EXSC 2650 REHABILITATION AND EXERCISE THERAPY(4 credit hours)

Elmira College

SPRING 2025

Required Text:
Kisner, C., & Colby, L. A. (2024). ***Therapeutic Exercise: Foundations and Techniques (8th ed.)***. F. A. Davis Company.

Pre-requisites: EXSC 1102 Foundations of Sports Science

Course Description

This course is designed to provide students with knowledge and skills in exercise rehabilitation and nutrition therapy. The curriculum covers chronic disease models, emphasizing a holistic, client-centered, and culturally responsive approach to long-term condition management and rehabilitation. Evidence-based exercise and physical activity interventions, including motion exercises and client habit formation, will be applied to patients with long-term conditions. Additionally, the course includes modules on common sports injuries, nutrition therapy for injury recovery, and exercise rehabilitation for injury recovery. Topics such as manual therapy, therapeutic exercise, cardiopulmonary and oncologic rehabilitation and joint mobilization and manipulation will be covered.

Course Objectives and Goals

- Demonstrate a high standard of professional and ethical conduct in the delivery of healthcare services, tailored to meet the demands of clinical and rehabilitation professional environments.
- Collaborate with multidisciplinary teams to provide comprehensive care for individuals with sports injuries.
- Leverage digital technologies to gather and integrate information pertinent to the current management strategies for specific musculoskeletal, cardiac, and pulmonary conditions.
- Implement evidence-based practices in prescribing therapeutic exercises tailored for injury rehabilitation, thoroughly analyze client-centered approaches, adapt them according to individual needs rigorously evaluate the effectiveness of rehabilitation programs, making any necessary adjustments to ensure optimal outcomes.
- Perform manual therapy techniques with precision, comprehending their specific applications in rehabilitation, and design and implement customized exercise programs that cater to the individual needs of those recovering from sports injuries.
- Critically evaluate the latest research and its application to exercise rehabilitation practices.

Evaluation of Performance

Your grade will be based upon your performance on exams, assignments, and participation.

4 Assignments	20%
5 Labs	20%
Research Report and Presentation	20%
Midterm Exam	15%
Final Exam	25%
Total	100%

Grades will be assigned as follows:

A	93% and above	B-	80 - 82%	D+	67 - 69%
A-	90 - 92%	C+	77 - 79%	D	63 - 66%
B+	87 - 89%	C	73 - 76%	D-	60 - 62%
B	83 - 86%	C-	70 - 72%	F	59% or below

Withdrawal Policy: Please see Elmira College Bulletin for information on this policy.

Academic Honesty: Please read the section on Academic Honesty in the **Code of Conduct**. Briefly, academic dishonesty includes: cheating, fabrication, facilitating academic dishonesty, and plagiarism. Ask if you have any questions on whether something constitutes as academic dishonesty. All work must be original and new. Past assignments from current or other courses will not be accepted. Academic dishonesty will not be tolerated. It will result in zero on the assignment, and a report will be filed with the school. Continued practice will result in failure of the class. Institutional penalties may also apply with repeated acts of academic honesty.

Student Responsibility:

- It is your responsibility to keep track of assignments and due dates.
- You should ask questions concerning assignments and lectures, if you need any clarifications.
- If you are struggling in class, have concerns, and/or unsure about expectations, please stop by during office hours or make an appointment for another time.

Tentative Schedule of Topics

Topic	Materials	Tasks & Evaluations
Introduction to Therapeutic Exercise	Chapter 1	
Principles of Rehabilitation Training	Chapter 1	Lab 1
Biomechanics and Kinesiology Principles	Chapter 2	
Muscle Physiology and Function	Chapter 2	Assignment 1
Comprehensive Rehabilitation Strategies	Chapter 3	
Initial Patient Assessment Techniques and Functional Movement Analysis	Chapter 3	Lab 2
Regular Motion Exercise and Stretching	Chapter 4	
Joint Mobilization and Manipulation	Chapter 5	Assignment 2
Muscle Strengthening and Endurance	Chapter 5	
Aerobic Conditioning and Cardiovascular Exercise	Chapter 6	Lab 3

Manual Therapy Techniques, Pain Management and Modalities	Chapter 7	Midterm Exam
Applied Kinesiology	Chapter 8	Assignment 3
Medical for Certain Injuries and Illnesses	Chapter 8	
Therapeutic Exercise for the Extremity	Chapter 9	Lab 4
Therapeutic Exercise for Special Populations	Chapter 9	
Spinal and Neurologic Rehabilitation	Chapter 10	Assignment 4
Cardiopulmonary and Oncologic Rehabilitation	Chapter 10	
Documentation and Communication	Chapter 11	Lab 5
Legal and Ethical Considerations	Chapter 12	Research Report and Presentation
Future Directions in Therapeutic Exercise	Chapter 12	Final Exam