

SYLLABUS

Name of Course: Chiropractic Biophysics (TECH-082)

Length of Course: 1.5 units, 22 hours (2 hours per week 2 hour lecture/week)

Course Description: Chiropractic Biophysics (CBP) is a full spine and pelvis corrective/ rehabilitative procedures having a firm foundation in the sciences of mechanics and physics. CBP Technique integrates Drop Table, Diversified, Toggle, Instrument-assisted Postural Mirror Image adjusting, Mirror Image Exercises and Mirror Image Traction to restore normal spinal biomechanics. Analytical procedures include visualization, postural analysis and x-ray analysis.

Prerequisites: TECH-130

Course Offered By: Technique Department

Department Objective: To give to our students, freely and out of abundance, the best of our knowledge and skills. To develop the most talented of chiropractors that they may with skill, both find and correct the vertebral subluxation. To do this for the overall betterment, health, and well-being of their patients and the world.

Required Notes: Class Notes

Recommended Text: request.

1. Class Notes. Notes will be handed out on CD by request.
2. Harrison DD and Harrison, SO. CBP Technique. 2002
3. Harrison DE, Harrison DD, and Haas JW. Spinal Biomechanics for Clinicians Volume I. 2003
4. Harrison DE, Harrison DD, and Haas JW. CBP: Structural Rehabilitation of the Cervical Spine. 2002
5. Harrison, DE, et al. CBP: Structural Rehabilitation of the Lumbar Spine. 2007 CBP published articles.

Materials: None

Method of Instruction: Lecture and practical demonstration of the technique.

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.

Please check with your instructor if you have any concerns about the appropriateness of specific articles of clothing.

Homework may be assigned and required for passing the class.

Evaluation:

A	4.0	Superior Work	(93-100%)
B	3.0	Above Average	(85-92%)
C	2.0	Average Work	(75-84%)
F	0.0	Fail	0 – 74%

Homework	20%
Midterm Written	40%
<u>Final Practical</u>	<u>40%</u>
Total:	100%

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

Extra Credit: There will be extra credit work accepted in this class determined by the instructor.

Grades and the Grading System Final Grades are available online through the CAMS student portal. If there are any questions on grading procedures, computation of grade point average, or the accuracy of the grade report, please contact the Registrar’s Office or the Office of Academic Affairs. Grades will be reported and evaluation will be based on the Academic Policies, Procedures, & Services. Please refer to Evaluation Policy (**Policy ID: OAA.0007**)

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. Please refer to Satisfactory Academic Progress (**Policy ID: OAA.0006**)

Attendance: Please refer to Attendance Policy (**Policy ID: OAA.0002**)

Conduct and

Responsibilities: Please refer to the Personal Conduct, Responsibility and Academic Responsibility Policy (**Policy ID: OAA.0003**)

Make-up Exams: Please refer to Make-up Assessment Policy (**Policy ID: OAA.0001**)

Request for

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

Accommodation 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. Please refer to Service for Students with Disabilities Policy (**Policy ID: OAA.0005**)

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 in order 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:

1. Instructor will discuss and demonstrate how to set-up the patient for correction on either a drop table, upper cervical and, to a lesser degree, manual adjustments.
2. Instructor will discuss the basic concepts and importance of bone physiology and remodeling as it relates to the spine.
3. Instructor will discuss and demonstrate the basic theories of CBP, including the principles of The Harrison Spinal Model, mirror image set-ups, CBP definitions of subluxation, and the importance that posture relates to systemic health.
4. Instructor will discuss and demonstrate how to make postural corrections utilizing mirror image exercises and adjusting.
5. Instructor will discuss and demonstrate the relationship of A-P and Lateral spinal radiographs as they relate to the analysis and correction of permutations of posture.

6. Instructor will discuss and demonstrate how to manage and care for the chiropractic patient applying CBP procedure

Weekly Schedule:

1. Welcome Introduction of CBP/ History & Overview of CBP methods – Homework group given - PostureRay
2. Posture Permutations, Coupled Motions and Posture Evaluation
3. Harrison Ideal & Average Spinal Model PostureRay and Line Drawing: Lateral Cervical Spine, Lateral Thoracic and Lumbar Spine
4. X-ray Continued and Midterm Review – Homework: PostureRay Due
5. Mid Term: Written
6. CBP Goals of Care & Mirror Image Drop Table, Instrument and Exercises
7. Mirror Image Drop Table, Instrument and Exercises
8. Mirror Image Drop Table, Instrument and Exercises
9. Introduction to Traction Methods (Denneroll)
10. Review
11. Final Exam: Written

Student Learning Outcomes (SLO): At the completion of the TECH-082 course, a student should be able to understand the theory of:

1. Setting up the patient for correction on a drop table, upper cervical and with an instrument [PLO: 2,3,4,6,8]
2. Applying the basic concepts and importance of bone physiology and remodeling as it relates to the spine. [PLO: 1,2,3,4,5,6,8,9]
3. Applying the basic theories of CBP, including the principles of The Harrison Spinal Model, mirror image set-ups, CBP definitions of subluxation, and the importance that posture relates to systemic health. [PLO: 1,2,3,4,5,6,8,9]
4. Understanding the postural correction utilizing mirror image exercises, adjusting and traction. [PLO: 1,2,3,4,5,6,8,9]
5. Applying the relationship of A-P and Lateral spinal radiographs as they relate to the analysis and correction of permutations of posture. [PLO: 1,2,3,4,5,6,8,9]
6. Understanding how to manage and care for the chiropractic patient applying CBP procedure [PLO: 1,2,3,4,5,6,8,9]

Program Learning Outcomes (PLO): Students graduating with a Doctor of Chiropractic degree will be proficient 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.