

## Syllabus

Name of course:	Rehabilitation of the Extremities (ACS 306)
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 extremity rehabilitation in accordance with a chiropractic care plan. The course emphasizes functional assessment, motor patterns and mobility in the extremities in order to develop an effective rehabilitation plan. Students will learn how to perform functional assessments and correlate findings to posture, orthopedic tests and muscle length 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  <u>Brotzman, B., Manske, R.: Clinical Orthopedic; An evidence-Based Approach 3<sup>rd</sup> ed. 2011.</u>
Recommended Texts:	<u>Liebenson: Rehabilitation of the Spine: A Practitioner's Manual 2<sup>nd</sup> ed. 2007.</u> and DVD  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: Review the importance of proper assessment for a patient. Review upper and lower crossed postures as it relates to muscle imbalances. Review the importance of core activation as it relates to extremity stability. (Lab: functional movement tests for the upper extremity and lower extremity)

Week 2: Discussion and application of rehabilitation protocols for common conditions that effect the hand and wrist. Students will be exposed to care plans regarding rehabilitation for acute, subacute and chronic phases of management for these conditions. (Lab: rehabilitation for hand and wrist conditions).

Week 3: Discussion and application of rehabilitation protocols for common conditions that effect the elbow. Students will be

exposed to care plans regarding rehabilitation for acute, subacute and chronic phases of management for these conditions. (Lab: rehabilitation for elbow conditions).

- Week 4: Discussion and application of rehabilitation protocols for common conditions that effect the shoulder. Students will be exposed to care plans regarding rehabilitation for acute, subacute and chronic phases of management for these conditions. Students will review the biomechanics of the throwing cycle. (Lab: rehabilitation for shoulder conditions).
- Week 5: Midterm (Lab: rehabilitation for shoulder conditions)
- Week 6: Discussion and application of rehabilitation protocols for common conditions that effect the hip. Students will be exposed to care plans regarding rehabilitation for acute, subacute and chronic phases of management for these conditions. (Lab: rehabilitation for hip conditions).
- Week 7: Discussion and application of rehabilitation protocols for common conditions that effect the knee. Students will be exposed to care plans regarding rehabilitation for acute, subacute and chronic phases of management for these conditions. (Lab: rehabilitation knee conditions).
- Week 8-9: Discussion and application of rehabilitation protocols for common conditions that effect the ankle and foot. Students will be exposed to care plans regarding rehabilitation for acute, subacute and chronic phases of management for these conditions. Students will review the gait cycle. (Lab: rehabilitation for ankle and foot conditions).
- Week 10: Review of the importance of sensory motor training as it relates to proper motor function and patterning. Demonstrate sensory motor training for the upper and lower extremity. (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 upper and lower extremities, including: muscle strengthening, muscle balancing and proper motor patterns for movement. (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 adjunct therapies and explain their role in a comprehensive care plan. (PLO: 1,2,3,10)
6. Explain the basic use and application of kinesiology tape, 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.