindications and precautions for the selection, patient set-up, and evidence-based application of therapeutic modalities for acute and chronic injuries. The student will formulate a progressive treatment and rehabilitation plan and appropriately apply the modalities. Effective lines of communication should be established to elicit and convey information about the patient's status and the prescribed modality(s). While maintaining patient confidentiality, all aspects of the treatment plan should be documented using standardized record-keeping methods.

- TM-CP1.1 Infrared Modalities
- TM-CP1.2 Electrical Stimulation Modalities
- TM-CP1.3 Therapeutic Ultrasound
- TM-CP1.4 Mechanical Modalities
- TM-CP1.5 Massage and other Manual Techniques

Therapeutic Exercise Clinical Proficiencies

EX-CP Synthesize information obtained in a patient interview and physical examination to determine the indications, contraindications and precautions for the selection, application, and evidence-based design of a therapeutic exercise program for injuries to the upper extremity, lower extremity, trunk, and spine. The student will formulate a progressive rehabilitation plan and appropriately demonstrate and/or instruct the exercises and/or techniques to the patient. Effective lines of communication should be established to elicit and convey information about the patient's status and the prescribed exercise(s). While maintaining patient confidentiality, all aspects of the exercise plan should be documented using standardized record-keeping methods.

- EX-CP1 Program for injuries to the Upper extremity, Lower extremity, Trunk, and Spine
- EX-CP1.1 Exercises and Techniques to Improve Joint Range of Motion
- EX-CP1.2 Exercises to Improve Muscular Strength
- EX-CP1.3 Exercises to Improve Muscular Endurance
- EX-CP1.4 Exercises to Improve Muscular Speed
- EX-CP1.5 Exercises to Improve Muscular Power
- EX-CP1.6 Exercises to Improve Balance, Neuromuscular Control, and Coordination
- EX-CP1.7 Exercises to Improve Agility
- EX-CP1.8 Exercises to Improve Cardiorespiratory Endurance

EX-CP1.9 Exercises to Improve Activity-Specific Skills, including Ergonomics and Work Hardening

Psychosocial Intervention and Referral Clinical Proficiencies

PS-CP2 Demonstrate the ability to select and integrate appropriate motivational techniques into a patient's treatment or rehabilitation program. This includes, but is not limited to, verbal motivation, visualization, imagery, and/or desensitization. Effective lines of communication should be established to elicit and convey information about the techniques. While maintaining patient confidentiality, all aspects of the program should be documented using standardized record-keeping techniques.

From the NATA Education Council website:

http://www.nataec.org/EducationPrograms/ProfessionalEducationentrylevel/Competencies/tabid/79/Default.aspx#_contentareas. Accessed February 26, 2009.

University of Hawai'i at Manoa
Department of Kinesiology and Rehabilitation Science
MASTERS OF SCIENCE DEGREE
ENTRY-LEVEL ATHLETIC TRAINING
CAATE Accredited since 05/2005

PROGRAM DESCRIPTION

The Athletic Training Profession

Board of Certification (BOC) Certified Athletic Trainers (ATC) are medical professionals who specialize in the prevention, assessment, treatment, and rehabilitation of injuries to athletes and others who are engaged in everyday physical activities. The presence of the BOC certified athletic trainer is standard practice in professional and intercollegiate sports and mandated in every public high school in Hawai'i. Many other states require an ATC at practices and competitions. Consequently, sports medicine clinics are being founded to serve the populations not covered by full or part time ATCs, and to provide associated rehabilitation and surgical care. These sports medicine clinics have ATCs on staff in addition to orthopedic surgeons, physician assistants, physical therapists, and other allied health professionals. The growth in physical fitness awareness and sport participation emphasizes the need for appropriate health care in junior high schools, high schools, colleges and universities, professional athletic organizations, sports medicine clinics, health clubs, sports clubs, recreation centers and company based fitness centers. Please visit the National Athletic Trainers' Association website for additional information about careers in athletic training: <http://www.nata.org>.

Entry-Level Graduate Athletic Training Education Program (EL-GATEP)

Program Mission

The EL-GATEP mission is to prepare graduate students to become BOC certified athletic trainers and scholarly practitioners in the athletic training profession.

Admission Requirements

Applicants must meet the requirements of the Graduate Division. Each applicant admitted will be classified in one of two categories: (1) Regular status - student who has a Baccalaureate degree in the area which they will pursue and a minimum overall grade point average of 3.0 during the final two years of undergraduate work, or (2) Conditional status – student of promise who may have a deficiency in grade point average and/or subject matter preparation. Please see the University of Hawai'i at Manoa Graduate Division website for details:
<http://www.hawaii.edu/graduatestudies/fields/html/departments/hijkl/kls/kls.htm>.

Applicants for the MS degree will be further evaluated on their pre-professional preparation and previous clinical experiences. Entry-Level Graduate Athletic Training Education Program applicants must complete the EL-GATEP Pre-Professional requirements and the application to admission (in addition to applying to the Graduate Division). Potential students are required to complete ~50 hours of observation of an Athletic Training Clinic at a local university or high school prior to application to the program. Potential students must read and complete the "Technical standards" prior to consideration for admission. Please visit the UH EL-GATEP website at <http://www.hawaii.edu/kls/at-sm/> for details.

Pre-Professional Program Requirements (Pre-Requisites)

The Department of Kinesiology and Rehabilitation Science (KRS) provides all of the Pre-Professional (pre-requisite) requirements for the Entry-Level Graduate Athletic Training Education Program prior to admission. Additionally, athletic training and related coursework may allow students to fulfill the requirements for entry into other allied health programs (e.g. physical therapy, occupational therapy, physician assistant, medicine, etc.). Upon completion of the EL-GATEP, the student will fulfill all of the requirements for BOC certification. For more information about KRS, please visit:
<http://www.hawaii.edu/coe/departments/kls/index.shtml>.

The following courses are Pre-Professional requirements for admission to the EL-GATEP. These courses may be completed at UH (highly recommended) or the course equivalent may be considered upon approval by the Program

Director. Pre-Professional Program requirements (pre-requisites) do not count toward the MS degree, but do count toward the BS in Health/Exercise Science and Lifestyle Management (as applicable).

The following table contains the Pre-Professional requirements for the EL-GATEP.

Pre-Professional Program Requirements:

The following courses MUST be completed before Admission to the program:		The following courses <i>should</i> be completed before Admission to the Program:	
PHYL 301/L	Human Anatomy & Physiology I	PSY 100	Survey of Psychology
PHYL 302/L	Human Anatomy & Physiology II	KRS 152	Weight Training
KRS 353	Structural Kinesiology	KRS 395	Personal Health & Wellness
KRS 354	Exercise and Sport Physiology	KRS 463	Sport Biomechanics
KRS 432	Emergency Care for Professional Rescuer	KRS 460	Nutrition & Exercise in Sport
-OR-	CPR/ AED for Professional Rescuer current card	KRS 415	Prevention & Care of Athletic Injuries

Professional Education Program Requirements

Academic Plan

The program is an accredited entry-level program by the Commission on Accreditation of Athletic Training Education (CAATE). The program consists of classroom instruction, practicum/laboratory instruction, clinical experience, and research experiences in which the athletic training content areas of prevention and acute care, diagnosis, therapeutic modalities, rehabilitation, administration, professional development, medical conditions, pharmacology, nutrition, psychosocial intervention and referral are developed and inculcated. Graduate students seeking BOC certification must complete a minimum of 62 credits, as well as pre-requisite courses and clinical observation requirements. The specific course requirements are identified in the Professional Education Program Academic Plan and the Clinical Education Plan. Graduation is contingent upon all program requirements being met, and a grade point average of no less than 3.0 (4.0 scale).

The EL-GATEP may be completed upon *regular* admission into the program, in 2 years and 2 summers of full-time study or 6 semesters of course work with clinical experience under the direct supervision of an "Approved Clinical Instructor" (ACI).

Clinical Education Plan

The Clinical Education Plan consists of the Practicum and the Clinical Experience classes. Competencies and Proficiencies are assessed in the Practicum Classes KRS 393, 394, 493, and 494. The EL-GATEP Clinical Experiences are obtained in KRS 609, 610, 611 & 612. Clinical rotation assignments require an average of 20 hours/week. Rotations consist of student assigned to Approved Clinical Instructors who provide direct supervision for coverage of sports with upper extremity injuries, lower extremity injuries, equipment intensive, general medical, and rehabilitation settings. Clinical Proficiencies and Foundational Professional Behaviors are formally evaluated by the ACI in during the Clinical Experience. Additionally male, female, team, individual and dual sports are also factors in clinical assignments.

REQUIREMENTS FOR THE MASTERS OF SCIENCE DEGREE

EL-GATEP students must complete:

- > Pre-requisite courses (as needed)
- > A minimum of 62 credits of required core courses
- > Clinical experience requirements
- > Culminating activity (KRS 622)
- > Final (Comprehensive) Examination

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MASTERS OF SCIENCE DEGREE
ENTRY-LEVEL ATHLETIC TRAINING

Professional Education Plan

The following Professional Education courses are required for graduation from the EL-GATEP:

Course	Title	CR
KRS 415	Prevention & Care of Athletic Injuries	~
KRS 497	Introduction to the Athletic Training Clinic	3
KRS 419	Athletic Training Administration	3
KRS 420	Lower Extremity Assessment	3
KRS 421	Upper Extremity Assessment	3
KRS 393	Athletic Training Practicum I	3
KRS 394	Athletic Training Practicum II	3
KRS 493	Athletic Training Practicum III	3
KRS 494	Athletic Training Practicum IV	3
KRS 609	Athletic Training Clinical Experience I	3
KRS 610	Athletic Training Clinical Experience II	3
KRS 611	Athletic Training Clinical Experience III	3
KRS 612	Athletic Training Clinical Experience IV	3
KRS 615	Head, Neck, & Spine Assessment	3
KRS 617	Therapeutic Modalities	4
KRS 618	Therapeutic Exercise	4
KRS 619	General Medical Conditions	3
KRS 622	AT Capstone Experience	3
KRS 641	Seminar	3
KRS 673	Research Methods	3
EDEP 629	Statistics	3
Total required for Graduation		62

**TOTAL GRADUATE CREDITS REQUIRED FOR
 THE MASTERS OF SCIENCE DEGREE
 IN
 ENTRY-LEVEL ATHLETIC TRAINING = 62**

Students are only admitted in the **Fall Semester** and upon completion of the Pre-Professional Program requirements. Deadline for application is **April 1**.

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 Department of Kinesiology and Rehabilitation Science
MASTERS OF SCIENCE DEGREE
ENTRY-LEVEL ATHLETIC TRAINING

Professional Education Plan

OPTIONAL Pre-Professional Preparation YEAR

If needed, for non-Kinesiology students or English as Second Language students

Fall Semester		Spring Semester	
PHYL 301/L	Human Anatomy & Physiology I	PHYL 302/L	Human Anatomy & Physiology II
KRS 353	Structural Kinesiology	KRS 354	Exercise and Sport Physiology
KRS 152	Weight Training	KRS 463	Sport Biomechanics
KRS 395	Personal Health & Wellness	KRS 460	Nutrition & Exercise in Sport
PSY 100	Survey of Psychology	Apply to Graduate Division and EL-GATEP	
Volunteer Observation in the UH Athletic Training Clinic (requires approval from Head Athletic Trainer and Program Director)			

The following is the **REQUIRED** course sequence:

YEAR I			
Summer Session II			
KRS 415	Prevention & Care (~)		
KRS 497	Intro to Athletic Training Clinic (3) Required pre-season in-service		
Fall Semester		Spring Semester	
KRS 393	AT Practicum I (3)	KRS 394	AT Practicum II (3)
KRS 609	Clinical Experience I (3)	KRS 610	Clinical Experience II (3)
KRS 420	Lower Extremity Assessment (3)	KRS 421	Upper Extremity Assessment (3)
KRS 617	Therapeutic Modalities (4) Pre-requisite/Elective (as needed)	KRS 618	Therapeutic Exercise (4) Pre-requisite/Elective (as needed)

YEAR II			
Summer Session II			
KRS 419	Administration in AT (3)		
KRS 619	General Medical Conditions (3)		
Fall Semester		Spring Semester	
KRS 493	AT Practicum III (3)	KRS 494	AT Practicum IV (3)
KRS 611	Clinical Experience III (3)	KRS 612	Clinical Experience IV (3)
KRS 615	Head, Neck & Spine Assessment (3)	KRS 622	AT Capstone Experience (3)
KRS 673	Research Methods (3)	KRS 641	Seminar (3)
EDEP 629	Statistics (3)	Approved Elective (as needed)	

Courses in bold MUST be taken in the semester prescribed and are offered **ONLY** in the semester indicated.

For course descriptions go to: <http://www.catalog.hawaii.edu/courses/departments/kls.htm>