

## SYLLABUS

- Name of Course:** Management and Adjusting of the Upper Extremity TECH-347/847
- Length of Course:** 1.5 units, 32 hours (1Hour Lecture, 2 Hour Lab/Week)
- Course Description:** This course covers various aspects of extremity adjusting with emphasis on short lever adjusting. Supportive case management and follow-up procedures are included.
- Course Goal:** To Develop Competencies in the Assessment and Correction of Subluxations of the Extremities of the Human Body.
- Prerequisites:** DIAG239, DIAG 351
- Corequisites:** DIAG-226
- Course Offered By:** Technique Department
- Required Texts:** None
- Recommended Texts:**  
Hearon *KG What You Should Know about Extremity Adjusting. 9<sup>th</sup> ed 2005*  
Hearon *KG Advanced Principles of Upper Extremity Adjusting. 1995*  
Hearon *KG Advanced Principles of Lower Extremity Adjusting. 1994*
- Reference Texts:** Myers, Thomas *Anatomy Trains: Myofascial Meridians for Manual and Movement Therapist 2nd ed. 2009*  
*Functional Soft Tissue Examination and Treatment of Manual Methods 3rd ed. 2007*  
Souza T. *Differential Diagnosis and Management for the Chiropractor 4th ed. 2009*
- Various reference texts, handouts and reading assignments will be given. Students are responsible for these materials when assigned and will be tested on them.
- Methods of Instruction:** Lecture, Demonstration, Hands-On Laboratory Experience

**Technique Lab Attire Policy:** *(modified for the Extremity Lab)*

All students are required to follow the policy outlined in this section. Failure to wear proper attire or follow the guidelines may result in being counted as absent for that lab and / or not being allowed to participate. Please notify the instructor if you have any health concerns (skin conditions, injuries, etc.) or other issues that may hinder your ability to comply to these guidelines.

Keep in mind that everything we ask and expect of students is focused on clinical practice and providing a safe professional environment not only for the students in the lab, but eventually for the patients under your care.

**Healthy clean hygiene is expected from all students.** Common courtesy and mutual respect suggests you do not show up wearing the same gym clothes you wore during your daily workout. It is recommended that students bring a towel to place on the table. Towels maintain sanitary standards and reduce the need for the use of chemical sanitation treatments on the adjusting tables. Plus, vinyl can be cold and uncomfortable to lie on at times.

**NOTE: the first section of this class focuses on the lower extremity, the second portion focuses on the upper extremity.**

- **For Men:** A crew neck T-shirt with sleeves, gym shorts to expose the lower extremity (long pants may be worn after the midterm)
- **For Women:** A crew neck T-shirt with a bra underneath and shorts.
- To maintain modesty and a professional environment, no low cut or revealing attire is permitted. After the midterm women will need to wear a bathing suit type of top to expose the anterior ribcage and clavicle. (long pants may be worn after the midterm)
- **Covered shoes** (sandals and flip flops do not qualify) **are required for all participants.**



The bottom line is we need to be able to easily palpate the spine and extremities for specific landmarks and structures. If you have any questions or concerns as to whether an article of clothing meets the criteria for lab attire check with the instructor before the lab begins.

- A current CMR from the Health Center is required to complete the required adjustments in this course.

**Evaluation / Grading Criteria:**

25% written midterm  
 40% written final  
 25% point lab final  
 10% formative exercises (open lab adjustments, etc.)

Total: 100%

**Lab adjustments:** 3 extremity adjustments with SOAP sheets (2 LE & 1 UE)  
 (1) to be completed by week 5 and (2) by week 10.

Grading is based upon the standardized grading as adopted by the technique department.

A	4.0	100 – 93%
B	3.0	92 – 84%
C	2.0	83 – 75%
F	0	0 – 74% Student must repeat course

In order to maintain satisfactory Academic Progress, a student must maintain a 2.0 or better in each and every course. Any grade less than a C must be remedied by repeating the class.

**Both lecture and lab sections must be passed to pass the course.**

**Attendance:** College policy applies

**Conduct and Responsibilities:**

It is the student's responsibility to maintain professional standards of behavior and attire while on campus. Students are expected to be prepared for instructional activities. They must bring required supplies/equipment and dress appropriately in accordance with the instructor's directions. Failure to do so can result in the student being marked absent for the class session. Any disruptive activity (e.g. use of cell phones, side conversations) in the classroom is prohibited. If the instructor requires a disruptive student to leave the classroom, the student remains responsible for all information and will be marked absent for the class session. The dean will impose sanctions for unprofessional behavior. Any form of deceit, fraud, plagiarism, unauthorized collaboration, or theft will result in failure of the course and referral to the dean for disciplinary sanctions. Please refer to the handouts titled "Ground Rules for Technique Classes" and "Respectful Touch" posted in all technique labs, for further tips and guidelines.

**Special Testing:** College policy applies

**Accommodations for Students with Disabilities:**

If you have approved accommodations, please make an appointment to meet with your instructor as soon as possible. If you believe you require an accommodation, but do not have an approved accommodation letter, please see the Academic Counselor Lori Pino in the Office of Academic Affairs. Contact info: [Lpino@lifewest.edu](mailto:Lpino@lifewest.edu) or 510-780-4500 ext. 2061.

**Note on lab participation:**

The labs will consist of instruction in motion and static palpation, signs and symptoms, and how to find the subluxation. Practice format will consist of hands on set ups and practice of the dynamic thrust. Drills will be done to develop a feel for various body types and misalignment patterns. Exercises will be recommended to help the student develop the proper muscle tone and coordination to deliver an adequate dynamic thrust.

**Lab Apparel Reminder:**

- A) Before the midterm: Shorts to expose the lower extremity.
- B) After the midterm: Women are to wear clothing to allow access to the anterior posterior and mid-axillary line rib cage regions, shoulder girdle and upper extremity. Men will take their shirts off to expose these same areas

**Course Objectives:**

## **Week 1: Introduction**

- Instructor will make introductions and explain the role of Chiropractic adjustment and adjunctive procedures in the management of extremity soft tissue injuries
- Tensegrity field: This explains the biomechanical concept of how our bones should “FLOAT” in a sea of elastic fabrics. The function of joint motion is to spiral forces away from the bones into the supportive soft tissues.
- Instructor will review the mechanisms of soft tissue injury: The body survives by SACRIFICING
  - (1) Macro-trauma
  - (2) Repetitive micro-trauma
  - (3) Chronic postures
  - (4) DOMS-Delayed Onset Muscle Soreness
- Examine the inflammatory and healing process. (YouTube: The Immune System Explained I – Bacteria Infection, [www.youtube.com/watch?v=zQGOcOUBi6s](http://www.youtube.com/watch?v=zQGOcOUBi6s) )

**Lab.:** Examination- Thoracic spine: Rotation (primary) and Side Bending (secondary) and poster rib cage coupled motion

Adjusting: Rib Cage

Muscle Testing: Cross Crawl facilitation / Inhibition, Oblique Abdominals, Quadratus Lumborum

Assign: Monograph reading of the Types of massage. Application of the varied myofascial techniques will be described and practiced regionally.

**Myofascial Pain Syndrome** (Trigger Points and Pain referral)

**Swedish massage:** It is comprised of five basic strokes:

- 1) effleurage (sliding or gliding),
- 2) petrissage (kneading),
- 3) tapotement (rhythmic tapping),
- 4) friction (cross fiber) and
- 5) vibration/shaking.

**Rolfing:** Ida Rolf

**Strain / Counter-strain**

**Ischemic Compression**

## **Week 2: Thoracic spine and rib Cage Anatomy and function**

**Lab.:** Continue Rib Cage Adjusting: Anterior – Chondrosternal, Chondrocostal and Angle of Louis

Mm Testing: Pec. Major Sternal, Serratus Anterior, Rhomboid,

**Week 3: Thoracic Outlet Syndrome: related anatomy**

**Lab.:** Finish rib cage adjusting and review: Posterior, Anterior, Mid axillary line / intercostal compression.

**Mm Testing:** Shoulder girdle

**Week 4: Scapula / Clavicular shaft mobility on the Rib Cage**

**Soft Tissue:** Antalgic hyper / hypo -tonic muscles, trigger points, and peripheral entrapments around the scapula and Glenohumeral joint.

**Lab:** Adjusting of the Scapula, Clavicle Demonstrate/Workshop myofascial release techniques. Discuss how muscle Trigger points of the shoulder girdle can refer pain to the hand.

**Week 5: Lecture Mid-Term**

**Lab:** Shoulder: Glenohumeral

- 1) We will introduce/review shoulder conditions such as:
  - i) Glenohumeral strain/sprain and instability
- 2) Frozen Shoulder Syndrome: adjusting techniques for frozen shoulder from Kevin Hearon, DC
  - i)
  - ii) Soft tissue management of Shoulder impingement syndrome
- 3) The instructor will advance protocols for diagnosing and managing shoulder conditions in the Chiropractic practice:
  - i) AC joint separation
  - ii) Rotator cuff tear
  - iii) Bursitis/tendonitis
  - iv) Shoulder subluxation
  - v) Frozen shoulder
- 4) We will discuss the critical role of shoulder musculature in maintaining shoulder stability particularly the cuff muscles.
- 5) The instructor will demonstrate shoulder exercises from Jobe-Kerlan Clinic and
- 6) Peripheral Entrapments around the Shoulder. E.g. Suprascapular notch, quadrangular and triangular space.

**Mm Testing:** Shoulder girdle

**Week 6: Shoulder: continued**

Lab.: Adjusting of the Scapula, Clavicle and Glenohumeral joint. Demonstrate/Workshop myofascial release techniques. Discuss how muscle Trigger points of the shoulder girdle can refer pain to the hand.

Glenohumeral joint, Demonstrate/Workshop myofascial release techniques around the Glenohumeral joint. Discuss how muscle Trigger points of the shoulder girdle can refer pain to the hand. Dr. Hearon frozen shoulder management

**Lab:** Shoulder: Glenohumeral region (continued)

**Week 7:** Elbow: anatomy, function and Injuries

- 1) The instructor will discuss the biomechanics, mechanism of injury, orthopedic
- 2) testing for and management of:
  - i) Elbow sprain/strain
  - ii) Lateral epicondylitis (tennis elbow)
  - iii) Medial epicondylitis (golfer's elbow)
- 3) Peripheral nerve entrapments around the elbow. Ligament of Struthers, Pronator Teres, Brachialis Mm, etc...

Lab: Proximal Ulna on Humerus: Posterior, Postero-Medial and Postero-Lateral.  
Proximal Radius on Ulna: Superior, Postero-Lateral, Antero-Medial

**Week 8:** Hand: Anatomy and functions

- 1) Discuss Carpal Tunnel, mechanisms of injury and treatment.
- 2) "Carpal Flat Syndrome" falling on an outstretched arm

**Lab.:** The instructor will present the diagnosis and management of wrist and hand conditions, particularly:

- i) Carpal tunnel syndrome
- ii) Finger traumas: Game Keepers thumb, Mallet Finger, de Quervain's tenosynovitis

**Week 9:** TMJ/Cranial overview:

Lab.: Adjusting of the TMJ.

Demonstrate/Workshop myofascial release techniques. Discuss how muscle Trigger points of the Stomatognathic system can refer pain.

Review for practical Final

**Week 10:** Review class topics for lecture final, Class Q and A, Instructors Story telling of Interesting experiences and applications.

**Lab.: PRACTICAL FINAL**

**Week 11: LECTURE FINAL**

**Student Learning Outcomes (SLO):** At the completion of the CPP-328 course, a student should be able to:

1. Understand the basics of extra-spinal biomechanics as they relate through the trunk to perform complex motion. (PLO: 1,2,3,4,7,8,9)
2. Evaluate the joints of the extra-spinal system in multiple AROM and PROM to find subluxation and/or regional joint fixations. (PLO:1,2,9)
3. Be able to demonstrate manual adjusting and drop table assisted adjustments. (PLO:1,2,9)
4. Demonstrate a beginning understanding in how the extra-spinal systems, pelvis and spine are linked in a closed kinematic chain. Where altered lower extremity mobility can directly affect the stability of the lumbopelvic region or when trauma to the upper rib cage and shoulder girdle will cause reoccurring upper cervical subluxations. (PLO:1,2,3,7,8,9)
5. Be able to demonstrate a practical knowledge, application, and integration of extremity adjusting into a comprehensive patient treatment plan. (PLO:1,2,7,9)

**Program Learning Outcomes (PLO):** Students graduating with a Doctor of Chiropractic degree will demonstrate proficiency in the following:

1. **ASSESSMENT AND DIAGNOSIS:** An assessment and diagnosis requires developed clinical reasoning skills. Clinical reasoning consists of data gathering and interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. It is a dynamic process that occurs before, during, and after the collection of data through history, physical examination, imaging, and laboratory tests.
2. **MANAGEMENT PLAN:** Management involves the development, implementation and documentation of a patient care plan for positively impacting a patient's health and well-being, including specific therapeutic goals and prognoses. It may include case follow-up, referral, and/or collaborative care.
3. **HEALTH PROMOTION AND DISEASE PREVENTION:** Health promotion and disease prevention requires an understanding and application of epidemiological principles regarding the nature and identification of health issues in diverse populations and recognizes the impact of biological, chemical, behavioral, structural, psychosocial and environmental factors on general health.
4. **COMMUNICATION AND RECORD KEEPING:** Effective communication includes oral, written and nonverbal skills with appropriate sensitivity, clarity and control for a wide range of healthcare related activities, to include patient care, professional communication, health education, and record keeping and reporting.
5. **PROFESSIONAL ETHICS AND JURISPRUDENCE:** Professionals comply with the law and exhibit ethical behavior.
6. **INFORMATION AND TECHNOLOGY LITERACY:** Information and technology literacy are manifested in an ability to locate, evaluate and integrate research and other types of evidence, including clinical experience, to explain and manage health-related issues and use emerging technologies appropriately.

7. **INTELLECTUAL AND PROFESSIONAL DEVELOPMENT:** Intellectual and professional development is characterized by maturing values and skills in clinical practice; the seeking and application of new knowledge; and the ability to adapt to change.
8. **BUSINESS:** Assessing personal skills and attributes, developing leadership skills, leveraging talents and strengths that provide an achievable expectation for graduate success. Adopting a system- based approach to business operations. Networking with practitioners in associated fields with chiropractic, alternative medicine and allopathic medicine. Experiencing and acquiring the hard business skills required to open and operate an on-going business concern. Participating in practical, re- al time events that promote business building and quantifiable marketing research outcomes
9. **PHILOSOPHY:** Demonstrates an ability to incorporate a philosophically based Chiropractic paradigm in approach to patient care. Demonstrates an understanding of both traditional and contemporary Chiropractic philosophic concepts and principles. Demonstrates an understanding of the concepts of philosophy, science, and art in chiropractic principles and their importance to chiropractic practice.