

SYLLABUS

Name of Course: Management and Adjusting of the Upper Extremity TECH 347/LAB 847

Length of Course: 32 Hours, 1.5 Units (1 hr. Lecture, 2 hr. Lab/Week, 2hr Final)

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: TECH-130 DIAG-327

Course Offered By: Technique Department

Required Texts: Hearon KG Advanced Principles of Upper Extremity Adjusting. 1995

Recommended Texts:

Hearon KG What You Should Know about Extremity Adjusting. 9th ed 2005

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, Video library of extremity palpation and adjustments

Technique Lab Attire Policy:

Healthy clean hygiene is expected from all students. It is recommended that students bring a face cloth and/or towel to place on the table. Towels reduce the need for the use of chemical sanitation treatments on the adjusting tables.

Accessibility to the Spine and Spinal Structures:

- Patient gown - In an effort to recreate a clinical setting and to appropriately facilitate the realistic use of skills relative to professionalism and personal boundaries, “gowns” made of torn or altered t- shirts/garments are not acceptable for this course.
- To maintain modesty and a professional environment, no revealing attire is permitted.
- Covered shoes (sandals and flip flops do not qualify) are required for all participants.

Materials Required:

Patient Gown (preferably waist length)

Skin Marking Pencil

Please check with your instructor for any further instructions for your particular course or if you have any concerns about the appropriateness of specific articles of clothing.

- 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)
to be completed 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

To maintain satisfactory Academic Progress, a student must maintain a 2.0 or better in 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. (**Policy ID: OAA.0003**)

Special Testing: Please refer to Request for Special Testing (**Policy ID: OAA.0004**)

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 or 510-780-4500 ext. 2061. **(Policy ID: OAA.0005)**

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. Introduction to a variety of soft tissue massage modalities. (Swedish, TFM, MFR, Rolfing, etc....)

Lab Apparel Reminder:

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.

Electronic Course Management:

Canvas is LCCW's Learning Management System (LMS). Canvas will be used throughout the quarter during this course. Lectures, reminders, and messages will be posted. In addition, documents such as the course syllabus and helpful information about the class project will be posted. Students are expected to check Canvas at least once a week to keep updated. The website address for Canvas is <https://lifewest.instructure.com/login/canvas> Please refer to the Educational Technologies Policy **(Policy ID: OAA.0009)**

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.
- Discuss how extremity trauma (ligament loss-fibrosis of repair-subluxation-antalgic alteration of movement) can influence spinal stability
- 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=zQGOCcOUBi6s)

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

Adjusting: Posterior Rib Cage

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

Assign: Monograph reading of selected types of massage. Application of the varied myofascial techniques will be described. These techniques will be practiced regionally as we progress through the quarter.

- Myofascial Pain Syndrome Due to Trigger Points
- 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.

- Roling: Ida Rolf
- Strain / Counter-strain
- Ischemic Compression
- Myofascial Release Technique (Michael Leahy)

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, Sternoclavicular joint and acromioclavicular joint

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: Sternoclavicular joint and Acromioclavicular joint adjusting

- i) AC joint separation
- ii) Soft tissue management of Shoulder impingement syndrome
- iii) Quadrangular Space and Triangular Interval entrapments.

Week 6: Shoulder Girdle region: Glenohumeral jt., neurovascular entrapments, bursitis, tendonitis, Bankart/SLAP lesions

Lab: Shoulder: Glenohumeral

- 1) Review Scapula and Clavicle adjustments/mobilizations. Adjusting Glenohumeral joint
- 2) Frozen Shoulder Syndrome: adjusting techniques for frozen shoulder as described by Kevin Hearon, DC in Advanced Principles of Upper Extremity Adjusting. 1995
- 3) The instructor will advance protocols for diagnosing and managing shoulder conditions in the Chiropractic practice:
 - i) Rotator cuff tear
 - ii) Bursitis/tendonitis
 - iii) Shoulder subluxation
 - iv) Frozen shoulder

- 4) We will discuss the critical role of shoulder musculature in maintaining shoulder stability particularly the cuff muscles.
- 5) Peripheral Entrapments around the Shoulder. E.g. Suprascapular notch, quadrangular space and triangular interval.

Mm Testing: Shoulder girdle

Week 7: 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. Heaton frozen shoulder management

Lab: Shoulder: Glenohumeral region (continued)

Week 8: Elbow and Forearm: 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)
 - iv) Radioulnar interosseus adhesions
- 3) Peripheral nerve entrapments around the elbow. Ligament of Struthers, Pronator Teres, Brachialis Mm, etc...

Lab: Proximal Ulna on Humerus: Posterior, PosteroMedial and PosteroLateral.

Proximal Radius on Ulna: Superior, Posterolateral, Anteromedial

Week 9: 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

Review for practical Final

Week 10: Review class topics for lecture final, Class Q and A, Instructor relating interesting experiences and applications of class techniques.

Lab.: PRACTICAL FINAL

Week 11: LECTURE FINAL

Student Learning Outcomes (SLO): At the completion of the TECH-347 course, a student should be able to:

1. Understand the basics of how the extra-spinal biomechanics relate through the trunk to perform complex motion. (Everything is connected)
2. Understand how old resolved traumas leave behind loss of ligament stability, fibrosis of repair to muscle and fascia and regional subluxations and/or joint fixations that cause altered/antalgic movements. Over time these functional impairments will cause secondary, tertiary, etc., repetitive strain injury and predispose the person to new trauma.
3. Demonstrate the ability to Identify Soft tissues, Bones and Joints of the extra-spinal system.
4. Demonstrate the ability to palpate the joints of the extra-spinal system in multiple Active Ranges of Motion (AROM) and Passive Ranges of Motion (PROM) to find extremity joint subluxation and/or regional joint fixations.
5. Demonstrate the ability to perform high acceleration / high force with measured depth adjustive trust to the proper contact points for ALL adjustments.

6. Demonstrate the ability to palpate soft tissue impairments in muscle, tendon, ligament, fascia and peripheral neurovascular entrapment.
7. Demonstrate the ability to perform the myofascial therapy techniques as described in monographs and practiced in Laboratory
8. Demonstrate the ability to perform basic manual muscle testing of the upper extremity
9. Demonstrate the ability to perform every adjustment with a body posture that is balanced and stable as to not injure themselves when performing a successful adjustment.

The following PLO's are mapped to this course: [1, 2, 7]

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, laboratory tests and case-related clinical services.
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 literacy is a set of abilities, including the use of technology, to locate, evaluate and integrate research and other types of evidence to manage patient care.
7. **CHIROPRACTIC ADJUSTMENT/MANIPULATION:** Doctors of chiropractic employ

the adjustment/manipulation to address joint and neurophysiologic dysfunction. The adjustment/manipulation is a precise procedure requiring the discrimination and identification of dysfunction, interpretation and application of clinical knowledge; and, the use of cognitive and psychomotor skills.

- 8. INTERPROFESSIONAL EDUCATION:** Students have the knowledge, skills and values necessary to function as part of an inter-professional team to provide patient-centered collaborative care. Inter-professional teamwork may be demonstrated in didactic, clinical or simulated learning environments.
- 9. BUSINESS:** Assessing personal skills and attributes, developing leadership skills, leveraging talents and strengths that provide an achievable expectation for graduate success. Adopting a systems-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, real time events that promote business building and quantifiable marketing research outcomes
- 10. 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.