COURSE: CSRF 6365: Coaching Science in Strength and Conditioning
INSTRUCTOR: Adam Parker, PhD
OFFICE: CHP 103
EMAIL: adam.parker@angelo.edu
PHONE: 325.486.6127

Required Textbooks:


Course Description:
This course will prepare students to sit for the National Strength and Conditioning Association’s Certified Strength and Conditioning Specialist exam. Topics will include adaptations to aerobic and anaerobic conditioning, periodization, exercise programming for collegiate athletes, and skills and techniques in performing and coaching resistance training.

Student Learning Outcomes:
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.

Course Requirements:
Exams
Laboratory experiences in strength and conditioning
Program design and presentation
Abstract Presentation
Article Outlines
Course Portfolio

Evaluation Procedures:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Grade Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams</td>
<td>30%</td>
<td>A – 90-100%</td>
</tr>
<tr>
<td>Laboratory Experiences</td>
<td>20%</td>
<td>B – 80-89%</td>
</tr>
<tr>
<td>Program Design and Presentation</td>
<td>20%</td>
<td>C – 70-79%</td>
</tr>
<tr>
<td>Abstract Presentation</td>
<td>10%</td>
<td>D – 60-69%</td>
</tr>
<tr>
<td>Article Outlines</td>
<td>10%</td>
<td>F - &lt;60%</td>
</tr>
<tr>
<td>Portfolio</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Total Grade</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
**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.

**Course Assignments:**

*Article Outlines*
You must outline the key points or take-home messages from three lay articles on the topic of strength training or conditioning of collegiate athletes. One excellent website for this project is [www.elitefts.com](http://www.elitefts.com). You may choose any website you like for this assignment, but the articles must cover collegiate strength and conditioning (articles on general fitness are not appropriate). These articles will be submitted by the due date listed on the course schedule below. All articles will be informally discussed in class on the due date.

*Abstract Presentation Instructions*
You will choose a research journal article to present to the class using PowerPoint. Ideally, the journal you use will be the Journal of Strength and Conditioning Research, but other journals would be fine too (JISSN, MSSE, JAP, etc.). You will develop a presentation that outlines the introduction, methods, results, discussion, and practical application of the article. Presentations should last about 10 minutes. You will be graded based on quality of both your speaking and your PowerPoint presentation.

*S&C Program Design Instructions*
Select a collegiate sport (or even a specific position in a sport) of your choosing to write a strength and conditioning program for. You will design an 8 week, off-season program, including resistance training, speed and agility training, conditioning, and plyometric training. Your program should include specific goals that are to be addressed by your program design. For example, the first 4 weeks may focus on hypertrophy, while the remaining 4 weeks focus on strength, power, and speed. Please use an excel spreadsheet to lay your program out. Be sure to include specific exercises, sets and reps for each exercise, and percentages of 1RM as necessary. You don’t need to include percentages for accessory lifts, only core lifts that are actually tested (bench, squat, clean, etc.). After completing the program design, you will be asked to present your program to the class in an informal discussion of how you designed the program and why. Presentations should last around 5-10 minutes each. You will be graded primarily on the program design itself, and whether or not it is well designed for the sport/athlete you chose based on the biomechanical and bioenergetic requirements of the sport. You will also be graded on the quality and clarity of your presentation.
The Angelo State University Honor Code:  
Our students believe that ASU students should maintain complete honesty and integrity in their academic pursuits.

The Honor Code at ASU is located at: www.angelo.edu/forms/pdf/honorcode5.pdf and describes expected academic behavior of both faculty and students, and it consists of an agreement between the student and the academic community to foster academic integrity, to value student educational goals, and to maintain the positive academic reputation of ASU. Angelo State University expects all students and faculty to engage in all academic pursuits in a manner that is above reproach and to maintain complete honesty and integrity in the academic experiences both in and out of the classroom.

ASU students and faculty will not participate or condone  
☐ Plagiarism  
☐ Cheating  
☐ Fabrication of data  
☐ Misrepresentation of information  
☐ Misuse of library materials  
☐ Misuse of technology  
☐ Conspiring with others to commit these acts

ASU students are responsible for understanding the Honor Code as well as the individual academic requirements and stipulations for each course. This includes carefully reading the Angelo State University Student Handbook and reading the syllabus of each course. Students should ask for clarification of any ambiguous aspect of the syllabus. To facilitate this code of ethical conduct, ASU has an Academic Integrity Committee, a committee composed of both students and faculty, which has the responsibility of reviewing cases of suspected academic dishonesty which may be brought to it. The committee’s membership of students and faculty reinforces ASU’s commitment to academic integrity in and out of the classroom.
Course Outline

7/9  Course Introduction / Bioenergetics—Discuss Abstract Presentations
7/10 Biomechanics—Discuss Outlines and Program
7/11 Adaptations to Aerobic and Anaerobic Training
7/12 Nutrition and performance enhancing substances
7/13 Lab – Work on Abstract Presentations / Article Outlines
7/16 Test selection and administration—Pass out Take Home Exam I
7/17 Resistance Training Programming
7/18 Plyometric, Speed, and Agility Training
7/19 Junnell Center – Resistance Training and Spotting Techniques
7/20 Lab – Work on Abstract Presentations / Article Outlines / Exam I
7/23 Abstract Presentations—Turn in Exam I
7/24 Aerobic Training and Periodization
7/25 Junnell Center – Olympics Lifts
7/26 Junnell Center – Accommodating Resistance and 1 Rep Max Testing
7/27 Lab – Work on Article Outlines and Exercise Program
7/30 Article Discussions - Pass out Exam II
8/1 Junnell Center – Plyometric, Speed, and Agility Training
8/1 Junnell Center – Workout 1
8/2 Junnell Center – Workout 2
8/3 Lab – Work on Exercise Program / Presentation and Exam II
8/6 Program Presentations
8/7 Program Presentations
8/8 Turn in Exam II and Portfolio