Syllabus

Name of course:	Rehabilitation of the Spine (ACS-305)
Length of course:	40 hours (2 hours of lecture and lab/week) 2.0 units

Course Description: This course is an introduction into the basics of fundamental rehabilitation. The primary focus of this course is dedicated to spinal rehabilitation in accordance with a chiropractic care plan. The course emphasizes postural and functional assessment necessary to develop an effective rehabilitation plan. Students will learn how to perform a functional movement screen and correlate findings to posture and assessment tests. Students will learn to create rehabilitation protocols which will include exercise, soft tissue management, active and passive stretching and functional taping methods.

Prerequisites: Tech-216, Diag-239

Course offered by: Clinical Sciences Department
Deborah Lindemann, RN, BS, DC
Department Chair

Required Text: Class Notes
Liebenson: <u>Rehabilitation of the Spine: A Practitioner's Manual</u> 2nd ed. 2007. and DVD.

Recommended Texts: Brotzman, B., Manske, R.: <u>Clinical Orthopedic; An evidence-Based Approach</u> 3rd ed. 2011.

Page, Frank and Lardner: Assessment and Treatment of Muscle Imbalance: The Janda Approach.

Method of Instruction: Lecture with PowerPoint presentations, class notes, discussions and demonstrations using clinical cases.

Method of Grading:

Final Written	40 percent
Final Practical	25 percent
Midterm Written	25 percent
Quizzes (2)	10 percent

Note: All students are required to participate in labs as mock patients. Exceptions will only be allowed with specific documentation.

Lab Attire Policy:	Technique lab policy applies.
Grading Scale:	100-90% A - superior work 89-80% B - above average work 79-70% C - average work 69% < F – must repeat course
Remake Exams:	College policy applies.
Special Testing:	College policy applies.
Incompletes:	College policy applies.
Attendance:	College policy applies.
Conduct and Responsibilities:	College policy applies.
Course Goal:	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 Objective:	
Week 1:	Discussion of the importance of proper assessment for a patient. Overview and application of Liebenson's Functional Movement Screen. (Lab: Functional Movement Screen)
Week 2 &3:	Introduction to posture assessment as it relates to upper and lower crossed postures. Discussion on the importance of proper breathing mechanics as it relates to core stability. Discussion on additional testing to access the engagement and stability of the neck and core musculature. (Lab: Respiration assessment and rehabilitation, additional core assessment)
Week 4:	Review the phases of rehabilitation and identify proper management occurring during each phase. (Lab: Introduction to core exercises- McGill's Big 3, planks)
Week 5:	Introduction and discussion of core rehabilitation as it relates to various aspects of spinal stability. Introduce effects of delayed core activation on upper and lower extremity

stability (Lab: Advanced core exercise-rotational components, cross-crawl patterning and Gluteal activation)

Week 6:   Midterm (Lab Introduction to stretching, foam-rolling, PIR, PNF)

Week 7:   Introduction of sensory motor training and the effects on motor control and functional movement patterns. Introduction and demonstration of varying soft tissue mobilization techniques. (Lab: sensory motor training, MRT, TPT)

Week 8:   Introduction to Functional taping for posture and improving movement patterns (Lab: Kinesiology Taping).

Week 9:   Discussion on case management with regards to special conditions such as Lumbar Instability (high riding L5, spondy), SI instability and Scoliosis.

Week 10:   Introduction on exercise physiology and explain cardiovascular rehabilitation. (Practical lab test- scenario based)

Week 11:   Written final exam.

Learning Objectives:

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 and braces. (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, 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. Department approved as of: November 12, 2015

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 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

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.