Instructor: Elaine Gonya  
Office: Off-campus, Aurora Sports Medicine Institute  
Phone: (262) 909-0693  
Email: Elaine.gonya@carrollu.edu, Elaine.gonya@aurora.org  
Credits Hours: 2  
Prerequisites: None  
Meeting times/Locations: Wed. 8-10:50 am; GCS 115, GCS LL02  
Office Hours: By appointment.

Course description
This lab-based course is designed to provide advanced practical knowledge and skills that relate to the rehabilitation and reconditioning to restore optimal musculoskeletal function in individuals both in health and disease to include testing for return to work. This course will also cover the physiological mechanisms associated with musculoskeletal injury and disorders, emphasizing a review of current literature and research.

Required texts:  

Reference Texts:  

Course objectives
Upon successful completion of this course, a student should be able to:
• Demonstrate knowledge of the medical aspects of a variety of disabling conditions and related functional limitations, and integrate this information into return-to-work and community rehabilitation programs.  
• Demonstrate knowledge of basic muscle function terminology.  
• Demonstrate knowledge of the general principles of exercise programming, the basic components of therapeutic exercise, and basic understanding of the effect of exercise on the cardiopulmonary and neuromuscular systems of the body.  
• Demonstrate the knowledge, skill, and ability to perform muscular fitness testing as well as static and dynamic balance assessments, and apply the findings of those assessments to the exercise program design.  
• Demonstrate an understanding of the functional performance pyramid, including the ability to assess functional movement and to prescribe exercise plans, with specific focus on appropriate progression of exercise.
• Demonstrate an understanding of assistive technology and interventions and who may benefit from such solutions.
• Demonstrate an understanding and ability to compare and contrast health, fitness and exercise related research findings to design evidence-based interventions to restore musculoskeletal function.

**Course outline**
See separate sheet.

**Course requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Articulated course objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class preparation and professionalism</td>
<td>10%</td>
</tr>
<tr>
<td>• Homework, articles, participation, etc.</td>
<td></td>
</tr>
<tr>
<td>• Clinical Observations</td>
<td>10%</td>
</tr>
<tr>
<td>Case studies</td>
<td>30%</td>
</tr>
<tr>
<td>Practical exams</td>
<td>30%</td>
</tr>
<tr>
<td>• 3, 4, 5 and 6</td>
<td></td>
</tr>
<tr>
<td>Research Discussion</td>
<td>20%</td>
</tr>
<tr>
<td>• 1-7</td>
<td></td>
</tr>
</tbody>
</table>

**Assessment of students**

*Preparation and professionalism (10%).* This grade is based on following criteria:

- Demonstrate a strong work ethic and personal responsibility by being prepared/organized with all materials/assignments needed for each class session to include completing and submitting homework assignments in the correct format and on time as well as your performance on any in-class activities/worksheets.
  - In-class worksheets/assignments may be randomly collected and graded.
- Demonstrate on-task behavior in class and actively participate in class discussions and activities.
  - *Asking and answering the right questions* as well as demonstrating effective communication skills.
- Demonstrating a professional and open-minded attitude in class (this will include both verbal and nonverbal behaviors).
- Performance from Clinical Observation hours will also be included within this category.

*Note.* Excessive absence as determined by the instructor and/or poor in-class performance will result in points being deducted from this component of the course. If a student misses a lecture, they are personally responsible for getting the information covered in class. If a student is dealing with *extenuating circumstances*, then it is the student’s responsibility to *personally meet with the instructor* as soon as possible *before* the assigned due date to discuss the matter and make alternative arrangements. Alternative arrangements/assignments are at the discretion of the course instructor.

*Dress.* For lab sessions (Wednesdays), students should come to class dressed in appropriate exercise clothing to include a clean, nice looking T-shirt, shorts with a minimum of a 5-inch inseam, clean socks, etc. For safety purposes, athletic shoes must be clean and dry. You may be asked to leave the class if you do not have on appropriate exercise clothing and/or footwear.

*Assignments.* For a general description of assignments and due dates, please refer to the course outline. Keep in mind that the course outline is *tentative* and more detailed instructions will be provided for each separate assignment. All course work must be computer-generated and stapled together (if applicable). Hand-written pages will NOT be accepted unless explicitly noted in the instructions. Cover pages are not required for this course— the only information
needed on the top right of assignments is student name, and name of assignment. Please allow a minimum of 14 business days to grade submitted assignments.

Policy on late work.

• Homework assignments/class preparation must be completed and submitted on the scheduled lab session. There are no exceptions.
• Case studies and the research discussion forums will have assigned due dates. Points will be automatically deducted for all submitted late work (a minimum of ½ letter grade per day).

Case studies (30%) – There are a total of two (2) case studies. Students will work in groups of 2-3 to complete case studies. For each case study, students will be provided with a paper client and guiding questions related to assessment/interpretation, goal setting and outcomes, exercise prescription and instruction, lifestyle modification, and case management. Your evidence should provide strong support for your clinical decision-making. Students will include appropriate in-text citation and references for each section. Case studies will be turned in electronically on our LMS course site under “Coursework” or a printed copy will be submitted in class. Case studies will be graded using the same criteria for all written work.

Standards for written work. The following criteria will be used to evaluate all submitted written work:

• Independent research and inquiry, incorporating the appropriate level of evidence from credible resources. This includes the proper in text citation and reference page.
• Ability to compare and contract/critique research findings and relevant course content, and make direct connections based on the assignment.
• Synthesis and discussion of knowledge from various sources to define a conclusion, and then reflect and apply the information appropriately based on the assignment.
• Overall ability to clearly articulate ideas and focus your writing to address the research question or inquiry.
• Overall organization and completeness of work based on written directions as well as in-class verbal instructions.
• Demonstration of proper English, including accurate spelling, grammar, and punctuation.

Practical exams (30% total): Students will complete three (3) practical exams, covering the assessment, exercise selection, exercise instruction, and exercise progression/modification related to the most common return-to-work scenarios. Every attempt will be made to complete the practical exams during scheduled lab sessions; HOWEVER, students need to be prepared to complete these exams outside of scheduled class time.

Dress. For skills checks and in-class practice skill checks, students should be dressed in casual pants/slacks (such as khakis, no jeans) and a polo shirt.

Performance standards. Prior to each skill check, students will receive a copy of the score sheet. Each skill will be graded using the following scale:

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>A level</td>
</tr>
<tr>
<td>3.7</td>
<td>A- level</td>
</tr>
<tr>
<td>3.5</td>
<td>AB level</td>
</tr>
<tr>
<td>2.5</td>
<td>BC level</td>
</tr>
<tr>
<td>2</td>
<td>C level</td>
</tr>
<tr>
<td>1</td>
<td>Needs Improvement/Below Average</td>
</tr>
</tbody>
</table>
To pass a practical exam, students must achieve 84% of the total points available (or a B level). The points achieved will be recorded with comments. If a student receives less than 84%, he/she may schedule one retest, which will be scheduled at the lab instructor’s discretion. In this case both recorded scores will be averaged together in the grade book.

Clinical Observation Logs (10%). Each student will complete at least 6 hours of outside clinical observation hours at a location of their choice (Work Hardening Clinic, Sports Medicine, Cardiopulmonary Lab), which focuses on medical challenges of patients similar to those one might expect to see in this clinical profession. These observations should be focused on patients that have finished formal therapy for their primary condition and are now in a work or life-specific rehabilitation program to prepare for release to life/work functions. Students will receive an outline of observation & participation/practice outcomes that should be achieved by the conclusion of each experience. Clinical observation logs will include reflection on their experiences during their observation hours as well as explanation of specific components outlined in the outline that will be given during class. Students will be responsible for contacting the clinic they would like to observe, arrangement of their clinical observation hours, and any follow-up that would be required. The outline issued during class will include a list of possible observation sites, contact names and phone numbers per clinic.

Dress. For clinical observations, students should be dressed in casual pants/slacks (such as khakis, no jeans or cargo pants) and a collared shirt.

Research discussion (20%). Students will work in small groups of 2-3 students to complete a review of literature on the current standards and best practices in treating a work-related musculoskeletal disorder/dysfunction. Following collection of information on the chosen topic that includes relevant evidence-based information, the groups will make a post with their findings on LMS. Each student will then be required to critique one other colleague’s post. Information to be included is an overview of disorder/dysfunction, risk factors, causation, symptoms, assessment, recommended treatment/management, exercise prescription, factors of job/workplace design, and lifestyle management. Consideration of possible co-morbidities that would complicate the chosen case will lend to a solid discussion. Students will be encouraged to choose a topic in which they are not well-versed to expand their clinical expertise. This assignment will be discussed in length during class time with specific consideration for collection of information that will assist in enhancement of clinical decision-making skills. This assignment will be graded using the same criteria for all written work.

Grading
Homework. In general, the assessment of smaller homework assignments and in-class worksheets will use the following grading system with the exception of quizzes.

+ = A (Excellent)
√+ = B (Good)
√ = C (Average)
( - ) CD (Below Average)
0 = did not submit
Case studies, practical exams, research paper, and your final grade will be based on the following set cut-off percentages:

- A = 100-90%
- B = 89-80%
- C = 79-70%
- D = 69-60%
- F = < 60%

In addition, students will complete peer assessments of team performance, which may be factored into grading. In general, assignments will be graded within 14 business days (~ 2 weeks) from the due date. All students will be graded using the same criteria, and your final grade is determined based on points earned and the weighted percentage set in the course requirements.

To discuss or challenge a grade, the student will need to see the instructor during office hours. He or she must submit written documentation to support or justify his or her answers based on the course outline, textbook and lecture materials, instructional notes, checklist, etc. If a student challenges a grade and it is reviewed, the revised score will be posted to the grade book even if it is a lower score.

**Statement of the right to modify course content**
The initial course outline is tentative. The instructor reserves the right to modify, amend or change the syllabus (course requirements, grading policy, etc.) and course outline as the curriculum and/or program require(s).

**Accommodation of special needs**
Students with documented disabilities, who may need accommodations (or any student considering obtaining documentation), should make an appointment with Martha Bledsoe, Director of Services for Students with Disabilities, no later than the first week of class. She can be reached by calling 262-524-7335, mbledsoe@carrollu.edu.

**Academic honesty and due notification**
The Carroll University Academic Integrity Policy is located in your student handbook (pages 21-26). I encourage you to familiarize yourself with it. If a student violates this policy in any way, I reserve the right to impose a sanction of failure on the assignment/assessment and/or failure in the course.

If you have questions about appropriate citation, when group collaboration is appropriate, or other related issues, please ask.