**Course Number:** DPT 712  
**Course Title:** Physiological Bases of Rehabilitation  
**Credit Hours:** 3  
**Lecture hours:** 3 hours/week  
**Weekly Schedule:** Tuesdays – 4:30pm to 7:30pm  
**Location:** BHS 213  
**Instructor(s):**  
Szu-Ping Lee, PhD  
Office hours: Mondays and Wednesdays, 9:30 -11:30am  
Office telephone: 895-1377  
Email: szu-ping.lee@unlv.edu  

Kai-Yu Ho, PhD  
Office hours: Mondays and Wednesdays, 9:30 -11:30am  
Office telephone: 702-895-2629  
Email: kaiyu.ho@unlv.edu

**Course Description:**  
This course will provide a graduate level overview of the physiology underlying movement generation. Emphasis will be on the neuromuscular and musculoskeletal physiology components related to rehabilitation. Course will focus on tissue physiology of the neuromuscular and musculoskeletal systems, an applied approach and examination of physiological adaptations to exercise and its influence on a macro level.

**Course Objectives:**  
1. Familiarize the student with the current status of the field of skeletal muscle physiology.  
2. Familiarize the student with the current status of the field of electrophysiology and neuromuscular activation.  
3. Familiarize the student with the current status of research related to tendon physiology and morphology.  
4. Identify and discuss the distinguishing characteristics of connective tissues including bone, cartilage, and fibrous tissues.  
5. Discuss the adaptation of connective tissues in response to mechanical loading/unloading.  
6. Familiarize the student with the current status of the field of bone and cartilage physiology.
7. Discuss the physiology of cardiac muscles and cardiovascular adaptation to exercise
8. Integrate tissue and systems level information about neuromuscular and musculoskeletal function and adaptation to exercise.
9. Increase the students’ ability to evaluate, summarize and present research studies that further our understanding of neuromuscular and musculoskeletal function.

10. Familiarize the student with the current status of the field of integumentary physiology and research.

Course Structure:
The major component of the course will be a series of lecture, assigned readings, student presentation, discussion, and lab activities.

Evaluation Methods:
1. Testing
There will be written assignments and a comprehensive final examination. Each student is expected to complete the assignments and examination in a timely, scheduled manner. If any student does not or cannot take a test due to an emergency, then plans must be made at the discretion of the professor to complete all course work within a specified time period.

2. Grading
The final course grade is a letter grade. The course grade will be based on the following:
   - Student presentation = 75 points
   - Short papers (4X) = 100 points (25 x 4)
   - Participation = 25 points
   - Final written exam = 100 points
   - 300 points

   Numeric and Letter Grade Translation
   - A 93-100
   - B- 80-82
   - A- 90-92
   - C+ 77-79
   - B+ 87-89
   - C 73-76
   - B 83-86
   - F <73

Instructional Practices:
1. Teaching Methods
   a. Power point lectures
   b. Class discussion

2. Teaching Aides
   a. Smart board technology

3. Student Responsibilities
   a. Any student having particular difficulty with material presented in this course should seek direction and/or assistance from the professor as soon as the difficulty is perceived.

4. Course Policies
   a. For general Course Policies see Student Manual
b. Academic Misconduct – Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility, and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV’s function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: [http://studentconduct.unlv.edu/misconduct/policy.html](http://studentconduct.unlv.edu/misconduct/policy.html).

c. Copyright – The University requires all members of the University Community to familiarize themselves and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: [http://provost.unlv.edu/copyright/statements.html](http://provost.unlv.edu/copyright/statements.html).

d. Disability Resource Center (DRC) – The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-985-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to me during office hours so that we may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach me before or after class to discuss your accommodation needs.

e. Religious Holidays Policy – Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the end of the first two weeks of classes of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university that could not reasonably been avoided. For additional information, please visit: [http://catalog.unlv.edu/content.php?catoid=4&navoid=164](http://catalog.unlv.edu/content.php?catoid=4&navoid=164).

f. Tutoring – The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex (SSC). Students may learn more about tutoring services by calling (702) 895-3177 or
visiting the tutoring web site at: http://academicsuccess.unlv.edu/tutoring/.

g. Rebelmail – By policy, faculty and staff should e-mail students’ Rebelmail accounts only. Rebelmail is UNLV’s official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students’ e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu.

h. Final Examinations – The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule.

**Required Texts:**

- Assigned readings
- Lecture materials