THEORETICAL DEVELOPMENT OF AN EXTRA-CURRICULAR, CLINICALLY ORIENTED INTERNATIONAL ATHLETIC TRAINING EDUCATION PROGRAM FOR FOREIGN NATIONAL STUDENTS ATTENDING INDIGENOUS ATHLETIC TRAINING/SPORTS MEDICINE PROGRAMS

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DEDICATIONS

This dissertation is dedicated to my Oba ‘ohana:

Rie Oba
Shota Oba
Haruto Oba
Takuya Oba
Chiemi Oba
Takayuki Oba

Thank you all from the bottom of my heart.
ABSTRACT

The International Program of Athletic Training in Hawaii (IPATH) was developed utilizing the six-step theoretical approach for program planning to offer the Japan Sports Association (JASA) athletic training (AT) program students a supplemental athletic training education at the University of Hawai‘i at Mānoa (UHM). Step one involves analysis of planning context and client system. The planning idea originally emerged from the previous experiences of interactions with Japanese institutions and the KRS department via athletic training education and human cadaver dissection opportunities. Step two includes justification of the IPATH based on the needs evidenced in previous literature, UHM’s previous experiences and available resources. Three “needs” were identified among the JASA-AT education system: enrichment of the clinical experience; increased opportunity in cadaver dissection for human anatomy learning; and international experience/improvement of English proficiency over two-week IPATH Spring and Fall programs. In order to meet the needs, clear visions, missions, goals and objectives were developed in Step three. Measurable objectives were designed in the didactic and clinical courses, which consist of human cadaver anatomy, athletic training injury assessment, athletic training administration, clinical experience, and athletic training focused English language. All of the courses can be delivered via pre-existing resources that are officially affiliated with the UHM. Step four involved the presentation of detailed structures and design of IPATH Spring and Fall programs. Step five entailed the discussion of the administrative concerns associated with the program cost, time involved, instructors, student requirements, student housing, and travel expenses. Utilizing realistic figures based on existing university resources, the estimate of the AT program fees were calculated and proposed. The barriers to implementation may include: recruitment difficulty, low baseline language proficiency, differences between academic
year system in the US and Japan, financial limitations, and length of stay. The step six involved proposal of series of evaluation plans with sample evaluation tools to evaluate; student performance, academic courses, and the overall program experience. Establishment of thorough evaluation tools is indispensable to constantly keep international athletic training education current and effective. The IPATH is intended to target athletic training population worldwide in the future.
# TABLE OF CONTENTS

ABSTRACT ...................................................................................................................... iii

LIST OF TABLES ........................................................................................................ vi

LIST OF FIGURES ....................................................................................................... vii

PART I: INTRODUCTION ................................................................................................. 1

OPERATIONAL DEFINITIONS .................................................................................... 4

METHODOLOGY ........................................................................................................... 6
  Research Design ......................................................................................................... 6
  Participants ............................................................................................................... 7
  Analysis of Planning Context and Client System- Step 1 ........................................ 7
  Justification and Focus of Planning- Step 2 ............................................................ 14

RESULTS ..................................................................................................................... 24
  Development of Vision, Mission, goals and Objectives- Step 3 ............................. 24
  Formulation of Instructional Plan- Step 4 ............................................................... 29

DISCUSSION ................................................................................................................ 38
  Formulation of Administrative and Financial Plan- Step 5 ................................... 38
  Development of an Evaluation Plan- Step 6 .......................................................... 50

CONCLUSION .............................................................................................................. 54

PART II: REVIEW OF LITERATURE ........................................................................... 57

APPENDICES ............................................................................................................... 82
  Appendix A ............................................................................................................ 83
  Appendix B ............................................................................................................ 96
  Appendix C ............................................................................................................ 97
  Appendix D .......................................................................................................... 100
  Appendix E .......................................................................................................... 103
  Appendix F .......................................................................................................... 106
  Appendix G .......................................................................................................... 108
  Appendix H .......................................................................................................... 109
  Appendix I .......................................................................................................... 113
  Appendix J .......................................................................................................... 115
  Appendix K .......................................................................................................... 116
  Appendix L .......................................................................................................... 118
  Appendix M .......................................................................................................... 119
  Appendix N .......................................................................................................... 120
  Appendix O .......................................................................................................... 121
  Appendix P .......................................................................................................... 123
LIST OF TABLES

Table 1 Summary of Objectives and Courses Designed to Address the Objectives .......................... 29
Table 2 Summary of IPATH Programs of Study.................................................................................. 30
Table 3 Summary of Sample UHM KRS Portion of Time, Facilities, Cites and Costs Incurred for IPATH Spring Program ........................................................................................................... 40
Table 4 Summary of Sample UHM KRS Portion of Time, Facilities, Cites and Costs Incurred for IPATH Fall Program ....................................................................................................................... 41
Table 5 Summary of Sample AT Anatomy and AT English Course Related Fee ................................. 42
Table 6 Summary of Estimated Program Educational Fee for IPATH Spring and Fall Programs ................................................................................................................................................................................. 45
Table 7 Summary of Estimated Individual (per student) Cost for IPATH Spring and Fall Programs ............................................................................................................................................................................. 46
Table 8 Summary of Evaluation Plan for IPATH (Spring and Fall) ....................................................... 53
LIST OF FIGURES

Figure 1 Interactive Nature of Six-Step Approach to Educational Program Planning .................. 6
Figure 2 IPATH Spring Sample Program Schedule .................................................................... 31
Figure 3 IPATH Fall Sample Program Schedule .................................................................... 31
Figure 4 Schematic Presentation of IPATH Payment Processing System ................................. 46
PART I: INTRODUCTION

Waves of globalization have made the world more “flat” than ever, as the global community is becoming interconnected and interdependent [1]. The flattening of the world has resulted in the development of transnational educational and clinical opportunities, such as study abroad programs, internships and collaborative teaching, research and training agreements [2]. According to the latest data from United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics (UIS), the number of internationally mobile student participants\(^1\) has doubled from two to greater than four million students in 2002 to 2012, respectively [3]. Globalization of the athletic training and physical therapy “like” associated professions worldwide, is considered an indispensable component in the continued development and evolution of these professions in order to accommodate the rapid increase in national and international sports competitions and patient care in diverse populations [2, 4]. It is imperative that athletic training students and the “like” are provided early exposures to multicultural education to facilitate and build appreciation and understanding of these cultural differences [5]. Thus, academic institutions are compelled to plan effective educational curricula for successful programs taking full advantage of the transnational athletic training educational experience.

Educational curriculum planning is a decision-making process specifically designed to systematically produce instructional activities that change human capability in some respect [6, 7]. This process includes application of a theoretical model or models involving a series of tasks for the development of a feasible and appropriate plan for a desired outcome [6, 8]. Over 90 theoretical models have been identified since 1950 [9]. The vast majority of these models share

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\(^{1}\) The UNESCO defines “internationally mobile students” as “students who have crossed a national border to study, or are enrolled in a distance learning program abroad. These students are not residents or citizens of the country where they study”.

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commonalities that consist of multiple decision points, often labeled “steps” arranged in a way that rational connections that identify the interactive nature of the plan can be utilized effectively and efficiently. Typically these framework models include steps related to: identification of ideas and purposes for programs; specification of the expected outcomes; design of the instructional component; and development of a program evaluation plan [6-8]. These theoretical models are ideal processes that reflect authors’ perspectives of how planning should be performed, however, theoreticians and practitioners generally do not agree on the process by which educational programs should be planned [10].

Educational program planners often employ theoretical models in a very general sense in practice [6]. Especially with confrontation of unanticipated opportunities or events, planners tend to alter the course of the model conveniently to fit the context, the client, and the overall goal. Determination of superiority of one modeling approach over others is extremely difficult to quantify, as pure comparison of effectiveness and success of proposed planning models is often not feasible. Therefore, these models should not be treated as theories per se, but rather a framework for the application of theories that are economically, philosophically, politically and socially relevant to the context in which they are being used [1].

The most commonly used theoretical models in adult education involves a six-step approach [6]. The model, often used in the health profession [7], consists of: 1) analysis of the planning context and client system; 2) justification of planning; 3) development of vision, mission, goals, and objectives (educational and otherwise); 4) formulation of an instructional plan; 5) formulation of an administrative/financial plan; and 6) development of an evaluation plan. This six-step model has been utilized not only domestically by the institutions in the United States but internationally in other Asian countries such as Japan and China [7].
Therefore, the purpose of this study was to utilize the six-step framework to develop a theoretical model of an extra-curricular clinically oriented international athletic training education program in the United States for international non-English speaking students attending foreign athletic training education programs.
OPERATIONAL DEFINITIONS

The following operational definitions are provided to ensure clarity of terms utilized in the dissertation study:

Curriculum: A planned educational contents experienced by target learners [7]. This term has been used interchangeably with terms “program” or “educational program” [6, 7].

Curriculum Development: An overall process of creating planned curriculum or educational program specific to target learners. The expression “curriculum development” is often used interchangeably with “program development”, “program planning”, “curriculum planning”, and “educational planning” [6-8, 10, 11].

Athletic Trainer (AT): A specialized sports-related healthcare professional proficient in the prevention, evaluation, treatment and rehabilitation of a variety of health problems typically experienced by physically active populations [12].

Certified Athletic Trainer (ATC): An allied healthcare credential given to individuals who have met all the academic and clinical requirements established by the National Athletic Trainers’ Association (NATA) and Board of Certification (BOC) (approximately 42,000 BOC certified ATs in the US [12]). Currently, the ATC credential is only earned upon successful completion of Commission on Accreditation on Athletic Training Education accredited Professional Athletic Training Education Program (ATEP).

Commission on Accreditation on Athletic Training Education (CAATE): The accreditation agency responsible for the Entry-Level, or “Professional” and Advanced or “Post-Professional” ATEPs, and residency program to provide comprehensive accreditation with acceptable educational standards for all the athletic training programs [13].

National Athletic Trainers’ Association (NATA): The only professional organization that
is strictly dedicated to the athletic training profession in the United States (US).

**Japan Sports Association (JASA):** The national-level organization that is responsible for the indigenous athletic training education and certification in Japan. The JASA is directly affiliated with the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) [14].

**Japan Sports Association Certified Athletic Trainer (JASA-AT):** A certification provided to individuals who have met all the academic and clinical requirements established by JASA. The JASA-AT currently forms the largest athletic training body in Japan (Approximately 2,000 JASA-ATs with 200 being newly certified per year). No reciprocity is present between the US’s ATC and Japan’s JASA-AT credentials [15].
METHODOLOGY

Research Design

A theoretical curriculum development format with extensive literature and resource review [16] was used in this study. The educational plan consisted of the six-step approach to develop an athletic training focused, and financially independent curriculum model (Figure 1). The University of Hawai‘i at Mānoa (UHM) was used as the United States (US) educational resource and the plan initiator. The methodology section includes discussions of Step 1 (analysis of planning context and client system) and Step 2 (justification of planning). Based on the justification, a theoretical model of the Steps 3 (development of vision, mission, goals and objectives), 4 (formulation of instructional plan), 5 (formulation of administrative/financial plan) and 6 (development of evaluation plan) follow the results and discussion sections.

Figure 1 Interactive Nature of Six-Step Approach to Educational Program Planning
Participants

The initial target population consists of Japanese athletic training students who actively participate in their indigenous accredited programs (i.e., JASA program) in order to deliver an extracurricular clinically oriented athletic training education program in Hawaii. The primary goal of this initial project is to develop a curriculum to promote athletic training education worldwide where the ultimate goal is to prevent catastrophic injuries that could negatively affect the quality of life of these individuals. In the following section (Step 1), the analysis of planning context includes the justification for this target delimitation to the Japanese population and discussion of the background of athletic training in the US and Japan to understand the evolution and current status of the profession in both countries.

Analysis of Planning Context and Client System- Step 1

Every planner initiates program planning in a unique environment as program ideas can be derived from a wide range of situations and resources. This step involves the detailed discussion of the philosophical, social, political, cultural, or economic environment in the contexts of the planners, clients and other stakeholders [6].

The Program Idea originated approximately 15 years ago, and became viable when the KRS chair, the first Japanese-American female BOC certified AT and the Professional ATEP program director, was invited to Japan by a forward thinking Japanese institution (The Sendai University, Miyagi, Japan) to present a lecture series regarding the status of athletic training in the US, to physical education majors and allied health professionals. Presentation content included titles such as: “Why Japan should not attempt to model the US Athletic training education system.” Research finding for these presentations indicated: the existence of a limited number of qualified JASA-ATs, few paid high school athletic training positions, and a culture
that made modeling the Japanese athletic training education system after the US impractical and not feasible. This lecture series would not have been possible without the assistance of the UHM Outreach College. All of the above events demonstrated that the UHM’s resources [e.g., Outreach College, the Department of Kinesiology and Rehabilitation Science (KRS), UHM Athletics Department, John A. Burns School of Medicine (JABSOM) and the Hawaii State Department of Education (DOE)] supplemented by the JASA programs AT educational programs could bring this original idea to fruition.

The UHM student body enrollment consists of approximately 20,000 ethnically diverse students (e.g., Asian: 41%, Caucasian: 24%, and Hawaiian/Pacific Islander: 17%). Japanese students account for the highest percentage (27%), of Asians followed by Filipino (20%), Chinese (18%) and Korean students (8%). Currently, (2013-14 academic year), a total of 1,128 international students from 82 different countries are enrolled at UHM with Japanese nationals representing the highest number of students (n=236) among all countries [17].

In 1868, native Japanese plantation workers were among the earliest immigrants to settle in the Hawaiian Islands. Additionally, Japanese Americans represent Hawaii’s largest immigrant population and Hawaii is geographically the closest and culturally more similar to Japan than any other state in the union [18]. Consequently, the UHM CAATE accredited Professional ATEP is the most accessible means of obtaining BOC certification for international Asian students and has been an educational resource for Japanese institutions for over a decade. The UHM KRS is the only university in the US to house two levels of CAATE accredited graduate athletic training education programs (Professional and Post-Professional) [19]. The JABSOM has offered human cadaver gross anatomy courses for Japanese healthcare professionals, such as acupressure masseuses, judo therapists, and acupuncturists yearly for over a decade [20-23]. As such,
Japanese institutions have taken advantage of the proximity of UHM to Japan, which offers a diverse National Collegiate Athletic Association (NCAA) Division IA athletic program, John A. Burns School of Medicine (JABSOM), and is the only state in the nation that mandates high school ATs in all DOE public high schools.

**Athletic Training Education in the United States** was formally organized by the NATA in 1950 [24, 25]. The first formal undergraduate Professional was approved in 1969 by the NATA’s Professional Education Committee [24], who also implemented the first certification examination in 1971 [26]. Currently the NATA association membership consists of approximately 42,000 BOC certified ATs in the United States who practice in a variety of settings for the physically active population [12]. The number of CAATE accredited programs has grown to 336 undergraduate, 29 graduate Professional ATEPs, and 16 Post-Professional ATEPs [27]. Successful completion of a CAATE accredited Professional ATEP is the sole route/ascension pathway to eligibility for the BOC examination in the US.

A competency-based curriculum model in the Professional ATEP was adopted in the early 1980s [24] based on findings of the “Role Delineation Studies” conducted by the BOC. The primary purpose of the Role Delineation Study was to identify the changing performance domains of practicing BOC certified ATs. It also serves as a valid framework for athletic training program development and successful completion of the BOC certification examination [24, 28]. The most current five performance domains include: 1) injury/illness prevention and wellness protection; 2) clinical evaluation and diagnosis; 3) immediate and emergency care; 4) treatment and rehabilitation; and 5) organizational and professional health and well-being [29]. The athletic training education competencies must involve “learning over time” and include all the performance tasks identified within the five performance domains.
The latest, *Athletic Training Education Competencies* (fifth edition) [30] consists of the following context areas: Evidence-Based Practice; Prevention and Health Promotion; Clinical Examination and Diagnosis; Acute Care of Injuries and Illnesses; Therapeutic Intervention; Psychosocial Strategies and referral; Healthcare Administration; and Professional Development Responsibility. The knowledge and skills students are expected to master are listed under each content area [30]. As such, the Professional ATEP curricula should be structured so that the aforementioned knowledge and skills are comprehensively covered throughout the program by culturally specific course content and clinical education experiences.

Emphasis has been focused on “the learning overtime model” in athletic training clinical education [31, 32]. Knowledge and skills learned from didactic and laboratory courses must be integrated in “real life” environments and practical situations that allow AT students to be prepared to more than adequately handle these injuries. Decision-making and critical thinking abilities must be performed under the direct supervision of preceptors (credentialed healthcare professionals [13], including BOC certified ATs) in a variety of clinical site rotation settings. The CAATE required evaluation of athletic training students, preceptors, and BOC didactic instructors has provided appropriate up-to-date feedback, for students to confidently refine performance, knowledge, and skills in context. The CAATE accreditation standards and guidelines require all clinical education experiences to be educational in nature, as opposed to free labor for participating institutions. Therefore there is no minimum hour requirement set by the CAATE guidelines, as the education focuses more on quality rather than quantity of clinical education hours. The CAATE guidelines clearly state that students “will not replace professional athletic training staff or medical personnel” [13], hence prohibition of independent unsupervised clinical experiences for athletic training students.
The NATA consists of 23 committees and councils that have been actively exploring the cultivation of the athletic training profession both domestically and internationally [33]. The International Committee is especially dedicated to establishment of working relationships with sports medicine specialists around the world to enhance athletic health care and the prevention, treatment, and rehabilitation of athletic injuries. The committee also supports activities related to the World Federation of Athletic Training Therapy (WFATT).

The WFATT was originally established by the NATA Board of Directors in 2000, and consists of international associations and organizations that share similar visions, which are to “promote the highest quality of health care and functional activity through the collaborative efforts of its members”[34]. Over 30 professional associations, organizations and educational institutions from the US, Ireland, Canada, Japan, Taiwan, China, North Korea, South Africa, United Kingdom and Italy currently comprise the WFATT active members [4]. The FWATT’s goals are: “to create an opportunity to exchange non-binding information about health care for active populations, including academic preparation and professional practice, through meetings and communication vehicles; to provide opportunities for collaborative research efforts among members; to provide information on professions and organizations that deliver health care to active populations; and to promote the development of international and domestic relationships with sports, health care and governing bodies” [35]. The WFATT World Congress has been held sporadically based on location and need in cities around the world with the continuing effort of providing a global forum, where the sports medicine specialists with different backgrounds and languages can share their educational and clinical experiences to achieve their universal goals.

**Athletic Training education in Japan** is provided by the JASA. Originally established in 1911, the JASA is the only nationally recognized organization responsible for promotion of
healthy life styles through sports participation, and advancement of athlete-focused health care curricula and certification programs for all ages and types of physically active populations [14]. Medical coverage for sports teams and athletes was historically provided by so-called “trainers”, who typically possessed acupuncture, shiatsu/massage therapy, judo therapy, or physical therapy credentials [15, 36]. All of these credentials are established national medical credentials issued by the Ministry of Health, Labor and Welfare, one of the 11 ministries in the executive of the Japanese government [37]. These practitioners are licensed to perform specialized medical treatment and hands-on techniques under the Japanese health reimbursement system.

Traditionally, “trainers” evolved in the professional and Olympic settings without formal athletic training educational curricula or directed clinical experiences. The knowledge and skills for on-the-field management of athletic injuries were typically learned via personal experiences, books, and/or workshops [38]. As the JASA started exchanging information with US ATs through participation in international competitions, the organization adopted the concept of athletic training and realized that there was a missing link between athletes, coaches, physicians, and other medical professionals in Japan. Then in 1994 the JASA-AT education system and certification programs were officially recognized to provide knowledge and skills in athletic training as a “common language” shared by those who were already practicing as trainers with a variety of medical credentials and disciplines [15]. These programs include student education of “Japanese athletic trainers” defined as close to the US as culturally feasible, thus the JASA-AT accreditation and certification is analogous to the US CAATE program accreditation of “athletic trainers” [14, 36, 38, 39]. The unique historical, cultural and environmental growth of the medically credentialed “trainers” has built the foundation of athletic training in Japan today and has provided the impetus for the athletic training education system to evolve very differently.
than that of the US.

Currently, 61 institutions meet the core requirements and maintain JASA accredited entry-level programs; 28 programs are housed in four-year university level institutions (27 undergraduate and 1 graduate program), while 33 programs are housed in two-year vocational and junior college institutions (30 vocational schools and 3 junior colleges) [40]. Eligibility for the JASA-AT certification examination consists of two pathways: A) completion of the athletic training certification workshop series organized and offered by the JASA; and B) completion of a JASA accredited program at two-year vocational schools, junior colleges or universities (i.e., Entry-level program) [41].

Pathway A was designed to include the aforementioned “trainers” who had previously obtained clinical experience under professional, JASA affiliated- or Japan Olympic Committee affiliated teams and associations. Official written recommendations from one of abovementioned associations, allows qualified candidates eligibility for the JASA athletic training workshop series. These workshops require a total of 752.5 hours of didactic work over a two-year period. The workshops consist of the following 10 broad content areas: the roles of ATs; exercise science; functional anatomy; principles of sports injury; health management and sports medicine; measurement and evaluation; prevention and conditioning; athletic rehabilitation; emergency care; and sports nutrition. Their clinical hour requirements may be waived based on previous on-the-field experiences (“grandfathered”) [40].

Pathway B is considered the entry-level program route. Institutions that maintain accreditation must possess the infrastructures and appropriately credentialed personnel to cover the same contents listed in Pathway A (i.e., JASA athletic training workshops). Additionally, in 2009 the JASA-AT curriculum programs were required to include a total of 180 hours of clinical
experience [42]. Prior to 2009 JASA-AT curriculum programs could individually determine their clinical hour requirements. For instance, the Osaka University of Health and Sports Science (Osaka, Japan) previously required 160 hours of clinical experience per semester in the senior year of education [43]. According to the current JASA-AT program accreditation standards and guidelines [42], the current 180-hour clinical requirement is divided in the following five subcategories: 1) Observation (30 hours); 2) Injury Evaluation and Assessment (30 hours); 3) Athletic Training Rehabilitation (30 hours); 4) Sports Field Experience (30 hours); and 5) Integrated practicum (60 hours). Hour requirement reporting and assessment follow stringent guidelines and rules. Students are permitted to report a maximum of three hours per day in a five-day period (e.g., three hours per week). Additional clinical experiences over 15 hours may not officially be counted toward the 180-hour requirement, however performing more hours is not discouraged. Clinical hours during “overnight road trips or camps”, may be reported for a maximum of six hours a day for five days only twice a year. Clinical hour authentication requires students to obtain supervision from JASA-ATs who have at least two years of post-JASA certification experience. Unsupervised clinical experiences cannot be counted toward official clinical hour totals, but are not prohibited. The JASA approved medical doctors are also authorized to provide supervision under the aforementioned subcategories of 1) Observation; 2) Injury Evaluation and Assessment; and 4) Sports Field Experience [42].

**Justification and Focus of Planning- Step 2**

This step is commonly referred to as a needs assessment in most educational program planning models. The needs assessment allows planners to appropriately make logical decisions relative to necessary resources [7, 44]. A formal needs assessment, is often regarded as just one piece of several items that can be used to justify and focus the planning effort, and is not
necessarily a required part of planning [1]. It has been reported that the lack of comprehensive needs assessment were revealed in the collegiate-level continuing professional education planning process in six professional fields and were not treated as independent steps in the majority of the models used in the previous study [11]. In order to provide the justification for the current study, the needs were identified in the athletic training clinical education in Japan in previous literature, available resources, and an unpublished doctoral survey [38, 45].

**A general need to Improve Athletic Training Education** is obvious as Japan possesses the largest population of ATs outside the US [46]. The JASA is actively involved in the movement for the globalization of athletic training, as they are one of the most active members of the WFATT, and sponsored the Tokyo World Congress in 2007 [46]. The most recent *JASA-AT Master Plan* publication, described a variety of AT goals to be achieved by 2020 when Japan will host the Summer Olympic Games, which include: to further increase awareness of the profession among domestic and international athletes; to place a JASA-AT in every Japanese secondary school; or to mandate JASA-ATs for all Japanese national teams [47]. While no specific strategic plans for these goals have been proposed, the JASA states that improvement of the quality of athletic training education is one of the key factors that will lead them to advance the profession in the international sports medicine society [47]. The WFATT membership has provided an opportunity to interact with sports medicine professionals from other member countries for educational purposes. To date, at least 18 % (11 out of 61) of the JASA accredited programs have engaged in some type of short-term international athletic training program experience in the US (e.g., California, Nebraska, Arizona, Idaho and Hawaii). The programs can range from three days to a week, which may incorporate facility tours, clinical observation/experiences, didactic AT related workshops, on-line AT classes, and gross anatomy
Issues in Athletic Training Clinical Education in Japan have been identified as one of the major weaknesses in Japanese JASA athletic training education programs [15, 38, 43]. A web-based survey to investigate the status of Japan’s athletic training education was conducted among JASA accredited (n=20) and non-accredited (n=5) program directors in 2003 [38]. Results indicated that only 56% of all the program directors responded that their programs were equipped with clinical settings at their respective institutions at the time of the study. Students were required to find their own clinical sites and were used as “manpower” without adequate/required supervision [38]. The aforementioned finding indicated that the status of the Japanese athletic training clinical education is approximately a decade old, and that locating appropriate clinical sites and clinical supervisors are a tremendous challenge for many JASA institutions [48]. The JASA programs are offered in a variety of academic institutions that do not necessarily include four-year educations similar to US institutions. While Japanese universities/colleges typically house athletic departments with appropriate venues to play in regional intercollegiate leagues, the existence of on-campus athletic training rooms is not prevalent or consistent throughout all 61 JASA programs [38, 43]. Many vocational schools are located in single buildings without athletic venues, which require these institutions to use affiliated “therapy clinics,” that serve as the school’s clinical sites that service the schools and the public [38]. These athletic training education institutions must seek off-campus clinical sites such as local high schools, clinics, clubs, industrial settings, universities, or professional teams, but the availability of such sites can be largely dependent on each school’s geographical location [42]. This inconsistency in clinical education may be attributed to the fact that the current JASA standards do not require formal clinical rotation sites affiliated with their programs [42].
When supervising ATs are available for clinical sites, they may possess a variety of credentials and employment status especially if they used aforementioned pathway A to obtain certification. The result of *JASA Global Practice Analysis* [49] obtained via a survey from 497 JASA-ATs in 2011-2012, indicated that 34.4% of respondents were acupuncturist, 23.3% were massage therapist, and 23.3% were physical therapist who also had JASA-AT credentials. The results also indicated that the most prevalent work setting was in high schools at 25.6%. These dual (or more) credentialed ATs incorporate their specialized skills into their practice as ATs. Thus, students encounter different didactic experiences and skills based on the supervising AT’s credentials that do not necessarily fulfill the JASA didactic and laboratory requirements, resulting in inconsistent didactic and clinical educational experiences.[42] In 2013, a web-based survey was used in the dissertation study to investigate the level of satisfaction of educational experiences via the athletic training education system in the US and Japan [45]. Results of the study indicated that only 42% of ATs occupied paid positions and the majority of ATs volunteered their services [45]. Consequently, these results may compel increases in “unpaid work” of volunteers to provide structured clinical experiences for students during their clinical hours at some sites, thus involving the difficulty of finding appropriate sites and supervisors. These survey results revealed that almost 10% of Japanese AT respondents were not exposed to hands-on clinical experience opportunities outside the classroom, further implying the inconsistency in clinical supervision and experiences. The aforementioned issues indicate low satisfaction rates of students’ ascension pathways toward certification revealed among Japanese participants in this dissertation study [45].

The above study consisted of a survey designed to assess American and Japanese ATs’ satisfaction in their education pathways. Respondents consisted of 1,060 certified ATs
practicing in the US and 110 BOC and/or JASA certified ATs practicing in Japan [45]. Sixty eight of the Japanese respondents included 35 (51%) BOC certified ATs, 21 (30.9%) JASA-ATs, and 8 (11.8%) duel BOC JASA-ATs [45]. Results of this unpublished study [45] indicated that the Japanese JASA-AT respondents were significantly less satisfied than the Japanese BOC certified ATs respondents in the JASA education experience, and only 8 (3.6%) of JASA-ATs were ‘very satisfied’ compared to 25 (35.7%) of BOC-certified Japanese respondents. Additionally, when forty-five Japanese respondents were asked which experience they would have added to their educational curricula, the most frequent answer (24.4%) was clinical hands-on experience followed by therapeutic modality and manual therapy (15.6%) and human gross anatomy via human cadaver dissection (11.1%) [50]. While it is unknown what factors contributed to the difference in degree of satisfaction between Japanese and US ATs in their ascension pathways. Survey findings implicated a need to supplement the JASA education program via components such as supervised clinical experiences at a variety of sites, hands-on human anatomy cadaver dissection, or athletic training related courses (such as manual therapy and therapeutic modality).

Opportunities for Anatomy Education Using Human Cadaveric Materials and dissection for practitioners and students in the allied health professions has received increasing attention in the last decade in Japan [51-53]. Currently, access to human cadavers for gross anatomy education is highly limited to medical and dental students in Japan [52, 54, 55]. The use of medical and dental school housed cadavers for other healthcare education is controversial mainly due to the interpretation of laws that govern the handling of human cadavers [51, 53]. The term “co-medical” has been used in Japan to describe professionals, including nurses, paramedics, physical therapist, massage therapist, judo therapist and ATs. There are
approximately 1,7 million co-medical professionals compared to 350,000 medical doctors and dentists [52]. Therefore, co-medical professionals routinely travel to foreign countries, particularly the US, to attend cadaver dissection courses [56]. Among many methods of anatomical education delivery, cadaveric dissection has historically been viewed as the best way to appreciate structures of the human body. Highly specialized practitioners such as ATs must possess a wide range of hands-on skills in order to practice within the scope of the five performance domains. The use of human cadaveric materials and dissection to enhance learning and practical application is essential for athletic training education [57, 58]. Students can exponentially conceptualize the course materials beyond illustrations in anatomy textbooks and appreciate the dynamic nature of the human body [57-62].

**Alignment of Goals Among Professionals and Professional Organizations** is vital for success when planning an international professional education program, it is critical that the goals of the educational programs are aligned with professions among targeted countries [15]. Athletic trainers are defined as health care professionals who optimize activity and safe participation of athletes, patients and clients by providing prevention, diagnosis, and intervention/management of chronic, acute, and emergency medical conditions involving impairment, functional limitations, disabilities, and quality of life [63]. The definition and roles of ATs in Japan are conceptually equivalent to those of US based programs and performance domains [15, 63, 64]. Athletic training education in the US and Japan is offered by NATA and JASA education programs, respectively [15]. Both professional organizations are charter members of WFATT and share the ultimate vision, to “promote the highest quality of health care and functional activity through the collaborative efforts of its members” [65].
Japanese athletic training education goals are to prepare students to become competent ATs, who can promote and provide “the highest quality of health care” possible.

**Alignment with the UHM 2011-2015 Strategic Plan [66] and the JABSOM mission [67]** involves serving as a portal to exceptional educational experiences for Hawaii and the surrounding nations with its unique geographic location bridging East and West. Currently, the UHM Athletic Training Room, KRS Professional and Post-Professional Graduate Athletic Training Programs, utilize JABSOM and other valuable and unique resources in the university and in the State DOE to fulfill the identified needs of the JASA. The UHM offers CAATE accredited Professional and Post-Professional graduate athletic training programs designed with a variety of formal clinical rotation experiences. The UHM houses an abundance of native Japanese faculty and staff who specialize in athletic training and related fields. The JABSOM “Willed Body Donation Program” is responsible for management of human cadaveric materials for basic medical research as well as clinical education experiences, such as gross anatomy dissection [68]. As such, the KRS department and the JABSOM serve as international liaisons for athletic training and anatomical education for Japanese educational institutions. Diversifying such experiences into more structured programs to contribute to the JASA is justifiable and obvious.

**Fostering Cultural Competence** is crucial for Tokyo, Japan when it hosts the Summer Olympic games in 2020, the second summer Olympics in Japan since 1964. Japan has been charged with developing a medical support system to provide high quality “State of the Art” healthcare for participants from a variety of countries. Since Japanese nationals, as pacific islanders, are considered “ethnically homogeneous”, exposure to the multiethnic and multicultural environment within Japan is an obvious advantage. This was also evident in the
results of the yet unpublished survey study in 2013 [45] indicated that approximately 67% of Japanese AT respondents answered that athletes that they treat daily consisted mainly of the same culture and ethnicity. In this era of globalization, an international and transcultural education program will allow foreign students to be more culturally aware and diverse, which is the first step in becoming culturally competent healthcare providers. Cultural competency plays an important role in developing professional growth and multiethnic communication, which are vital components of effective and efficient “state of the art” healthcare provision [69-71]. These positive changes are deemed invaluable for Japanese healthcare professionals, especially when establishing communication to facilitate medical support among culturally and ethnically diverse healthcare professionals and athletes in international competitions including the 2020 Tokyo Summer Olympic games.

**Immediate and Future Benefits to the Host University** are numerous, immeasurable and will establish UHM and the State of Hawaii as an international multicultural and diverse educational resource. Success of this theoretical educational program will become a model of other professions and attract world’s renowned practitioners and represent a “hub” for international and intercontinental research. The multicultural experience has the potential to catapult the UHM to increase funding opportunities for local and international students, practitioners, researchers, patients, and underserved ethnic minorities on the Pacific Rim. The benefits of this theoretical plan will also expose US citizens and foreign nations to the vast array of climates and the environments in Hawaii. Additionally, residents of Hawaii and other pacific islanders will be able to share, nourish, educate, experience, and learn to be more culturally sensitive to the future diversity that has been forecast as a heterogeneous society within the next ten years. More specifically existing Professional ATEP, Post Professional ATEP, allied health,
and other medical professional will appreciate and utilize the diversity that describes Hawaii. All of these opportunities will enhance and improve students interactions with the international students, and other professionals who share the same goal of becoming a competent AT or allied health and medical practitioners and researchers which will ultimately benefit individuals with pathological conditions or injuries that may negatively influence the quality of their lives and their caretakers [30]. In the near future, this program may assist in recruiting more international and minority students as they may be stimulated to expand and share their knowledge and experiences with other countries and continents.

The development of such an international program will create a favorable learning environment for the UHM by modeling and involving inter-program/inter-campus collaborations (e.g., KRS, JABSOM, and Outreach College), which is a vital component in a rapidly advancing profession nationally and internationally. The UHM Outreach College offers a variety of international programs that involve English as a second language (ESL) education and other specialized programs. Such specialized programs include the Sendai University (Miyagi, Japan) athletic training special program. The Outreach College has assisted in organization and implementation of the program over 10 years, coordinating the Japanese students athletic training related experiences during a short-term stay (approximately five days). Consequently, such pre-existing inter-program/inter-campus collaboration system (educationally, logistically and financially) with in UH system implemented by the Outreach College through the Japanese institution will provide tremendous benefits to the KRS Department to expand the international athletic training education worldwide.

In summary, justification for the development of the current transnational educational program will serve to supplement the issues identified in the JASA athletic training educational
program. The WFATT vision and mission are shared by both JASA and NATA. Collaboration of two organizations may provide the JASA students as well as UHM graduate students in both UHM CAATE accredited programs beneficial clinical education experiences that will produce more competent ATs. Additionally, this effort will further avail Japanese students to unique educational experiences that they would otherwise have limited access in their country (i.e., cadaver anatomy dissection and NCAA Division IA clinical experiences). There is a reciprocal benefit in fostering cultural competency between domestic and international students, which has been emphasized an important element of the athletic training profession. Ultimately such an international experience would contribute to the achievement of JASA-AT goals stated in the Master Plan, and for preparation to provide “state of the art” medical and allied health care of the highest quality for the 2020 Tokyo Summer Olympic Games.
RESULTS

The justification for developing an athletic training focused international educational program was presented through the process of Step 1 and 2 with the understanding of the background and identified needs evident in athletic training education in Japan and potential resources that UHM could offer to meet their needs. The area of the educational needs within JASA accredited athletic training program are: 1) Formal clinical experience/education; 2) Hands-on human anatomy using cadaveric materials; and 3) International experience/English communication. The program was further developed following the six-step approach built around these three “pillars”. It must be reiterated that the following steps 3 (Development of vision, mission goals and objectives), 4 (Formation of Instructional Plan), 5 (Formation of administrative and financial plan) and 6 (Development of evaluation plan) are all interrelated (Figure 1) and planning in each section must occur based on the goals and objectives of the program [6, 7].

Development of Vision, Mission, goals and Objectives- Step 3

This step includes the determination of “objectives” of the educational program in multiple layers that serve as the bases of the six-step approach. The most broad vision of a program serves as the ultimate standard by which the program is judged, while the mission should state program philosophy, purposes and characteristics [72]. Under the umbrella of these visions and missions, goals, objectives and expected learner outcomes are developed based on the information gathered and decisions made for the identified needs [6, 7]. Goals are defined as general aims or purposes of the educational program that are broad, long-ranged desired outcomes. Objectives are defined as specific, brief and clear description of the desired learning outcomes of instructions, whereas learning outcomes are defined as the achieved changes that
can be reliably demonstrated by learners at the end of the educational experience. Well-defined goals and measurable objectives assist the program planners in prioritizing components of the curriculum. Moreover, specific measurable objectives further help refine the instructional contents and delivery methods. [6-8]

The vision of the International Program of Athletic Training in Hawaii (IPATH) is to advance the quality of athletic training education worldwide. The program mission is to serve as a supplemental educational resource for foreign athletic training students attending to their athletic training programs in respective countries as a process of their indigenous certifications to become successful ATs. The program goal is then to provide students a unique experience, knowledge and skills and perspectives of international athletic training/sports medicine society under distinctive features of the program: clinical field experience, didactic athletic training related coursework, human cadaver dissection and English conversation. This program strives to produce well-rounded and competent ATs who are capable of serving as powerful medical support assets in domestic as well as international athletic competitions for participating countries.

Program objectives of the IPATH are six-folds in order to achieve the program goal. The general objectives of this program are to provide educational opportunity to:

1) Perform daily English communication within sports medicine team members and athletes;
2) Work closely and effectively with other healthcare professionals in a variety of clinical settings;
3) Advance the understanding of human anatomy and hands-on injury evaluation techniques, especially palpation through deepening three-dimensional understanding of human anatomical structures relevant to common athletic training injuries and illnesses;

4) Foster a global understanding of cultural competence through clinical experience in ethnically and culturally diverse settings;

5) Develop a global understanding of athletic training profession in the United States; and

6) Cultivate an independent living experience oversea.

Strategic plans for achieving these abovementioned objectives include development of five didactic and/or clinical courses as the core features of IPATH: 1) Athletic Training/Sports Medicine Focused English; 2) Clinical Experience in Athletic Training/Sports Medicine; 3) Clinically Oriented Human Anatomy in Athletic Training; 4) Athletic Training Injury Assessment; and 5) Administration and Management in the United States Athletic Training/Sports Medicine System. Description of how each of the objectives is to be addressed follows.

In order to provide the experience that allows students to perform daily English communication within sports medicine team members and athletes (General objective 1), the program offers “Athletic Training/Sports Medicine Focused English” course, which features verbal communication skills in English offered by English as a Second Language (ESL) specialist from UHM Outreach College. This course is specifically designed to develop conversational skills and strategies in daily English communication occurring among sports medicine team members and athletes in the athletic training room and on the field during game and practice coverage. The knowledge gained from this course is further reinforced by “Clinical Experience in Athletic Training/Sports Medicine”, in which students are required to use the
English expressions in the context of daily athlete/patient care and on-the-field situations in various clinical sites. Successful completion of these two courses meets the general objective 1.

Experiences necessary to be able to work closely and effectively with other healthcare professionals in a variety of clinical settings (General objective 2) are provided via “Clinical Experience in Athletic Training/Sports Medicine” course. This course provides students with real-life opportunities to observe and assist some of the site supervisors’ daily duties. A variety of the clinical sites include collegiate, high school, rehabilitation facilities, and performance enhancement facilities, where clinical supervisors (ATs) demonstrate their duties in daily communication with athletes, prevention, evaluation and rehabilitation of athletic injuries, and medical emergencies. Although the experiences are limited predominantly to observation or non-patient care assistance, it is expected to promote critical thinking in application of the student’s previously obtained knowledge and skills of athletic training. Successful completion of this course meets the general objective 2.

The understanding of human anatomy and hands-on injury evaluation techniques, especially palpation through deepening three-dimensional understanding of human anatomical structures relevant to common athletic training injuries and illnesses (General objective 3) are advanced through “Clinically Oriented Human Anatomy” course and “Athletic Training Injury Assessment” course. The former course provides students an opportunity to explore human anatomy via cadaveric dissection. This course stimulates and deepens students’ anatomical knowledge in the pathology of athletic training related injuries and illnesses via visual and tactile input from human cadaver dissection experiences. Both courses are synchronized with in the contents to facilitates a simultaneous verification of structural relationship between deeper cadaveric tissues and superficial living human tissue, which assists students in improving their
clinical evaluation skills, especially palpation. Successful completions of these courses meet the general objective 3.

Students’ global understanding of cultural competence through clinical experience in ethnically and culturally diverse settings (General objective 4) is fostered via the “Clinical Experience in Athletic Training/Sports Medicine”. This course provides students unique opportunities to be exposed to ethnically and culturally diverse athletes through a series of clinical site rotations. Exposure to such diversity allows students to enhance their perceptions toward athletes and patients with different ethnic and cultural backgrounds and to incorporate them effectively into daily care. Successful completion of these two courses ensures achievement of the general objective 4.

Development of a global understanding of athletic training profession in the United States (General objective 5) is provided via “Administration and Management in the United States Athletic Training/Sports Medicine System” course. This course is designed to provide international students insights of the administration and management aspects of athletic training profession in the United States, which is unique to their countries. This course, combined with “Clinical Experience in Athletic Training/Sports Medicine”, stimulates their global view of the athletic training profession and provides perspectives potentially applicable to their countries’ sports medicine system. Successful completions of these two courses meet the general objective 5.

Studying abroad itself in a new and unfamiliar environment and while being housed in individual homes (home stay) with other domestic and international students in order to cultivate and stimulate students’ transcultural perception and cultivate an independent living experience (General objective 6). Students will explore international daily living strategies during the short-
term stay. Successful completion of IPATH program meets the general objective 6. The summary of the strategic plan to the objectives is presented in Table 1.

Table 1 Summary of Objectives and Courses Designed to Address the Objectives

<table>
<thead>
<tr>
<th>Program Objectives</th>
<th>Strategy to Address Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform daily English communication within sports medicine team members and athletes</td>
<td>1.a Athletic Training/Sports Medicine Focused English</td>
</tr>
<tr>
<td>2. Work closely and effectively with other healthcare professionals in a variety of clinical settings</td>
<td>2.a Clinical Experience in Athletic Training/Sports Medicine</td>
</tr>
<tr>
<td>3. Advance the understanding of human anatomy and hands-on injury evaluation techniques, especially palpation through deepening three-dimensional understanding of human anatomical structures relevant to common athletic training injuries and illnesses</td>
<td>3.a Clinically Oriented Anatomy in Athletic Training</td>
</tr>
<tr>
<td>3.b. Athletic Training Injury Assessment</td>
<td>3.b Athletic Training Injury Assessment</td>
</tr>
<tr>
<td>4. Foster a global understanding of cultural competence through clinical experience in ethnically and culturally diverse settings</td>
<td>4.a Clinical Experience in Athletic Training/Sports Medicine</td>
</tr>
<tr>
<td>5. Develop a global understanding of athletic training profession in the United States</td>
<td>5.a Administration and Management in the US Athletic Training/Sports Medicine System</td>
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<tr>
<td>6. Cultivate an independent living experience overseas</td>
<td>6.a Study abroad experience</td>
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</table>

Formulation of Instructional Plan- Step 4

Formulation of instructional plan entails identification of possible activities that are considered necessary and sufficient for students’ desired learning to occur in order to achieve program goals and objectives. While careful consideration of educational formats and methods has great potential for the responsiveness and impact of students’ learning in an educational program, decisions can be largely affected by the resource availability of the host institute. In this section, the aforementioned five courses that are selected, as well as an initial orientation session are further detailed to discuss specific instructional methods used in each course.
**Programs of Study** are summarized in Table 2. The IPATH programs include short-term (two weeks) Spring and Fall programs, which have two distinct program features. The Spring program features human anatomy and athletic training injury assessment. The Fall program primarily focuses in English, clinical experiences and administration in athletic training. The overall sample block schedules for the IPATH Spring and Fall programs are presented in Figures 2 and 3, respectively. The following paragraphs provide the detailed objectives and outcomes of each course in the order that will be offered in Spring and Fall programs. The learning over time has been emphasized throughout the planning and designing process.

Table 2 Summary of IPATH Programs of Study

<table>
<thead>
<tr>
<th>IPATH Spring Program</th>
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<tbody>
<tr>
<td>1 Clinical Oriented Human Anatomy in Athletic Training</td>
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<tr>
<td>2 Athletic Training Injury Assessment</td>
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<tr>
<td>3 Clinical Experience in Athletic Training/Sports Medicine</td>
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<table>
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<tr>
<th>IPATH Fall Program</th>
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<tbody>
<tr>
<td>1 Athletic Training Focused English</td>
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<tr>
<td>2 Administration and Management in the United States</td>
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<tr>
<td>Athletic Training/Sports Medicine System</td>
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<tr>
<td>3 Clinical Experience in Athletic Training/Sports Medicine</td>
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<tr>
<td>Time</td>
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**Welcome Orientation Meeting** is lead by the program coordinator. This is offered on the first day of the program in both Spring and Fall programs (Figures 2 and 3, respectively), which covers introduction of staff, students, program overview, policies and procedures (Appendix A), course syllabi, cardiopulmonary resuscitation (CPR) review, first aid/blood borne...
pathogen review, clinical assignment, host family introduction and campus tour. Estimated time spent for this orientation is approximately six hours. A sample agenda is presented in Appendix B.

Clinically Oriented Human Anatomy in Athletic Training (AT Anatomy), offered in Spring (Figure 2), will incorporate the use of human cadaver dissection at the human anatomy laboratory at JABSOM. This course will include clinically oriented human gross anatomy with an emphasis on the musculoskeletal system that is focused and specific to athletic training and sports medicine. Upon successful completion of this course, students should be able to: identify clinically relevant anatomical structures in musculoskeletal system; translate and apply the language of sports medicine and athletic training; describe gross anatomical structures with precision and clarity; demonstrate surface palpation skills with precision and clarity; incorporate these newly acquired skills in order to continue advanced study in clinical experiences; apply anatomical knowledge to evaluation and treatment of athletic training injuries; and finally visualize and conceptualize the nature and pathologies of athletic training related injuries during evaluation.

The anatomy course will take full advantage of cadaveric dissection, which will allow students to appreciate the connective tissue layers by manually exploring superficial and deep structures. Cadaveric dissection will be lead by experienced anatomists and/or BOC certified ATs who are fluent in the Japanese language and have previously passed this course successfully (qualified). Student safety is ensured by proper use of dissection tools (i.e. sharps and all personal protective equipment) on the first day. Students will be instructed to abide by the rules and regulations set forth for the “Willed Body Program” at JABSOM. While the conceptual contents will be delivered in the Japanese language, the anatomical terminologies (e.g., names of
muscles, nerves or vessels) will be taught in the English language. Instruction time will consist of approximately 30 hours in two weeks (three hours daily for five days from Monday through Friday). A sample Spring course schedule is presented in Appendix E (The Fall program will only include a short anatomy review session via use of prosection materials as seen in Figure 3). The Conceptual understanding of human anatomy will then be applied in the subsequent course, Athletic Training Injury Assessment.

**Athletic Training Injury Assessment** (AT assessment) will immediately follow the AT Anatomy in Spring (Figure 2) in order to be utilized when learning evaluation and examination techniques for pathologies commonly seen in athletic training via lectures and hands-on laboratory exposures. Upon completion of this course, students will have a better understanding of: etiology, signs, symptoms, and epidemiology of common orthopedic injuries, illnesses and diseases to the body's systems; basic musculoskeletal assessment of upper and lower extremity for the purpose of identifying common acquired or congenital risk factors that would predispose patients to injury and a musculoskeletal injury; common techniques and procedures for evaluating common upper and lower extremities injuries including taking a history, inspection/observation, palpation, functional testing (i.e. weaknesses, strengths, range of motion, pain), special evaluation techniques, and neurological and circulatory tests; assessment of the patient’s condition, determination and application of the immediate treatment and/or referral (i.e., immediate treatment and/or referral) in the management of the condition. The course contents will be synchronized with the human cadaver anatomy courses to assure learning over time.

Much like the human anatomy course, the conceptual contents will be delivered in the Japanese language by a qualified Japanese-speaking instructor, while anatomical and medical
terminologies will be taught in English. The total instruction time of 20 hours in the two-week program. A sample course syllabus and schedule are presented in Appendix F.

Clinical Experience in Athletic Training/Sports Medicine (AT Clinical) will be offered in both Spring and Fall programs. This experience will include clinical observatory experiences in real life work environment of ATs and other allied healthcare professionals in the State of Hawaii through a variety of clinical sites. This course facilitates an experiential learning experience, which allows students to incorporate their knowledge and skills into practice. Upon Completion of this course, students will be able to: gain a cross-cultural perspectives to understand and appreciate global sports medicine practices in the evaluation, treatment and rehabilitation of injuries; discuss the differences in the clinical athletic training and sports medicine venues between the United States and their own country’s counterparts; provide basic description of AT’s duties in the United States in the management of their worksites; discuss cultural differences in the clinical athletic training practices; provide examples of commonly used therapeutic interventions used in the management of sport-related injuries; and be accustomed to daily English communication specific to the athletic training and sports medicine work environment (See Appendix D for a sample syllabus).

No less than one appropriately credentialed clinical supervisor (CS) will be present at each clinical site. Students are expected to perform as “first responder” (i.e., First aid and CPR) while directly supervised by the clinical site CSs’ discretion and assist the CS via responsibilities within the students’ scope of practice (i.e., First aid and CPR, and daily patient care duties). In the Spring program, the AT Clinical experience will include afternoon placement with available sites (i.e., UHM AD, State Department of Education (DOE) high schools, or rehabilitation/performance enhancement facilities) that the UHM Professional ATEP has official
affiliation as clinical rotation sites. No more than three students will be placed in each AT Clinical site and will shadow the CS and interact with other BOC certified ATs, student athletes, or coaches of participating site (e.g., official ATEP clinical site) and Spring season sports teams with emphasis on learning injury assessment and rehabilitation. Students’ experiences will include at least two site assignments through a clinical rotation.

The Fall program is designed to offer more intensive clinical experience mainly with the UHM AD and DOE high school football teams during practices and games. The group will be divided into two sub-groups, where one group is assigned to collegiate and the other group is assigned to high school clinical sites in the first week. These assignments will be switched at the beginning of week two. The athletic training clinical seminar (AT Seminar) will be offered twice per week, focusing on small group discussions on topics that students become interested in during the AT Clinical. This two-hour clinical seminar will be presented by a BOC certified AT. A sample course schedule of AT Clinical is presented in Appendix D. The total AT Clinical exposure time is estimated to be a total of 30 to 40 hours in each Spring and Fall programs.

Athletic Training/Sports Medicine Focused English (AT English) course will be offered in the Fall program (Figure 3), combining with a high volume clinical opportunities with the football season as mentioned above. The AT English is specifically designed to develop conversational skills and strategies in daily English communication occurring among the sports medicine team in the athletic training room and on the field during game and practice coverage. Educational methods that are utilized in this class are in-class lecture format, as well as reflection on experience with small group learning. After each AT English course, students are required to actively interact with clinical supervisors, athletes, or coaching staff during clinical experiences to ensure a repeated use of learned English expressions in real life settings to assure learning
over time. Upon completion of this course, students should: develop a confidence in initiating conversation in English language; develop an ability to be generally understood by native English speakers when speaking in daily conversation in the athletic training related environment; understanding correct English pronunciation, including stress and intonation patterns; be able to grasp main ideas from daily English conversations in communication with sports medicine team members; and be able to conversationally obtain basic medical history in the injury evaluation process (See Appendix C for a sample syllabus). A total instruction time for a two-week program is approximately 30 hours (See Appendix C for a sample schedule).

**Administration and Management in the United States Athletic Training/Sports Medicine System** (AT Administration), offered in the Fall (Figure 3), focuses on the professional management and administrative issues in athletic training in the United States, which are unique to other country environments. Organization and administration topics will include: the sports medicine system, medical support team/system, basic instruction regarding preparation, planning, designing, developing, organizing, implementing, directing and evaluating an athletic training health care program and facility. Current issues in US/international athletic training/sports medicine related to professional conduct and practice will also be introduced. Upon completion of this course, students will have a better understanding of: the role of the AT as a member of the US allied health community; confidential management of medical records (Health Insurance Portability and Accountability Act, or HIPAA); vital factors for the design of an athletic training facility consistent with health and safety guidelines; budget prioritization and operation for the management of athletic training healthcare programs and facilities; use of injury surveillance and management systems (e.g., Sports Injury Management System, Sports Ware, and Immediate Post-Concussion Assessment and Cognitive Testing, or ImPACT system);
ethical and unethical conduct in athletic training practice; and applicable information in athletic training organization and administration of the sports medicine systems of the students’ own countries. This course format will be presented via in-class lectures and field observations. Lecture contents are delivered in Japanese by a Japanese-speaking instructor. Field trips are arranged to clinical settings, such as rehabilitation facilities, hospital, or performance enhancement facilities. This course will involve a total instruction time of eight to ten hours during the Fall program. A sample course syllabus and schedule are presented in Appendix G.
DISCUSSION

Discussion section was used to present Steps 5 (Formulation of Administrative and Financial Plan) and 6 (Formulation of Evaluation Plan) and how the nature of these topics will be used in this theoretical project. These steps involve multiple logistic decisions and financial considerations and the methods to be used to evaluate the students, instructors, courses and program.

Formulation of Administrative and Financial Plan- Step 5

Prior to the program implementation, the program director must identify and secure the necessary resources for successful administration of the planned educational curriculum [7]. This step specifically involves identification of internal or “in-kind” support, as well as any external support involving personnel, time, facilities, and internal and external funding. The financial dimensions of the program involves computation of the costs of the resources to be used, determination of how these costs are to be recovered, and arrangement of the final program fee for the target group, and an administrative strategy to assure participation of the previously identified target group.[6]

Course Type for the International Program of Athletic Training in Hawaii (IPATH) is a non-credit course that involves UHM KRS, Outreach College, and Department of Anatomy, Biochemistry and Physiology. There will be no credit transfer between UHM and students’ home schools. Students will receive a certificate upon successful completion of the program.

Personnel for the IPATH consists of two UHM KRS faculty members (1.0 Full-Time Equivalent or FTE per faculty member=2.0 total FTE) and two graduate assistants (GA)s (0.5 FTE per GA = 1.0 total FTEs ) who are BOC certified ATs with a bachelors or higher academic degree in athletic training or related field. Two program coordinators with over 10 years of
experience as certified ATs are designated to be responsible for organizing the program to assure its effective implementation. Primary duties of the program coordinators are to: recruit and select perspective students; establish and maintain communication with participants prior to arrival; assure safe arrival and departure of the participants; lead the orientation meeting; maintain frequent communication with clinical supervisors and students in AT Clinical; assign course instructors; conduct evaluation and analyze the results. Course instructors for the aforementioned four didactic and laboratory courses are designated by the program coordinators based on their qualifications and schedule availability of KRS faculty and/or staff in a particular semester. At least one BOC certified AT from each clinical rotation site is responsible as a CS during the clinical hours associated with the AT Clinical.

**Time, Facilities, Cites and Costs** that are incurred by the program staff for the implementation of the two-week program in the UHM Spring and Fall is estimated below. While the UHM KRS is the plan initiator, this program also involves the Outreach College and JABSOM, which require preparation of separate budget plans. Initial estimated costs to each of the UHM resources (i.e., KRS, Outreach College and JABSOM) are presented and a grand total budget was calculated after considering realistic administrative fees that may incur for program operation. It must be emphasized that the following budget plans are only estimates and the actual budget may vary depending on a number of participants or other institutional policy changes.

The total time required by the program coordinators to perform their duties is approximately 25 hours per term, which can be broken down into: establishment and maintenance of communication with participants prior to arrival as well as upon arrival and departure (5 hours); preparation and presentation of the orientation meeting (10 hours);
maintenance of regular/planned communication with clinical supervisors and students (2 hours); assignment of course instructors and administration of planned course content (3 hours); evaluation and analysis of the evaluation results (5 hours). As such the total costs for the two program coordinators is Approximately $1,175 ($47 per hour x 25 hours). The summary of the KRS budget portion for IPATH Spring and Fall programs are presented in Tables 3 and 4, respectively.

**Table 3 Summary of Sample UHM KRS Portion of Time, Facilities, Cites and Costs Incurred for IPATH Spring Program**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description of Responsibility</th>
<th>Time (hours)</th>
<th># of Session</th>
<th>Rate ($/hour)</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External Budgetary Requirements</strong></td>
<td>Establish and maintain communication with participants prior to arrival/arrival and departure</td>
<td>5</td>
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<tr>
<td></td>
<td>Prepare and present the orientation meeting</td>
<td>10</td>
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<td></td>
<td>with clinical supervisors and students</td>
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<td></td>
<td>Assign course instructors and assure the course contents</td>
<td>3</td>
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<tr>
<td></td>
<td>Conduct evaluation and analyze the results</td>
<td>5</td>
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</tr>
<tr>
<td></td>
<td><strong>Program Coordinator Subtotal</strong></td>
<td>25</td>
<td></td>
<td></td>
<td>$1,175.00</td>
</tr>
<tr>
<td>Two (2) Program Coordinators</td>
<td>Clinically Oriented Human Anatomy in Athletic Training</td>
<td>5</td>
<td>10</td>
<td>$47.00</td>
<td>$2,350.00</td>
</tr>
<tr>
<td></td>
<td>Athletic Training Injury Assessment</td>
<td>3.5</td>
<td>10</td>
<td>$47.00</td>
<td>$1,645.00</td>
</tr>
<tr>
<td></td>
<td><strong>Instructor Subtotal</strong></td>
<td>8.5</td>
<td>20</td>
<td>$47.00</td>
<td>$7,990.00</td>
</tr>
<tr>
<td>Two (2) Course Instructors</td>
<td>Service fee for clinical supervision</td>
<td></td>
<td></td>
<td></td>
<td>$1,000.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total (Estimate)</strong></td>
<td></td>
<td></td>
<td></td>
<td>$11,200.00</td>
</tr>
</tbody>
</table>

**In-Kind Support**

- KRS Facility Overhead costs (space, utilities, equipments)
- UH Athletics
- High School(s)

†Estimated for 10 participants
Table 4 Summary of Sample UHM KRS Portion of Time, Facilities, Cites and Costs Incurred for IPATH Fall Program

<table>
<thead>
<tr>
<th>Item</th>
<th>Description of Responsibility</th>
<th>Time (hours)</th>
<th># of Session</th>
<th>Rate (/hour)</th>
<th>Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Budgetary Requirements</td>
<td>Establish and maintain communication with participants prior to arrival and departure</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare and present the orientation meeting with clinical supervisors and students</td>
<td>10</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assign course instructors and assure the course contents</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conduct evaluation and analyze the results</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two (2) Program Coordinators</td>
<td>Program Coordinator Subtotal</td>
<td>25</td>
<td></td>
<td>$47.00</td>
<td>$1,175.00</td>
</tr>
<tr>
<td>One (1) Course Instructor</td>
<td>AT Administration</td>
<td>4</td>
<td>4</td>
<td>$47.00</td>
<td>$752.00</td>
</tr>
<tr>
<td></td>
<td>AT seminar and Anatomy review</td>
<td>4</td>
<td>6</td>
<td>$47.00</td>
<td>$1,128.00</td>
</tr>
<tr>
<td></td>
<td>Instructor Subtotal</td>
<td></td>
<td></td>
<td>$2,350.00</td>
<td></td>
</tr>
<tr>
<td>Clinical Rotation Sites</td>
<td>Service fee for clinical supervision</td>
<td></td>
<td></td>
<td></td>
<td>$2,000.00</td>
</tr>
<tr>
<td>Department Administrative Fee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>$6,100.00</td>
</tr>
</tbody>
</table>

In-Kind Support

<table>
<thead>
<tr>
<th>KRS Facility</th>
<th>Overhead</th>
<th>Overhead costs (space, utilities, equipments)</th>
<th>In-kind</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH Athletics</td>
<td>High School(s)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Estimated for 10 participants

The instructor for the AT Anatomy course will spend three hours of instruction per session over 10 sessions. Additionally, the instructor will require two hours of preparation for each session. The total cost for 10 sessions is approximately $2,350 ($47 per hour x 5 hours per session x 10 session over two weeks in the UHM Spring semester). The human anatomy laboratory facilities at JABSOM include fees and expenditures (equipment/expendables) that will be incurred for the anatomy portion of this program are presented in Table 5, these fees may range from $5,000 to $10,000, depending on a number of participants.
Table 5 Summary of Sample AT Anatomy and AT English Course Related Fee

<table>
<thead>
<tr>
<th>Services and Fees</th>
<th>Description</th>
<th>Unit</th>
<th>Unit #</th>
<th>Subtotal ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT Anatomy Related Fees</td>
<td>Anatomical processing, Laboratory Sterilization, Dissection tools, JABSOM utilization and administrative fee†</td>
<td>day</td>
<td>10</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>AT English Related Fees</td>
<td>Personnel, Facilities, Materials/Supplies, Administrative service fees†</td>
<td>day</td>
<td>10</td>
<td>$10,000.00</td>
</tr>
</tbody>
</table>

† Related fee may not be limited to the items listed above

_The instructor_ for the AT Assessment course will spend two hours of instruction per session over 10 sessions. Additionally, the instructor will require one and one-half hours of preparation for each session. The total cost for 10 sessions is approximately $1,645 ($47 per hour x 3.5 hours per session x 10 sessions over two weeks in the IPATH Spring program). The histology laboratory, which is located adjacent to the human anatomy laboratory in JABSOM bioscience building, will be used for the didactic and laboratory course. Costs related to utilization of this room (facility fee or other overhead costs) are treated as in-kind.

_The instructor_ for AT Administration course will spend two hours per session over four sessions. Additionally, the instructor will require two hours of preparation for each session. The total cost of four sessions will be approximately $752 ($47 per hour x 4 hours per session x 4 sessions over two weeks in the IPATH Fall program). A KRS classroom will be used for this course. The facility utilization fee and other overhead costs will be treated as part of the in-kind costs.

The instructor of the AT Seminar and anatomy review courses in the Fall program will require two contact hours in addition to two hours of preparation time per session. The total cost of the six sessions collectively will be approximately $1,128 ($47 per hour x 4 hours per session
x 6 session over two weeks). The KRS classroom used for these courses and facility utilization fees and other overhead costs will be treated as part of the in-kind costs (Table 4).

The instructor of the AT English course offered through UHM Outreach College will determine the fees associated with the implementation of AT English portion, which may include personnel fees, facility utilization fees, materials and supplies and college administrative fees. The total cost for the AT English portion of this program is estimated to be approximately $10,000 (Table 5).

Since clinical supervisors will be asked to perform additional duties during their normal employment hours, the monetary compensation will be prepared as a “service fee” (seen in Tables 3 and 4) to be paid to the athletic department of each institute for gratifying and allowing their resources to be utilized (ranging from $500 to $1,000 per institution).

**Requirements for participation** for the student screening process will be the KRS responsibility and will include all the overall aspects of the student recruitment and screening. Required documents include; IPATH application form (Appendix H) an official bank verification of finances (for the student visa application purpose), proof of certification from the American Heart Association Basic Life Support (BLS) for healthcare providers; transcript of courses completed at respective home institutions for athletic training education; and proof of current English proficiency (e.g., TOEFL, TOEIC or EIKEN² scores). Once KRS accepts an adequate number of students with all required documents submitted, the completed application packages will then be forwarded to the Outreach College for entry into the noncredit registration system. After the acceptance of all required documents by Outreach College, a Form I-20 (the Certificate of Eligibility for Nonimmigrant Student Status For Academic and Language

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² EIKEN is an English proficiency test offered in Japan. Multiple levels of tests are offered by Eiken Foundation in Japan, which is backed by Ministry of Education, Culture, Sports, Science and Technology (MEXT).
Students) will be issued to individual students, who will then be required to apply for an F-1 visa, which will include additional costs. A list of application requirements and procedures is presented in Appendix I.

**Student Housing and Accommodation** will be provided by off-campus private homestay agencies. Considering the length of stay for the UHM Spring and Fall programs (two weeks), the host family experience can make the most of the international experience by emphasizing cultural immersion. The program coordinators will arrange and facilitate homestay contracts for each student through participating agents. The list of home stay agency options are presented in Appendix J (adopted from the Outreach College International Programs website [73]). The International Hospitality Center (Honolulu, Hawaii) offers a unique home stay program in Hawaii. The International Hospitality Center provides administrative services in recruitment, training referencing and background checking of volunteer host families and students and arranges insurance. The administrative fee charged per student attending UHM is approximately $560 for two weeks including homestay, and meals (breakfast and dinner) taken as a member of the host family. Two or three students will be housed by a single host family depending of the size of house or upon the host family’s request.

**Travel Expenses and Insurance** are the students’ responsibility. Students are responsible for making their own international travel arrangements and all associated costs, including local transportation. Perspective students will be required to provide proof of adequate health insurance coverage during their stay. Students will be required to obtain a student visa (F-1) for the US entry with the purpose of studying in a program that will require greater than a 20 hour in-class commitment per week [74]. Health insurance may be obtained individually through a third party insurance company in Japan. A professional liability insurance (student
plan) will also be required for clinical experience. The insurance related cost for a short term study abroad (14 days) is approximately $150 [75].

Payment Method for Participating Student will involve the UHM Outreach College’s pre-existing system dedicated to the development, establishment and maintenance of International Programs. A memorandum of agreement (MOA) for AT program responsibilities will be signed between KRS, JABSOM and Outreach College. A schematic presentation of the payment schedule/system is presented in Figure 4. Each student will be responsible for making payments (in UH dollars) via international checks (additional fees may be incurred) or via credit card on the Outreach College website. A sample Outreach College registration policy for IPATH is included in Appendix I. The deadline for the final payment will be one month prior to the first day of the program instruction and initiation. A summary of program educational fees is presented in Table 6. A summary of individual (per-student) cost is presented in Table 7. The lump sum Payments for KRS and JABSOM will be processed via journal transfer to each department account. The KRS faculty and staff will receive payment as overload and processed via UHM payroll procedures.

Table 6 Summary of Estimated Program Educational Fee for IPATH Spring and Fall Programs

<table>
<thead>
<tr>
<th>Items</th>
<th>Spring Program</th>
<th>Fall Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>KRS Educational Fee</td>
<td>$11,200.00</td>
<td>$6,100.00</td>
</tr>
<tr>
<td>Outreach College Educational Fee</td>
<td>Not Offered</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>JABSOM Educational Fee</td>
<td>$10,000.00</td>
<td>Not Offered</td>
</tr>
<tr>
<td>Total Educational Fee†</td>
<td>$21,200.00</td>
<td>$16,100.00</td>
</tr>
</tbody>
</table>

† Estimated for 10 participants
Table 7 Summary of Estimated Individual (per student) Cost for IPATH Spring and Fall Programs

<table>
<thead>
<tr>
<th>Items</th>
<th>Spring Program</th>
<th>Fall Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Fee</td>
<td>$2,120.00</td>
<td>$1,610.00</td>
</tr>
<tr>
<td>Outreach College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative Fee</td>
<td>$500.00</td>
<td>$500.00</td>
</tr>
<tr>
<td>Housing</td>
<td>$560.00</td>
<td>$560.00</td>
</tr>
<tr>
<td>Travel Fee</td>
<td>$1,000.00</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>$150.00</td>
<td>$150.00</td>
</tr>
<tr>
<td>Meals and Incidentals</td>
<td>$500.00</td>
<td>$500.00</td>
</tr>
<tr>
<td>Monthly Bus Pass</td>
<td>$60.00</td>
<td>$60.00</td>
</tr>
<tr>
<td>Visa Fee</td>
<td>$200.00</td>
<td>$200.00</td>
</tr>
<tr>
<td>Other Fee Subtotal</td>
<td>$2,970.00</td>
<td>$2,970.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$5,090.00</strong></td>
<td><strong>$4,580.00</strong></td>
</tr>
</tbody>
</table>

*Estimated for 10 Participants

Figure 4 Schematic Presentation of IPATH Payment Processing System
**Possible Barriers to Implementation** of this theoretical program development plan must be acknowledged. The first possible barrier involves participant recruitment. The recruitment method includes direct contact attempt to all of 61 JASA accredited program directors. Most recently, two surveys were conducted by the UHM KRS [45, 76] and specifically involved contacting Japanese ATs. Unfortunately, due to the stringent confidentiality regulations in Japan among JASA programs, contact information (i.e. phone numbers and email addresses) was extremely difficult to obtain [44]. The strategy used to deal with this barrier involved utilization of personal contacts of KRS students and faculty via previous and current interactions with Japanese athletic training fellows and when possible JASA accredited athletic training programs.

The second possible barrier is the budgetary limitation of Japanese students. Besides the total program instructional fees presented in Table 7 (presented as the subtotal), students will be responsible for travel fees (i.e., air fare, insurance fees, etc.), meals, and other recreational activities (See Table 7 for a list of additional student costs). Currently there are no external funding opportunities that can offset some of the program participation costs. Thus perspective students are personally responsible for all financial program costs. Students may seek domestic scholarship programs and financial aid. While specific strategies to deal with this budgetary barrier are unknown, a continuous effort will be made to obtain funding via educational training grant opportunities and the like.

The third major barrier is baseline language proficiency that may seriously impact implementation and success of this international program. Recently, a revision of elementary school educational standards involved a Japanese government mandate that fifth through ninth graders were required to receive English education [77]. Unfortunately, the Japanese citizen’s English proficiency may be limited, as Japan ranked 28th out of 30 Asian countries (2012) in
TOEFL English proficiency test scores [78]. According to the mean scores of the Oxford Placement Test, their initial English proficiency level was described as post-elementary [79]. As such English language proficiency may significantly affect and facilitate maximal educational experiences for perspective AT Program students, especially during the clinical rotations. Consequently, requiring a high standard in English Language proficiency may compromise student recruitment. While students are encouraged to fully engage in English conversation with native speakers, every effort will be made to bridge these gaps in order to enhance AT Program student experiences. Therefore, a clinical experience seminar is scheduled four times during the IPATH Fall program to discuss questions, concerns and/or issues students describe as difficult situations during their clinical experiences. Additionally, for the didactic courses like AT anatomy and assessment, courses contents will be delivered in the Japanese language while keeping medical terminologies in English with an emphasis of conveying the concepts of knowledge to the students.

The fourth major barrier involves the difference in the academic year in the US and Japan that may affect the determination of the program duration and timing. The Japanese academic year in universities, colleges and, vocational schools typically begins on April 1st [80]. The majority of universities and colleges adopt the semester system, with one- to two-month summer vacations in August and mid-September, and a two-month winter vacation in February and March [81]. Thus offering a two-week AT program in February and March for the Spring program, and August and September for the Fall program were determined as the most logical length and time for the AT Program. Since the proposed AT program will be offered during the two semester system of the UHM, a team approach will be used for successful program implementation without compromising UHM faculty and staff full-time semester duties.
Distribution of additional administrative and instructional workloads between program coordinators and other qualified KRS faculty and staff members is strategically the best way to deal with this potential issue. In the future, internal and external funding may provide release time equivalents for the AT program personnel.

A two-week study abroad program is usually classified as a “short-term” experience [82, 83]. Findings of previous linguistic research have failed to identify the minimum required length of study abroad necessary for improvement in English language proficiency [70, 71, 80, 82, 83]. Therefore, the English course is designed to provide familiarization of rudimentary athletic training and sports medicine specific terminology and commonly used English vernacular/expressions. Previous results indicate that a short-term study abroad experience (less than a month) may be sufficient to elicit favorable changes in attitude and motivation to learn the target language leading to improvements in language fluency, especially for “novice” second language learners [84, 85]. Thus, socio-cultural immersion during clinical rotation sites and the homestay program will provide the stimulus to learn the English language. Nursing research suggests that short-term (three to six week) clinical experiences in developing countries has been reported to significantly impact cultural competence, clinical practice and professional growth [70, 71, 80, 86-88], all of which are included as goals of this program.

A short-term program may also be preferable for Japanese students who are attending colleges and vocational schools [89]. Typical Japanese college students start job-hunting at the end of junior year (in December) [89]. The annual report published by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) indicated that 63.1% of college senior students had secured employment by October 1, 2012, while only 42.6% of vocational school students had secured employment within the same time frame [90]. These facts indicate that
approximately 40 to 60% of college and vocational students will continue to job search during the summer of their senior year. It may be more convenient for such senior students to participate in short periods of time (i.e., two weeks), to obtain international experiences that will help them continue their education as ATs.

**Development of an Evaluation Plan- Step 6**

The purpose of evaluation for an educational program is to determine if the curriculum appropriately addressed the learner’s goals and objectives with selected delivery methods of instruction. This process in essence is a needs assessment to identify additional “needs” to close the gap that the current program failed to address [7]. Evaluation may be conducted via formative and summative feedback. Formative feedback involves the collection of ongoing feedback data throughout the curriculum delivery for the purposes of improving the performance of the individual or quality of the program. Summative feedback provides an overall assessment of the individual or the curriculum upon completion of the program for the purposes of demonstrating competence or judging performance.[6, 7] Formative and summative feedback may take a form of quantitative (i.e., examination scores and course grade), or qualitative inquiry. Qualitative information, obtained through interview responses to open-ended questions with regards to the program strengths, weaknesses, or suggestions for changes, may provide program planners ideas for improvement and identify unexpected barriers or program effects.[6, 7].

The evaluation strategy in IPATH was modeled based on pre-existing comprehensive evaluation plan utilized in the UHM Professional ATEP for the similarity of the nature of the program. The specific purpose of the evaluation plan for IPATH is to document the following program outcomes: achievement outcomes relative to the goals and objectives presented in the
educational courses; effectiveness of student learning; quality of didactic instruction and clinical instruction; and achievement outcomes relative to the six general goals of the program. As such, formative and summative evaluations of these major areas will be conducted based upon student performance, academic course evaluation, and overall program evaluation.

**Student performance** is evaluated partly based on the scores of the final examination for each course as a confirmation of the newly obtained knowledge and skills throughout the spring and fall programs. For AT English, AT Anatomy, AT Assessment, and AT Admin courses, final examinations are given in the last day of each course, delivered in written, oral and/or practical formats. The examination questions are derived exclusively from course contents.

Students’ clinical performance is individually evaluated by their clinical supervisors. The primary purpose of this evaluation is to ensure active and enjoyable participation of the students at clinical sites from the supervisor’s perspective (Appendix K). Additionally, students are required to complete clinical experience time sheet (Appendix L) and clinical supervisor and site evaluation (Appendix M). This evaluation is conducted at the end of each clinical site rotation and the evaluations are submitted to the program coordinators for review. In the spring program, students have a daily contact time with the program coordinators, therefore any issues and concerns that are raised in the evaluations are addressed through direct communication. The athletic training clinical seminar time is used to address issues and concerns suggested by the clinical supervisors during the fall program.

**Academic Course Evaluation** is conducted for each course using summative evaluations based on the University’s evaluation method (Electronic Course and Faculty Evaluation, or eCAFE) upon completion of the program. The eCAFE system is the university-wide official online course evaluation tool that consists of approximately 24 Likert-scale questions and 6
open-ended questions by default. The KRS department has been taking advantage of this system since 2007. List of questions are presented in Appendix N.

**Overall Program Evaluation**, related to the quality of the program is conducted an end-of-program survey completed by the students within five days after returning to their home country. Additionally, the students are to be followed up by the program coordinators at one year after the completion of the program to observe the perceived long-term influence of the IPATH. The overall program evaluation and the follow up survey are presented in Appendices O and P, respectively. Comprehensive schema of evaluation plan is summarized in Table 8.
Table 8 Summary of Evaluation Plan for IPATH (Spring and Fall)

<table>
<thead>
<tr>
<th>Evaluation Instrument</th>
<th>Format</th>
<th>Assessor</th>
<th>Target</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Final Examinations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AT Anatomy</td>
<td>Written, Practical</td>
<td>Instructor</td>
<td>Student Performance</td>
<td>Last day of course</td>
</tr>
<tr>
<td>AT Assessment</td>
<td>Practical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fall</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AT English</td>
<td>Practical</td>
<td>Instructor</td>
<td>Student Performance</td>
<td>Last day of course</td>
</tr>
<tr>
<td>AT Admin</td>
<td>Written</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clinical Performance Assessment</strong></td>
<td>Qualitative/Quantitative</td>
<td>Clinical Supervisor</td>
<td>Student Performance</td>
<td>End of each clinical rotation</td>
</tr>
<tr>
<td>Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clinical Supervisor and Site Evaluation</strong></td>
<td>Qualitative/Quantitative</td>
<td>Students</td>
<td>Instruction and Site Quality</td>
<td>End of each clinical rotation</td>
</tr>
<tr>
<td>Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Course and Faculty Evaluation</strong></td>
<td>Qualitative/Quantitative</td>
<td>Student</td>
<td>Academic Course Quality</td>
<td>Last day of course</td>
</tr>
<tr>
<td>Survey</td>
<td>(eCAFE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>End-of-Program Survey</strong></td>
<td>Qualitative/Quantitative</td>
<td>Student</td>
<td>Overall Program Quality</td>
<td>Within 5 days of Departure</td>
</tr>
<tr>
<td>Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Follow-Up Survey</strong></td>
<td>Qualitative Survey</td>
<td>Student</td>
<td>Long-term Program Influence</td>
<td>At 12 months after completion</td>
</tr>
</tbody>
</table>
CONCLUSION

The IPATH was developed utilizing the six-step theoretical approach for program planning to offer extra-curricular clinically oriented athletic training education internationally. Step one involves analysis of planning context and client system. In summary, the planning idea emerged from the previous experiences of frequent interactions with Japanese institutions and the KRS department via athletic training education and human cadaver dissection opportunities. The history of the athletic training profession and education systems will be reviewed in the target country (Japan) and the host country (US). Step two includes justification of the AT program, named the International Program of Athletic Training in Hawaii, or IPATH, based on the emergence of the program idea, previous literature and available resources. Three main “needs” were identified among the JASA AT education system: 1) enrichment of the clinical experience; 2) increased opportunity in cadaver dissection for human anatomy learning; and 3) international experience/improvement of English proficiency.

Step three to six involves the actual educational content design. In order to meet the needs, specific visions, missions, goals and objectives for IPATH development. Measurable objectives were designed to be achieved in the didactic and clinical courses which consist of human cadaver anatomy (offered at JABSOM), athletic training injury assessment, athletic training administration (both offered by KRS), clinical experience (through clinical rotations at UHM and DOE high schools), and athletic training focused English language (offered by Outreach College), all of which are pre-existing resources that are officially affiliated with the UHM. Step four involves the specific course descriptions, including the course objectives. The detailed structures and design of IPATH Spring and Fall programs were presented in this step. Step five involves the development of the administrative and financial plans for IPATH. The
administrative concerns associated with the program cost, time involved, instructors, student requirements, student housing, and travel expenses were discussed. Utilizing realistic figures based on existing university resources, the estimate of the AT program fees were calculated and proposed. The possible barriers to implementation were also discussed, which included difficulty in: recruitment, baseline language proficiency, differences between academic year system in the US and Japan, financial limitations, and length of stay. Possible strategies to deal with these barriers were also proposed.

The last step of the six-step approach involves development of the evaluation plan. A series of evaluation plans was developed and proposed with sample evaluation tools to: evaluate student performance, academic courses, and the overall program experience. The program planning process is dynamic and fluid, and largely influenced by numerous internal and external factors [7]. Therefore, educators are required to be flexible and accommodative to changes and ongoing improvements. Establishment of thorough evaluation tools for these programs and individuals are a valuable way to constantly keep athletic training education current and effective.

Finally, a realistic time frame for the actual implementation of IPATH is Fall 2015. Informal investigations of target Japanese students and schools have been initiated via direct communication with faculty and staff of Japanese universities, colleges, and vocational schools and through personal connections and interaction of KRS faculty, staff, and students. A few universities have already expressed their informal interests in sending students to the international program. These universities suggested developing memorandums of understanding (MOU) between universities to continue and foster these relationships. The MOU may provide institutions a more robust justification to collaborate in order to provide Japanese students
international athletic training education experiences. The UHM KRS continues to evolve as a portal for athletic training education for Japan, and other countries that choose to further improve their AT knowledge and skills via IPATH programs.
PART II: REVIEW OF LITERATURE

The Step one and two of the six-step approach to the theoretical modeling of IPATH presented the extensive review of literature in numerous topics associated with the justification of IPATH. This Part II elaborates and/or supplements the Part I, by further reviewing previous literature on the following topics: use of cadaver dissection as anatomy instruction methods, anatomy education in Japan, clinical education in athletic training, study abroad programs, and identification of the needs that can serve as additional justification of the choices made along the theoretical six-step approach in developing IPATH.

Use of Cadaver Dissection as Anatomy Instruction Methods

Potential Benefit of Cadaver Dissection Cadaver dissection is a time-honored “gold standard” for learning human gross anatomy [91]. Profound anatomical knowledge of human body is the most indispensable requisite for any healthcare professionals in order to provide the best care possible to the patients, clients or athletes [59]. While cadaver dissection has historically been the most common instructional method in medical school and physical therapy [91-94], there are a number of post-professional athletic training programs offering human gross anatomy course with cadaver dissection to further deepen the clinically oriented anatomical knowledge applicable to athletic training practice. Typically the gross anatomy course is offered along with didactic lecture earlier in medical school education [91, 95-98]. In response to a rapidly expanding knowledge base, new ideas regarding best clinical practice, advances in classroom and clinical technology, and institutional pressure, medical school curriculum is forced a constant revision and a possible change [91, 99]. Recently, the all-time gold standard has been in the midst of a downward spiral in the undergraduate medical education as well as in physical therapy. A survey result of one study indicated that anatomy experts in medical schools
and physical therapy predicted cadaver dissection would continue to decline, as more time would be allotted to technology-based instructional methods [91]. Elimination of cadaver dissection from the core curriculum has been considered and implemented at some medical schools in the US, the UK and Germany [98-101].

Moore [61] said “Cadaver is real”. The term “anatomy” is originated from the Greek word “anatemno”, which simply means “to dissect” [61, 102]. There is a plethora of articles discussing the benefits pertaining to cadaver dissection in medical school. Cadaver dissection enhances practical skills such as hand-eye coordination and manual dexterity through purposeful movement of dissection [61, 62, 97, 98]. The practical skills can be enhanced by the touch-mediated perception of the body via active tactile contact [59, 61, 98, 103]. Moore [61] added that the contact with a cadaver can provide students a feel of “relative strength and fragility of tissue and organs” from a real human body. By engaging multiple senses, the learning process is further enhanced [59, 104]. Korf et al. [59, 104] asserted that procedural knowledge that the student can gain during dissection process is reproducible. Authors also asserted that dissection is a process of active knowledge acquisition. During dissection activity, the students not only deconstruct the human body, but they are also challenged to reconstruct the information. Such constructive learning charges students to actively test hypotheses and learn through deductive reasoning [59]. While direct translation of such benefits from cadaver dissection to the practitioner’s clinical proficiency has not been examined, it can be theorized that the development of fine motor control through such haptic experience on cadaver can facilitate in building competence in evaluating and diagnosing physical conditions [97, 104-106]. Aziz [103] insisted that the removal or attenuation of cadaver dissection is bound to impair students’ ability to apply the scientific knowledge and method during diagnosis.
A three dimensional data acquisition of the organization of the human body is also a commonly cited benefit of cadaver dissection [60-62, 105]. This is of particular importance to medical practitioners because having an in-depth understanding of gross anatomy in a three dimensional perspective allows for a better conceptualization and application in vivo anatomy [107]. The result of one survey study indicated that 57 % of residency program directors that responded to the survey (n=801) felt that their new residents need a refresher course in gross anatomy upon arrival. Moreover, 14 % of the directors perceived that the new residents were seriously deficient in anatomical knowledge, while 41 % of them felt that the residents were not well prepared upon arrival [108]. Marks [60] related this unpreparedness of residents to the deficiency of three-dimensional understanding among medical students due to the reduction of the time spent in cadaver dissection course. Aziz [103] reiterated that a three-dimensional understanding of anatomy is a prerequisite for the interpretation of a variety of diagnostic images.

Explorative encounter with anatomical variability is a unique and beneficial experience that students can gain from cadaver dissection [59, 61, 62, 98, 103, 105]. Human beings display variability across all traits (i.e., physical, emotional, mental), and some argues that this is an evolutionally adaptive response [59, 103]. An understanding of the uniqueness of each human body would benefit the students in two ways. Firstly, preparing students, as future practitioners, for bodily variations may help with preventing misdiagnosis and malpractice. Misdiagnosis can be caused by an idealized view of “normal” body that would be seen in textbooks or plastic anatomical models [98, 103] as Korf [59] highlighted, “The fact that no pulse is felt at the usual location on the wrist does not necessary mean that the patient is dead”. In addition to the practical aspect of understanding normal human variation, the concept of individuality from full
body cadaver dissection experience adds to the humanistic value of medical practice [59, 62, 96, 104]. Each patient deserves to be recognized by her or his health caregiver as a unique individual. These concepts can be threatened when student exposure to variability is limited by the use of only idealized models and textbooks or a restricted number of regional plastinations or prosections [96, 98, 103-105, 109].

The cadaver dissection opportunity may be the first encounter to human death for many medical students [59, 62, 96-98, 103, 104, 109]. One of the main purposes of medicine is the “postponement of death” as a result of caring for a patient [103]. Time spent with cadavers for medical students serves as an opportunity to build the conceptual foundation of the professional doctor-patient relationship [61, 103]. By exploring the student’s reaction to the deceased “first patient,” in a safe environment, the student can learn to balance the concept that the cadaver must be both objectified as an entity to be observed with emotional distance and also personalized as a reflection of a human being to be respected [59, 98]. As such, the emotional responses that students experience as a result of the confrontation with death and dying present a valuable teaching opportunity [98, 109].

In addition to improving future relationships with patients, cadaver dissection advocates also claim that the group work required in the gross anatomy lab encourages learning in peer groups and functioning as part of a team [98, 105]. The collaborative atmosphere in dissection laboratory may be the one of the first opportunity in working as a team, aside from the typical competitive environment and didactic lecture in the medical school experience. The social bonding and communication that comes from group learning is beneficial to students [62, 103, 105]. The small group environment and active participation also helps students to apply medical terminology that they have gathered through rote memorization [103]. The active use of the
basic language of medicine helps to solidify the anatomical knowledge. It has been speculated
that by connecting the concepts to concrete examples students are better able to access this
information when called upon in future clinical situations [62, 98].

A clear line must be drawn between “dissection”, which involve actual cutting, and
“prosection”, professionally well-dissected human body or body parts [105]. Korf et al. [59]
argues that the exploration of connective tissue is the key experience in cadaver dissection. By
using a scalpel, a dissector would cut out layers of connective tissue envelop, adipose tissues, or
fasciae to finally get to a target tissue. Dissection allows realization of “seemingly well
delineated entity in anatomy” such as collateral ligaments and joint capsules being just “nothing
more than distinct regions within the connective tissue continuum”[59]. One cannot easily
obtain this unique experience from plastic models or prosected materials [59].

McLachlan has advocated of the use of “living anatomy” as a method to replace
cadaveric materials [99]. Peninsula Medical School in UK features a program with no use of
cadaveric material for gross anatomy instruction. Surface anatomy is studied by students on the
living human using peer examination, professional life modes, as well as plastic and three-
dimensional computer models [102]. Image projection and body painting are intended to
improve students’ visualization ability. Internal structures are reviewed using radiographic and
ultrasonic imaging technology integrated in the problem-based learning format [102]. A total of
40 sessions are allotted to living anatomy. McLachlan claimed that using three-dimensional
understanding of the human body could more effectively be delivered to students than using
cadaver dissection [99, 101]. The author also claimed that manual dexterity could also easily be
practiced on the living human, which superiorly represents a real patient [99]. However to date
no convincing data are published regarding the efficacy of the by the group.
**Potential Drawbacks of Cadaver Dissection** While many authors reported psychological impact of medical students as a negative aspect of cadaver dissection as a counterargument to the “encounter of death”, this phenomenon seems to be universal. Interestingly, most of such studies concluded that majority of students improved the valuation of cadaver dissection despite some levels of psychological distress [96, 110-114]. In a German study, 186 first year medical students were evaluated for their emotional stress from the cadaver gross anatomy course in their first semester. A self-reported questionnaire result indicated that 50% of the student presented some anxiety when coping the first confrontation to cadavers, but 96% were more relaxed than expected progressively throughout classes. More importantly, it was reported that 100% of the respondents regarded the course as a “very interesting experience” at the end of the semester. In a cross sectional survey study in Nigerian medical students [113], similar tendency was observed. Thirty five percent of the students experienced emotional stress with the first encounter to cadavers and during the course, however, 84% of the students reported the cadaver dissection remains the best method to learn human gross anatomy [113]. These subjective data may suggest the psychological drawback due to cadaver dissection is only an initial response and overall experience remains positive to students.

Financial burden from cadaver laboratory management has been one of the most common factors to be listed as a side effect relative to the efficacy of cadaver dissection over many newly developing methods of teaching [62, 109]. Surprisingly, there is no published data to show that this is really the case. In fact, McLachlan clarified in his article [99] that cost was not a reason for their decision of going away from cadaveric use. Moore [61] stated that many schools would not have faculty and facility to adopt a new technology with a small group approach. Abandoning cadavers and laboratory facility and installing a whole new system would simply
require more money to do so [61]. Additionally, a number of authors in the previous literature noted that a current trend in medical education is headed towards allotting more instructional time to courses related to a cell-based understanding of disease and care [107]. However, research on molecular biology may lack student appreciation without an understanding of the fundamental relationship with the human body. This leads to a practical point by some authors that anatomy learned through dissection may actually lead to reduced costs in the long run [107]. A cultivation of strong anatomical knowledge would ultimately be a cost-saving strategy as it reduces the likelihood of relying on more expensive computer assisted technologies and techniques [107].

**Experimental Studies Investigating Effects of Cadaver Dissection Method** It must be acknowledged that aforementioned benefits as well as some counter arguments are conceptually and theoretically oriented. There are a number of experimental design studies that have attempted to compare two or more teaching methods of gross anatomy, however results are highly equivocal and the methodologies are prone to major flaws. Nnodim [115] reported that peer-assisted experimental group with 20-to-one, student-to-cadaver ratio recorded significantly higher scores in the written test with a half dissection time compared to the traditional group after 36 sessions of three hour course. The traditional “dissection” group consisted of 20 students on a single cadaver but each of the students was required a total of 5.4 hours of self-directed dissection during the same duration with the experimental group. While the result seemingly favored the experimental group, the author acknowledged that the student to cadaver ratio was far from ideal for cadaver dissection [115]. The same author also reported in a different study that both dissection and prosection groups presented no significant difference in written and practical examination scores, but prosection spent 26% less time [116]. Most
recently, Ashdown [117] conducted a experimental study to examine additive benefit of
dissection and peer-mediated teaching in 709 Canadian first year medical students. The control
groups only used prosection for the gross anatomy instruction while the intervention group
received instruction using prosection and dissection. The intervention group was further divided
into two subgroups with or without peer-mediated teaching. Results indicated that both
dissection and peer-assisted teaching did not improve the exam score [117]. McLachlan [105]
cautioned that evaluation of teaching methods has to be improved for empirical research design.
While the most measurable outcome may be the test score, clinical outcome of teaching
intervention would have to be measured if the true efficacy of teaching method is to be
examined. One cannot draw a definitive conclusion from such summative test score results.
More studies in the past were also poorly designed and did attempt to control teacher bias.
Moreover, many studies used a “show and tell” approach or exhibited “this is what we do” when
attempted to show what they thought was the “best” in a single institution [105].

Wilkerson [118] summarized this matter in the literature review of 14 previously
published (prior to 2007) experimental studies, including the 1996 Nnodim study cited earlier
[116]. The author claimed that no study assessed anything other than cognitive learning
outcomes, which can only imply anatomical knowledge acquisition. Common outcomes
previous studies used to measure students performance were written multiple choice questions,
laboratory or “tag” test questions, or a combination of the two. No study also tested reliability
and validity of the examination instruments. The author reported that results from such studies
were nearly impossible to compare due to high variance in assessment types, tested academic
year, difficulty of testing items, or anatomical region used. Such results are typically limited to
one institution therefore results have no generalizability or comparability to other studies. While
it is ideal to use student’s involvement in dissection as the only independent variable, uncontrollable confounding variables (e.g., prior knowledge, motivation, quality of instructions, self-instruction time, to name a few) would make a study’s effect size extremely small [118]. Moreover, cognitive learning outcome such as test scores are not representative of the clinical performance. Anatomy knowledge per se is not a goal of medical education, but rather the production of good physicians [105]. Therefore, extreme caution needs to be paid when evaluating such experimental study results and they should not be simply used as a single determinant of departmental decision. By the same token, those theoretical views as well as students’ subjective opinions cannot also be underestimated. They were worth publication and are practical “voices” from experienced anatomists who interact the students every day.

_Cadaver Dissection in Athletic Training_ Highly specialized allied health care professionals such as ATs certainly cherish a rewarding learning experience derived from cadaver dissection. The Role Delineation Study published by the BOC presents five performance domains that shape the scope of AT’s role: Injury/Illness Prevention and Wellness Protection; Clinical Evaluation and Diagnosis; Immediate and Emergency Care; Treatment and Rehabilitation; and Organization and Professional Health and Well-being [29]. A common thread among all five domains is knowledge of the human anatomy, physiology or kinesiology [57]. Frequently, to address the educational competencies directly associated with clinical anatomy, many programs require a general anatomy and physiology course or and allied/clinical kinesiology course in the entry-level athletic training education programs [57].

The Post-Professional ATEP is designed for expanding the specialized body of knowledge learned from the Professional ATEP program to further enhance the AT’s ability to function in clinical, teaching, administrative, or research environments [94]. Mazerolle [57]
asserted that an athletic training student with a strong anatomical background would be able to make appropriate clinical diagnoses, develop comprehensive treatment programs and plan prophylactic strategies for their patients. Therefore it is extremely important for Post Professional ATEP to provide students an opportunity to further expand their anatomical knowledge for clinical practice.

While no published evidence have been identified on the use of cadaver dissection for anatomy education among the CAATE accredited Professional ATEPs, advanced anatomy course is a requirement of at least 11 programs out of 16 accredited Post Professional ATEPs. Out of the 11 programs, at least seven programs currently offer gross anatomy cadaver dissection course ranging from one credit single semester to six-credit, full-year courses [27]. As such, athletic training students, as evidenced in the Post Professional ATEP students, can take advantage of the affiliated cadaver laboratory to teach more clinically oriented anatomy to their students by allows them to use visual, tactile, olfactory, and auditory senses to maximize this conceptualization [62]. A skill such as palpation can be enhanced by cadaver dissection experience. Dissection provides students with an opportunity of simultaneous verification, where a structure from surface anatomy can immediately be verified by dissecting more deeply [104]. Such learning process allows students to learn trust for their observation and learned knowledge.

Clinical experience is a required entity of the CAATE ATEPs. This educational environment presents an advantage for students to optimize the acquired anatomical knowledge in “contextual learning”, where an appropriate use of factual information in the context of professional practice is learned [99].” Students have an opportunity to apply such knowledge immediately to their clinical experience or laboratory work where hands-on evaluation, diagnosis
and rehabilitation of athletic injuries are performed or practiced. This leads to a theory of learning overtime which is a core concept in entry-level athletic training educational curricula [119, 120] where transfer of knowledge between didactic classroom and clinical experience is emphasized. This cycle of learning seems more difficult to achieve in medical school, where typically students take gross anatomy earlier in their curricula and have clerkship and residency (i.e., on-the-job training) experience later. As such, the knowledge and skills that students acquired from the dissection may not be well retained, although fundamental anatomical knowledge is required in any fields of medicine. On the contrary, the athletic training students may be more focused on the professional discipline of athletic training with clinically oriented views, compared to first or second year medical students at the time of anatomy course enrollment.

With the benefits of cadaver dissection being understood above, cadaver dissection method was selected as an instructional method for the anatomy portion of IPATH in this study. The IPATH students would benefit to a considerable degree, possibly more than medical students, from the reason explained above. No other instructional technique may replace cadaver dissection in acquiring anatomical knowledge.

**History and Current Situation of Cadaver Dissection Education in Japan**

**Historical Perspective** Cadaver dissection has also long been believed to be one of the best methods to learn human anatomy in Japan [57]. Especially for Japanese allied healthcare professionals or students, it becomes more popular to travel to foreign countries, particularly to the US, to attend cadaver dissection courses [56]. To date, cadaver dissection for gross anatomy education is highly limited to medical and dental students in Japan [52, 54, 55]. Handling of cadavers for educational purpose is primarily regulated by the two laws: “Postmortem
Examination and Corpse Preservation Act (1949)”; and “Act on Body Donation for Medical and Dental Education (1983)”[54, 55, 121]. The former law regulates the management of the cadaver for education as well as forensic autopsies at medical and dental schools. The latter regulates the willed body donation system. The law serves as a stringent discipline for appropriate and respectful management of cadavers [121]. Unclaimed bodies had been a major source of medical school cadaver courses until 30 years ago, when the ratio finally fell below 50% [53]. Since 1970s, national-level PR activities by major willed body donation programs facilitated the nation-wide recognition of the self-donation. Today, cadavers for anatomical dissection in Japanese medical and dental schools are almost completely supplied through the affiliated willed body donation programs [53]. A total of 3,500 cadavers are dissected in gross anatomy courses by 8,000 medical students as well as 2,500 dental students annually, which dictates an abundance of cadaver supply [52, 53]. On the other hand, Japanese medical students face the same issue with the US medical students with regards to the increased load of coursework in the curricula. As a result of constant revision of the medical curriculum, the number of allocated hours for cadaver dissection has witnessed a major decline. Yet, cadaver dissection is mandated by all medical and dental schools in Japan and continues to serve as an integral part of medical education [53].

**Issues associated with use of cadaver** One of the major rising issues at present is a debate concerning the use of medical and dental school cadavers for other healthcare anatomy education [51, 53]. As stated previously, the term “co-medical” has been used in Japan to express such professions, including nursing, paramedics, physical therapy, massage therapy, or judo therapy [52]. The needs of the dissection opportunity among those professions have risen significantly in the last decade [51-53]. While the access to cadaver dissection has been
exclusively limited to medical and dental schools, no statement actually prohibits the cadaver dissection from co-medical student learning activities [55]. In fact, some physical therapy schools and nursing schools that are affiliated with a medical school have taken advantage of the connection to observe cadaver dissection courses, handling prosections, or actually performing dissection [51, 52, 122, 123]. In a survey conducted by Tozaki [124] in 1997, a 55% of responded co-medical institutions (n=907) reported that incorporation of some type of gross anatomy course, but 74% of which was merely observation. The Postmortem Examination and Corpse Preservation Act states that cadaver dissection can only be performed: 1) under the direct supervision of a certified dissection specialist; 2) with educational purposes; 3) at a laboratory designated for cadaver management; 4) with a consent from donor’s family; and 5) with utmost respect to the donor [51, 55]. Again, there is no clear statement that restricts the access to cadaver only for medical and dental students. Therefore it has been legally possible for co-medical professionals and students to dissect cadavers [51]. Problems have been more logistic in nature, such as a lack of instructors, overburdening professors outside their course load, or laboratory administrative strain (additional legal and ethical issues) [51, 122, 123]. In order to become certified as a dissection specialist, one must be either: 1) a board-certified medical doctor or dentist who has at least two years, 20 cases of full body dissection; or 2) a faculty who has at least five years, 50 cases of full body dissection experience. Such stringent criteria restrict a proliferation of new certified instructors [55]. Recently, some medical schools have made an effort to offer a short-term open cadaver dissection courses for co-medical professionals [51]. While there seems to be some opportunity for cadaver dissection in Japan, healthcare professionals travel oversea in need of more cadaver dissection opportunities, especially to Hawaii due to its geographic proximity.
Study Abroad Programs

Short-, and long-term study abroad programs have been offered by educational institutions worldwide with variety of purposes, such as language proficiency, cultural immersion, academic degrees, and professional development to name a few. Literature associated with the benefits of study abroad program from participating Japanese students are scarce. One survey study result conducted by Tanaka [79] indicated that Japanese students who studied abroad in a US university for a 12-week English intensive program significantly improved the post TOEFL score. While the result showed statistical significance, the author concluded that the gain was moderate and whether it was translated to conversation skill was unknown [79]. Dwyer [82] recommended at least a full year study abroad program for maximizing benefits including language proficiency, while the study results also suggested as short as a six-week program positively impacted participants’ later lives more in their personal and professional developments.

No previous studies were identified investigating benefits of short-term or long-term study abroad program on athletic training students. In the allied healthcare professions, Zorn [88] suggested that nursing students had perceived the most benefits in improvement of intercultural perspective, global understanding and personal growth after two- to 12-week international education programs. The author also reported the intellectual development was the least perceived benefit by the students during the range of duration [88]. Tanaka [125] argued that improvement of second language skill would largely depend on students’ motivation and willingness to immerge themselves into English speaking environment during international experience. Baseline English proficiency plays a large role determining duration of the program.
Several short (three weeks) to long-term (five semesters) international programs have been reported in the field of nursing [70, 71, 80, 86-88].

A short-term (three to six weeks) nursing clinical experience in a developing country or region has been reported to impact students’ cultural competence, clinical practice, and professional growth [69-71]. Ryan et al. [87] reported their experience with international exchange nursing degree program at a US university hosting Taiwanese students [87]. A five semester long program offered nursing graduate degree courses including clinical rotation. Taiwanese students were required to meet the international student admission criteria set by the host university (500 on TOEFL score). A bilingual (Mandarin and English) faculty member was assigned to be a coordinator for the Taiwanese students overall assistance. They reported that an initial concern of English proficiency was resolved during the first semester. During clinical experience they employed the “buddy system” where a volunteering registered nurse served as a companion in a given site. While any insights from the Taiwanese students on their experience were not reported, the authors reported a benefit to the home students. Interacting with foreign students nourished home student’s cultural sensitivity, perception and understanding [87].

In summary, the literature indicates that an international program for athletic training students would theoretically provide the similar benefits discussed above. Even with a two-week, short-term program like IPATH may be able to provide personal and professional growth via improving cultural sensitivity and competency, drive students’ motivations to improving language proficiency, and gaining knowledge of athletic training profession systems that exist outside of their home countries. A careful planning of IPATH is warranted to provide the best educational experience possible based on the specific needs presented by the students.
Clinical Education in the US Athletic Training

Clinical education constitutes a substantial portion of educational program in athletic training as well as in any allied healthcare professions universally. Clinical education, distinguished from clinical experience, can be described as “the portion of student’s professional preparation that involves the formal acquisition, practice and evaluation of clinical proficiencies through didactic, laboratory and clinical experiences in medical care environments” [13]. The concept of “learning overtime” has been a great emphasis in athletic training clinical education especially since the third edition of Athletic Training Educational Competencies in 1999 [119, 126]. This approach was adopted to assure the systematic transformation of classroom knowledge into clinical performance [119]. The subsequent revisions of the competencies to fourth- and to the fifth-editions reflect the NATA’s endeavor to search a better way for integrating learning overtime to achieve the best student outcomes in the context of historical growth of the profession. A search for the best clinical education model is perhaps endless, however, it is crucial to have a profound knowledge of the history of athletic training clinical education for the active athletic training educators to further improve the quality of clinical education and to advance their profession.

Elimination of Internship Route  Perhaps the most drastic change associated with the task force’s recommendations was the elimination of the internship route on January 1st, 2004 [32]. As previously mentioned, the internship route required a candidate to register 1,500 hours under the supervision of a certified ATs. Moreover, the students in this route were required to complete courses that covered 11 subject matters [25]. Unfortunately the internship programs were reported to have significantly lower certification examination passing rate than that of the ATEPs [127, 128]. Discussion of whether the internship program was detrimental to the
students’ professional preparation was inconclusive [129-132]. Weider [132] evaluated perceived professional preparedness of 183 newly certified ATs within first 18 months of their employment. Questionnaire survey results indicated no significant difference between ATEP and internship program graduates in perceived preparedness for employment. Interestingly, no significant difference was found in clinical hours completed between the two groups. Moreover, majority of graduates from both programs completed more than minimum hours and the ATEP graduates tended to feel the clinical hours were still not sufficient [132].

Andersen [129] studied perceived adequacy of supervision from 149 students and 25 supervisors from both route programs. Questionnaire survey results indicated that students and supervisors both felt that the supervision was adequate during their clinical experience [129]. While internship program students as well as supervisors both might have felt that their supervision was “adequate”, the level of adequacy might have been inconsistent with the Commission on Accreditation of Allied Health Education Programs (CAAHEP) standards. It has been reported that majority of internship programs were allowing students unsupervised athletic training coverage for their athletic teams [129, 132]. Furthermore, Weidner and Pipkin [131] reported that their questionnaire survey indicated internship route students were less like to possess appropriate emergency care certificates, which was a requirement in the accredited ATEPs. The purpose of the elimination of internship was therefore to standardize the athletic training education and enhance consistency with professional preparation in other allied healthcare disciplines. Yet, in doing so the goal also to take “the best elements of the internship and curriculum routes to form a single, better educational model” [32].

A major clinical educational guideline revision was implemented and the clinical education began to form its shape today. The third edition Athletic Training Educational
*Competencies* [31] was published in 1999 in response to the recommendations by the task force. The 89-page document featured the expansion of content areas from six to 12, each of which was further consisted of the cognitive domain (knowledge and intellectual skills), Psychomotor domain (manipulative and motor skills) and affective domain (attitudes and value) and Clinical Proficiency (CP: decision making and skill application) [31]. The twelve content areas included: Risk management and Injury Prevention; Pathology of Injuries and Illnesses; Assessment and Evaluation; Acute Care of Injury and Illness; Pharmacology: Therapeutic Modalities; Therapeutic Exercise; General Medical Conditions and Disabilities; Nutritional Aspects of Injury and Illness; Psychosocial Intervention and Referral; Health Care Administration; and Professional Development and Responsibilities [31].

The learning overtime model, that is seen today, was systematically integrated into clinical education via CPs from the third edition of the competencies [31, 32]. The CP was designed to allow students to translate knowledge (cognitive), skills (psychomotor) and appropriate behavior (affection) learned from didactic and laboratory courses into integrated application by using decision making and critical thinking in a real-life environment under the direct supervision. With an appropriate feedback, students can reflect their performance and refine their knowledge and skills in a logical context. The NATA re-defined the structure of clinical education from quantitative (accumulation of hours) to an outcomes-based qualitative approach [31].

In the fourth edition of *Athletic Training Educational Competencies* (2006) [133], affective domain was removed from the sequential learning system but the synthesized concept of “Foundational Behaviors of Professional Practice” was grounded into all aspect of clinical education. Those behavioral features included: Primacy of Patient; Team Approach; Legal
Another important update from the third edition was assurance of the evidence-based knowledge acquisition and practice. Instructors had a higher expectation of keeping all the information provided to the entry-level students up to date with the evidence presented by research. The latest, 32-page, fifth edition (2010) features the actual incorporation of the evidence-based practice as one of eight newly refined content areas, which includes: Evidence-Based Practice; Prevention and Health Promotion; Clinical Examination and Diagnosis; Acute Care of Injuries and Illnesses; Therapeutic Intervention; Psychosocial Strategies and referral; Healthcare Administration; and Professional Development and Responsibility. The separate section of cognitive and psychomotor domains in each content area were now integrated into “knowledge and skills.” The CP system was removed from the individual content areas and rearranged into a separate section, the Clinical Integration Proficiencies (CIP). The CIP requires students to demonstrate comprehensive knowledge and skills of all eight content areas in the context of real patient care. Multiple levels of proficiency integrations substantially decreased the overall volume of the document while rendering the program directors and clinical coordinators more flexibility but challenged their creativity for the effective program development.

Clinical Supervision in the US CAATE Programs Clinical site supervision system was also revised to be included in the task force’s recommendations via amendment of Essentials & Guidelines for an Accredited Educational Program for the Athletic Trainer. The amendment of the guidelines included the assignment of clinical rotation. The clinical rotation system was designed to allow students to be exposed to various clinical settings, including secondary and post-secondary athletic training rooms, sports medicine clinics, primary care
clinics, or military, which reflected the timely roles of the ATs defined by RDSs [32]. Under the added complexity in clinical education, the NATA Clinical Education Subcommittee developed a training seminar for the Clinical Instructor Educator (CIE) designation for program directors or clinical coordinators. The CIEs provided a professional training to render the Approval Clinical Instructor (ACI) designation to the certified ATs who would serve as students’ supervisors in the respective educational program [134]. Since the inception of the first CIE seminar in 2000, the CIEs provided a professional training to certify the ACIs to begin more structured direct supervision in the academic year 2002-2003. Eventually, hour requirement was eliminated to ensure the quality of supervision by relieving pressure of urgency from instructors to meet the required hours [135].

The “direct supervision” in clinical education has been an ongoing issue that has been debated. Historically, the definition of “direct supervision” had been ambiguous. The previous CAAHEP guidelines stated that a supervising certified AT must make daily personal contact with students in the same athletic training setting [135]. This allowed such interpretation that a supervisor can be “readily accessible” to students for on-going instruction and guidance [25, 136]. Students were not allowed to be responsible for any medical decision and should not be used as a replacement of a certified AT. Yet, with the required first aid and CPR certifications, students were allowed to cover practices and games “within the scope of the certification.” In a survey study [131], the majority of head ATs working in the intercollegiate settings admitted that some of their students were authorized to provide medical coverage without direct supervision, even an individual company with a team road trip. The inception of the ACI system (and continuing currently under the new standards by CAATE) corrected the ambiguity of definition by clearly and simply stating that the ACI (or preceptor, currently) “must be physically present
and have the ability to intervene on behalf of the athletic training student and the patient” [13].

While current definition of direct supervision would have prevented students’ haphazard learning and incorrect application of knowledge and skills, it also might have prevented them from gaining autonomous decision-making technique in their knowledge and skills [136].

Scriber and Trowbridge [136] argued that the current definition of direct supervision may actually be creating barriers to learning for athletic training students. Sexton et al. [135] also acknowledged the anecdotal claim of today’s ATEP students’ unpreparedness is possibly due to the highly limited clinical hours in clinical setting where the independent decision-making should be learned. Previous athletic training students might have “benefitted” from the unsupervised clinical experience to garner their independency and confidence, but the autonomy does not always occur spontaneously just by being “alone.” Scriber and Trowbridge [136] proposed a model of modified direct supervision using a concept of “guided autonomy.” This would require some “unsupervised” time for students. Authors pointed out that students should be allowed some degree of independency as long as any regulations or restrictions are not violated [136]. They claimed that actions such as wrap, tape, basic warm-up, or flexibility and strengthening exercises or even situational evaluation to exercise emergency care could be and have actually been performed by coaches, personal trainers, parents, or athletes when ATs were not present [136].

Sexton et al. [135] echoed that the direct supervision should not mean that instructors must physically look over student’s shoulder and direct every action. They suggest the use of “mentoring” over “supervision” as the “mentoring” is more descriptive and conceptual than the “supervision”, which implies the action of “watching” [135]. Training and guidance of preceptors, as listed as one of the clinical education coordinator’s duties, should discuss this
teaching concept carefully to maximize students’ clinical experience in the context of clinical education. Not to mention that important is appropriate selection of preceptors who are equipped with self-awareness, profound understanding of relationship value, a strong sense and commitment of being a preceptor, and a commitment to the growth of the profession [136-141].

Clinical Education in the CAATE and JASA Education System Japanese athletic training clinical education system maintained by JASA has much shorter history as discussed in the Part I. As such, a direct comparison is not feasible. At a glance, the current Japanese clinical education system may resemble the situation of the US’s NATA in 1970s, when apprenticeship/internship route existed with the required clock hours. The apprenticeship and internship route eventually discontinued in the US as mentioned earlier, but it has not been the case in Japan. Main reason stems from the existence of abovementioned traditional medical credentials (Judo Therapy, Accupuncture, Shiatsu/Massage, and Physical Therapy) that have much longer history than athletic training [15, 36]. These dual (or more) credentialed ATs have been actively using their specialized skills in their practice as indicated by the JASA Global Practice Analysis [49], resulting in inconsistent clinical supervision [142].

Additionally, since there are no standardized educational competencies as required guidelines like seen in the US system, many students may not be able to receive adequate supervision and instructions from their clinical supervisors. Informal conversation with one of Japanese students in an accredited program indicated that the transfer of didactic knowledge to the practical application does not efficiently occur in the current educational curriculum. Moreover, in an informal inquiry, a JASA-AT working for a university level accredited program stated that current athletic training students may result in learning “haphazardly” in the clinical setting as there is no competencies to follow. Needs must be constantly explored for both
Japanese students and instructors on their current clinical education for obvious and hidden current issues.

Needs Identification

Educators have emphasized identifying appropriate need is one of the most important steps in educational programs planning [143-152]. Needs assessment may be initiated in response to a current problem, or used in ongoing learning and performance improvement efforts by educators. The principles and methods of conducting educational needs assessments have been discussed extensively in the past 40 years by numerous authors [44, 153-157]. Although the landscape of need assessment has gone through some changes over these years due to the technological advance or restriction of more stringent ethical guidelines, the underlying core principles of needs assessment have not changed [157].

The definition of “need” theoretically dictates the rationales and the purposes of needs assessment [158]. Aherne et al. [159] described that “need” is one of the most widely used but poorly understood concept in educational field. A need may stem from one of the two underlying concepts: discrepancy (gap) and preference (want) [157, 158, 160]. The term “need”, for such use as a noun, was originally introduced by Roger Kaufman, known as the father of needs assessment, in 1950s [161]. Kaufman defined the need “as a discrepancy or a gap between a desired condition and the current condition” [153]. He also noted, “if there is no gap between where we are now and where we should be then we have no need” [153]. Houston et al. [162] simply rephrased that “need” as the difference between “what is” and “what should be.” This seems to be the most widely accepted definition of “need” in the educational field.

A need as a preference or “want” is derived from one’s interest in, motivation to or prediction to which an improvement or satisfaction is likely to occur [163]. Needs and wants can
be used interchangeably, however, educators must be cognizant the fundamental difference of
the two [44]. Watkin [157] and Gupta [44] suggested that it is critical for educators to possess an
ability to distinguish learner’s needs and wants when developing an educational program. A
want typically denotes resources, activities, methods, or solution that people prefer or perceive as
the only option for improvement without accompanying a clear grasp of their goals and
objectives [157]. Conversely, a need is a goal-oriented gap between current and desired results
and not necessarily dictating a specific method or solution [157, 158]. Having this conceptual
understanding of the definition will lead educators to making sound decisions that align with
their goals and objectives.

Kimpston [164] suggested a systematic four-steps approach to determine needs: 1) 
Generation of goals or determination of the desired conditions; 2) Determination of the present
status of each goal or existing conditions; 3) Identification and analysis of discrepancies between
the goals and present status; and 4) Assignment of priorities to the identified discrepancies,
hence the needs. Educators can then determine what methods are most valid and appropriate to
meet their needs based on the priority and the goals. Conceptually similar approach to the needs
identification was also proposed by Gent [165], who proposed a three-step approach to determine
needs. The author suggested educators to first acknowledge a perceived discrepancy in learners’
performance, knowledge or skills. Educators would subsequently determine what the cause of
the discrepancy. Finally, educators can select a plausible solution to address the discrepancy
[165]. The author reiterated that one should determine exactly what is causing the problem or
discrepancy. If the discrepancies were due to a skill or knowledge deficit, plausible solution
would be an appropriate training and education. Problem may also be due to other factors in the
organizational environment and may require different solutions. Some possible solution may be
associated with modifying organizational structure, supervisory practices, performance
evaluation, feedback systems, resources, or organizational climate [165]. A needs assessment
therefore can assist educators to justify when and where to invest resources after first clearly
defining which results are worth accomplishing [157]. Gupta [44] comically depicted,
“Throwing resources at problems or opportunities is like throwing a chocolate pie at the wall and
hoping some of it will stick.”

Needs assessment has been conducted in a variety of ways in educational programs. As
discussed in the Part I, the lack of comprehensive needs assessment studies was revealed in the
collegiate-level continuing professional education planning process in six professional fields and
not treated as an independent step in most of the models used [11]. The development of IPATH
did not involve an extensive needs assessment using qualitative and quantitative survey
questionnaires. Sork [9] insists that a formal needs assessment just one piece of several
techniques that can be used to justify and focus the planning effort, is not necessarily a required
part of planning when initiating planning [1]. In order to provide the justification for the IPATH
development, a form of extensive literature and resource review, which is also referred to as
environmental scan [16]. However, quantitative and qualitative survey instruments were
developed in the step six of the planning approach as evaluation tools, which can be considered
as a needs assessment in an attempt to identify a deficit or gap in the program implementation [7].
APPENDICES
Appendix A
IPATH Policies Manual
Sample

International Program of Athletic Training in Hawaii (IPATH)
Policies Manual

University of Hawai‘i at Mānoa
The Department of Kinesiology and Rehabilitation Science

Ver. X_Rev. XX-XX-XX

(Format adapted from UHM Outreach College N.I.C.E. Program with permission)
Greeting
Welcome to IPATH!

The University of Hawai’i at Mānoa Department of Kinesiology and Rehabilitation Science welcomes you to the International Program of Athletic Training in Hawaii (IPATH)! We are happy that you have chosen to participate in this program. We carefully designed this program to provide you invaluable experiences in athletic training, the field that you have decided to explore. This program is an intense two-week athletic training program that requires your time commitment and hard work. During your stay, we hope to introduce you many unique aspects of athletic training education in the United States. If you work hard and try take a full advantage of all the course work and activities planned for your, we are certain that your experience with IPATH will prepare you for becoming a competent athletic trainer. We hope your experience is enjoyable and valuable for you and your future!

This Policies Manual will walk you through the overview of the IPATH programs. Please do not hesitate to ask any questions or concerns to the program staff as we are here for you.

Good luck and enjoy!

XXXXXXXX, PhD, ATC

XXXXXXXX, PhD, ATC

Program Coordinators
IPATH
The Department of Kinesiology and Rehabilitation Science
University of Hawai’i at Mānoa
IPATH Vision, Mission, Goal and Objectives

PROGRAM VISION

To advance the quality of athletic training education worldwide.

PROGRAM MISSION

To serve as a supplemental educational recourse for foreign athletic training students attending to their athletic training programs in respective countries as a process of their indigenous certifications to become successful athletic trainers.

PROGRAM GOAL

To provide students a unique experience, knowledge and skills and perspectives of international athletic training/sports medicine society under distinctive features of the program: clinical field experience, didactic athletic training related coursework, human cadaver dissection and English conversation. This program strives to produce well-rounded and competent athletic trainers who are capable of serving as powerful medical support assets in domestic as well as international athletic competitions for participating countries.

PROGRAM OBJECTIVES

The general objectives of this program are to provide educational opportunity to:

1. Perform daily English communication within sports medicine team members and athletes;
2. Work closely and effectively with other healthcare professionals in a variety of clinical settings;
3. Advance the understanding of human anatomy and hands-on injury evaluation techniques, especially palpation through deepening three-dimensional understanding of human anatomical structures relevant to common athletic training injuries and illnesses;
4. Foster a global understanding of cultural competence through clinical experience in ethnically and culturally diverse settings;
5. Develop a global understanding of athletic training profession in the United States;
6. Cultivate an independent living experience oversea
IPATH Programs of Study

IPATH Spring Program

Duration
The duration of the IPATH Spring Program is two weeks (12 session days). There is no instruction on Sundays.

Program Feature
IPATH Spring Program features Human Anatomy (AT Anatomy), Athletic Training Injury Assessment (AT assessment), and Clinical Experience (AT Clinical). You will learn the basic but one of the most important pieces of knowledge in athletic training, human anatomy, and will be facilitated to learn assessment skills and techniques with deeper understanding of anatomy. The clinical experience let you experience multicultural and multiethnic interaction with athletes and staff at your clinical site. The details of each course are explained in the course syllabi.

Classroom and performance places
Both AT Anatomy and AT assessment are offered at John A. Burns School of Medicine (JABSOM). Clinical sites are to be determined and assigned by the program coordinators during the orientation meeting.

Instructors
Instructors who are teaching these courses are all Board of Certification (BOC) certified athletic trainers. Clinical supervisors are also ATCs, who have rich experiences in clinical athletic training environments. Ask many questions!

Class Materials
You will perform cadaver dissection in the AT Anatomy course. In the AT assessment course, lecture is delivered through Powerpoint with hands-on skill practice sessions. You are not required to purchase any textbook.

Class Time
AT Anatomy will be held from 9:00AM to 12:00PM in the anatomy lab at JABSOM. AT Assessment class follows after lunch from 1:00PM to 3:00PM. You will then go to your assigned clinical site and spend the rest of the afternoon. The anatomy lab rule will be explained by the lab director on the first day of the instruction.

Course Evaluation
You will be asked to complete course and instructor evaluation for each course in the end of the two-week program. It is important for us to get your feedback to make this program improved and continued to be successful. Additionally, there is the student performance evaluation completed by your clinical supervisor, as well as the clinical site and supervisor evaluation completed by you to give everyone a chance to give feedbacks to each other. Don’t hesitate to speak up your opinions laud!
IPATH Fall Program

Duration
The duration of the IPATH Spring Program is two weeks (12 session days). There is no instruction on Sundays.

Program Feature
IPATH Spring Program features Athletic Training Focused English (AT English), Clinical Experience (AT Clinical), and Administration and Management of Athletic Training (AT Admin). You will learn practical English focused in athletic training, then you are given many opportunities to improve your English skills in the clinical sites. You will also learn different aspects of “athletic training” in the US that may be largely different to those of your country. The details of each course are explained in the course syllabi.

Classroom and performance places
Both AT English and AT Admin will be held in classrooms within UHM campus. Clinical sites are to be determined and assigned by the program coordinators during the orientation meeting. Main clinical sites are UH athletics and local high schools.

Instructors
IPATH Instructors who are teaching these courses are all BOC certified athletic trainers. Clinical supervisors are also ATCs, who have rich experiences in clinical athletic training environments. Ask many questions!

Class Materials
You will be provided with handouts and lectures slides in the AT English class. For the AT Admin course, lecture is delivered through Powerpoint. You are not required to purchase any textbook.

Class Time
The clinical rotation at UH Football starts about 5:30AM in the AT room. AT English then follows at 9:00AM to 11:30AM. In the afternoon after lunch AT Assessment or Clinical seminar will start at 1:00AM to 3:00AM. The high school clinical rotation will start after, but don’t worry. You will be assigned into either Group A or B, and Group A will only involve in UH football while Group B will only involve in the high school in the first week. You will then be switched in the second week. You will start earlier and finish earlier in the first week and start later and finish later in the second week, or vice versa.

Course Evaluation
You will be asked to complete course and instructor evaluation for each course in the end of the two-week program. It is important for us to get your feedback to improve this program and continue to be successful. Additionally, there is the student performance evaluation completed by your clinical supervisor, as well as the clinical site and supervisor evaluation completed by you to give everyone a chance to give feedback to each other. Don’t hesitate to speak up your opinions laud!
IPATH Program Policies

“English As Much As Possible”
You, as an IPATH student, can help yourself and your classmates to improve your English conversation skills by always using English for the duration of the stay. There are courses taught in your native language, but it is encouraged to use English ONLY during clinical rotation sites, the AT English course, and at your host family’s house. It may be difficult but try hard to “immerse” yourself into American culture as much as you can!

Attendance
You are expected to attend ALL the courses and activities offered during the program. In case of unforeseeable circumstances, you must contact and notify your program coordinators as soon as possible.

Professional Attire
During your clinical site rotation, you must maintain professional attire appropriate as an athletic trainer (i.e., Khaki pants or shorts, polo or T-shirts, and closed toe shoes).

Ethical Standard
You will follow the ethical standards defined by the National Athletic Trainers’ Association (NATA) Code of Ethics during all clinical experiences and all interpersonal interactions within IPATH programs, even though you are not required to become a member of NATA. The copy of Code of Ethics is presented in the last section of this manual. Failure to demonstrate the ethical behavior may result in a formal warning and official dismissal of the program.

Clinical Experience
• You must perform under the direct supervision and discretion of the clinical supervisor at all time during clinical rotations.
• At no time should you make independent decision for evaluation, treatment and rehabilitation of athletes or patients.
• You should not apply any modalities to the athletes or patients. However, application of certain types of cryotherapy (i.e., ice bag), thermotherapy (i.e., heat pack) or hydrotherapy (i.e., whirl pools) may be allowed under direct supervision of the clinical supervisor and after they have been instructed and carefully evaluated.
• You must not replace certified athletic trainers or professional-level athletic training students during clinical hours.
• You should not initiate emergency action as they are to be directly supervised, however, emergency care and first aid should be allowed within a scope of your valid domestic training (e.g., American Heart Association Basic Life Support) due to an unforeseen circumstance.
• You must use English Only during clinical hours and must encourage yourself to actively interact with your clinical supervisors, athletes or patients, and other staff.
• You must not provide any service to the site staff.
• You must maintain confidentiality on all private information associated with your clinical sites.
• You must not expect or receive any monetary compensation for your service.
Housing
You will be placed in a host family around the greater Honolulu area. We will help you arrange your stay through a private home stay program. You must follow policies and guidelines outlined by the home stay program. You must report to the program coordinators if any issues with your host family arise. You are encouraged to spend together as much time as possible while your host and you are both at home. **You must report to program director before you leave, and upon return to your host house every day.**

Transportation
THE BUS system can be used conveniently from your host house to your destinations (UHM, JABSOM, clinical sites). You may be transported by your host family, friends, or school staff at their convenience.

Health Insurance
You are required to carry health insurance and provide a proof up on arrival.

Student Conduct
You must follow UHM student conduct (see below) at all time during the instructional time in the program.

Student Services
(Adapted from N.I.C.E Program Student Handbook, used with permission)

**UH-IPATH ID Card**
Students may go to the campus Center Information window to get a UH-IPATH ID Card. You will need to show a picture ID (such as your passport). They will check that your name is on the IPATH Program list. You will need to pay $XX for this card. With this card, you can use the UH facilities such as Fitness center (with an additional fee), Swimming pool, Tennis courts, Gymnasiums and tracks, UH library system, and computer labs.

**The BUS monthly pass**
You may purchase a monthly bus pass for $XX at the same window you get your ID. Unfortunately there is no student discount and it is only good for the **current** month.

**UH Campus**
In Campus center & Hemenway Hall Complex (C-2 on the map below), you can find…
Information Desk
Campus Information
Student Fitness Center
University Bookstore
Cafeteria and Dining Room
Jamba Juice and Simply to Go
Pizza Hut Express
Subway
Starbucks
Farmer’s Market (on Fridays)
Hemenway Courtyard
Barbershop
Bale Restaurant and Manoa Garden

On the Lower Campus (A to C and 3-6 on the map), you can find
Athletics facilities, including athletic training room, baseball field, track, pool etc.
Student Recreation Services

**Outreach College Student Conduct**
*(Adapted from N.I.C.E Program Student Handbook, used with permission)*

Always remember that you are a student of the University of Hawaii and also a representative of your country. We want all members of the UHM community to have a good impression of international students. Please be considerate of other people at all times. Although life on an American campus may seem quite casual to you, there are still many rules that Americans follow. Please follow these simple guidelines:

**SMOKING**: UH has a strict non-smoking policy. It is illegal to smoke inside any UHM building. You may not smoke within 20 feet (6 meters) of any building. Please smoke outside far away from any buildings, and put your cigarette butts in a trashcan. Please do not leave cigarette butts on the ground.

**NOISE**: Do not talk loudly in the hallways on your way to or from class, or during breaks, so that you do not disturb other classes or office workers. Note that IPATH program classes are not always on the same schedule as UHM classes.

**ILLEGAL ACTIVITIES**: IPATH students are subject to all of the civil laws of the state of Hawaii. The IPATH program will immediately dismiss ("kick out") any student who is known to be participating in ILLEGAL activities, such as using/buying/selling illegal drugs, or working illegally. In addition, the program will inform local authorities of the illegal activity, including Department of Homeland Security officials. Students involved in illegal activities will very likely be deported from the U.S.

Note: Drinking or buying alcoholic beverages is illegal in Hawaii under the age of 21. No participant of any age is allowed to drink alcohol during any IPATH class or activity.

**SEXUAL HARASSMENT**: In the U.S., the way men and women treat each other may be different from your country. Behaviors of a sexual nature that may make others uncomfortable may be considered "sexual harassment" and should be avoided. Also, if you experience any of these behaviors you should know they are not acceptable. Some example behaviors that could be considered "sexual harassment" are listed below.

**VERBAL**: Jokes about sex, turning discussions into sexual topics, making sexual comments about someone's clothing or body

**NON-VERBAL**: Showing pictures or objects of a sexual nature, writing messages of a sexual nature

**PHYSICAL**: Unwanted touching, hugging or kissing of a sexual nature. If you experience any unwanted behaviors of a sexual nature that make you feel uncomfortable, you should…

Tell the person firmly to stop;
Report it to a teacher or other Program staff member. If it is serious, we can refer you to the sexual harassment counselor on the UH campus. Students engaging in sexual harassment may be asked to leave the program.

These guidelines for student conduct should also be followed on NICE activities in the off-campus community.

Outreach College Safety Policies
Although Hawaii is generally considered a paradise by those who live or visit here, there are some things you should be careful about if you want to have a safe and enjoyable stay

**ON CAMPUS**
DON'T leave your belongings unattended.
DON'T walk alone on campus after dark. Call 956-8211 for escort service.
DON'T bring valuables to school.
DON'T withdraw a lot of money from the ATM (Automatic Teller Machine) or carry a lot of money with you to school.
KNOW the locations of the EMERGENCY PHONES.
CALL **66911** for campus SECURITY if calling from an office phone.

**AT HOME**
DON'T leave a spare key outside your apartment/house (such as in the mailbox, under the doormat, etc.) If you are locked out, call the building manager.
DON'T open the door to strangers. KNOW who is at the door before opening it.
DON'T leave cash, jewelry, or other valuables out where people can see them.
PUT valuables in a closed container and in a safe place.
KEEP your apartment/house door locked at all times.
CHOOSE an apartment building with a good security system.
MAKE SURE you understand your lease agreement before signing it.
BE CAREFUL with whom you ride the elevator.
CALL building security or the building manager if you have any problems within the building.
CALL **911** for emergencies (police, fire, or ambulance).
BE CAREFUL when selecting a roommate. MAKE SURE you can trust him/her.
PAY your rent by check or money order - NOT CASH!

**AROUND TOWN**
DON'T walk alone after dark.
DON'T carry a lot of money with you.
DON'T carry a purse hanging loosely from your shoulder. Women should hold their purses tightly; men should carry their wallets in their front pockets, not in rear or jacket pockets.
IGNORE strangers who ask you for money.
USE ATM's (Automatic Teller Machine) in public places.
DON'T go to dangerous places at night, including dark areas in Waikiki. Stay in areas where there are many people.
DON'T accept rides from OR go anywhere with strangers.
DON'T ride the bus late at night, especially alone.
DON'T make friends carelessly.
BE CAUTIOUS when accepting an invitation. Never give personal information to a stranger.
BE INFORMED of the dangers of engaging in intimate relationships (AIDS, venereal disease, broken hearts!)
DON'T lend money to new friends that you meet, even though they promise to pay you back.

IF ASSAULTED
DON'T resist an armed robber - hand over your wallet or purse quickly and quietly. Loud screams or flight may protect you from a strong-arm robber, but REMEMBER, if he weren't pretty sure he could "take you", he wouldn't have tried.
CALL 911 as soon as possible to report an attack, robbery, or any kind of emergency.

NOTE: You do NOT need to put money in a public telephone to reach 911.

DRIVERS
DON'T drive if you have been drinking.
DON'T pick up hitchhikers.
DON'T admit your fault in an accident.
LOCK your car doors.
CLOSE your car windows.
SET the car alarm.
PARK near the entrance in the parking structure.
PUT valuables in the trunk.
HAVE your key ready before going to the parking area.
CHECK your car before entering.

BEACHES AND SWIMMING
DON'T go to the beach after dark.
DON'T swim alone. Always go with a friend.
DON'T go into the water if you have been drinking.
DON'T bring alcoholic beverages to the beach or any other public place. (This is illegal in Hawaii.)
DON'T go into the water if there is high surf unless you are sure of your swimming or surfing abilities.
CHECK what kind of beach it is. Observe other beach-goers.
CHECK for warning signs.
MAKE SURE the water doesn't look murky. If the water is murky there may be sharks around.
CHECK if there is a lifeguard on duty.
FACE towards the ocean when you are standing on the reef or rocks by the ocean. Big waves could knock you off.
USE sunscreen and don't stay in the sun too long.

HIKING
DON'T go hiking alone. Always go with a friend or group.
MAKE SURE someone knows your hiking plans: your route, where you will start and finish, what time you expect to return.
GO hiking only during the daytime.
CHECK the weather forecast online.
STAY on the trail. Do not try to take short cuts.
TAKE a jacket and flashlight with you.
STAY where you are if you get lost. Do not try to walk in a mist or in the dark.

NATA Code of Ethics

September 28, 2005

PREAMBLE
The National Athletic Trainers’ Association Code of Ethics states the principles of ethical behavior that should be followed in the practice of athletic training. It is intended to establish and maintain high standards and professionalism for the athletic training profession.

The principles do not cover every situation encountered by the practicing athletic trainer, but are representative of the spirit with which athletic trainers should make decisions. The principles are written generally; the circumstances of a situation will determine the interpretation and application of a given principle and of the Code as a whole. When a conflict exists between the Code and the law, the law prevails.

PRINCIPLE 1:
Members shall respect the rights, welfare and dignity of all.
1.1 Members shall not discriminate against any legally protected class.
1.2 Members shall be committed to providing competent care.
1.3 Members shall preserve the confidentiality of privileged information and shall not release such information to a third party not involved in the patient’s care without a release unless required by law.

PRINCIPLE 2:
Members shall comply with the laws and regulations governing the practice of athletic training.
2.1 Members shall comply with applicable local, state, and federal laws and institutional guidelines.
2.2 Members shall be familiar with and abide by all National Athletic Trainers’ Association standards, rules and regulations.
2.3 Members shall report illegal or unethical practices related to athletic training to the appropriate person or authority.
2.4 Members shall avoid substance abuse and, when necessary, seek rehabilitation for chemical dependency.

PRINCIPLE 3:
Members shall maintain and promote high standards in their provision of services.
3.1 Members shall not misrepresent, either directly or indirectly, their skills, training, professional credentials, identity or services.
3.2 Members shall provide only those services for which they are qualified through education or experience and which are allowed by their practice acts and other pertinent regulation.
3.3 Members shall provide services, make referrals, and seek compensation only for those services that are necessary.
3.4 Members shall recognize the need for continuing education and participate in educational activities that enhance their skills and knowledge.
3.5 Members shall educate those whom they supervise in the practice of athletic training about the Code of Ethics and stress the importance of adherence.
3.6 Members who are researchers or educators should maintain and promote ethical conduct in research and educational activities.

**PRINCIPLE 4:**
Members shall not engage in conduct that could be construed as a conflict of interest or that reflects negatively on the profession.
4.1 Members should conduct themselves personally and professionally in a manner that does not compromise their professional responsibilities or the practice of athletic training.
4.2 National Athletic Trainers’ Association current or past volunteer leaders shall not use the NATA logo in the endorsement of products or services or exploit their affiliation with the NATA in a manner that reflects badly upon the profession.
4.3 Members shall not place financial gain above the patient’s welfare and shall not participate in any arrangement that exploits the patient.
4.4 Members shall not, through direct or indirect means, use information obtained in the course of the practice of athletic training to try to influence the score or outcome of an athletic event, or attempt to induce financial gain through gambling.

Citation: [http://www.nata.org/codeofethics](http://www.nata.org/codeofethics)

Contacts

**School Main Contact Information**
The University of Hawai‘i at Mānoa
The Department of Kinesiology Science
1337 Lower Campus Rd. PE/A Complex Room 231 Honolulu, HI 96822
Phone: XXX-XXX-XXXX, Fax: XXX-XXX-XXXX

**Emergency Call- 911**

**Program Coordinators**
808-956-XXXX
808-956-XXXX

**Outreach College**
808-956-XXXX
**Campus Security**
808-956-6911

**JABSOM**
808-XXX-XXXX
Appendix B
Orientation Meeting Agenda

Date XX-XX-XXXX
KRS Athletic Training Laboratory
At 9AM

Tentative Agenda

- Greeting from program coordinators
- Introduction of instructors, staff and students
- Program Overview
- Review of Policies Manual
- Introduction of the program courses
- Review of course syllabi and schedules
- Clinical rotation assignment
- Cardiopulmonary Resuscitation (AHA BLS) review
- Blood borne pathogen review
- Campus Tour
- Meeting with host family (Director of the homestay program)
Appendix C
Athletic Training Focused English Syllabus and Course Schedule

IPATH Fall 201X
Outreach College
Department of Kinesiology and Rehabilitation Science
The University of Hawai‘i at Mānoa

Course Description
This course is specifically designed to develop conversational skills and strategies in daily English communication occurring among sports medicine team members and staff in the athletic training room and on the field during game and practice coverage.

Expectation of Students/Evaluation of Students
Students are expected to attend all classes and to complete all assignments by designated deadlines. Students will be evaluated in the practical examination at the end of the program.

Course Objectives
The course objectives of this course is:
1. To teach students basic conversational techniques and strategies;
2. To improve students’ listening ability in the working environment as the athletic trainer;
3. To raise students’ awareness of the need to monitor their own pronunciation;
4. To develop confidence in verbalizing their words in English conversation;
5. To assist students in accustoming to US/Hawaiian cultures;
6. To teach students basic athletic training/sports medicine terminologies commonly used in medical emergency situations; and
7. To improve conversational skills used in athletic training injury evaluation process.

Upon Completion of this course, students should:
1. Develop a confidence in initiating conversation in English language;
2. Be able to be generally understood by native speakers when speaking in daily conversation in the athletic training related environment;
3. Understand how to clear English pronunciation, including stress and intonation patterns;
4. Be able to grasp main ideas from natural English conversations in communications with sports medicine team members; and
5. Be able to conversationally obtain basic medical history in the injury evaluation process.

Exams
There is a final exam in the last class (Session 10), which consists of conversational format examination with one-on-one basis. Students will be evaluated based on their oral performance.

Grade
There is no grading involved for this course.
Modules
This class consists of three modules specific to athletic training related situational conversations. The following are the example of the modules:

Module 1: This module focuses on daily conversation between athletes and athletic trainers in the athletic training room. Students will practice initiating conversation with developing a rapport with their athletes/students/patients. Student will practice a medical history taking of injury evaluation process.

Examples of expressions and type conversation to be practiced: in this module:
A: How are you?
B: My shoulder is sore.
A: What sports do you play?
B: I play baseball.
A: What happened?
B: When I threw a ball yesterday, I felt a pop in my shoulder and it’s sore since then.
A: How do you feel today compared to yesterday?
B: Where exactly does it hurt?
A: Right in front of my shoulder.
B: Can you point where the pain with your index finger?
A: Right here (Pointed)
B: What kind of pain is it, sharp, dull, or achy?
A: Sharp pain like someone is stubbing my shoulder with a knife.

Module 2: This module focuses on English conversation that takes place in dealing with possible life-threatening injuries in the medical emergency situation. Students will learn conversational expressions that are commonly used in such situation.

Examples of expressions and type conversation to be practiced: in this module:
A: Hey, are you okay?
B: No I don’t think so. My neck hurts and my arms are burning.
A: My name is XXX. Can I help you?
B: Yes please.
A: You, go call 911. Did anyone else see what happened?
C: I saw it. She was tackled by an opponent and fell from the head.
A: Do not move your neck and head, okay?
B: Okay.
A: Can you move your fingers?
B: No I cannot. It’s too painful.
A: Can you feel your toes?
B: I feel my toes.
A: An ambulance is on the way so do not move yet. I will keep holding your head until the ambulance comes. Okay?
Module 3: This module focuses on English conversation that takes place between athletic trainers and coaches and administrators. Students will learn conversational skills that can be used in such situations.

Examples of expressions and type conversation to be practiced: in this module:

A: Hi coach Josh, I just saw Mary’s knee.
B: What do you think? Do you think she can play tomorrow?
A: I don’t think so. I think she has a torn meniscus.
B: Really? That’s a bad news for us. She is a starter and I need her for the next game.
A: I know, but she is in so much pain and her knee is swollen. She can’t even walk normal now.
B: That’s too bad. Is she icing now?
A: Yes she is in the AT room.
B: Okay I will go talk to her to take it easy tomorrow.

Tentative Course Schedule

Week 1
Session 1: Introduction- Module 1.a
Session 2: Module 2.a
Session 3: Module 3.a
Session 4: Module 1.b
Session 5: Module 2.b

Week 2
Session 6: Module 3.b
Session 7: Module 1.c
Session 8: Module 2.c
Session 9: Module 3.c
Session 10: Review and Final Exam.
Appendix D
Clinical Rotation Experiences in Athletic Training/Sports Medicine Course Syllabus and Schedule

IPATH Spring and Fall 201X
Department of Kinesiology and Rehabilitation Science
The University of Hawai‘i at Mānoa

Course Description
A clinical observatory experience in real life work environment of athletic trainers and other allied healthcare professionals in sports medicine in the State of Hawaii through a variety of clinical sites. Clinical sites include colleges, high schools, hospitals, physical therapy clinics and performance enhancement clinics.

Expectation of Students/Evaluation of Students
Students are expected to be present all assigned clinical experience hours. Students will observe athletic trainers’ or other healthcare professionals work performance without interfering their regular duties. Students are expected to actively involve in assisting their duties with clinical supervisors’ discretion. Students are required to write a one-page daily journal and to submit to instructor at the end of each clinical site experience.

Course Objectives
Upon Completion of this course, students will be able to:
1. Provide basic description of athletic trainer’s duties in the United States in the management of their worksites;
2. Gain a cross-cultural perspectives to understand and appreciate global sports medicine practices in the evaluation, treatment and rehabilitation of injuries;
3. Be accustomed to daily English communication specific to athletic training and sports medicine working environment;
4. Discuss the differences in the clinical athletic training and sports medicine venues between the United States and their own country’s counterparts;
5. Discuss cultural differences in the clinical athletic training practices; and
6. Provide examples of commonly used therapeutic interventions used in the management of sport-related injuries.

Athletic Training Clinical Seminar (Only in the Fall program)
AT seminar is typically held every other day during the two-week program. This seminar is designed to discuss issues and concerns that the students experienced and clarify questions that they may have. This seminar ensures that an appropriate learning is taking place during the clinical hours.

English
Students are encouraged actively interact with certified athletic trainers, athletic training students, athletes/patients, coaches and staff and use English as much as possible. In the Fall program this is facilitated by AT English course. In the Spring, students should develop confidence in initiating conversation using English.
**Final Examination**  
There is NO final examination for this course.

**Evaluation**  
Students are evaluated at the end of each clinical site by the clinical supervisor on their performance, mainly based on attitude toward active participation. Immediate feedback will be given to the students to reflect to the next rotation, or clinical experience back in home country. Students are also required to complete clinical site and supervisor evaluation up on completion of the course.
## Tentative Course Schedule

### IPATH Spring

#### Week 1

<table>
<thead>
<tr>
<th>Monday</th>
<th>UH Athletics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>UH Athletics</td>
</tr>
<tr>
<td>Wednesday</td>
<td>UH Athletics</td>
</tr>
<tr>
<td>Thursday</td>
<td>UH Athletics</td>
</tr>
<tr>
<td>Friday</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Saturday</td>
<td>Games/Matches</td>
</tr>
</tbody>
</table>

#### Week 2

<table>
<thead>
<tr>
<th>Monday</th>
<th>DOE High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Wednesday</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Thursday</td>
<td>Rehab/Performance Clinic</td>
</tr>
<tr>
<td>Friday</td>
<td>Rehab/Performance Clinic</td>
</tr>
<tr>
<td>Saturday</td>
<td>Games/Matches</td>
</tr>
</tbody>
</table>

### IPATH Fall

#### Week 1

<table>
<thead>
<tr>
<th>Monday</th>
<th>Group A</th>
<th>Clinical Site</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UH Athletics</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Tuesday</td>
<td>UH Athletics</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Wednesday</td>
<td>UH Athletics</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Thursday</td>
<td>UH Athletics</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Friday</td>
<td>UH Athletics</td>
<td>DOE High School</td>
</tr>
<tr>
<td>Saturday</td>
<td>Games</td>
<td></td>
</tr>
</tbody>
</table>

#### Week 2

<table>
<thead>
<tr>
<th>Monday</th>
<th>Clinical Site</th>
<th>Site Supervisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOE High School</td>
<td>UH Athletics</td>
<td></td>
</tr>
<tr>
<td>DOE High School</td>
<td>UH Athletics</td>
<td></td>
</tr>
<tr>
<td>DOE High School</td>
<td>UH Athletics</td>
<td></td>
</tr>
<tr>
<td>DOE High School</td>
<td>UH Athletics</td>
<td></td>
</tr>
<tr>
<td>DOE High School</td>
<td>UH Athletics</td>
<td></td>
</tr>
<tr>
<td>DOE High School</td>
<td>Games</td>
<td></td>
</tr>
</tbody>
</table>

102
Appendix E
Clinically Oriented Anatomy in Athletic Training Course Syllabus and Schedule

IPATH Spring 201X
Department of Kinesiology and Rehabilitation Science
Department of Anatomy, Biochemistry and Physiology, JABSOM
The University of Hawai‘i at Mānoa

Course Description
Clinically oriented human gross anatomy of musculoskeletal system with athletic training and sports medicine focus through human cadaveric dissection and use of other anatomical specimens.

Expectation of Students/Evaluation of Students
Students are expected to attend all classes and actively participate in dissection. Students are evaluated through one exam implemented at the end of the second week.

Course Objectives
Upon Completion of this course, students should be able to:
1. Identify clinically relevant anatomical structures in musculoskeletal system;
2. Describe gross anatomical structure with precision and clarity;
3. Improve palpation skills with precision and clarity through surface anatomy;
4. Incorporate the newly acquired skills in order to continue advanced study in clinical experience;
5. Apply anatomical knowledge to evaluation and treatment of athletic training injuries; and
6. Visualize and conceptualize natures, mechanisms and pathologies of athletic training related injuries during evaluation and examination.

Course overview (Spring Only)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Unit 1- Introduction to Dissection, Extrinsic and intrinsic layers of back:</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Unit 1- Extrinsic and intrinsic layers of back: Spinal Cord (Prosections)</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Unit 2- Upper Extremity 1: Anterior chest, thorax</td>
</tr>
<tr>
<td>Thursday</td>
<td>Unit 2- Upper Extremity 2: Axilla (Brachial plexus), Arm</td>
</tr>
<tr>
<td>Friday</td>
<td>Unit 2- Upper Extremity 3: Forearm, hand, Joints</td>
</tr>
</tbody>
</table>

WEEK 2 (Lower)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Unit 3- Anterior/posterior abdominal wall (Abdominal organs)</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Unit 4- Lower Extremity 1: Inguinal region, anterior and medial compartments of thigh</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Unit 4- Lower Extremity 2: Gluteal region, Posterior thigh, Popliteal region</td>
</tr>
<tr>
<td>Thursday</td>
<td>Unit 4- Lower Extremity 3: Leg, Foot, Joint</td>
</tr>
<tr>
<td>Friday</td>
<td>Review, Final Exam</td>
</tr>
</tbody>
</table>

*This is a tentative schedule.*
Rules for Gross Anatomy Lab

- ABOVE ALL: You are to show the deepest respect for and maintain the dignity of those who have graciously donated their bodies for our continued educational growth. Failure to do so may result in removal of lab privileges and failure of the course.
- NO Photography for any purpose
- Only students enrolled in the course & appropriate medical personnel are allowed in the lab.
- NO anatomic material may be taken from the lab.
- NO food or drink is allowed in the lab at any time.
- Close-toe shoes must be worn.
- You will have open access to the lab to use to your advantage during the semester. You will be required to sign-in at the front desk and present a picture ID. If another class is meeting in the lab, please return at a later time.

Health Conditions

All students are required to participate in anatomical laboratories. If you have a health condition that may interfere with participation in lab, please see the Chair of the Department (JABSO, Kaka’ako). You are also highly encouraged to inform the instructor. You may be required to obtain a physician note to excuse you from the lab portion of the class.

Outline of Course Contents

Unit 1- Extrinsic/Intrinsic layers of back, and Spinal cord

Overview of anatomical dissection
Back/Spine
- Skin and subcutaneous fat, “superficial fascia”— segmental innervation-spinal nerve anatomy
- Extrinsic layer of back
- Intrinsic layer of back
- Spine: Laminectomy

Unit 2- Upper Extremity

Skinning of anterior chest wall
Pectoral girdle- Bony framework- “incomplete ring”
- Involving bones and joints
- Axioscapular muscle group
- Axiohumeral muscle group
- Scapulohumeral
- Brachial Plexus- Pathways and branches
- Subclavian artery- Axillary artery: Major branches

Arm: Anterior and Posterior compartment
- Concept of compartment
- Anterior compartment
- Posterior compartment

Forearm
- Cubital fossa- contents
- Anterior and Posterior compartments
Hand
  • Carpal tunnel- contents
  • Muscles of hand

Unit 3- Anterior, Posterior abdominal walls, Anterior
  Skinning of the abdominal wall
  • Skin, Subcutaneous layers, Deep fascia
  • Segmental Nerves
  • Anterior abdominal wall Musculature

Posterior abdominal wall
  • Diaphragm
  • Posterior abdominal wall musculature
  • Abdominal aorta
  • Lumbar plexus- branches

Unit 4: Lower Extremity
  Skinning of thigh- Facia lata- IT band
  Compartments of the thigh- Intermuscular septa
  Anterior compartment- Intermuscular septa
    • Femoral nerve and artery
  Medial compartment of thigh
    • Femoral triangle and contents
  Patella and knee joint
    • Patella- Patella tendon
    • Knee joint
  Gluteal muscles
  Sacral plexus- Sciatic nerve
  Posterior Thigh
    • Hamstrings
  Popliteal fossa
    • Borders and contents

Leg
  • Compartments- Deep crural fascia and intermuscular septa
  • Anterior compartment: Muscles
  • Posterior compartment

Ankle and Foot- Procections
  • Joints and Ligaments
  • Neurovascular structures
  • Extrinsic muscle tendons
Appendix F
Athletic Training Injury Assessment Course Syllabus and Schedule

IPATH Spring 201X
Department of Kinesiology and Rehabilitation Science
University of Hawai‘i at Mānoa

Course Description
An examination of the pathology of common athletic training injuries to the upper and lower extremities and their care and treatment options through lectures and hands-on laboratory.

Expectation of Students/Evaluation of Students
Students are expected to attend in all classes. Students are evaluated by participation, and the final examination given on the last day of instruction.

Course Objectives
Upon Completion of this course, students will have a better understanding of:

1. Etiology, signs, symptoms, and epidemiology of common orthopedic injuries, illnesses and diseases to the body's systems;
2. Basic musculoskeletal assessment of upper and lower extremity for the purpose of identifying (a) common acquired or congenital risk factors that would predispose patients to injury and (b) a musculoskeletal injury;
3. Common techniques and procedures for evaluating common upper and lower extremities injuries including taking a history, inspection/observation, palpation, functional testing, special evaluation techniques, and neurological and circulatory tests; and
4. Assessment of the patient's condition, determination and application of the immediate treatment and/or referral in the management of the condition.

Course Schedule

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Introduction: Back 1 Palpation, ROMs</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Back 2 Injury Assessment- MMT, Special tests</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Upper Extremity 1 Palpation, ROMs</td>
</tr>
<tr>
<td>Thursday</td>
<td>Upper Extremity 2 Injury Assessment- MMT,</td>
</tr>
<tr>
<td>Friday</td>
<td>Upper Extremity 3 Injury Assessment- Special tests</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Week 2</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Abdomen 1 Palpation, Assessment</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Lower Extremity 1 Palpation, ROMs</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Lower Extremity 2 Injury Assessment 1- MMT</td>
</tr>
<tr>
<td>Thursday</td>
<td>Lower Extremity 3 Injury Assessment 2- Special tests</td>
</tr>
<tr>
<td>Friday</td>
<td>Review, Final Exam</td>
</tr>
</tbody>
</table>

* This is a tentative schedule
Outline of Course Content

A. Introduction- Injury Assessment overview
B. Back/Spine
   Surface anatomy of the back
   • Palpable structures
   O. I. A of all the back muscles- ROMs, MMTs
   Common Injury and Special tests

C. Upper Extremity
   Surface anatomy of chest, shoulder and axilla
   • Palpable structures
   ROMs, MMTs
   Common injury and Special Tests
   Surface anatomy arm, elbow, forearm, wrist, hand
   • Palpable structures
   ROMs, MMTs
   Common injury and Specials Tests

D. Abdomen
   Surface anatomy of anterior abdominal wall
   • Palpable structures
   MMTs, Special Tests

E. Lower Extremity
   Surface anatomy anterior and medial thigh and knee joint
   • Palpable structures
   ROMs, MMTs
   Common Injuries and special tests
   Surface anatomy Gluteal region, Posterior thigh, leg ankle and foot
   • Palpable structures
   ROMs, MMTs
   Common Injuries and special tests
Appendix G
Administration and Management in the United States Athletic Training/Sports Medicine System Course Syllabus and Schedule

IPATH Fall 201X
Department of Kinesiology and Rehabilitation Science
University of Hawai‘i at Mānoa

Course Description
This seminar course will focus on the professional management and administrative issues in athletic training in the United States, which are unique to other countries environment. Organization and administration topic will include the sports medicine system, medical support system, preparation in planning, designing, developing, organizing, implementing, directing and evaluating an athletic training health care program and facility. Current issues in US/international athletic training/sports medicine related to professional conduct and practice will also be discussed.

Expectation of Students/Evaluation of Students
Students are expected to attend all classes. Students are evaluated based on attendance and one final exam at the end of the program.

Course Goals and Objectives
Upon Completion of this course, students will have a better understanding of:
1. The role of the athletic trainer as a member of the US allied health community;
2. Confidential management of medical records;
3. Designs of an athletic training facility consistent with health and safety guidelines;
4. Budget operation in managing athletic training healthcare program and facility;
5. Use of injury surveillance and management systems;
6. Ethical and unethical conduct in athletic training practice; and
7. Applicable information in athletic training organization and administration to the sports medicine system of the students’ own countries.

Course Schedule/ Outline of Course Contents

<table>
<thead>
<tr>
<th>Date</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Week 1</strong></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Introduction: AT credential, role of ATs, Medical Record</td>
</tr>
<tr>
<td>Thursday</td>
<td>Design/budget of implementing AT room- Field Trip 1</td>
</tr>
<tr>
<td></td>
<td><strong>Week 2</strong></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Injury Record System, Confidentiality (HIPPA), Code of ethics</td>
</tr>
<tr>
<td>Thursday</td>
<td>Field Trip 2</td>
</tr>
</tbody>
</table>

*This is a tentative schedule and outline*
Appendix H
IPATH Application Form
Sample
(Adapted from UHM Outreach College international special program application form with permission)

-IPATH-
PROGRAM APPLICATION

SEMESTER APPLYING FOR: ☐ Fall 201X ☐ Spring 201X

Please fill in the information completely and clearly.

I. PERSONAL INFORMATION

Name (as shown on passport): Family/Last Given/First Middle

Date of Birth (month/day/year): / /

Gender: ☐ Male ☐ Female

Country of Birth

Country of Citizenship

Email Address:

Permanent Mailing Address (in home country)

Street

City Province/Territory Country Postal Code

Home Telephone Cellular Fax Number

Address in Hawaii (to be filled in upon arrival)

City Postal Code Phone

I have a certification for healthcare provider (e.g., AHA BLS)

YES ☐ NO ☐ (Plan to take on DATE: _____________.)

Please attach your photograph here
OR attach a copy of your passport photo page
<table>
<thead>
<tr>
<th>Home School</th>
<th>Major</th>
<th>Grade</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Home School Address</th>
<th>Street</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>City</th>
<th>Province/Territory</th>
<th>Country</th>
<th>Postal Code</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of your Program</th>
<th>Program Director’s Name</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Credential(s)</th>
<th>Program Director’s Email Address</th>
<th>Program Director’s Phone Number</th>
</tr>
</thead>
</table>

My program is a JASA accredited athletic training program.

- YES □
- NO □

List athletic training related courses that you have completed in your program.

---

### III. English Proficiency

How do you describe your current English proficiency?

---

If you have taken any of the English Proficiency tests (e.g., TOEFL, IELTS, TOEIC or EIKEN) before, when and what is (are) the score(s)?

**Submit copy of test results for TOEFL, IELTS, TOEIC, EIKEN, if available.**

### IV. Financial Statement

**SOURCE OF FINANCIAL SUPPORT (CHECK ONE)**

- □ Student (self)
☐ Student’s Immediate Family Member (parent, spouse, or sibling over 21):
Relationship: ____________

Name and Address: ____________________________________________

☐ U.S. Permanent Resident/Citizen Sponsor (you must also submit an Affidavit of Support)

Name and Address: ____________________________________________

V. APPLICANT CERTIFICATION
I certify that the above information is complete and accurate to the best of my knowledge. I understand that providing incomplete, incorrect, or false information may result in the denial of my admission to or dismissal from the program. I agree to adhere to all program policies during my term of study.

DATE ___________________________  SIGNATURE ___________________________

V. Intention for Participation
Please provide reasons for the participation and your future goals in the box below.

______________________________
VI. RISK AND RELEASE

Assumption of Risk and Release
The personal safety of our students is a major concern at University of Hawaii. Dangerous activities are avoided and not endorsed by the program. Students will be required or invited to participate in activities off-campus as part of the IPATH program. Your signature on this form releases the University and its employees from responsibility in the event of damage to personal property, personal injury, or death while on a program activity, including transportation to and from the activity. Please read below, sign and date.

I, the undersigned, in full recognition and appreciation of the dangers and hazards inherent in the IPATH and during transportation to and from the IPATH activities, to which I may be exposed during my enrollment and participation in IPATH, do hereby agree to assume all the risks and responsibilities surrounding my participation in that program or activities undertaken as an adjunct thereto; and further, I do for myself, my heirs, executors, and administrators hereby defend, hold harmless, indemnify, release and forever discharge the University and all its officers, agents and employees from and against any and all claims, demands, and actions, or cause of action, on account of damage to personal property or personal injury, or death which may result from my participation, and which result from causes beyond the control of, and without the fault or negligence of the University, its officers, agents or employees, during the period of my participation as aforesaid.

IN WITNESS WHEREOF, I have caused the release to be executed this

__________ day of __________ , 20__

DATE MONTH YEAR

____________________________________________________
SIGNATURE
Appendix I
IPATH Application Requirement and procedure
(Sample)

APPLYING TO THE International Program of Athletic Training in Hawaii (IPATH)

Eligibility
Current student enrolled in an athletic training program at a Japanese university or college, who is enthusiastic in learning and improving knowledge and skills in AT focused English, human anatomy, hands-on AT injury assessment, and field experience through an international experience in Hawaii.

Visa Requirements
To study in the IPATH programs, most international students must enter the U.S. on an F-1 student visa. The University of Hawai‘i Outreach College is authorized under Federal Law to enroll non-immigrant alien students.

When to Apply
Students should begin the application process as early as possible. A minimum of four months prior to the program start date is highly recommended. Late applications may be processed for acceptance into the next available program. Applications are accepted on a first-come-first-served basis until the program is full.

Application Process
A step-by-step IPATH application process is:

Step 1: Applicants must submit the following to the IPATH office by XXXX, 201X (no later than 3 months before the program start date):
1. IPATH Program Application Form
2. Proof of CPR and AED certification for healthcare providers (Preferably American Heart Association Basic Life Support)
3. Transcript of athletic training related courses completed at your home institution
4. If available: TOEFL, IELTS, TOEIC or Eiken scores as an indication of current English proficiency. NO minimum score is required for acceptance.
5. Official bank verification of finances for visa purposes (minimum USD $5,500 for the two week program). Must be current account of student or immediate family member dated within the past 6 months.

Step 2: Upon reviewing application for eligibility, the IPATH office will send a Letter of Acceptance to the applicant with instructions to proceed to the next step. At this point, the applicant must submit the full payment* to the Outreach College office:

*Full payment: $100 application process fee plus $XXX program fee = $XXXX.
Please send check or money order made out to “University of Hawaii”. Please see Refund Policy below.

Step 3: The Outreach College office register the student in SEVIS and will send the Form I-20 for obtaining an F-1 student visa along with an official Letter of Admission to IPATH.

Step 4: After receiving the Form I-20, the student must pay the SEVIS fee online and make an
interview appointment at an American embassy to apply for the F-1 student visa.

Note 1: Scanned copies of official documents are acceptable upon initial application to the program. Original documents are required for admission to be complete. Students must submit original documents by mail or in person upon arrival. If documents are found to be incomplete, inaccurate, or illegible the student will be denied admission to the program and the I-20 will be revoked immediately.

Note 2: The University of Hawai‘i International Program of Athletic Training in Hawaii (IPATH) reserves the right to deny acceptance to the program.

Note 3: Applicants must provide accurate and complete information throughout the application process. Students that are found to have provided false information or falsified documents will be immediately disqualified from the program.

Refund Policy
The $100 application fee is not refundable in any circumstances.

If a student cancels enrollment prior to 45 days before the program start date, 100% of the program fee shall be refunded. No refund will be given thereafter. The student must return the original Form I-20 to the IPATH office. If a student withdraws after the program has started, no refund shall be given.

Deferral
No request of a deferral to another program is accepted.

Program Cancellation
In the unlikely event that the IPATH session for which a student has applied is cancelled, IPATH will refund all fees that have been paid.

CONTACT INFORMATION

IPATH OFFICE
UHM KRS
Honolulu, HI 96822 USA
Email: XXXX
Tel: XXX-XXX-XXXX
Fax: XXX-XXX-XXXX

OUTREACH COLLEGE INTERNATIONAL PROGRAMS
Outreach College
Honolulu, HI 96822 USA
Email: XXXX
Tel: XXX-XXX-XXXX
Fax: XXX-XXX-XXXX
Appendix J
List of Off-Campus Private Homestay Agencies

1 International Hospitality Center
   Email: ihc@priory.net
   Phone: 1-808-521-3554
   Contact Person: Barbara Bancel
   Website: www.ihchawaii.org

2 Island Homestay LLC.
   Email: Island-homestay@hawaii.rr.com
   Phone: 1-808-224-8300
   Contact Person: Mona King

3 American Homestay LLC.
   Email: mohrim@yahoo.com
   Phone: 1-808-396-5123
   Contact Person: Machiko Mohri

4 International Student Placements
   Email: Info@isphomestays.com
   Phone: 1-650-947-8879
   Contact Person: Jean Ikeda
   Website: www.isphomestays.com

5 Rainbow Homestay
   Email: info@rainbow-homestay.com
   Phone: 1-808-277-9016
   Website: www.rainbow-homestay.com

*These agencies are listed in UHM Outreach College International Programs website
(http://www.nice.hawaii.edu/housing/homestay.asp) and UHM Manoa International Exchange
website (http://manoa.hawaii.edu/international/mix/inbound_students/housing&meals.html).
Appendix K
IPATH Clinical Experience in Athletic Training and Sports Medicine
Athletic Training Student Evaluation Form

Name of IPATH Student: ____________________________________
Name of Clinical Supervisor: ________________________________
Assignment: ______________________________________________ Program: __ Fall __ Spring____

(4) Excellent
(3) Good
(2) Average
(1) Poor
(0) Very Poor
NA – Not Assessed

Personal/Professional Qualities:

__ is punctual for all assignments
__ dresses in a professional manner on a consistent basis
__ demonstrates a professional attitude
__ demonstrates initiative to learn
__ is eager to clarify his/her questions
__ is enjoying the overall clinical experience at the site
__ demonstrates initiative to start conversation in English with no hesitation
__ demonstrates initiative to interact with staff
__ demonstrates initiative to interact with athletes/patients
__ demonstrates initiative to improve skills during off times and practice coverage
__ completes assigned tasks
__ accepts and responds appropriately to constructive criticism
__ follows policies and procedures
__ demonstrate initiative to learn record keeping method of treatments and injuries
__ understands and complies with OSHA guidelines
__ demonstrates appropriate communication skills
__ utilized only English through clinical experience
__ maintains a positive attitude and behavior of allied health professionals in athletic training
__ demonstrates confidence in abilities
___ develops good rapport with coaches, athletes, athletic training staff, peers

The student’s strengths are:

Suggestions for Improvement:

__________________________________________
Clinical Supervisor                                      Date

__________________________________________
Athletic Training Student                              Date
Appendix L
Clinical Experience Time Sheet

Name:____________________
Program:_______________

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Time</th>
<th>Clinical Sites</th>
<th>Date</th>
<th>Week</th>
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Monday
- Start
- End

Tuesday
- Start
- End

Wednesday
- Start
- End

Thursday
- Start
- End

Friday
- Start
- End

Saturday
- Start
- End
Appendix M
Clinical Site and Supervisor Evaluation

Clinical Supervisor____________________  Clinical Site  ______________________
Program Term ______________

It is very important to IPATH that we receive your input on each of your clinical rotation experience by providing up some feedback on each of the clinical instructors in which you have been placed. Your information will remain anonymous; general comments will be shared with the clinical instructors and program staff to help us improve the clinical education quality for the future IPATH students.

Use the following scale to respond to the criteria listed below.
1=Never  2=Seldom  3=Occasionally  4=Usually  5=Always, or Unknown

Clinical Instructor
1. The clinical supervisor demonstrates professionalism in his/her attitude and attire.
2. The clinical supervisor uses appropriate forms of communication to clearly and concisely express him/her to IPATH students, both verbally and in writing.
3. The clinical supervisor was available to provide immediate feedback to IPATH students when performing tasks.
4. The clinical instructor provides adequate attention to IPATH students.
5. The clinical instructor challenged IPATH students with questions.
6. The clinical instructor is a positive role model and/or mentor for IPATH students.
7. The clinical instructor demonstrates respect for gender, racial, ethnic, religious, and individual differences when interacting with people.
8. The clinical instructor has an open and approachable demeanor to IPATH student.
9. The clinical instructor is enthusiastic about teaching IPATH student.

Clinical Site (Open Ended Questions)
10. What are the overall strengths of this clinical site?

11. What are the overall weaknesses of this clinical site?

12. Provide any other comments associated with this particular clinical instructor or site.

Thank you!
Appendix N
List of UHM eCAFE Instructor and Course Survey questions
(Adopted from UHM eCAFE website: www.hawaii.edu/ecafe/)

* All the questions below, except Questions 10, 11, 22, 23, 29, and 30 which are open-ended questions, are Five point Likert-scale questions (Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree).

1. The instructor demonstrated knowledge of course content.
2. The instructor fulfilled the goals of the course.
3. The instructor communicated effectively.
4. I developed a set of overall values in this field.
5. I learned a lot in this course.
6. This course was helpful in developing new skills.
7. I performed up to my potential in this course.
8. Which aspects of the course were most valuable?
9. Which aspects of the course were least valuable?
10. The instructor is enthusiastic about the course material.
11. The instructor appears to have a thorough knowledge of the subject.
12. The instructor was able to explain concepts clearly and effectively.
13. The instructor stimulated me to think about the subject matter.
14. The instructor treated students fairly.
15. The instructor is willing to meet and help students outside class.
16. The instructor keeps students informed of their progress.
17. The objectives of the course were clearly explained.
18. The instructor was consistently well-prepared and organized for class.
19. The instructor sets high standards for students.
20. How can the instructor improve the teaching of this course?
21. What two or three single words best describe this instructor?
22. Global appraisal: Considering everything how would you rate this INSTRUCTOR?
23. I feel that this course challenged me intellectually.
24. The exams gave students an opportunity to demonstrate what they had learned.
25. Grades are assigned fairly and impartially.
26. Global appraisal: Considering everything how would you rate this COURSE?
27. State in two or three sentences how this course could be improve
28. Other comments:
Appendix O
Overall Program Evaluation

Program Term _____________

It is very important to IPATH that we receive your input on your experience with IPATH. Your information will remain anonymous; general comments will be shared with the program staff to make this program better for future IPATH students.

Please scale the following questions base on the 5-point Liker-Scale choices below.

**Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4, Strongly Agree=5**

**Student Development: Professional Interests**
1. I deepened my interest in the content area of this profession.
2. I developed a set of overall values in this profession.
3. I learned a lot in this Program.

**Student Development: Social Skills and Attitudes**
4. I participated actively in discussions.
5. I developed leadership skills in this Program.
6. I developed greater awareness of societal problems.
7. I gained an understanding of cultural competency.
8. I learned to value new viewpoints.
9. I reconsidered many of my former attitudes.
10. I enjoyed this Program.

**Student Development: Self-concept**
11. I gained a better understanding of myself through this Program.
12. I gained an understanding of some of my personal problems.
13. I developed a greater sense of professional responsibility.
14. I developed more confidence in myself.

**Student Development: Vocational Skills and Attitude**
15. I developed skills needed by professionals in this profession.
16. I learned about career opportunities.
17. I developed a clearer sense of professional identity.
18. I developed greater respect to professionals in this profession.

**Student Development: Student Responsibility**
19. I utilize all the learning opportunities provided in the Program.
20. I create my own learning experiences in connection with the Program.
22. This Program was helpful in developing new skills.
23. I performed up to my potential in this Program.
24. I generally understood the material presented in this Program.
25. I felt that this Program challenged me intellectually.
26. I have become more competent in the Athletic Training content areas during this Program.
My opinions about some topics changed because of this Program.

27. I learned more in this Program than I expected to learn.
28. The Program made me think hard and carefully.
29. The Program Coordinator inspired me to be critical of ideas and materials.

Program Director Ratings (Open Ended Questions)

30. How can the Program Coordinator improve the administration of the Program?
31. Comment on the Program Coordinator’s professional attitude and behavior.
32. Comment on the Program Coordinator’s concern for the students.
33. What did you find most valuable and helpful about the Program Coordinator?
34. What did you find least valuable and helpful about the Program Coordinator?
35. Please list your suggestions for improving the Program Coordinator’s administrative style and methods.
36. Global appraisal: Considering everything how would rate this the Program Coordinator?

Impact of the Program: Open Ended Questions

37. How are you impacted by the program in terms of your daily English communication skills and to what extent?
38. How are you impacted by the program in terms of your English communication skills in athletic training related topics and to what extent?
39. How are you impacted by the program in terms of your confidence in initiating English conversation and to what extent?
40. How are you impacted by the program in terms of your understanding of human anatomy and to what extent?
41. How are you impacted by the program in terms of your hands-on techniques in injury evaluation and assessment and to what extent?
42. How are you impacted by the program in terms of your perception to cadaver dissection as a method to learn human anatomy and to what extent?
43. How are you impacted by the program in terms of your understanding of cultural and ethnic diversity and to what extent?
44. How are you impacted by the program in terms of your global understanding of athletic training profession in the US and to what extent?
45. How are you impacted by the program in terms of your confidence in living independently in a foreign county and to what extent?
46. How are you impacted by the program in terms of your future career decision and to what extent?
47. How are you impacted by the program in terms of your intention to study abroad and to what extent?
48. When you look back over the program, what aspect of the program could be most improved upon?
49. When you look back over the program, what aspect of the program was most beneficial to you?
50. Please provide any additional feedback and comments you feel would be beneficial to the IPATH program development.
Appendix P
Follow up Program Survey
University of Hawaii
International Program of Athletic Training in Hawaii

Program Attended: _____________

Thank you for taking the time to complete the IPATH follow up survey. As a valued graduate of IPATH, we are very interested in receiving your feedback concerning your experiences in the program and how it has been impacting your career. This information will aid in the continued development and improvement of the program.

1. How are you impacted by the program in terms of your daily English communication skills and to what extent?
2. How are you impacted by the program in terms of your English communication skills in athletic training related topics and to what extent?.
3. How are you impacted by the program in terms of your confidence in initiating English conversation and to what extent?.
4. How are you impacted by the program in terms of your understanding of human anatomy and to what extent?.
5. How are you impacted by the program in terms of your hands-on techniques in injury evaluation and assessment and to what extent?.
6. How are you impacted by the program in terms of your perception to cadaver dissection as a method to learn human anatomy and to what extent?
7. How are you impacted by the program in terms of your understanding of cultural and ethnic diversity and to what extent?
8. How are you impacted by the program in terms of your global understanding of athletic training profession in the US and to what extent?
9. How are you impacted by the program in terms of your confidence in living independently in a foreign county and to what extent?.
10. How are you impacted by the program in terms of your future career decision and to what extent?
11. How are you impacted by the program in terms of your intention to study abroad and to what extent?
12. When you look back over the program, what aspect of the program could be most improved upon?
13. When you look back over the program, what aspect of the program was most beneficial to you?
14. Please provide any additional feedback and comments you feel would be beneficial to the IPATH program development.
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