Instructor: Adam Parker, PhD
Office: CHP 103
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E-Mail: adam.parker@angelo.edu

REQUIRED TEXTS:

I. COURSE DESCRIPTION:
This course is based on the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist (CSCS) standards. Exam questions will come from lectures, texts, selected readings, discussions, and handouts. This course will prepare you to sit for the NSCA CSCS certification exam.

II. STUDENT LEARNING OBJECTIVES:
1. Develop an understanding of anatomy and physiology as it is related to the biomechanics, metabolism, and prescription of strength training and conditioning.
2. Demonstrate knowledge of the principles of training as they are related to exercise prescription for cardiorespiratory fitness, strength, speed, and power.
3. Display knowledge of exercise techniques and how to apply them towards program development for strength and conditioning.
4. Understand techniques for measurement and evaluation, and organization and administration of a successful strength and conditioning program.

III. EDUCATIONAL OPPORTUNITIES:
Class lecture and discussion
Practical Experiences
Oral presentation
Exams

IV. ASSESSMENT:
<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage of grade</th>
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</thead>
<tbody>
<tr>
<td>Exams (4 x 100 pts)</td>
<td>70%</td>
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<tr>
<td>Practical Experiences</td>
<td>15%</td>
</tr>
<tr>
<td>Class Presentation</td>
<td>15%</td>
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<tr>
<td>Total Points</td>
<td>100%</td>
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Grades will be based on the following distribution:

- A 100-90%
- B 89-80%
- C 79-70%
- D 69-60%
- F 59.9% or below

V. ATTENDANCE:
Students are expected to attend all scheduled class meetings. Chronic failure to attend class will affect your final grade in this class. If you don’t come to practical experience meetings, you will lose credit for that portion of the grade.

VI. STUDENT RESPONSIBILITIES:
A. All assignments are due at the beginning of the class on the due date. For students not turning in an assignment a grade of zero (0) will be recorded.
B. Prior arrangements must be made with the instructor if an absence from an exam is unavoidable. In the event that an exam is missed, an alternate form of the test will be given to the student. The student has one week from the original test date to contact the instructor to arrange a make up test. If no contact is made by the student within one week, the grade will be recorded as a zero (0).
C. The student is responsible for all work and is encouraged to have a contact within the class. Students are encouraged to set up an appointment to meet with the instructor for additional information as needed.

D. I do not give extra credit in this class, don’t ask me at the end of the semester for extra credit or to raise your grade, just do well from the beginning and that won’t be an issue.

E. Use of cell phones during class is prohibited. Upon entering class room turn all cell phones and other handheld electronic devices off to prevent distractions affecting other student’s learning opportunities.

F. Students with Disabilities:
   Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request such accommodations prior to any accommodations being implemented. You are encouraged to make this request early in the semester so that appropriate arrangements can be made.
   Students with disabilities who request reasonable accommodations must meet with the Course Coordinator within the first week of classes. Reasonable accommodations will be provided as authorized by the Office of Student Life as long as course requirements are not compromised. Faculty will provide no accommodations without authorization from the Office of Student Life. It is the student’s responsibility to be a self-advocate when requesting accommodations.

G. The Angelo State University Honor Code: “Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.”

VII. Group Assignment Instructions

Strength and Conditioning Group Assignment

In groups of 3-4 students, develop an off-season strength and conditioning program for an athlete of your choosing and is not a sport anybody in the group is actively involved in (including sport, age, gender, resistance training experience, etc.). This program should be four weeks long and should include resistance training, speed/agility training, and plyometric training if applicable to the sport. Your group will turn in an Excel spreadsheet outlining what will be done for each day of the week for the four week training cycle. Additionally, you will be required to turn in a 2-3 page paper (Arial or Times New Roman, 12 point font, double spaced, 1 inch margins), that outlines the biomechanical analysis of the sport which should include a description of the active muscle groups, the energy system/s that are used in that sport, and common injuries for that sport. Included with the biomechanical analysis, you should provide a description of how your strength and conditioning program specifically addresses the biomechanical analysis so that the athlete is trained specifically for their particular sport. Finally, your group will present your strength and conditioning program to the class with an accompanying Powerpoint slideshow that discusses the type of athlete the program is designed for, the biomechanical analysis of the sport, a discussion of how your program addresses the needs of the athlete, and a week by week overview of the strength and conditioning program.

**This syllabus is not intended to be all inclusive and may be changed as circumstances dictate.**
VII. COURSE OUTLINE - Weekly Schedule

Week 1: Course Introduction / Syllabus Overview
Ch. 1 Structure and Function of Muscular, Neuromuscular, Cardiovascular, and Respiratory Systems
Ch. 1 Structure and Function of Muscular, Neuromuscular, Cardiovascular, and Respiratory Systems

Week 2: Ch. 2 Bioenergetics of Exercise and Training
Ch. 2 Bioenergetics of Exercise and Training
Ch. 3 Endocrine Responses to Resistance Exercise

Week 3: Labor Day No Class
Ch. 3 Endocrine Responses to Resistance Exercise
Ch. 4 Biomechanics of Resistance Exercise

Week 4: Catch up and Review for Exam I
Exam I – Ch. 1-4
Ch. 5 Adaptations to Anaerobic Training Programs

Week 5: Ch. 5 Adaptations to Anaerobic Training Programs
Ch. 6 Adaptations to Aerobic Training Programs
Ch. 7 Age and Sex Related Differences

Week 6: Ch. 9 Performance Enhancing Substances
Ch. 9 Performance Enhancing Substances
Ch. 10 Nutritional Factors in Health and Performance

Week 7: Ch. 10 Nutritional Factors in Health and Performance
Catch up and Review for Exam II
Exam II Ch. 5, 6, 7, 9, 10

Week 8: Ch. 11 Principles of Test Selection and Administration
Ch. 12 Administration, Scoring, and Interpretation of Selected Tests
Practical Experience at Junnell Center Warm-up / Resistance Training and Spotting / 1RM

Week 9: Ch. 14 Resistance Training and Spotting Techniques
Ch. 14 Resistance Training and Spotting Techniques / Group Presentation Assigned
Practical Experience at Junnell Center Olympic Lifts

Week 11: Ch. 15 Resistance Training
Ch. 16 Plyometric Training
Practical Experience at Junnell Center Chains and Bands

Week 12: Ch. 17 Speed, Agility, and Speed-Endurance Training
Catch up and Review for Exam III
Practical Experiences at Junnell Center Plyometrics and Speed / Agility

Week 13: Exam III Ch. 11-17
Ch. 18 Aerobic Endurance Exercise Training
Practical Experience – Workout

Week 14: Ch. 19 Periodization
Work On Presentations
Work On Presentations

Week 15: Presentations
Thanksgiving – No Class
Thanksgiving – No Class

Week 16: Finish Presentations
Review for Final Exam
Dead Day – No Class

12/13 – Final Exam 10:30-12:30