ATHP 4320
Strength Training and Conditioning Prescription
Syllabus

Catalog Description
This course focuses on the theory, principles, and physiological effects of strength training for athletic and sedentary populations. This course will be based on the principles, concepts, and guidelines for strength and conditioning according to the National Strength and Conditioning Association (NSCA). This course will prepare the student to apply the proper strength training and conditioning exercises based on goals, indications, contraindications, and physical evaluation of the individual.

Context
Pre-requisite(s) for this course include successful completion with a “C” or better in BIOL 2321 Anatomy and Physiology I, BIOL 2322 Anatomy and Physiology II and PEHP 3350/3555 Theory of Movement Forms. This course is appropriate for athletic training, rehabilitative science and kinesiology majors in good standing with the program. This course is intended for upper level students that have met academic requirements. The course may not be repeated for credit.

Course Overview
The purpose of this course is to provide students with the knowledge, skills, and abilities related to the design and assessment of strength and conditioning based on the outcome needs of the client. Topics of this course include understanding anatomy and physiology related to strength training and conditioning; the discussion of indications and contraindications of exercise; program design; the appropriate application and procedure(s) of exercise; use of evidence based protocols; evaluation of intervention; and safe client practice skills. This three credit hour course uses lecture, discussion, demonstration, along with course readings to prepare the student to master course content. Students will be assessed through written examination(s), coursework, and lab activities. Successful completion of the course provides the student with fundamental knowledge, skills, and abilities needed to advance in their major.

Course Outcomes

<table>
<thead>
<tr>
<th>Course outcomes:</th>
<th>Assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon completion of the course, students will be able to</td>
<td>The objectives will be assessed</td>
</tr>
<tr>
<td>1. Apply an understanding of the structure and function of the muscular, neuromuscular, cardiovascular, and respiratory systems to strength training and conditioning.</td>
<td>By written examination(s)</td>
</tr>
<tr>
<td>2. Apply an understanding of the bioenergetics of exercise and training.</td>
<td>By written examination(s)</td>
</tr>
</tbody>
</table>
3. Describe and perform a patient screening to assess for indications, contraindications, and precautions prior to using strength training and conditioning.  

4. Demonstrate and understand appropriate tests for assessment of patient’s current strength and conditioning status.  

5. Design strength training and conditioning prescription based on desired patient outcomes and evidence based research.  

6. Describe the biomechanical concepts used in strength training and conditioning.  

7. Describe the adaptations by the human body related to strength training and conditioning.  

8. Communicate and educate patient on appropriate use of exercises.  


10. Evaluate appropriate and inappropriate uses of strength training and conditioning with consideration of patient safety.  

By written examination(s) and course activities

**Disability Statement**
The University is committed to providing a supportive, challenging, diverse, and integrated environment for all students. In accordance with Section 504 of the Rehabilitation Act—Subpart E and Title III of the Americans with Disabilities Act (ADA), the University ensures accessibility to its programs, services and activities for qualified students with documented disabilities. For more information contact the Student Disability Services Office: Director, Moises Torrescano; Academic Counselor, Cynthia Pino (Administration Building Room 105; Phone: 210-829-3997; Fax: 210-829-6078).

**Policy on Academic Integrity**
The highest standards of academic honesty are expected in the course. Forms of academic dishonesty include, but are not limited to cheating, plagiarism, counterfeit work, falsification of academic record, unauthorized reuse of work, theft, and collusion. See the Student Handbook for definitions and procedures for investigation of claims of academic dishonesty.

**Approvals**
Program Approval Date: 11/2012
School/College Approval Date: 01/2013
UGCC and Senate Approval Date: 02/2013