



# **ATEP HANDBOOK 2007-2008**

The mission of the Athletic Training Education Program at Azusa Pacific University is to fully equip students with a quality education incorporating a Christian perspective to become life-long learners. The educational program incorporates current research and scholarly instruction, in both the clinical and didactic portions of the program, to prepare students to enter the profession as entry-level athletic trainers upon successfully passing the BOC certification examination.

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## NOTICE

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This Handbook is designed for the athletic training students (ATs) working towards acceptance into and completion of the Athletic Training Education Program (ATEP) at Azusa Pacific University. The Handbook contains policies, procedures, guidelines, and relevant professional information to direct and inform the ATs working and learning in the Athletic Training Education Program. These materials are specific to the Athletic Training Education Program at Azusa Pacific University. ATs serving at affiliate sites or other sites should adhere to the policies and procedures of those institutions/sites as stated by the supervising Approved Clinical Instructor (ACI)/Clinical Instructor (CI).

All ATs accepted to the Athletic Training Education Program, and those working to be accepted, are responsible to learn and understand all information contained in this Handbook. Deviation from the stated policies and procedures could constitute placing the AT on probation in the major, suspension from clinical field experiences, or revocation or disallowing clinical field experience hours. If an AT does not understand any of the material provided, the AT should consult with the ATEP Program Director.

**The information in the Handbook is intended to educate, guide, and protect the ATs, as well as provide consistency of service to the constituents served by athletic trainers at Azusa Pacific University.**

**APU ATEP:** <http://www.apu.edu/bas/exercisport/atep/>

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**This ATEP Handbook is the property of Azusa Pacific University, Azusa, CA 91702. If you have questions please email Chris Schmidt at [cschmidt@apu.edu](mailto:cschmidt@apu.edu).**

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## INTRODUCTION

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Athletic Training is an allied health care profession; it is a service profession. Certified Athletic Trainers are unique health care providers who specialize in the prevention, assessment, treatment and rehabilitation of injuries and illnesses that are encountered by all individuals especially the physically active. It is important to always keep this in mind.

The athletic training student (ATS) is a unique member of the Sports Medicine Team representing the ATEP at Azusa Pacific University and at affiliated clinical sites. As a result of the knowledge gained in the classroom and through clinical education experiences, ATSs are able to provide immediate and follow-up care to the patients and athletes under the direct supervision of an ATC or other allied health professionals. This care allows the injured patient/athlete to return to full function or participation as quickly as possible within the limits of the injury/illness.

The ATS must work to gain the respect and confidence of each certified athletic trainer associated with the ATEP and members of the Sports Medicine Team which may include: physicians, nurses, physical therapists, athletes, coaches, and parents. This is accomplished through knowledge and communication. Decisions must be made in an objective manner with the patient/athlete's well being as the primary motivator. Decisions based on personal friendships or pressures to win may cause increased risk to the athlete and the loss of respect for the ATS. ACIs/ATCs must be notified when injuries occur. Coaches must also be kept informed on the status of their athletes on a daily basis. This communication establishes a rapport with the coach that is invaluable.

The ATS working with a team has become both a member of that team as well as an unofficial staff member. Loyalty to both the team and the medical staff is essential in progressing as a professional. At no time should criticism be directed at the coach, team members, fellow ATSs, or members of the medical staff. Dissension, faster than any other factor, can destroy a team or program. If there is a problem, an ACI should be notified as soon as possible.

The time involved as an ATS can be overwhelming on occasion, but there is no greater teacher than experience. It is important to be involved and ask questions. The ATCs and other medical personnel are available to help you learn, answer your questions, and challenge you.

As an ATS preparing to enter this profession, you are strongly encouraged to become a student member of the National Athletic Trainers Association, Inc. (NATA). Membership benefits include a subscription to the Journal of Athletic Training and the NATA News, reduced registration fees for national and district symposia, eligibility for scholarships, and other direct benefits. Membership applications and information are available from the Program Director or via the Internet at the NATA website <http://www.nata.org>.

“Educating the Future Certified Athletic Trainer”



# ATHLETIC TRAINING EDUCATION PROGRAM

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## Program Description

### **Overview**

“Azusa Pacific University is an evangelical Christian community of disciples and scholars who seek to advance the work of God in the world through academic excellence in liberal arts and professional programs of higher education that encourage students to develop a Christian perspective of truth and life.” (Statement of mission and purpose of Azusa Pacific University)  
The Athletic Training Education Program (ATEP) prepares ATSs for careers in athletic training. Both on-campus and affiliated clinical field experiences provide the ATS with practical learning designed to strengthen both professional preparation and career placement.

The APU ATEP is accredited by the *Commission on Accreditation of Athletic Training Education* ([www.caate.net](http://www.caate.net)) and provides preparation for a career at the high school, college/university, professional, and/or a variety of allied health settings.

### **Mission Statement**

The mission of the Athletic Training Education Program at Azusa Pacific University is to fully equip athletic training students with a quality education incorporating a Christian perspective to become life-long learners. The educational program incorporates current research and scholarly instruction, in both the clinical and didactic portions of the program, to prepare athletic training students to enter the profession as entry-level athletic trainers upon successfully passing the BOC certification examination.

### **Values and Beliefs**

We value:

1. The use of Christian principles in teaching and athletic training.
2. Student centered teaching and learning, and providing all the resources necessary to equip students to enter the athletic training profession.
3. Experiential and clinical learning with impact on the greater community.
4. Educating the “whole” student: spiritually, intellectually, and physically.

### **Goals**

1. To provide an accredited Athletic Training Education Program in a Christian environment for ATSs seeking BOC certification.
2. To offer diverse clinical opportunities for ATSs to experience the variety of professional opportunities available in the field of athletic training.
3. To produce entry-level athletic training professionals who conduct themselves ethically and make decisions using a Christian worldview.

## **Objectives**

1. To provide ATs with the required knowledge and skills to become competent entry-level athletic trainers.
2. To assist ATs in becoming true servants of God as they minister to injured persons.
3. To provide ATs with the ability to critically analyze evaluative, treatment, and rehabilitation protocols to ensure efficient and quality care for every athlete/patient/client.
4. To help ATs learn how to communicate and interact with others effectively.
5. To foster an understanding of multiple perspectives to facilitate learning, particularly within the clinical setting.
6. To impart the ability to make informed decisions regarding the prescribed standards of practice and ethics in the profession of athletic training.
7. To equip ATs with the skills necessary to seek, assimilate, analyze, and interpret data and other information vital to continued growth and understanding of the ever-changing field of athletic training.

## **Student Outcomes (rev. 5/30/07)**

1. Students will acquire and apply cognitive and psychomotor competencies and clinical proficiencies to become competent entry-level athletic trainers, as defined by the *Athletic Training Educational Competencies* established by the National Athletic Trainers' Association.
2. Students will describe, design, analyze and assess evaluation, treatment, and rehabilitation protocols to ensure efficient and quality care for every patient.
3. Students will apply athletic training competencies and proficiencies in a variety of clinical settings with diverse patient populations.
4. Students will communicate (in written and verbal format) and interact effectively with peers, medical professionals, injured individuals, and others with whom they come into contact.
5. Students will describe and utilize varied teaching strategies in preparation to be clinical instructors.
6. Students will utilize evidenced-based practice to make decisions in the application of athletic training competencies and proficiencies.
7. Students will operate modern technology in the practice of athletic training.
8. Students will describe and integrate relevant standards of professional practice and codes of ethics from the profession of athletic training to formulate clinical decisions.
9. Students will examine a Christian worldview as it relates to the care of injured persons.

## **Organization**

The Azusa Pacific University Athletic Training Education Program is composed of two major sections: didactic and clinical. Both areas are vital to the successful completion of the program. The following sections outline requirements, policies, and procedures for these areas.

## Admission Requirements

Pre-ATs seeking acceptance in the ATEP must complete an application to the Program Director by the **first Monday of December** of the sophomore year. Transfer students must meet this same deadline during their first fall semester at APU. In order to be consistent with guidelines suggested by the accrediting agency, the ATEP Program Director, in conjunction with the academic and clinical faculty, will determine a specific number of places available, with a maximum of 15 students accepted each year. All application materials for this major (except the interview and ATEP admissions examination) must be submitted and verified at the time of the application (*See ATEP Admissions Website*). Acceptance into the program will be based on the following criteria:

1. Comply with procedural steps which include:
  - a. A completed application form.
  - b. Verification of complete medical records [health history, immunization records (including Hepatitis B vaccine), pre-entrance physical examination (performed by the APU Health Center staff)].
  - c. A signed Oath of Confidentiality regarding all medical information.
  - d. A minimum of two written college/university (faculty or advisor) recommendations. (These may not come from the Azusa Pacific University Certified Athletic Training Staff; at least one must be from an APU employee.)
  - e. A completed Technical Standards form.
2. Academic ability as demonstrated by the following:
  - a. Minimum cumulative GPA of 2.5.
  - b. Minimum 3.0 average in the following (no courses below a “C”): AT 101, AT 160, AT 220, and AT 240.
  - c. “C-” or higher in the following: BIOL 151, BIOL 250.
  - d. A completed Current Grades form (if currently enrolled in a pre-requisite course).
  - e. Copies (front and back) of certification cards for CPR/AED for the Professional Rescuer and First Aid.
3. Commitment to the field of Athletic Training as demonstrated by:
  - a. Completing all clinical observation experiences in athletic training.
  - b. Completing all Pre-Athletic Training psychomotor competencies (AT 240 – Observation in Athletic Training).
4. Written knowledge and interest in the field of Athletic Training as demonstrated in the following:
  - a. A written essay (minimum 5 double-spaced pages) which provides:
    - (1) A brief statement describing the profession of athletic training.
    - (2) A statement of why the student desires to become a Certified Athletic Trainer (ATC).
    - (3) A description of the individual’s personal strengths.
    - (4) A description of the area(s) which present(s) the greatest challenge to the student.

- (5) A discussion of any circumstances or situations that may affect your ability to complete the program (especially clinical field experiences). (Need to work, church responsibilities, being an intercollegiate athlete, etc.)
5. ATEP Admissions Examination:
  - a. Based on information from all prerequisite courses.
  - b. Score contributes to student admission ranking.
6. An interview conducted by the ATEP academic and clinical faculty.

The Azusa Pacific University ATEP academic faculty will evaluate each applicant and reach a decision regarding his or her acceptance. The Program Director will then notify the Exercise and Sport Science Department of the applicant's status. Applicants will be notified of their status no later than the **first day of classes in January**. Students not accepted into the program will meet with the Program Director to develop an alternative plan that may include reapplication for the following year and/or other academic options.

### **Transfer and Student-Athlete Policy**

Transfer students and student-athletes must meet the same admission criteria as other ATSS, including all applicable deadlines (*See Admission Requirements above.*) Transfer students should plan on three years to complete the ATEP regardless of whether they transfer in as a sophomore or junior in status. Student-athletes accepted into the athletic training program should expect two additional semesters, or summer sessions, to complete the clinical portion of the ATEP.

### **Didactic Requirements**

The curriculum is structured in a progressive manner building on skill and knowledge acquisition. Students will be assigned to an academic advisor and should meet with their advisor regularly to assess academic progress and determine the course of study.

## Required Courses

<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>UNITS</b>
AT 101	Introduction to Athletic Training	1 unit
AT 160	Acute Care of Injury and Illness	2 units
AT 220	Risk Management for the Physically Active*	3 units
AT 240	Observation in Athletic Training	1 unit
AT 242	Practicum in Wrapping, Taping & Bracing	2 units
AT 270	Assessment and Evaluation in Athletic Training*	4 units
AT 340	Practicum in Athletic Injury Assessment*	1 unit
AT 342	Practicum in Therapeutic Modalities, Strength & Flexibility*	2 units
AT 351	Therapeutic Modalities*	3 units
AT 352	Therapeutic Exercise*	4 units
AT 355	Medical Conditions and Disabilities*	2 units
AT 360	Nutrition for Exercise & Sport Science	2 units
AT 364	Kinesiology (for Athletic Training, Applied Health)	3 units
AT 440	Practicum in Therapeutic Exercise & Medical Conditions*	2 units
AT 442	Senior Capstone Practicum	3 units
AT 452	Current Concepts in Treatment and Rehabilitation	2 units
AT 465	Pharmacology for Athletic Trainers	2 units
AT 469	Health Care Administration	3 units
AT 490	Research Methods	4 units
BIOL 151	General Biology I	4 units
BIOL 250	Human Anatomy	4 units
BIOL 251	Human Physiology	4 units
PE 240	Health Education	2 units
PE 363	Physiology of Exercise (for Athletic Training)	3 units
PSYC 110	General Psychology	3 units
PYSC 385	Health Psychology	3 units
<b>Athletic Training Major Total Units = 70 units</b>		

Individual course descriptions are in the Azusa Pacific University Catalog. Course objectives and the process for evaluation are outlined in specific course syllabi.

## Course Sequencing

<b>Pre-Professional Phase (3 semesters)</b>			
<i>Note: first year pre-professional courses may be taken either semester</i>			
<b>FALL</b>		<b>SPRING</b>	
<b>Freshman</b>			
AT 101, Intro. to Athletic Training*	1	AT 160, Acute Care of Injury and Illness*	2
BIOL 151, General Biology I*	4	PSYC 110, General Psychology	3
PE 240, Health Education	2	MATH 110, College Algebra	3
PE ***, Fitness for Life	1	UBBL 230, Luke/Acts	3
ENGL 110, Freshmen Writing Seminar	3	COMM 111, Public Communication	3
CSA 101, Beginnings	1	History/Political Science Core	3
UBBL 100, Exodus/Deuteronomy	3	<b>Total Units</b>	<b>17</b>
<b>Total Units</b>		<b>15</b>	
<b>Pre-Professional Phase (continued)</b>		<b>Professional Phase (5 semesters)</b>	
<i>ATEP admission occurs in the fall of the sophomore year</i>		<i>Note: all professional courses (AT major) must be taken in sequence</i>	
<b>Sophomore</b>			
AT 220, Risk Management*	3	AT 242, Pract in Wrapping, Taping, Bracing	2
AT 240, Observation in AT*	1	AT 270, Assessment of Injuries/Illnesses	4
BIOL 250, Human Anatomy*	4	BIOL 251, Human Physiology	4
Foreign Language 1	4	Foreign Language 2	4
CMIN 108, Foundations of Ministry	3	UBBL ***, Upper Division Bible	3
<b>Total Units</b>		<b>Total Units</b>	
<b>15</b>		<b>17</b>	
<i>*Prerequisites for admission to the ATEP.</i>			
<b>Professional Phase (continued)</b>			
<b>Junior</b>			
AT 340, Practicum in Ath Inj Assess	2	AT 342, Pract in Ther Mod, Strength, & Flex	2
AT 351, Therapeutic Modalities	3	AT 352, Therapeutic Exercise	4
PE 363, Physiology of Exercise	3	AT 355, Medical Conditions & Disabilities	2
AT 364, Kinesiology	3	AT 360, Nutrition for Exercise & Sport Science	2
Aesthetics/Creative Arts Core	3	Philosophy Core	3
<b>Total Units</b>		<b>Total Units</b>	
<b>14</b>		<b>16</b>	
<b>Professional Phase (continued)</b>			
<b>Senior</b>			
AT 440, Pract in Ther Exer, Med Cond	2	AT 442, Senior Capstone Practicum	3
AT 465, Pharmacology for AT	2	AT 469, Health Care Administration	3
AT 490, Research Methods	4	AT 452, Current Concepts in Tx. & Rehab	2
THEO***, Doctrine Core	3	PSYC 385, Health Psychology	3
Upper Division GS Elective	3	PE 496, Senior Seminar***	3
<b>Total Units</b>		<b>Total Units</b>	
<b>14</b>		<b>17</b>	
<b>Suggested Athletic Training Major Course Sequencing</b>			

ATs must maintain a 3.0 average in all AT courses and an overall GPA of 2.5.

A grade of “C” or higher must be earned in all AT didactic courses and a “B” or higher in all AT clinical courses. In addition, a grade of “C” or higher in each didactic course is required to progress to the corresponding practicum course.\* (i.e. AT 270 is a prerequisite for AT 340; AT 351 and AT 220 are a prerequisite for AT 342; AT 352 and AT 355 are prerequisites for AT 440; AT 242, 340, 342, 440 are prerequisites for AT 442; AT 352 is a prerequisite for AT 452.)

### **Psychomotor Competencies**

A complete listing of all required **psychomotor competencies** (skills) are provided as part of each didactic/practicum course (Psychomotor Competency Manual). Each ATS is required to complete all psychomotor competencies prior to starting new psychomotor competencies in a subsequent course.

Each psychomotor competency will be performed by the student and assessed by a skill expert and the course instructor. Each psychomotor competency assessment attempt with a skill expert should be appropriately documented and given an accurate rating score. Each individual psychomotor competency attempt should be recorded regardless of the rating score. These scores are not a factor in the student’s grade but are required prior to the course instructor’s assessment (challenge).

To complete or pass a psychomotor competency, each subset skill or task for that psychomotor competency should be correctly performed. Each psychomotor competency must be signed and dated by the skill expert on the day of completion. Following the initial skill expert assessment, the course instructor will assess the student performance on each skill. If a skill is not properly performed or completed, the student must obtain an additional assessment **by a skill expert** prior to requesting a second instructor assessment (challenge). On this final assessment the student must earn a 3 or higher to pass the psychomotor competency. Failing to pass psychomotor competency may require additional remedial instruction for the student.

#### ***Proficiencies Rating Scale:***

5	Superior	Clearly outstanding, requiring no rehearsal (emulates professional abilities)
4	Good	Above average performance with no prompting
3*	Competent	As expected, performs skill accurately with minor verbal prompting
2	Marginal	Not up to expectations, is able to perform the skill with physical guidance
1	Deficient	Poor performance, needs considerable physical guidance and verbal prompting

\* A 3 represents the minimum passing score.

The rating is based on the expert judgment of the instructor. As indicated above, a **3 or higher (competent)** must be earned to receive a passing score for each psychomotor competency. A 3 (competent) score indicates that the student has demonstrated the skill as expected, accurately, minimally competent, and safely but may need some verbal or non verbal prompting (cueing). A 4 (good) score indicates that the student has demonstrated the skill above expectations, accurately, and safely without prompting but may be uncertain and untimely. A student that completes a skill in a “professional manner” (i.e. appropriate amount of time, with efficiency and

confidence, etc.) will receive a 5 (superior) score for that psychomotor competency. Psychomotor competency assessment and individual scores directly impact the student's practicum grade.

A passing score indicates that the student has initially completed that particular skill. Completing a psychomotor competency simply means that the ATS has met the basic "competency" level required to perform that skill and has obtained the **NOVICE CLINICIAN** level for that psychomotor competency. Once completed, the ATS is permitted to perform that skill as part of the care of athletes or patients under the **direct instruction** of an ACI. The ACI will continue to evaluate the student's performance through their clinical experiences. This is formally done through ATS 2-week and end of rotation evaluations. Finally, each ATS will be assessed on their level of retention in AT 442 - Senior Capstone Practicum.

It is essential to all involved that an ATS does not perform a particular skill or psychomotor competency on an athlete or patient prior to being formally assessed by the course instructor. However, it is under the ACI's discretion, in limited situations, to ask an ATS to perform a skill prior to formal instructor assessment. This circumstance will require the ACI to provide direct instruction and supervision of the ATS regarding that skill. (Example: The Clinical ACI tells the student how to perform the skill, what precautions should be reported, and observes and assists as the ATS performs the skill).

### **Entry-Level Clinician**

The development of skills, behaviors, and attitudes for becoming an entry-level certified athletic trainer (clinician) is a learning process that requires time and practice. The development of cognitive competencies, psychomotor competencies, and clinical proficiencies requires instruction, skill acquisition, progression, and student reflection. Through this learning process students are considered to be at various levels of understanding. The process begins as a student is instructed in a didactic course (e.g. AT 270) and the corresponding psychomotor competencies are assessed by the instructor. A student that demonstrates proficiency for each psychomotor competency will be considered a **NOVICE CLINICIAN**. At this time the student may begin to practice and refine those skills in his or her clinical education experiences under the **direct instruction** of an ACI. In the subsequent practicum courses (e.g. AT 340, 342, 440, 442) the student will utilize and incorporate these psychomotor competencies through various mock case scenarios. Once the student has completed this developmental level, he or she is considered an **APPRENTICE CLINICIAN** and should begin to fully integrate each individual psychomotor competency into comprehensive clinical proficiencies during the management of patients under the **direct supervision** of an ACI or CI. The culminating clinical experience will be assessed through a Clinical Proficiency Scenario Challenge under the **direct intervention** of an ACI or CI. At this level the ACI should be physically present but permit the student to assimilate a group of skills in a comprehensive fashion by providing feedback and consultation. If actual patient care isn't possible, these clinical proficiencies may be assessed through a second mock case scenario during AT 442: Senior Capstone Practicum. Once a student has been assessed by an ACI through the Clinical Proficiency Scenario Challenge (clinical proficiency group) that student is nearing the level of an **ENTRY-LEVEL CLINICIAN**, ready to sit for the BOC Inc. examination to become a Certified Athletic Trainer. Students no matter of level in the program may be at

several different “clinician” levels for various psychomotor competencies/clinical proficiencies. Finally, students should understand that many skills require years of continued professional development to be considered an **EXPERT CLINICIAN**.

## **ATEP CLINICAL EDUCATION**

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### **Clinical Education Experience**

Clinical education experiences provide an opportunity for the practice of cognitive and psychomotor competencies in the context of direct patient care as clinical proficiencies. An ACI or clinical instructor must directly supervise formal clinical education experience (NATA Education Council). An athletic training student is an individual that has been formally accepted into the CAATE Accredited entry-level undergraduate Athletic Training Education Program (professional portion) at Azusa Pacific University.

Clinical education experiences at APU are designed to provide the student with quality, supervised learning under a certified athletic trainer (ATC) or other qualified health care professional who is also an approved clinical instructor (ACI). The role of the ACI is to formally assess the integration of psychomotor competencies performed by the ATS and to provide direct supervision in the athletic training setting. For this purpose, the ACI has received additional training through an annual ACI Workshop, conducted by the Clinical Education Coordinator at APU. In addition, ATSs will spend valuable clinical time under the direct supervision of other allied health professionals or clinical instructors (CI). The CI's role is to provide the ATS with advanced clinical knowledge, practice, and feedback.

### **General Requirements**

1. Good standing in the ATEP.
2. Progress toward the completion of all clinical education requirements under the direct supervision of an ACI/CI.
3. Follow Communicable Disease Policy in the event of contracting an infectious disease (See ATR Manual).
4. Demonstrate the ability to meet the Technical Standards for Admission and continued participation in the ATEP.
5. Maintain annual CPR for the Professional Rescuer certification.
6. Complete annual OSHA and Blood Borne Pathogen training.
7. Attend mandatory ATEP meetings and in-services.

Once an ATS has completed all psychomotor competencies, mentioned previously in the Didactic Requirements, in a specific category or group (e.g., knee injury assessment, therapeutic modality application, or low back injury rehabilitation) with an ATEP ACI/course instructor, the ATS will demonstrate clinical proficiency by integrating those skills during the care of athletes or patients under the supervision of an ACI. The assimilation of these skills will be assessed by an ACI during an actual patient case, which occurs during the ATS' clinical experience, or through a directed (mock) scenario.

To complete a Clinical Proficiency Scenario Challenge, each psychomotor competency that is appropriate for that scenario should be correctly performed. Each Clinical Proficiency Scenario Challenge will be evaluated based on the expert judgment of the ACI and should be consistent with what is taught in the classroom and through ACI training. Each Clinical Proficiency Scenario Challenge must be signed and dated by the ACI on the day of completion with a complete feedback section. Feedback that indicates "poor" performance may require additional remedial instruction for the student. The ATS should complete a Clinical Proficiency Scenario Challenge for at least 75% of the assigned psychomotor competency groups during the practicum course in which those proficiencies are assessed. Finally, each ATS will be evaluated on their level of retention and complete any unfinished Clinical Proficiency Scenario Challenges in AT 442 - Senior Capstone Practicum.

*{Dishonesty and failure to accurately complete this process is ethically and morally wrong and will result in clinical suspension or dismissal from the ATEP. In addition, this process is crucial in documenting student learning over-time, which is in compliance with the athletic training accreditation standards.}*

### **Clinical Experiences**

Clinical experiences provide the student with the opportunity for informal learning and to practice and apply the Entry-Level Athletic Training Clinical Proficiencies in a clinical environment under the supervision of a clinical instructor or ACI. The primary settings for clinical experiences must include athletic training facilities, athletic practices, and competitive events. Ample opportunity should be provided for supervised student experience working with athletic practices and competitive events in both men's and women's sports. There will be an exposure to upper extremity, lower extremity, equipment intensive and general medical experiences of both genders (NATA Education Council).

Clinical experiences at APU are accomplished through multiple clinical rotation assignments with an exposure to a variety of athletic training settings and sports. On-campus clinical rotations are based on the traditional setting, working with the student-athletes at APU. Several sports rotations will be offered that will focus on upper extremity, lower extremity, and equipment intensive as related to the proper care of athletic related injuries. In addition, each ATS will spend time at designated affiliated clinical sites including: general medical practice, athletic institutions, and rehabilitative services.

Each ATS will be required to have one clinical rotation in the following categories:

Upper Extremity	Lower Extremity	Equipment Intensive	General Medical	Athletic Institution	Rehabilitative Service
Baseball	Basketball	Football*	APU Health Center*	Chivas USA, MLS	ARC - West Covina
Softball	Soccer	CC Football	HealthCare Partners: Dr. Zipin	Diamond Bar HS	ARC - Glendora
Tennis	Track & Field	HS Football	Football	Pasadena City College	Center for Medicine and Sport
Track & Field	X-country		Webb Schools	South Hills HS	Fortanasce PT Arcadia
Volleyball				Walnut HS	Fortanasce PT La Verne
				Webb Schools	The Physical Edge

\*primary clinical site for category

## General Expectations

### Athletic Training Students must:

1. Adhere to the NATA Code of Ethics, BOC Inc. Standards of Professional Practice, the Azusa Pacific University Campus Policies, the Azusa Pacific University Athlete Code of Conduct, the Azusa Pacific University Athletic Training Student Code of Conduct, and the laws governing The United States of America.
2. Follow the policies and procedures of APUs ATEP as well as the designated affiliated clinical site. This includes but not limited to: supervision policy, professional dress and behavior, and other behaviors that are consistent with voluntary employment.
3. Request time off according to the affiliated clinical site policies. If time requested is greater than one (1) week, written request and approval must be given by the Clinical Education Coordinator.
4. Follow hour policies for clinical experiences which require on average 15-17 hours per week.
5. Demonstrate time commitment outside the normal undergraduate academic calendar (e.g. time spent in August, December, and May).
6. Provide an avenue for personal travel to off-campus clinical sites.
7. Demonstrate professional dress according to the APU ATR Manual for all clinical rotations unless noted by site-supervisor/ACI at affiliated clinical site.
8. Maintain patient confidentiality and athlete privacy policy.

## Clinical Credits

Level I-III ATs must complete one rotation in the following categories: upper extremity, lower extremity, equipment intensive, general medical, athletic institution, and rehabilitative service. For each clinical rotation ATs will document clinical field experience hours every two weeks which are converted into clinical credits (see below).

<b>Clinical Credits (8-weeks)</b>	
<b>Credits</b>	<b>Hours</b>
10	200 plus
9	180 to 199
8	165 to 179
7	150 to 164
6	135 to 149
5*	120 to 134
4	105 to 119
3	90 to 104
2	75 to 89
1^	60 to 74

### Requirements

1. ATs must complete at least one credit per each 8-week clinical rotation^.
2. ATs need to average 5 credits per rotation\*.
3. ATs are required to earn a total of 50 clinical credits over 10 rotations.
4. ATs may combine two 8-week rotations, twice during their Level II and III clinical education experiences.
5. Hours completed during the specified clinical rotation dates, as assigned by the Clinical Education Coordinator, will count toward clinical credits for that rotation regardless of the ACI, sport, or clinical affiliation.

### **Clinical Rotation Policies**

#### Procedures

1. ATs are required to complete each clinical rotation as assigned.
2. ATs must communicate with the Clinical Education Coordinator regarding any decision that may effect the completion of their clinical rotations.
3. ATs must notify and receive approval from the Clinical Education Coordinator prior to participating in additional clinical field experiences outside their current clinical rotation.
4. ATs must be under the direct supervision and instruction of an ACI/CI during all clinical education experiences (unsupervised hours will not be counted towards requirements).

## Direct Supervision Policy

An Athletic Training Student (ATS) that has been officially admitted to the Athletic Training Education Program (ATEP), enrolled in AT 242, 340, 342, 440, 442, and 444, and engaged in clinical field experiences as assigned by the Clinical Education Coordinator, must be under the direct supervision and instruction of an clinical instructor at all times. This requires the clinical instructor to be physically present (auditory and visual communication) with the capacity to intervene on behalf of the student in all clinical situations which includes but not limited to: practices, competitions, and direct patient contact.

The lack of direct supervision will not be tolerated by the ATEP and reassignment of the ATS to another clinical rotation may be necessary if direct supervision cannot be maintained and ensured. In an event that direct supervision is not maintained for any period of time, the student is no longer permitted to function as an “athletic training student” as defined by the ATEP Handbook. If a student chooses to remain in an unsupervised situation and takes action regarding an emergency situation, they do so as a “volunteer” or “good Samaritan” according to their certification from the American Red Cross as a Professional Rescuer and not as an “athletic training student” engaged in formal clinical education as part of the ATEP at APU.

*CAATE Standard **J1.1** ACI or CI must be physically present and have the ability to intervene on behalf of the athletic training student to provide on-going and consistent education. **J1.2** The ACI or CI must consistently and physically interact with the athletic training student at the site of the clinical experience.*

## Hours Policies

1. ATSs must adhere to the following time policies:
  - a. ATSs should not exceed 25 hours per week,
    - i. 17 hours Monday through Friday
    - ii. 8 hours on Saturdays.
  - b. ATSs will not be required to work on Sundays.
  - c. ATSs should not exceed 50 hours a week during pre-season camps, vacations, or post-season play when classes are not in session.
  - d. If in a two-week period the ATS exceeds the hours listed above, additional time off will be granted in the next clinical cycle.
2. ATSs are to maintain documentation of their hours/clinical credits earned utilizing the electronic **2-week clinical field experience hours verification** form (*See ATEP Handbook Documents*).
  - a. When recording hours worked, note the date, location, rotation cycle, team, time in, time out, sub-total and total hours worked (use 0.25 hour increments).
  - b. Students are only permitted to document (count) those hours directly supervised by an ACI that includes experiences occurring on campus or at designated affiliated clinical sites as part of the APU ATEP. (Students cannot count hours toward the clinical education requirements for travel time to or from off campus sites or competitions, meal times, practices or contests in which direct supervision by an ACI/CI is not maintained.)

- c. When an ATS is uncertain as to whether particular clinical field experience hours may be documented as acceptable, he or she should inquire with the Clinical Education Coordinator prior to completing those hours.
- d. The hours completed during the posted clinical rotation dates will be counted towards clinical credits earned for that designated clinical rotation.

### Clinical Experience Evaluation

1. ATSs must complete a Clinical Experience Contract for each clinical rotation, which includes supplementary goals and objectives (*see ATEP Handbook Documents*).
2. ATSs must complete the Clinical Performance Evaluation (level specific) every two weeks (cycle). This document must be signed by both the ATS and the ACI and returned to the Clinical Education Coordinator within two weeks of completing the cycle (*see ATEP Handbook Documents*). (*ATSs should keep a copy of the completed form for their records*).
3. ATSs must complete the End-of-Rotation Evaluation (level specific). This document must be signed by both the ATS and the ACI (*see ATEP Handbook Documents*).
4. ATSs must complete the End-of-Rotation Self-Evaluation (level specific). This document must be signed by both the ATS and the ACI (*see ATEP Handbook Documents*).
5. Meet with ACI to discuss End-of-Rotation Evaluation.

### **Affiliated Clinical Experiences**

Affiliated clinical experiences (general medical, athletic institution and rehabilitative service) are based on the ATS's current level of athletic training knowledge, course work, and relevant professional interests. ATSs have some flexibility in selecting their affiliated clinical sites depending on their goals and level in the ATEP. A list of current affiliated clinical sites and the site supervisors can be obtained from the Clinical Education Coordinator.

### Procedures

1. Meet with the Clinical Education Coordinator to discuss an appropriate clinical site based on the ATS's level, goals, objectives, and the sites available.
2. Complete the **Clinical Experience Contract**, which may include ATS responsibilities in addition to those requirements stated in the ATEP Handbook and ATR Manual at APU.
3. Meet with the site-supervisor/clinical instructor and the Clinical Education Coordinator for final approval and signatures.
4. Apply as a volunteer employee if required by the affiliated site personnel office. This may include a job application, fingerprinting, and subsequent training.

General Medical rotations will require 20 hours at a designated affiliated clinical site. This rotation will be combined with the rehabilitative services clinical rotation.

Affiliated clinical experiences are evaluated in the same fashion as on campus clinical rotations including: Clinical Experience Contract, 2-Week Hours/Clinical Performance Evaluation form, End-of-Rotation Evaluation, and ACI and Setting Evaluation. In addition, affiliated clinical

experiences will be evaluated by the Clinical Education Coordinator through site-visits and consultation with the ACI/CI and site-supervisor.

### Employment Concerns

ATs enrolled in AT 240, 242, 340, 342, 440, 442, and 444 and engaging in clinical field experiences associated with APUs ATEP should NOT seek paid employment in any fashion that represents the duties of a Certified Athletic Trainer or any related terminology as defined by the Role Delineation Study established by the BOC Inc. This includes the role of an athletic training student or “student athletic trainer”. This is in ethical conflict with “true” educational practice and employment for certified athletic trainers.

### Pre-Athletic Training Student

#### **General Description**

Students enrolled in the athletic training major at the time of their entry to Azusa Pacific University, begin as pre-athletic training students, and have not been formally accepted into the ATEP. In the first three semesters, students will take the required courses to prepare for application to the professional portion of the ATEP. During this time, they will also meet with the Program Director, and others in the department, to discuss requirements for the ATEP and the progressions that will occur.

During the fall of the sophomore year, pre-athletic training students will continue their course work, begin clinical observation rotations, and begin to work on psychomotor competency assessments. Once the student has completed a particular psychomotor competency, they will be allowed to practice and perform that psychomotor competency, under the direct supervision of an ACI, in a clinical environment. Regular evaluation of that skill will continue by the supervising ACI/ATC.

#### **Objectives**

1. To gain a clear understanding of the athletic training profession through clinical observations.
2. To demonstrate an understanding of the policies and procedures of the daily operation of the Athletic Training Room.
3. To demonstrate psychomotor competency in first aid and CPR skills.
4. To communicate effectively with the supervising ACI/ATC(s).
5. To work cooperatively with other ATs and staff athletic trainers.
6. To complete other objectives as outlined in specific course syllabi.
7. To complete other specific objectives as outlined with the supervising ACI/ATC(s).

## Course Work

The following courses should be taken as prerequisites for acceptance into the ATEP.

COURSE #	COURSE TITLE	UNITS
AT 101	Introduction to Athletic Training <sup>^</sup>	1 unit
AT 160	Acute Care of Injury and Illness <sup>^</sup>	2 units
AT 220	Risk Management for the Physically Active <sup>^</sup>	3 units
AT 240	Observation in Athletic Training <sup>^</sup>	1 unit
BIOL 151	General Biology I*	4 units
BIOL 250	Human Anatomy*	4 units

Prerequisite Courses

Pre-athletic training students need to maintain an overall GPA of 2.5.

\*A grade of “C-” or higher must be obtained in these courses.

<sup>^</sup>A minimum of 3.0 GPA must be obtained in these courses with no course having a grade lower than a “C”.

## Psychomotor Competency/Clinical Proficiency Groups

### AT 240 – Observation in Athletic Training:

1. Crutch/Cane Fitting and Gait
2. ATR Maintenance
3. Elementary Modalities
4. Pre-Participation Examination Skills
5. First Aid
6. Equipment Fitting Skills

See individual practicum course for specific psychomotor competencies.

## Clinical Experience

Students in pre-athletic training will be assigned to four, 4-week rotation observations. These rotations introduce the student to the roles of the ATC while working in the clinical setting. Pre-athletic training students will be under the direct supervision of an ACI. Students in AT 240 – Observation in Athletic Training need to complete all specified clinical observation experiences and are not allowed to work directly on any student-athletes or others who may be receiving treatment in the clinical setting. Pre-athletic training student’s responsibilities are as follows:

### Responsibilities

1. Assisting in daily Athletic Training Room (ATR) operations, including the following:
2. Basic record keeping, including learning the computer software program

3. Inventory and storage of supplies
4. Cleaning and maintenance procedures
5. Assisting with the following:
  - a. Preparing whirlpools, slush, and contrast baths
  - b. Preparing hot packs
  - c. Preparing ice packs and ice massage treatments
  - d. Assisting visiting athletic trainer(s) with materials needed and resources available
6. Keeping supervising ACIs informed as to any problems that may arise
7. Memorizing the emergency procedures and appropriate telephone numbers
8. Obtaining and maintaining current certification in First Aid and CPR for the Professional Rescuer
9. Maintaining clinical hours/evaluation sheets for each clinical rotation.
10. Begin series of Hepatitis B Vaccine shots through the Health Center or other health facility of the student's choosing

### ATS Evaluation

Pre-athletic training students are evaluated in several ways. The first is through the regular evaluations of their academic course work. The second is the ATEP acceptance process that is outlined above. The third evaluation occurs at multiple times throughout the semester. For these, students are evaluated based on how well they meet the clinical objectives for pre-athletic training.

### **Level I: Athletic Training Student**

#### **General Description**

Once officially accepted into the ATEP, ATs will begin the spring semester of their sophomore year as Level I students. In Level I, ATs' course work and clinical field experiences become more advanced than pre-athletic training. Didactic education emphasis is placed on injury evaluation. Clinical education focuses on wrapping, taping, and bracing used in the prevention of injuries sustained by athletes. Once the ATS has received at least a passing score from their ACI on a clinical psychomotor competency, they will be allowed to practice and perform the skill, under continued direct supervision, in the clinical setting. Regular evaluation of that skill or psychomotor competency will continue by the supervising ACI.

#### **Objectives**

1. To gain a clear understanding of the athletic training profession through clinical field experiences.
2. To learn the basic techniques of athletic injury taping, wrapping, and bracing.
3. To demonstrate an understanding of the policies and procedures of the daily operation of the ATR.
4. To demonstrate psychomotor competency in first aid and CPR skills.
5. To communicate effectively with the supervising ACI(s).
6. To work cooperatively with other ATs and ATCs.

7. To complete other objectives as outlined in specific course syllabi.
8. To complete other specific objectives as outlined with the supervising ACI(s).

### Course Work

COURSE #	COURSE TITLE	UNITS
AT 242	Practicum in Wrapping, Taping & Bracing <sup>^</sup>	2 units
AT 270	Assessment and Evaluation in Athletic Training <sup>^</sup>	4 units
AT 340	Practicum in Athletic Injury Assessment <sup>^</sup>	2 units
PE 240	Health Education	2 units
BIOL 251	Human Physiology*	4 units
PSYC 110	General Psychology	3 units
Level I Athletic Training Courses		

\*A grade of “C-” or higher must be obtained in these courses.

<sup>^</sup>A minimum of 3.0 GPA must be obtained in these courses with no course having a grade lower than a “C”.

### Psychomotor Competency/Clinical Proficiency Groups

#### AT 242 - Practicum in Wrapping, Taping & Bracing:

1. Ankle Taping and Bracing
2. Foot Taping
3. Lower Leg Taping
4. Knee Taping and Bracing
5. Hip, Pelvis, and Thigh Wrapping
6. Shoulder Taping
7. Elbow and Forearm Taping
8. Wrist and Hand Taping

See individual practicum course for specific psychomotor competencies.

## **Clinical Experiences**

ATs will begin to practice the profession of athletic training while working in the clinical setting under the direct supervision of an ACI or CI. ATs will be assigned to two, 8-week rotations at various (affiliated) clinical sites. The primary focus of these clinical rotations is to provide each AT with exposures to various sports at APU or at an affiliated clinical high school site. The specific objectives of these clinical field experience rotations are outlined in the responsibilities for Level I. All clinical hours completed under the direct supervision of a clinical instructor during each clinical rotation, may be counted toward the 50 clinical credits needed for graduation (Clinical Rotation Policies). Level I AT responsibilities are as follows:

### Responsibilities

1. Practicing taping, wrapping, and bracing techniques
2. Assisting in daily ATR operations, including the following:
3. Basic record keeping, including learning the computer software program
4. Inventorying and storage of supplies
5. Cleaning and maintenance procedures
6. Assisting with the following:
  - a. Preparing whirlpools, slush, and contrast baths
  - b. Preparing hot packs
  - c. Preparing ice packs and ice massage treatments
  - d. Assisting visiting athletic trainer(s) with materials needed and resources available
7. Keeping supervising ACIs informed as to any problems that may arise
8. Memorizing the emergency procedures, and appropriate telephone numbers
9. Obtaining and maintaining current certification in First Aid and CPR for the Professional Rescuer
10. Maintaining clinical hours/evaluation sheets for each clinical rotation.
11. Continuing the series of Hepatitis B Vaccine shots through the Health Center or other health facility of the AT's choosing

### ATS Evaluation

Level I students are evaluated in two ways. The first is through the regular evaluations of their academic course work. The second is through multiple **ATS Clinical Evaluations** (See *ATEP Handbook Documents*) throughout the semester. For these evaluations, students are evaluated based on how well they meet the clinical objectives for the Level I student.

## **Level II: Athletic Training Student**

### **General Description**

ATs in Level II begin their first full year in the ATEP and must have completed all pre-athletic training, Level I proficiencies, and course work. In Level II, ATs' course work and clinical field experiences become more advanced than Level I. Didactic education emphasis is placed on therapeutic modalities and therapeutic exercise. Clinical education reviews psychomotor skills

in injury assessment and therapeutic modalities. Once the ATS has received at least a passing score from their ACI on a clinical psychomotor competency, they will be allowed to practice and perform the skill, under continued direct supervision, in the clinical setting. Regular evaluation of that skill or psychomotor competency will continue by the supervising ACI. In addition, ATSs need to continue their professional development toward an **APPRENTICE CLINICIAN** through the completion of Clinical Proficiency Scenario Challenges based on clinical psychomotor competency groups.

## Objectives

1. To provide proper and timely first aid to injured athletes.
2. To communicate effectively with other ATSs, athletes, and staff.
3. To evaluate athletic injuries accurately and with confidence.
4. To maintain accurate and up-to-date medical records and coaches' reports.
5. To use medical terminology correctly.
6. To maintain the proper condition of the athletic training room.
7. To work cooperatively with other ATSs.
8. To accurately and effectively present an injured athlete case to the team physician.
9. To demonstrate the use of prevention strategies such as assisting during stretching and hydration.
10. To perform taping, wrapping, and bracing techniques when necessary.
11. To adhere to OSHA standards for handling bodily fluids.
12. To complete other objectives as outlined on specific course syllabi.
13. To complete other specific objectives as outlined with the supervising ACI.

## Course Work

COURSE #	COURSE TITLE	UNITS
AT 340	Practicum in Athletic Injury Assessment <sup>^</sup>	2 units
AT 342	Practicum in Therapeutic Modalities, Strength & Flexibility <sup>^</sup>	2 units
AT 351	Therapeutic Modalities <sup>^</sup>	3 units
AT 352	Therapeutic Exercise <sup>^</sup>	4 units
AT 355	Medical Conditions and Disabilities <sup>^</sup>	2 units
AT 360	Nutrition for Exercise and Sport Science	2 units
PE 363	Physiology of Exercise (for Athletic Training)	3 units
AT 364	Kinesiology <sup>^</sup> (for Athletic Training, Applied Health)	3 units
<b>Level II Athletic Training Courses</b>		

^A minimum of 3.0 GPA must be obtained in these courses with no course having a grade lower than a “C”.

### **Psychomotor Competency/Clinical Proficiency Groups**

#### AT 340 - Practicum in Athletic Injury Assessment:

1. Foot
2. Ankle
3. Knee
4. Lower Extremity Neuro Exam
5. Shoulder
6. Elbow and Forearm
7. Wrist, Hand and Fingers
8. Upper Extremity Neuro Exam
9. Thoracic and Lumbar Spine
10. Thorax and Abdomen Evaluation
11. Head and Neck (conscious)

#### AT 342 - Practicum in Therapeutic Modalities, Strength & Flexibility:

1. Cryotherapy
2. Electrotherapy
3. Thermotherapy
4. Massage Therapy
5. Biofeedback
6. Strength, Agility, and Flexibility

See individual practicum course for specific psychomotor competencies.

### **Clinical Experiences**

ATs will continue their clinical education by being assigned to four, 8-week rotations at various APU ATEP (affiliated) clinical sites. . The primary focus of Level II will be to incorporate injury assessment and therapeutic clinical skills through extended time with APU athletics. In addition, students may be assigned to an off-campus sports and/or rehabilitative affiliated clinical site. The Clinical Education Coordinator will make each clinical assignment by assessing the ATs’s abilities and clinical field experience needs. Level II ATs will usually be paired with a Level III ATs as their student mentor. All clinical hours completed under the direct supervision of a clinical instructor during each clinical rotation, may be counted toward the 50 clinical credits needed for graduation (Clinical Rotation Policies). The responsibilities of Level II ATs are as follows.

## Responsibilities

All of Level I responsibilities plus:

1. Performing taping, wrapping, bracing, and first aid
2. Assisting the ACIs in providing healthcare for APU athletes
3. Assisting the ACIs in covering practices, contests, and special events associated with athletics
4. Assisting the certified athletic training staff with pre-participation physical examinations of APU athletes
5. Assisting the ACIs in treating injuries incurred by APU athletes
6. Evaluating and initially managing athletic injuries under the direct supervision of a ACI
7. Setting up treatment programs prescribed by supervising ACIs
8. Maintaining current certification in First Aid and CPR for the Professional Rescuer
9. Maintaining log sheets of clinical experience hours. [These forms must be signed by the supervising ACI or CI and submitted every two weeks to the Clinical Education Coordinator.]

## ATS Evaluation

In this level, informal evaluations occur throughout the clinical assignments and formal evaluations occur at the end of each clinical rotation. ATSS complete **self-evaluations** and are also evaluated by their supervising ACI. **ATS Clinical Evaluations** (See ATEP Handbook Documents) are based on how well ATSS completed the responsibilities and achieved the objectives of Level II. After all evaluations are completed, the ATS meets with the supervising ACI to discuss the evaluation outcomes, ATS strengths, and areas in which the ATS needs to improve. These evaluations occur after each clinical assignment, thus ATSS will be evaluated at least four times per year on a formal basis.

## **Level III: Athletic Training Student**

### **General Description**

Level III ATSS must have completed all proficiencies of Level II. In Level III, ATS course work and clinical assignment responsibilities become more advanced than in Level II. ATSS at this level are expected to display creativity and critical thinking ability in their decisions and to provide leadership to ATSS in the lower levels. Didactic education emphasis is placed on research in athletic training and health care administration. Clinical education reviews psychomotor skills in therapeutic modalities, therapeutic exercise and medical conditions. Once the ATS has received at least a passing score from their ACI on a clinical psychomotor competency, they will be allowed to practice and perform the skill, under continued direct supervision, in the clinical setting. Regular evaluation of that skill will continue by the supervising clinical instructor. In addition, ATSS need to continue their professional development toward **ENTRY-LEVEL CLINICIAN** through the completion of Clinical Proficiency Scenario Challenges based on clinical psychomotor competency groups.

## Objectives

1. To provide leadership for Level I and Level II ATs
2. To display initiative in performing athletic training duties and skills
3. To communicate effectively with staff and ATs, coaches, and athletes
4. To maintain accurate and up-to-date medical records and coaches' reports
5. To use proper medical terminology both in writing and verbally
6. To evaluate athletic injuries accurately and with confidence
7. To determine when to use particular modalities and with what parameters
8. To coordinate and supervise the rehabilitation of the injured athlete
9. To display confidence in performing athletic training duties and skills
10. To work cooperatively with other ATs, coaches, and ACI
11. To display empathy toward injured athletes and a willingness to listen
12. To accurately and effectively present an injured athlete case to the team physician
13. To complete other objectives as outlined in specific course syllabi
14. To complete other specific objectives as outlined with the supervising ACI

## Course Work

COURSE #	COURSE TITLE	UNITS
AT 440	Practicum in Therapeutic Exercise & Medical Conditions <sup>^</sup>	2 units
AT 442	Senior Capstone Practicum <sup>^</sup>	3 units
AT 452	Current Concepts in Treatment and Rehabilitation <sup>^</sup>	2 units
AT 465	Pharmacology for Athletic Trainers <sup>^</sup>	2 units
AT 469	Health Care Administration <sup>^</sup>	3 units
AT 495	Research Methods <sup>^</sup>	4 units
PYSC 385	Health Psychology	3 units
Level III Athletic Training Courses		

<sup>^</sup>A minimum of 3.0 GPA must be obtained in these courses with no course having a grade lower than a "C".

## Psychomotor Competency/Clinical Proficiency Groups

### AT 440 - Practicum in Therapeutic Exercise & Medical Conditions:

1. Manual Therapy Techniques
2. General Rehab Techniques
3. Ankle and Foot Rehabilitation
4. Knee Rehabilitation
5. Shoulder Rehabilitation
6. Elbow, Wrist and Hand Rehabilitation
7. Lumbar Spine Rehabilitation
8. Cervical Spine Rehabilitation

## 9. General Medical Conditions

### AT 442 - Senior Capstone Practicum:

1. Risk Management and Injury Prevention
2. Pathology of Injuries and Illnesses
3. Orthopedic Clinical Examination and Diagnosis
4. Acute Care of Injury and Illness
5. Therapeutic Modalities
6. Conditioning and Rehabilitative Exercise
7. Pharmacology
8. Psychosocial Intervention/Referral
9. Nutritional Aspects of Injuries and Illnesses
10. Health Care Administration
11. Professional Development/Responsibility

See individual practicum course for specific psychomotor competencies.

### **Clinical Experiences**

ATs will conclude their clinical education by being assigned to four, 8-week rotations at various APU ATEP (affiliated) clinical sites. The primary focus of Level III will be to incorporate therapeutic exercise and general medical clinical skills through APU athletics and designated off-campus sports and/or rehabilitative affiliated clinical site. The Clinical Education Coordinator will make each clinical assignment by assessing the ATS's abilities and clinical field experience needs. Level III ATs are expected to take leadership roles in providing health care. This includes daily communication between the coaching staff and ACI concerning the health/participation status of their athletes. Level III ATs are also expected to mentor Level I and Level II ATs as they progress in knowledge and skills. All clinical hours completed under the direct supervision of a clinical instructor during each clinical rotation may be counted toward the 50 clinical credits needed for graduation (Clinical Rotation Policies). The responsibilities of Level III ATs are as follows.

### Responsibilities

All of Level I and Level II responsibilities plus:

1. Assisting the ACIs in the treatment and rehabilitation of injuries incurred by APU athletes
2. Helping to develop appropriate preventive, conditioning, and rehabilitative programs for APU athletes
3. Selecting and determining the proper parameters for modalities used in the care of athletic injuries in cooperation with the ACIs
4. Communicating daily with the supervising ACI and the coach concerning the health and participation status of APU athletes
5. Providing leadership to Level I and II ATs
6. Participating in the educational process of other underclass ATs

## 7. Recognizing environmental stress conditions and making appropriate recommendations

### ATS Evaluation

In this level, formal evaluations occur throughout the clinical assignments and at the end of each clinical rotation. ATSS complete **self-evaluations** and are evaluated by their supervising ACI. **ATS Clinical Evaluations** (See ATEP Handbook Documents) are based on how well ATSS complete the responsibilities and achieve the objectives of Level III. After all evaluations are completed, the ATS meets with the supervising ACI to discuss the evaluation outcomes, ATS strengths, and areas in which the ATS needs to improve. These evaluations occur after each assignment, so ATSS may be evaluated up to four times per year on a formal basis.

## **CODE OF CONDUCT FOR THE ATHLETIC TRAINING STUDENT**

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It is presumed that individuals involved in the Athletic Training Education Program (ATEP) at Azusa Pacific University possess a sincere desire to promote a program of Christ-centered excellence with a spirit of service. This spirit should challenge you, the athletic training student (ATS), to live these principles throughout the academic year, and allow them to be a motivating force in your life.

### **The Role of the Athletic Training Student:**

- Demonstrate a willingness to follow the leadership of the academic and clinical faculty and the more experienced ATs. In addition, recognize your own potential to provide leadership, through actions, words, and deeds.
- Exceed the educational outcomes established by the athletic training education program and the university.
- Present yourself in a professional manner in conduct, speech, and appearance. This brings credit to yourself, others, and Azusa Pacific University.
- Display individual standards of excellence socially and spiritually.
- Abide by the Azusa Pacific University Student Standards of Conduct which governs the use of alcohol, tobacco, and controlled substances.
- Demonstrate loyalty to the university, the athletic training education program, and affiliated clinical sites.
- Display respect for the academic and clinical faculty, the staff and patients, and your peers.
- Demonstrate stewardship for the facilities and equipment available for your use.
- Present yourself as a servant to others, following the example of Christ.
- Support the Azusa Pacific University Athletic Training Education Program mission statement which reads:

*The mission of the Athletic Training Education Program at Azusa Pacific University is to fully equip athletic training students with a quality education incorporating a Christian perspective to become life-long learners. The educational program incorporates current research and scholarly instruction, in both the clinical and didactic portions of the program, to prepare athletic training students to enter the profession as entry-level athletic trainers upon successfully passing the BOC certification examination.*

## **PROGRAM RETENTION STANDARDS AND POLICIES**

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In order to be retained in the Athletic Training Education Program (ATEP), an Athletic Training Student (ATS), once they are admitted into the ATEP, must meet certain didactic and clinical requirements.

1. Didactically, an ATS must maintain a **minimum cumulative GPA of 2.5 and a minimum GPA of 3.0 in all AT prefix courses, with no course grade below a "C."** If an ATS earns a grade below the "C," the course must be repeated until the required grade is obtained. If an ATS fails to meet the GPA requirements, they will be placed on ATEP Probation.\*
2. Clinically, an ATS must successfully complete each practicum course with **no course grade below a "B"**. If the ATS does not meet the "B" requirement, the course must be repeated. To "repeat" a clinical course (to complete the course and/or program requirements) and to be eligible to move to the next ATS Level, the student will be required to take AT 444 (General Practicum) in a summer session, or an additional semester. Students may not take two clinical courses in the same semester (i.e. AT 444 with another required course).

### **Probation**

During the probation period, the ATS will not be allowed to gain clinical field experience as an ATS. This probationary status will be given both verbally and in writing to the appropriate ATEP clinical faculty. Once the student meets the academic requirements (i.e. overall GPA rises to a level higher than 2.5), they will be removed from probation and will be reinstated to good standing in the ATEP. Since the ATS is not allowed to complete clinical field experience during the probationary period, it will be necessary for the student to audit the clinical course for the semester they are on probation. This will allow the student to complete all proficiencies, staying in sequence with the didactic courses. In order to fulfill the clinical field experience requirements for that course, the ATS will be required to take AT 444 (General Practicum) in a summer session, or an additional semester, to complete the program requirements. Students may not take two clinical courses in the same semester (i.e. AT 444 with another required course).

### **Suspension**

ATEP Suspension is the temporary removal of a student from clinical field experience. The length of the suspension is determined by the Program Director in consultation with the Clinical Education Coordinator and other ATEP faculty. Students may be suspended from the ATEP for the following:

1. Low mid-term grade report
2. Infraction of the policies and procedures of the clinical site
3. Others as deemed appropriate by the clinical instructor, Clinical Education Coordinator, Program Director, and/or faculty members

### **Dismissal**

Students may be dismissed from the ATEP for the following reasons:

1. Earning a grade below a “B” for any two Practicum courses (they do not need to be consecutive).
2. Being on ATEP Probation for 2 consecutive semesters.
3. Inappropriate or unethical behavior as outlined in the ATS Handbook, Athletics Handbook, and/or APU Student Handbook.

If dismissed, students will be counseled on other career and academic options.

### **Readmission**

If a student who was dismissed from the ATEP wishes to return to the program, the student must first wait a minimum of 2 semesters after dismissal to reapply. There are no guarantees that the student will be readmitted, and readmission will be based on available openings in the program and the student’s reapplication. All application materials must be submitted to the ATEP Program Director by December 1<sup>st</sup> for spring readmission and by May 1<sup>st</sup> for fall readmission. The following materials are required for consideration of readmission.

1. Submit the Readmission to the ATEP Application, demonstrating the fulfillment of all readmission standards.
2. Submit an essay outlining:
  - a. Reasons for dismissal and the steps taken by the student to remedy/change the situation
  - b. Career goals in athletic training
  - c. Why the ATEP should readmit this student
3. Recommendations from 2 APU faculty and one non-family member outside APU
4. Submit to an interview with the ATEP faculty and staff

### **Appeals**

An ATS may appeal any decision regarding his/her admission, retention, or dismissal from the ATEP. A student wishing to appeal a decision must do so in writing to the ATEP Program Director within three school days of the date of the written decision. The ATEP Program Director may, in response to the written appeal, revise or confirm an earlier action.

The ATS may choose to have an appeal presented to either the ATEP Program Director, **or** the Athletic Training Appeals Board. The membership of this board shall consist of the ATEP Program Director, an outside administrator (i.e., the Exercise and Sport Science Department Chair, the undergraduate Associate Dean from the School of BAS, or other appropriate administrator), all ATEP academic faculty, a representative from the ATEP clinical faculty, and a faculty member from outside the Department of Exercise and Sport Science.

If the ATS chooses to file an academic grievance the student should follow the policies and procedures outlined in the APU Student Handbook.

If the ATS chooses to file an academic grievance for issues of course content and relevancy, grading, teaching style, and the like, the student is encouraged to meet with the professor of the class first. If a satisfactory resolution cannot be obtained, the ATS may go to the department chair, and finally, the dean of the school or college to remedy the situation.

### **Delayed Admission**

A student wishing to seek delayed admission must do so in writing to the ATEP Program Director no later than 2-weeks following the receipt of their acceptance letter. Delayed admission is not guaranteed and will be reviewed by the ATEP faculty.

## **GRADUATION REQUIREMENTS**

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In order to graduate from the Athletic Training Education Program at APU, the following must be met:

1. Complete all Athletic Training Major requirements:
  - a. Complete all Athletic Training Major course work.
  - b. Maintain a minimum cumulative GPA of 2.5
  - c. Maintain a minimum GPA of 3.0 in all AT didactic courses (AT 101, 160, 220, 240, 270, 351, 352, 355, 360, 364, 452, 465, 469, 490) with no course grade below a “C.”
  - d. Must successfully complete all practicum courses (AT 242, 340, 342, 440, 442) with no course grade below a “B”.
  - e. Must successfully complete all allied health courses (PE 240, 363; PSYC 110, 385; BIOL 151; 250/251).
  
2. Complete all Clinical Education requirements:
  - a. Complete all clinical observation experiences for pre-athletic training (AT 240).
  - b. 50 clinical credits for Level I-III students of clinical field experience under the direct supervision of a clinical instructor (AT 242, 340, 342, 440, 442).
  - c. Complete a clinical field experience in each of the following categories: upper extremity, lower extremity, equipment intensive, general medical, athletic institution, and rehabilitative service.
  - d. Complete all pre-athletic training, Level I, II, and III psychomotor competencies, Completion of the course work and proficiencies demonstrates basic competence required of an entry-level athletic trainer preparing the ATS to sit for the BOC examination.
  
3. Complete all other University requirements for graduation.

## PROGRAM EVALUATION

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The following are ways in which the Athletic Training Education Program is evaluated:

1. The Exercise and Sport Science Department has regular meetings to address issues related to the department policies, procedures, curriculum, etc.
2. The certified athletic training staff (clinical faculty) meets weekly to discuss issues related to the athletic training program and athletics. These discussions include clinical instruction and supervision of ATs, consistency of psychomotor competency assessment, and other issues that may arise.
3. Clinical Instructors at affiliated sites are encouraged to discuss their perceptions of the strengths and weaknesses of the ATEP. These discussions occur during the Clinical Education Coordinator visits to the site and during the annual ACI workshop meeting held in the spring.
4. ATs are evaluated in several ways:
  - a. ATS Two-week Evaluations: ACIs complete an evaluation at the conclusion of each clinical rotation cycle. This instrument evaluates appropriate professional behaviors of ATs.
  - b. ATS Evaluations: ACIs complete an evaluation at the conclusion of each clinical rotation. This instrument evaluates appropriate behaviors of ATs including: professionalism, leadership, communication, and clinical skills (etc).
  - c. Variety of class and clinical assignments
5. ATs evaluate the ATEP in the following ways:
  - a. ACI Evaluation Forms: ATs complete an evaluation at the conclusion of each clinical rotation. This instrument evaluates effective behaviors of clinical instructors including: professionalism, supervision, leadership, communication, clinical skills, and organization (etc).
  - b. IDEA Form: ATs are given the opportunity to evaluate academic courses. This is a campus-wide evaluation tool.
6. Clinical Instructor effectiveness is evaluated by the Clinical Education Coordinator in several ways. Effective clinical instructor behavior will include the following measurement tools:
  - a. ACI Evaluations: End of rotation evaluations are performed by Level I-III ATs.
  - b. Clinical Instructor Effectiveness Instrument<sup>2</sup> (CIEI<sup>2</sup>): Live observation tool that will be completed by the Clinical Education Coordinator.
  - c. ACI Self-evaluation Form: Yearly evaluation to established goals and monitor effective clinical behaviors.
7. Alumni Surveys are sent 6-12 months after graduation. This survey asks graduates of the ATEP to assess their undergraduate experience.

8. Employer Surveys are sent 6-12 months after employment. This survey asks employer to assess the preparation and performance of graduates from the ATEP.

## MEDICAL TERMINOLOGY

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A - A prefix meaning without, away from, not.

Ab- Prefix meaning from, away from, negative, absent.

Abdomen- The portion of the trunk located between the chest and pelvis.

Abduct- Movement away from the midline of the body.

Abnormal- Contrary to the usual size, location, condition, or system.

Abrasion- A scraping away of the skin as a result of injury.

Abscess- A localized collection of pus in any part of the body.

Acclimatize- To become accustomed to a different environment and climate.

Ace Bandage- An elastic bandage.

Acromio-clavicular joint- A joint in the shoulder girdle between the collar bone (clavicle) and a bony prominence of the shoulder blade (scapula) called the acromion. A severe sprain of this joint is known as a "separated shoulder".

Acute- Having a rapid onset, severe symptoms, and a short course, not chronic.

Ad- A prefix meaning toward

Adduct- Movement toward the midline of the body.

Adipose tissue- Fat tissue

Aerobic exercise- Exercise in which sufficient oxygen is inspired to supply all needed energy.

Aerobic exercise is required for sustained periods of hard work and vigorous athletic activities.

Air splint- a plastic, balloon-like device which, when inflated, is used to immobilize injured extremities.

Amnesia- A loss of memory, possibly due to a head injury.

Amputation- Surgical removal of a body part.

Anaerobic exercise- Exercise in which "oxygen debt" occurs since insufficient oxygen is taken in. Limited to short bursts of vigorous activity.

Analgesic- Something which provides pain relief.

Anemia- A condition in which red blood cells of hemoglobin is deficient.

Anesthesia- Partial or complete loss of sensation.

Anterior- Before or in front of.

Antibiotic- A drug used to inhibit the growth of or destroy microorganisms.

Antiseptic- An agent, similar to an antibiotic, which is used to prevent the growth or arrest the development of microorganisms.

Arterial- Pertaining to the arteries, the blood vessels which carry blood from the heart to the tissues.

Arthritis- Inflammation of a joint, usually accompanied by pain, and occasionally by changes in joint structure.

Arthro- A prefix pertaining to joints.

Arthrogram- A special x-ray using dye in the joint.

Arthroscope- A special device which allows the interior of a joint to be inspected.

Articulation- A connection of bones, a joint.

Artificial Respiration- Emergency maintenance of respiratory movements by artificial means.

Aspirate- To remove fluid from a joint.

Athlete's Foot- A fungus infection of the foot.

Atrophy- A wasting away due to injury or disease.

Avulsion- A forcible tearing away of a body part.

Ball and socket joint- Joint in which a rounded bone head fits into a cavity of another bone.

Example: shoulder.

Bi- Prefix indicating two, double, twice.

Bilateral- Both sides of the body.

Blister- A collection of fluid beneath the skin as a result of friction or a burn.

Brachial plexus- A group of nerves in the neck which control the sensation and the movement of the arm.

Bursa- A fluid-filled sac-like structure which acts to reduce friction between joint structures (tendons, ligaments, bones).

Calcaneus- The heel bone.

Callous- A hardened layer of skin.

Callus- Healing tissue of a bone fracture.

Capsule- A sleeve-like fibrous covering of a joint.

Cardiologist- A specialist in the treatment of heart disease.

Cardiopulmonary resuscitation- The use of mouth to mouth resuscitation and/or external heart compression to sustain life in an individual who has ceased breathing and/or has heart failure.

Cardiovascular- Pertaining to the heart and blood vessels.

Carpal- Pertaining to the wrist joint or the eight wrist bones.

Cartilage- A type of dense connective tissue which is capable of withstanding considerable pressure or tension.

articular cartilage- cartilage covering the articular surface of bones.

semilunar cartilage- two C-shaped interarticular cartilage's in the knee (menisci)

Central nervous system- The brain, spinal cord, and all their nerves and end-organs.

Cephalic- Referring to the head.

Cerebral- Referring to the brain.

Cervical- Referring to the neck, or the first seven vertebrae.

Chondromalacia patellae- Roughening of the underside of the kneecap.

Chronic- Long, drawn out, of long duration, as opposed to acute.

Circumduction- Movement of an extremity in rotary, cone-shaped manner.

Clavicle- Collar bone.

Coccyx- Tail bone.

Collateral ligaments- ligaments which prevent lateral movements in a joint, Example: the knee and elbow.

Concussion- A partial or complete loss of mental function that may result from a blow or a fall. This may result from a blow or a fall. This may be associated with temporary or prolonged loss of consciousness.

Constriction- The narrowing of a vessel or opening, such as constriction of blood vessels or of the pupil of the eye.

Contra- A prefix meaning opposite or against.

Contract- To shorten, draw together, reduce in size.

Contusion- An injury in which the skin is not broken, a bruise.

Costal- Pertaining to the ribs.

Counterirritant- An agent that is applied locally to produce an inflammatory reaction for the purpose of affecting some other part, usually adjacent to or underlying the surface treated.

Examples: Ben-Gay, Atomic Balm.

Cranial- Referring to the head and skull.

Cruciate ligaments- Two ligaments which cross each other inside the knee to prevent anterior-posterior movement.

Cryotherapy- The use of cold in treating injuries.

Cyanosis- Bluish or discoloration due to deficient oxygen supply.

Debridement- The remove of foreign material.

Dehydration- Loss of water which occurs when output of water exceeds water intake.

Dermatologist- A physician who specializes in the treatment of diseases of the skin.

Di- A prefix indicating two, double, or twice.

Dilate- To widen or open up.

Disc- A flat round platelike structure found in certain joints, for example, between vertebrae.

Dislocation- The displacement of any part, especially the temporary displacement of a bone from its normal position in a joint.

Disorientation- Inability to estimate direction or location, or to be cognizant of time or persons.

Distal- Farthest from the center, opposite of proximal.

Dorsiflexion- Movement at the ankle where the foot moves up toward the anterior lower leg.

Dorsum- The back or posterior surface of a body.

Dys- Prefix meaning bad, difficult, or painful.

Ecchymosis- Discoloration of the skin caused by the presence of blood in the tissues.

Edema- A local or generalized condition in which the body tissues contain an excessive amount of tissue fluid.

Epidermis- Outer layer of skin.

Epitaxis- Nosebleed.

Ergogenic acid- Any substance that helps increase work output.

Erythema- Reddening of the skin.

Extension- Straightening, opposite of flexion.

Extra- Prefix meaning outside of, in addition to, or beyond.

Femur- The thigh bone, the longest and strongest bone in the body.

Flex- To bend.

Forearm- The portion of the arm between the wrist and the elbow.

Fracture- A broken bone.

Gait- A manner of walking.

Gastric- Pertaining to the stomach.

Genu- Pertaining to the knee.

Genu recurvatum- Hyperextension of the knee.

Genu valgum- Knock knees.

Genu varum- Bow legs.

Glenohumeral- Pertaining to the shoulder joint.

Glenoid- The shoulder socket which the humerus fits into.

Goniometer- A device used to measure joint movements and angles.

Good Samaritan Law- Legal stipulation protecting those who give first aid in an emergency situation.

Groin- The depression between the thigh and trunk.

Gynecologist- A physician who specializes in diseases peculiar to women.

Hallux- The great toe.

Hamstrings- Muscles in the posterior thigh.

Heimlich maneuver- Technique for removing a foreign body which is obstructing an airway.

Hema- Referring to blood.

Hematoma- A swelling or mass of blood (usually clotted) confined to any organ, tissue, or space and caused by a break in a blood vessel.

Hemi- Prefix meaning half.

Hemostasis- The arrest of blood flow from a hemorrhage.

Hemorrhage- Abnormal internal discharge of blood.

Hernia- The protrusion or projection of an organ or part of an organ through the wall of the cavity which normally contains it.

Humerus- Bone in the upper arm between the shoulder and the elbow.

Hydro- Pertaining to water (hydrotherapy- treatment with water).

Hyper- Prefix meaning above, excessive, or beyond.

Hypo- Prefix indicating less than, below, or under.

Iliac- Refers to the ilium, as part of the pelvis.

Immobilization- The making of a part or limb immovable.

Infection- The state or condition in which the body or a part of it is invaded by a pathogenic agent which may produce injurious effects.

Inflammation- Tissue reaction to injury.

Infra- A prefix meaning below, under, beneath, inferior to.

Inter- Prefix meaning in the midst, between.

Intra- Prefix meaning within.

Isokinetic- A form of isokinetic exercise in which maximal tension is developed in the muscle throughout the entire range of motion.

Isometric- Contraction of a muscle in which tension is developed but no movement takes place.

Isotonic- A muscular contraction in which tension is developed while the length of the muscle is decreased.

Itis- A suffix meaning inflammation of.

Kinesiology- The study of muscles and muscular movement.

Kinesis, Kinetic- Having to do with movement.

Kneecap- The patella.

Kyphosis- Exaggerated curvature of the back, "hunchback".

Laceration- A wound or irregular tear of the flesh.

Lateral- Pertaining to the side.

Ligament- A band or sheet of strong fibrous connective tissue connecting the articular ends of bones serving to bend them together and to facilitate or limit motion.

Lordosis- Abnormal anterior lumbar curve of the spine.

Lumbar- Refers to the 5 spinal vertebrae between the sacrum and thoracic vertebrae.

Mal- A prefix meaning ill, bad, poor.

Malacia- Abnormal softening of tissues. Example: chondromalacia patellae, softening of the kneecap.

Malingeringer- One who pretends to be ill/injured or has a slow recovery in order to arouse sympathy.

Mandible- Upper jaw.

Massage- Manipulation, methodical pressure, friction, and kneading of the body.

Maxilla- Lower jaw.

Medial- Pertains to towards the midline.

Median- Middle, central.

Mega- Prefix meaning great or large.

Meniscus- Crescent shaped interarticular fibrocartilage found in the knee.

Metacarpals- Five bones found in the palms.

Metatarsals- Five bones found in the foot.

Muscle- A type of tissue composed of contractile cells or fibers which effects movement.

Characteristics of muscle tissue include its ability to shorten or contract, elasticity, conductivity, and irritability.

My or myo- Prefix referring to muscle.

Navicular- Scaphoid bone found in the wrist which is frequently fractured. A scaphoid bone is also found in the ankle.

Necrosis- Death of areas of tissue or bone surrounded by healthy parts.

Nerve- A bundle or group of bundles of nerve fibers outside the central nervous system which connect the brain and spinal cord with various parts of the body.

Neuro- Prefix relating to a nerve, nervous tissue, or the nervous system.

Numb- Lacking in feeling, insensible.

Ology- Suffix pertaining to the study of, knowledge, or science of.

Oma- Suffix denoting a tumor or swelling.

Ophthalmologist- A physician who specializes in the treatment of eye disorders.

Ortho- Prefix meaning straight, correct, normal, in proper order.

Orthopedics- The branch of medical science that deals with prevention or correction disorders involving locomotor structures of the body, especially the skeleton, joints, muscles and fascia.

Orthotic- A mechanical appliance for orthopedic use.

Osteo- Prefix relating to the bone.

Otorrhea- Discharge of fluid from the ear. May indicate a head injury.

Palpate- To examine by touch, to feel.

Paralysis- Temporary suspension or permanent loss of function.

Paravertebral- Alongside or near the vertebral column.

Paresis- Partial or incomplete paralysis.

Paresthesia- Abnormal sensation without due cause, heightened sensitivity.

Patella- Kneecap.

Pathology- Study of the nature and cause of disease which involves changes in structure and function. Also, a condition produced by disease.

Pelvis- The bony structure formed by the hip bones and sacrum.

Periosteum- Membrane which covers bone.

Pes- Generally refers to the foot.

Pes planus- flat footed.

Pes cavus- high arches.

Phalanges- Bones of the fingers and toes.

Plantarflexion- Movement of the ankle joint in which the foot points down.

Podiatrist- One who treats foot disorders.

Posterior- Toward the rear, as opposed to anterior.

Pre- Prefix indicating before or in front of.

Proximal- Nearest the center of the body, opposite of distal.

Quadriceps- A group of four muscles on the anterior surface of the thigh.

Radiologist- A physician who specializes in diagnosis and treatment using x-rays.

Retrograde amnesia- Loss of memory for events just preceding an injury.

Rheumatism- A general term for acute and chronic conditions characterized by soreness and stiffness of muscles, and pain in joints and associated structures.

Rhinorrhea- Discharge of spinal fluid from the nose which indicates a severe head injury.

Sacrum- A triangular shaped bone in the vertebral column which forms part of the pelvic girdle.

Scaphoid- Navicular bone in either the wrist or the foot.

Scapula- Shoulder blade.

Scoliosis- An abnormal lateral curvature of the spine.

Spasm- An involuntary sudden movement or convulsive muscular contraction or excessive forcible stretch.

Sprain- A joint injury involving ligaments.

Strain- Trauma to a muscle or tendon due to a violent contraction or excessive forcible stretch.

Sub- Prefix meaning under, beneath, in small quantity.

Superior- Higher than or better than.

Supra- Prefix meaning above.

Synovial membrane- Membrane lining the capsule of a joint.

Synovial fluid- The lubricating fluid of a joint.

Synovitis- Inflammation of a synovial membrane.

Talus- The ankle bone which is found above the calcaneus (heel) and below the lower leg.

Tarsal bones- The seven bones of the ankle.

Tendon- Fibrous connective tissue which serves as the attachment of muscles to bones.

Tendinitis- Inflammation of a tendon.

Thigh- The portion of the leg between the hip and the knee.

Thorax- That part of the body between the base of the neck and the diaphragm.

Tibia- The inner and larger bone in the lower leg.

Transverse- Lying across, crosswise.

Trauma- A physical injury or wound caused by external force or violence.

Ulna- The inner and larger bone of the forearm between the wrist and elbow on the side opposite that of the thumb.

Unconsciousness- State of being insensible or without conscious experiences.

Valgus- Bent outward and away from the midline of the body.

Varus- Turned inward.

Vaso- Prefix referring to blood vessels.

Vein- A blood vessel carrying blood back to the heart.

Vertebrae- Any one of the 33 bony segments of the spinal column.

## MEDICAL ABBREVIATIONS

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ac	before meals
ad lib	at discretion
am	morning
amb	ambulation
abd.	abduction
act.	active
add.	adduction
A:	assessment
ADL	activities of daily living
AAROM	active assistive range of motion
AMA	against medical advice
AP	anterior-posterior
AROM	active range of motion
ASA	aspirin
ASAP	as soon as possible
bid	twice a day
BP	blood pressure
C	centigrade
CA	cancer
CBC	complete blood count
C1,C2, etc.	first cervical vertebra, second cervical vertebra, etc.
CC	chief complaint
CNS	central nervous system
CO <sub>2</sub>	carbon dioxide
CP	cerebral palsy
CPR	cardiopulmonary resuscitation
CSF	cerebral spinal fluid
CV	cardiovascular
CVA	cerebrovascular accident
cal	calories
cm	centimeter
c/o	complains of
cont.	continue
D/C	discontinued
DFM	deep friction massage
DIP	distal interphalangeal joint
DM	diabetes mellitus
DTR	deep tendon reflex
Dx	diagnosis
ECG, EKG	electrocardiogram

EEG	electroencephalogram
EENT	ears, eyes, nose & throat
EMG	electromyogram
ER	external rotation
E.R.	emergency room
ext.	extension
F	fair (muscle strength)
flex.	flexion
ft.	foot, feet [as a measurement]
FHx, FH	family history
FWB	full weight bearing
Fx	fracture
gm	gram
G	good (muscle strength)
GI	gastrointestinal
GYN	gynecology
h, hr.	hour
hs	at bedtime
H & P	history & physical
HA	headache
Hb, Hgb	hemoglobin
HNP	herniated nucleus pulposus
HP	hot pack
HR	heart rate
Ht	hematocrit
Hx	history
IM	intramuscular
IMP, imp.	impression
IK	infrared
IR	internal rotation
IV	intravenous
kg	kilogram
lb.	pound [as measurement]
L, l.	liter
LE	lower extremity
L1,L2, etc.	first lumbar vertebra, second lumbar vertebra, etc.
LBP	lower back pain
LOC	level of consciousness
LTG	long term goals

m	meter
mg	milligram
min.	minutes
mo.	month
MED	minimal erythematol dose
Meds.	medications
MFT	muscle function test
MMT	manual muscle test
MP, MCP	metacarpalphalangeal
MS	multiple sclerosis
neg.	negative
noc	night, at night
N	normal (muscle strength)
NPO	nothing by mouth
NWB	non-weight bearing
od	once daily
oz.	ounce
O:	objective
OB	obstetrics
O.P.	outpatient
O.R.	operating room
pc	after meals
per	by/through
p.o.	by mouth
pos.	positive
poss	possible
post-op	after surgery (operation)
pre-op	before surgery (operation)
prn	whenever necessary
pron.	pronation
pt., Pt.	patient
P	poor (muscle strength)
P:	plan
PHx, P.H.	past history
PNF	proprioceptive neuromuscular facilitation
PRE	progressive resistive exercise
PROM	passive range of motion
PT	physical therapy
PVD	peripheral vascular disease
PWB	partial weight bearing
q	every
qd	every day

qh	every hour
qid	four times a day
qn	every night
qt.	quart
re:	regarding
resp	respiration
RA	rheumatoid arthritis
RBC	red blood cell count
R/O	rule out
ROM	range of motion
RROM	resistive range of motion
Rx	treatment, prescription
sec.	seconds [as measurement]
sig	directions for use, "give as follows"
stat.	immediately
sup.	supination
Sx	symptoms
SED	suberythematous dose
SI	sacro-iliac
SLR	straight leg raises
S/P	status post (after)
STG	short term goals
tab	tablet
temp.	temperature
tid	three times daily
t.o.	telephone order
T	trace (muscle strength)
TB	tuberculosis
TENS	Transcutaneous electrical nerve stimulation
TIA	transient ischemic attack
TPR	temperature, pulse & respiration
TWB	total weight bearing
Tx	treatment
Tx.	traction
UA	urine analysis
UE	upper extremity
URI	upper respiratory infection
US	ultrasound
UV	ultraviolet
v.o.	verbal orders
v.s.	vital signs

wk.	week
W/cm <sup>2</sup>	watts per square centimeter
WBC	white blood cell count
WNL	within normal limits
y/o	years old
yr.	year
♂	male
♀	female
↓	decrease, down
↑	increase, up
c	with
s	without
x	except
p	after
a	before
~	approximately
@	at
Δ	change
>	greater than
<	less than
=	equals
+, ⊕	positive
-, ⊖	negative
#	number (#1 is number one), pounds (4# is four pounds)
/	per
%	percent
&, et.	and
→	to, progressing forward
1°, 1'	primary
2°, 2'	secondary
:	is, was
∅	no, not
x, X	times
L, Lt.	left
R, Rt.	right

## **ALLIED HEALTH ORGANIZATIONS**

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AMERICAN CANCER SOCIETY  
1 (800) 227-2345

AMERICAN DIABETES ASSOCIATION  
1 (800) 342-2383

AMERICAN HEART ASSOCIATION  
1 (800) 432-7852

AMERICAN KIDNEY FOUNDATION  
1 (800) 638-8299

AMERICAN LUNG ASSOCIATION  
1 (626) 797-5864

AMERICAN DOMESTIC VIOLENCE NATIONAL HOTLINE  
1 (800) 333-SAFE

AMERICAN SOCIAL HEALTH ASSOCIATION  
1 (800) 227-8922

CANCER INFORMATION SERVICE  
1 (800) 4-CANCER

CRISIS INTERVENTION AGENCY  
1 (800) 978-3600 (Domestic Violence Hotline)

EATING DISORDERS, BULIMIA/ANOREXIA HOTLINE  
1 (800) 277-4785

EPILEPSY FOUNDATION OF LOS ANGELES  
1 (213) 382-7337

NATIONAL COUNCIL ON ALCOHOLISM OF EAST SAN GABRIEL AND POMONA VALLEYS, INC.  
1 (626) 331-5316

NATIONAL ATHLETIC TRAINERS' ASSOCIATION  
1 (800) TRY-NATA

NATIONAL CENTER FOR MISSING AND EXPLOITED CHILDREN  
1 (800) THE-LOST

NATIONAL HEAD INJURY FOUNDATION  
1 (800) 444-NHIF

NATIONAL HEART, LUNG, BLOOD INSTITUTE  
1 (301) 496-4236

NATIONAL SPINAL CORD INJURY ASSOCIATION  
1 (800) 962-9629

NATIONAL YOUTH CRISIS HOTLINE  
1 (800) 448-4663

POISON CONTROL CENTER  
1 (800) 876-4766

SUICIDE PREVENTION CRISIS HOTLINE  
1 (310) 391-1253

## ATHLETIC TRAINING WEBSITES

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American Academy of Emergency Medicine: [www.aaem.org](http://www.aaem.org)  
American Academy of Pediatrics: [www.aap.org](http://www.aap.org)  
American College of Sports Medicine: [www.acsm.org](http://www.acsm.org)  
American Dietetic Association: [www.eatright.org](http://www.eatright.org)  
American Heart Association: [www.americanheart.org](http://www.americanheart.org)  
American Journal of Sports Medicine: [ajs.sagepub.com/](http://ajs.sagepub.com/)  
American Orthopaedic Society for Sports Medicine: [www.sportsmed.org/](http://www.sportsmed.org/)  
American Physical Therapy Association: [www.apta.org](http://www.apta.org)  
American Red Cross: [www.redcross.org](http://www.redcross.org)  
American Society for Testing and Materials: [www.astm.org](http://www.astm.org)  
APU ATEP: [www.apu.edu/bas/exercisesport/atep](http://www.apu.edu/bas/exercisesport/atep)  
Board of Certification (BOC): <http://www.bocatc.org>  
California Athletic Trainers' Association: [www.cata-usa.org](http://www.cata-usa.org)  
Collegiate Sports Medicine Foundation: [www.csmfoundation.org](http://www.csmfoundation.org)  
District Eight – Far West Athletic Trainers' Association: <http://www.fwata.org/>  
Exercise Research Associates: [www.exra.org](http://www.exra.org) (focuses on epidemiology of sport injuries)  
Gatorade Sports Science Institute: [www.gssiweb.com](http://www.gssiweb.com)  
Health People 2010: <http://www.healthypeople.gov/>  
International SportsMed Journal: <http://www.thieme.de/fz/sportsmed/index.html>  
Journal of Athletic Training: [www.nata.org/jat/](http://www.nata.org/jat/)  
NATA Code of Ethics: <http://www.nata.org/codeofethics/index.htm>  
NATA Education Council: <http://www.nataec.org/>  
NATA Standards of Professional Practice: <http://www.bocatc.org/atc/STD/>  
National Athletic Trainers' Associations (NATA): [www.nata.org](http://www.nata.org)  
National Library of Medicine: [www.nlm.nih.gov](http://www.nlm.nih.gov)  
National Operating Committee on Standards for Athletic Equipment: [www.nocsae.org](http://www.nocsae.org)  
National Strength and Conditioning Association: [www.nsca-lift.org](http://www.nsca-lift.org)  
National Youth Sports Safety Foundation, Inc.: [nyssf.org](http://www.nyssf.org)  
NCAA Health and Safety: [http://www1.ncaa.org/membership/ed\\_outreach/health-safety/index.html](http://www1.ncaa.org/membership/ed_outreach/health-safety/index.html)  
NCAA Injury Data: [http://www1.ncaa.org/membership/ed\\_outreach/health-safety/iss/index.html](http://www1.ncaa.org/membership/ed_outreach/health-safety/iss/index.html)  
NCAA Medical Policies:  
[http://www.ncaa.org/library/sports\\_sciences/sports\\_med\\_handbook/2007-08/2007-08\\_sports\\_medicine\\_handbook.pdf](http://www.ncaa.org/library/sports_sciences/sports_med_handbook/2007-08/2007-08_sports_medicine_handbook.pdf)  
NIH Office of Dietary Supplements: [dietary-supplements.info.nih.gov/](http://dietary-supplements.info.nih.gov/)  
Orthopaedic Links: [www.staehelin.ch/olinks.html](http://www.staehelin.ch/olinks.html)  
Physician and SportsMedicine: [www.physsportsmed.com](http://www.physsportsmed.com)  
Professional Baseball Athletic Trainers Society: [www.pbats.com](http://www.pbats.com) (online newsletters)  
Sports Medicine: [www.sportsmedicine.com](http://www.sportsmedicine.com)  
Sports Medicine Links: [www.sportslink.org/](http://www.sportslink.org/)  
United States Anti-Doping Agency: [www.usantidoping.org/](http://www.usantidoping.org/)  
United States Department of Agriculture Food and Nutrition Info Center: [www.nal.usda.gov/fnic](http://www.nal.usda.gov/fnic)  
Virtual Hospital: [www.vh.org](http://www.vh.org)  
Web MD: <http://www.webmd.com>