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Email: agalpin@fullerton.edu
Social Media: @DrAndyGalpin
Website: www.andygalpin.com

* Visit this website for additional material on the topics covered in class

Class Meeting Time: Monday & Wednesday 10:00 – 11:15 am.

Class Location: KHS 172 and Online

Office Hours: Monday & Wednesday, 10:00 – 11:30 am on the days we meet in class (general availability 6:30 am – 4:00 pm, M-Th). Emailing and setting up an appointment is BY FAR THE MOST EFFECTIVE method of setting up an in person, Skype, or phone meeting outside of these hours.

Catalog Course Description: Acute effects and chronic adaptations to various forms of resistance training across the lifespan.

Extended Course Description: With each passing year we see new levels of sports performance. All athletes, male and female, are bigger, stronger, faster, and more powerful than their counterparts from only a few years ago. Moreover, recent research has begun to unearth the importance of muscle strength and power in the maintenance of muscle health and overall quality of living among aging and clinical populations. A scientific approach to strength and conditioning has played a large part in these performance improvements. It is vital, in order to maximize athletic potential and lifelong muscle quality, that those responsible for conditioning athletes take a scientific approach to the process. This course is designed to educate future coaches/strength
and conditioning specialist on how to use a scientific approach to exercise training and prescription. Students will learn the “why” behind training, and not just the “what” and “how.”

**Prerequisites:** junior or senior standing, KNES 348 & KNES 360

**Course Objective(s):**
1. Be able to discuss the basic concepts related to energy production for human movement and athletic performance.
2. Be able to discuss acute physiological responses to strength and conditioning training programs at the muscle, neurological, endocrine, skeletal, and cardiovascular level.
3. Be able to discuss chronic physiological adaptations to strength and conditioning training programs at the muscle, neurological, endocrine, skeletal, and cardiovascular level.
4. Be able to discuss basic exercise training theory and it relates to adaptation, accommodation, specificity and overtraining.
5. Be able to discuss principles of test selection, administration, and interpretation.

**Course Materials:**

*Optional Materials:*

*Relevant Textbooks*


**Relevant Podcasts, Blogs, & Books, etc.**

1. Barbell Shrugged: [www.barbellshrugged.com](http://www.barbellshrugged.com)
2. Extreme Performance Training: [www.xptlife.com](http://www.xptlife.com)
3. Found My Fitness: [www.foundmyfitness.com](http://www.foundmyfitness.com)
4. The Tim Ferris Show: [www.fourhourworkweek.com](http://www.fourhourworkweek.com)
5. The Joe Rogan Experience: [www.joerogan.net](http://www.joerogan.net)
6. Radio Lab: [www.radiolab.org](http://www.radiolab.org)
7. Exponential Wisdom: [www.diamandis.com/podcast](http://www.diamandis.com/podcast)
8. Your Supper Solution: [www.yoursuppersolutions.com](http://www.yoursuppersolutions.com)
9. XL Athlete: [www.xlathlete.com](http://www.xlathlete.com)
11. Dr. Brad Schoenfeld: [www.lookgreatnaked.com](http://www.lookgreatnaked.com)
12. Power Speed Endurance: [www.powerspeedendurance.com](http://www.powerspeedendurance.com)
13. Dr. Bret Contreras: [www.bretcontreras.com](http://www.bretcontreras.com)

**Relevant Professional Organizations**

   a. Enter ERPCSF5 for a discount code on your membership fee!
2. USA Weightlifting: [www.weightlifting.teamusa.org](http://www.weightlifting.teamusa.org)
6. American Society of Exercise Physiologists: www.asep.org

**Relevant/Recommended Professional Certifications**

1. NSCA: Certified Strength and Conditioning Specialist  
   a. Enter ERPCSF5 for a discount code on your exam fee!
2. NSCA: Certified Personal Trainer  
   a. Enter ERPCSF5 for a discount code on your exam fee!

**Relevant Research Journals**

1. Strength and Conditioning Journal  
2. Sport Science  
3. Medicine & Science in Sports & Exercise  
4. Journal of Strength & Conditioning Research  
5. Journal of Sports Medicine and Physical Fitness  
6. Journal of Applied Physiology  
8. European Journal of Applied Physiology

**Class Format:**

- This class will consist of **IN PERSON & ONLINE VIDEO** lectures, student activity, and class discussions. Students are strongly urged to participate by asking questions and sharing personal experiences.
- In addition, students will be required to participate in several athletic exercises/movements. On these days, the student will be expected to wear appropriate clothing.
- Some class notes (pdf) will be available on TITANium.
- Feel free to use tablets, laptops, or voice recorders during class. Obviously, electronic devices are prohibited during in-class exams/quizzes.
**Attendance Policy:**

While attendance is not truly a graded aspect of this class, poor attendance is always related to poor performance in this class. I do consider it when appropriate, so I highly recommend you make every effort to come. An automatic grade of zero will be given to students who are absent from any activities, quizzes, or special assignments done during class days. **These cannot be made up.** Neither your fellow classmates, nor I, APPRECIATE tardiness. This course will start promptly at its listed start time. Material or announcements will not be repeated for students who choose to show up late. Most importantly, all assignments, tests, and quizzes will be due at the **BEGINNING** of each class.

**A STRICT, ABSOLUTELY ZERO TOLERANCE POLICY EXISTS FOR LATE ASSIGNMENTS. NO EXCEPTIONS WILL BE MADE. PERIOD. ANY ASSIGNMENT/EXAM/ETC. WILL BE CONSIDERED LATE BY 1 MINUTE PAST THE START OF CLASS (AS JUDGED BY MY CLOCK, NOT YOURS). NO, I'M NOT KIDDING. ANYTHING TURNED IN LATE WILL BE GIVEN A 0%. YOU ARE MORE THAN WELCOME TO TURN ANYTHING IN TO MY OFFICE EARLY.**

**Make Up Policy:**

Absolutely no makeup exams, presentations, or activities will be given unless a valid medical excuse is presented and verified by me with your physician, or unless notification of a conflict with a religious observance or scheduled class field trip or intercollegiate athletic participation is provided at least two weeks in advance of the date. Any makeup that is given must be taken within 48 hours of the normally scheduled exam. An assignment or exam may only be made-up in the case of an extreme emergency. Make-up procedures will be consistent with California State University, Fullerton policies. I reserve the right to request proof or documentation of hospital/clinic visits or family deaths.
Tips for Success:
1. Study in GROUPS!!!
2. Attend class. It is rare that a student will miss class more than one or two times and not drop at least one letter grade.
3. **Read the textbook, lecture notes, and videos before and after lectures.** Lectures are intended to highlight and expand on selected portions of the reading assignments, but cannot substitute for reading the material. The assignments should be read prior to the lectures.
4. **Turn in assignments EARLY!**
5. Ask questions.
6. Watch video lectures and take your own notes. Study and review those notes. Discuss those notes with 1-3 others. Watch the video lecture again.
7. Come see me; early and often if necessary. Don’t dig yourself a hole early.

Course Requirements:
1. **Exams:** Exams will consist of practical application, multiple choice, short answer, and essay questions. You will need to obtain four (4) scantrons throughout the course of the semester. ALL EXAMS WILL BE CUMULATIVE.

2. **Podcast Write-up:** Students will find and watch podcasts/interviews/YouTube videos/lectures/seminars from **2 SEPARATE** prominent figures in the strength and conditioning community (minimum 25 minutes each). You will generate a 1 page (12 pt font, double spaced) summary for each. The summary MUST include all of the following: 1) who the person is (1 point), 2) why they are famous (4 pts), 3) what topic they covered in the video/interview (4 pts), 4) what you learned (6 pts), 5) what you liked (5 pts), and 6) what you did not like (5 pts). Both are due at the beginning of class on the assigned due date.

3. **Mesocycle:** This can be done with 1 other student, OR by yourself. Students will generate an original 8 week training mesocycle for a sample client of their choosing. The client may be yourself, another real person, or a fictional
character. The mesocycle should be composed of SIX sections: 1) a title page, 2) needs analysis, 3) testing strategy, 4) block overview, 5) the complete 8 week training program, and 6) volume vs. intensity figures. The mesocycle will be submitted as a hard copy in 12 point Arial font any time BEFORE the start of class on the given due date, without exception. Late SUBMISSIONS WILL RECEIVE A 0% (see above for late policy)! Early submissions (at least 7 days) are welcomed and encouraged and are eligible for feedback. A sample project and grading rubric are available on TITANium.

4. **Quizzes**: The instructor reserves the right to assign a quiz on any day over any material covered throughout the duration of the course. This INCLUDES INFORMATION THAT IS PLANNED TO BE COVERED ON THAT DAY. This means you must read/watch ahead.

**Extra Credit Policy:**

All Extra Credit is Due May 1st

1. Attend a professional conferences/clinic during the time of this class (must be approved by Dr. Galpin) - (10 points). Maximum of 2 per student. You must meet with Dr. Galpin in his office following the conference to gain your points.

2. Participate in a research project on campus (within the Kinesiology Department) as either a subject or a lab assistant (10 points). Unless you are working directly with me, I may require some type of documentation showing that you fulfilled this requirement. In order to receive these points, you must meet with me in my office to discuss the study (once you have fully completed your involvement). Failure to complete this one on one, in office discussion will result in 0 points.

   a. Participant in (or FIND SOMEONE TO participate in) Dr. Galpin's Epigenetics Study. Offer expires when the study fills up. Participants are paid $ for their time. UNTRAINED men only. Requires multiple biopsies.
3. Who’s Who? (up to 10 points): Generate a list of 5 important professionals in the field of Strength & Conditioning. For each person, briefly (bullet point is fine) describe why they are famous/what their important contribution is/was in the field. This can be emailed.

4. Take and pass a professional “strength” related certification during the semester. Check with me before completing.
   a. Eleiko Strength Coach International, March 3-5th. Hosted here at CSUF!!! For more information about course or to register please visit: http://www.eleiko.com/en/course.aspx?courseId=81 If you have any further questions regarding the course, please feel free to email the Eleiko Education team at education@eleiko.com.

5. If the Seahawks win the Super Bowl (again).

6. Others opportunities may arise, but are UNLIKLEY!

Course Evaluation Procedures:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podcast Write-up (50 points)</td>
<td>9%</td>
</tr>
<tr>
<td>Written Exams (3 @ 100 points each)</td>
<td>54%</td>
</tr>
<tr>
<td>Mesocycle (50 points)</td>
<td>9%</td>
</tr>
<tr>
<td>Discussion, Class Participation, &amp; Quizzes (50 points)</td>
<td>9%</td>
</tr>
<tr>
<td>Comprehensive Final (100 points)</td>
<td>18%</td>
</tr>
</tbody>
</table>

100%

A = 90-100%
B+ = 85-89.9%
B = 80-84.9%
C+ = 75-79.9%
C = 70-74.9%
D+ = 65-69.9%
D = 60-64.9%
F = ≤59.9%

****This course will implement a “plus” (+) BUT NO “minus” (-) grades policy
Academic Integrity:
Student academic dishonesty is strictly enforced for all course work. For more information on the CSUF policy related to academic dishonesty, go to: http://www.fullerton.edu/senate/documents/PDF/300/UPS300-021.pdf.

Special Needs:
According to the California State University Policy, students with disabilities need to document their disabilities at the Disability Support Services (DSS) Office. Please inform the instructor during the first week of classes about any disability or special needs that you have that may require specific arrangements related to attending class sessions, carrying out class assignments, or writing papers or examinations. For additional information please go to http://www.fullerton.edu/DSS/.

Emergency Procedures Notice to Students:
All students should be aware of what needs to be done in the case of an emergency, such as an earthquake, a fire, or other disasters, natural or otherwise. For additional information please go to http://prepare.fullerton.edu/.
## Tentative Schedule:

<table>
<thead>
<tr>
<th>Week:</th>
<th>Topic:</th>
<th>Reading/Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, Jan 23\textsuperscript{rd}</td>
<td>✓ Introducing Dr. Galpin ✓ Class Expectations &amp; Format ✓ Syllabus</td>
<td>Syllabus</td>
</tr>
<tr>
<td>Wed, Jan 25\textsuperscript{th}</td>
<td>Strength &amp; Conditioning Principles</td>
<td>S&amp;C Notes</td>
</tr>
<tr>
<td>Monday, Jan 30\textsuperscript{th}</td>
<td>Strength &amp; Conditioning Principles</td>
<td>S&amp;C Notes</td>
</tr>
<tr>
<td>Wed, Feb 1\textsuperscript{st}</td>
<td>✓ Program Design Principles ✓ Start Bioenergetics</td>
<td>Program Design Notes Chapter 1</td>
</tr>
<tr>
<td>Monday, Feb 6\textsuperscript{th}</td>
<td>Bioenergetics (ONLINE)</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>Wed, Feb 8\textsuperscript{th}</td>
<td>Program Design Principles</td>
<td>Program Design Notes</td>
</tr>
<tr>
<td>Monday, Feb 13\textsuperscript{th}</td>
<td>Program Design Principles</td>
<td>Program Design Notes</td>
</tr>
<tr>
<td>Wed, Feb 15\textsuperscript{th}</td>
<td>✓ Class Introductions ✓ Any remaining material ✓ Exam 1 Review</td>
<td>Everything</td>
</tr>
<tr>
<td>Monday, Feb 20\textsuperscript{th}</td>
<td>No Class (Holiday)</td>
<td>Study….</td>
</tr>
<tr>
<td>Wed, Feb 22\textsuperscript{nd}</td>
<td>Exam 1</td>
<td></td>
</tr>
<tr>
<td>Monday, Feb 27\textsuperscript{th}</td>
<td>✓ Exam 1 Return ✓ Class Introductions ✓ Neuromuscular</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Wed, Mar 1\textsuperscript{st}</td>
<td>Neuromuscular</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Monday, Mar 6\textsuperscript{rd}</td>
<td>Neuromuscular</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Wed, Mar 8\textsuperscript{th}</td>
<td>Biomechanics (ONLINE)</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>Monday, Mar 13\textsuperscript{th}</td>
<td>Cardiorespiratory (ONLINE)</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>Wed, Mar 15\textsuperscript{th}</td>
<td>✓ Cardiorespiratory (In Person) ✓ Exam 2 Review</td>
<td>Everything!</td>
</tr>
<tr>
<td>Monday, Mar 20\textsuperscript{th}</td>
<td>Exam 2</td>
<td>Everything!</td>
</tr>
<tr>
<td>Wed, Mar 22\textsuperscript{nd}</td>
<td>✓ Get Started on Mesocycle! (Everything you need is Online) ✓ Endocrine &amp; Muscle Regulation (ONLINE)</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>Monday, Mar 27\textsuperscript{th}</td>
<td>Spring Break</td>
<td>N/A</td>
</tr>
<tr>
<td>Wed, Mar 29\textsuperscript{th}</td>
<td>Spring Break</td>
<td>N/A</td>
</tr>
<tr>
<td>Monday, April 3\textsuperscript{rd}</td>
<td>✓ Exam 2 Return ✓ Squatting!</td>
<td>PHYSICAL ACTIVITY!</td>
</tr>
<tr>
<td>Date</td>
<td>Activity</td>
<td>Chapter(s)</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
</tbody>
</table>
| Wed, April 5th | ✓ Needs Analysis (ONLINE)  
✓ Program Design (ONLINE)  
✓ Designing Microcycle (ONLINE) | Chapter 8  
Chapter 14-16 |
| Monday, April 10th | Designing Microcycle (In Person) | Chapter 14-16 |
| Wed, April 12th | Exam 3 | Everything! |
| Monday, April 17th | ✓ Exam 3 Return  
✓ Assessing Movement (Squat)  
✓ Dynamic Warm-Up | Physical Activity  
Chapter 9 |
| Wed, April 19th | ✓ Podcast Activity (Assignment Due)  
✓ “Putting it Together” Mesocycle Slide | N/A |
| Monday, April 24th | Plyo’s, SAQ, & Weightlifting | Chapter 17  
LECTURES ARE ONLINE!!!  
PHYSICAL ACTIVITY! |
| Wed, April 26th | Time To Work on Mesocycle (No Class Meeting) | N/A |
| Monday, May 1st | ✓ Exercise Technique & Spotting | Chapter 10 |
| Wed, May 3rd | ✓ Mesocycle Due!  
✓ CSCS Activity | N/A |
| Monday, May 8th | Guest Speaker | TBD |
| Wed, May 10th | Course Review | Everything |
| Mon, May 15th | Final Exam | |

I reserve the right to change this outline if deemed necessary.