

SYLLABUS

- Name of Course:** Physiotherapy 1 (Active Care/Rehabilitation) – ACS 322
- Length of Course:** 44 hours, 4 hours of lecture per week
- Course Description:** This course is an introduction to the basics of functional rehabilitation. Emphasis is given to the role of spinal rehabilitation in the chiropractic care plan. This course focuses on postural and functional assessment necessary to develop a rehabilitation plan. Course topics will include: quantitative and qualitative analysis of physical performance capacity, functional movements and muscle strength, static and dynamic postural assessment, spinal stabilization, active stretching and soft tissue management.
- Prerequisites:** TECH-216 DIAG-239
- Required Text:** Class notes
Liebenson: Rehab of Spine: A Practitioner's Manual 2nd ed. 2007.
and DVD.
- Recommended Text:** Page, Frank and Lardner: Assessment and Treatment of Muscle Imbalance: The Janda Approach
- Reference Materials:** Stuart McGill: Ultimate Back Fitness and Performance

Stuart McGill: Low Back Disorders
Kendall and McCreary: Muscles: Testing and Function

Hammer: Functional Soft Tissue Examination and Treatment by Manual Methods

Travell and Simons: Myofascial Pain and Dysfunction: The Trigger Point Manual
- National Board Reference texts:**
- Kisner and Colby: Therapeutic Exercise: Foundations and Techniques, 5th edition
- Brotzman and Wilk. New edition: Clinical Orthopedic Rehabilitation , 2nd edition

McArdle, W: Exercise Physiology: Nutrition, Energy and Human Performance

Materials: Class handouts

Method of Instruction: Lecture with PowerPoint presentations, class notes, discussion and demonstration.

**Evaluation/
Grading Criteria:** Lecture (ACS 322)

Midterm Lecture Exam:	50 pts.
Quizzes (2)	20 pts.
In Class Assignments	20 pts.
Rehab Reciprocal Project	50 pts.
<u>Final Lecture Exam:</u>	<u>60 pts.</u>
Total:	200 pts.

A Superior work	90 - 100%
B Above average work	80 - 89%
C Average work	70 - 79%
F Failure	69% or below

(the student must repeat the entire course)

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.00003**)

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 Goals:

Lecture: The purpose of this course is to give the student a basic understanding of the goals of rehabilitation, functional assessment, rehab protocols and development of rehab plans applicable to chiropractic practice.

Course Objectives:

Lecture

Week 1

Discuss goals of care, passive vs. active care, and the stages of rehabilitation (Liebenson)
Discuss deconditioning syndrome (Liebenson)
Discuss the role of therapeutic exercise (Liebenson, Kisner/Colby)
Discuss rehab and therapeutic exercise definitions and concepts (Kisner/Colby)

Week 2

Discuss muscle imbalances and associated muscle groups (Hammer, Kendall/McCreary, Liebenson, Janda)
Describe postural distortions and associated muscle imbalances
Define upper crossed and lower crossed postures (Liebenson, Janda, Hammer, Kendall)

Week 3

Discuss muscle length/strength and functional movement assessment.
Introduce Quantitative Functional Capacity Evaluation (QFCE) (Yeoman’s)
Discuss assessment of “flexion intolerance” in low back problems.
Describe the role of respiration in faulty posture and core stabilization (Liebenson)
Discuss assessment of breathing mechanics

Week 4

Introduce soft tissue management for the acute and subacute stages of healing. Introduce manual therapy and facilitated stretching techniques, including: trigger point therapy, massage, transverse

frictional massage (Hammer, Travell, Simons) and post-isometric relaxation (Hammer, Liebenson, Janda)

Week 5 Explain the management and rehab concepts in the acute, sub-acute and chronic stages of healing.
Describe muscles, mechanics, concepts and exercises for core stabilization (McGill, Liebenson, Yeoman)

Week 6 **Written Mid-term Exam**
Lab Mid-term Practical

Week 7 Discuss concept of determining the “key link”. Discuss facilitation and strengthening of inhibited muscles of the upper quarter and lower quarter.
Discuss exercise progressions of functional rehab programs (Liebenson, McGill, Janda)

Week 8 Discuss role of sensory motor training (Liebenson, Janda) in functional rehabilitation
Discuss role of aerobic exercise in spinal rehab and relevant exercise physiology (McArdle)

Week 9 Discuss soft tissue management in the chronic stage of healing.
Introduce PNF and PFS facilitated stretching techniques
Discuss concepts and types of stretching (Kisner/Colby)

Week 10 Discuss McKenzie, Williams, Codman’s, and other exercise protocols. (Kisner/Colby)
Explain common braces and supports
Describe traction, its physiological effects, indications and contraindications

Lab: Final Exam

Week 11 **Lecture Final Exam**

Student Learning Outcomes

After completion of this course, the student will be able to complete the following:

1. Discuss the general principles and goals of therapeutic exercise and common exercise protocols in the chiropractic practice. (PLO: 3, 5, 10)
2. Perform and explain the concepts of a functional assessment including posture distortion, functional movements and physical capacity evaluation. (PLO: 1,2,3)

3. Demonstrate and explain low-tech rehabilitative exercises for the neck and back, including: muscle strengthening, core stabilization, balance and posture control and functional movements. (PLO: 1,2,3)
4. Create an active care plan appropriate for functional deficits throughout the stages of healing. (PLO: 1,2,3,10)
5. Demonstrate various soft tissue manual therapy techniques and facilitated stretching and explain their role in a comprehensive care plan. (PLO: 1,2,3,10)
6. Explain the basic use and application of supports, braces and use of traction techniques. (PLO: 1,2,3,10)

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.