COURSE TITLE: KNES 351 – Principles of Strength and Conditioning

INSTRUCTOR INFORMATION
Instructor: Andy Galpin, Ph.D., CSCS, NSCA-CPT
Email: agalpin@fullerton.edu
Phone: (657) 278-2112
Office: KHS-234
Office hours: Monday & Wednesday 8:15 am – 9:45 am (General Availability: 6:00 am–4:00pm, M-Th)

COURSE INFORMATION
Schedule #: 14517
Section: 02
Units: 3
Prerequisite: Kinesiology 260, 348, and junior or senior standing; Kinesiology 300 recommended
Class meetings: Monday & Wednesday, 10:00 – 11:15 am
Room: KHS – 172
Course format: Lecture, lab, activity, student presentation, and group discussion
Required textbooks:
Optional materials:
   Textbooks
Champaign, IL: Human Kinetics.
Champaign, IL: Human Kinetics.

Web Sites
American College of Sports Medicine (ACSM)
www.acsm.org
American Society of Exercise Physiologists
www.asep.org
USA Weightlifting
www.weightlifting.teamusa.org
GSSI - Sports Science Exchange
www.gssiweb.com
NSCA Certification Commission (Registration Code ERPCSF)
www.nsca-cc.org
National Strength & Conditioning Association (NSCA)
www.nsca.com
Sportscience
www.sportssci.org

Journals
Strength and Conditioning Journal
Sport Science
Research Quarterly for Exercise and Sport
Physician and Sports Medicine
Medicine & Science in Sports & Exercise
Journal of Strength & Conditioning Research
Journal of Sports Medicine and Physical Fitness
Journal of Applied Physiology
International Journal of Sports Physiology and Performance
European Journal of Applied Physiology
Additional course information:

**Class Format**
This class will consist of 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 testing exercises. On these days, the student will be expected to wear appropriate clothing.

Material will also be presented to the student through video presentations.
An outline (pdf) of the class notes will be available to you for download on the course TITANium website.

**Classroom Conduct**
- You are more than welcome to use tablets, laptops, or voice recorders during class. HOWEVER, I WILL NOT repeat information you missed because you were texting or on social media.
- During exams, the use of cell phones, ipads, or any other electronic device is strictly prohibited.
  - You MAY NOT use these devises during exams.

**Attendance Policy**
While attendance is not truly a graded aspect of this class, poor attendance is almost always related to poor performance in this class. I do take it into consideration 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 done during class days. **These cannot be made up.**

Moreover, tardiness is NOT APPRECIATED by me or your fellow classmates. This course will start promptly at 10:00 am. 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 ZERO tolerance policy will be in place for any late assignments (this means even by 1 minute!). This will be enforced without exception and will result in a grade of 0.

**Tips for Success**
1. 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.
2. **Read the textbook and lecture notes 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.
3. Ask questions.
4. Review your lecture notes after class and before the next lecture, then ask questions about the material you don’t understand.
5. Come see me; early and often if necessary. Don’t dig yourself a hole early.
6. Study in GROUPS!!!

**STUDENT CONDUCT:**
CSU Fullerton is committed to creating and maintaining an environment in which faculty and students work together in an atmosphere of mutual respect and unconstrained academic interchange. Students are expected to conduct themselves in a manner appropriate for the class. Student conduct deemed
unacceptable includes, but is not limited to, disruptive behaviors that inhibit other student’s ability to learn and/or the instructor’s ability to teach, such as inappropriate conversing during instruction or group learning experiences; aggressive or threatening behavior directed at the instructor or other student(s); etc. Failure of any student to comply with appropriate conduct may result in the removal of that student from the class pending discussion and resolution of the problem, and may be reported to the Dean of Students Office, and/or Judicial Affairs for further action. Please refer to the current student handbook or catalog for more information regarding classroom conduct guidelines.

COURSE DESCRIPTION:
To understand the acute effects and chronic adaptations to various forms of resistance training across the lifespan.

EXPANDED 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.”

COURSE GOALS:
The goals of this course are:
1. To be able to discuss the basic concepts related to energy production for human movement and athletic performance.
2. To be able to discuss acute physiological responses to strength and conditioning training programs at the muscle, neurological, endocrine, skeletal, and cardiovascular level
3. To be able to discuss chronic physiological adaptations to strength and conditioning training programs at the muscle, neurological, endocrine, skeletal, and cardiovascular level
4. To be able to discuss basic exercise training theory and it relates to adaptation, accommodation, specificity and overtraining
5. To able to discuss principles of test selection, administration, and interpretation
6. To Click here to enter goal.
7. To Click here to enter goal.
8. To Click here to enter goal.

EVALUATION PROCEDURE:
This course will implement a “plus” (+) BUT NO “minus” (-) grades policy.

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.
**Makeup exam 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 (SEE BELOW). Make-up procedures will be consistent with California State University, Fullerton policies.

Note: I reserve the right to request proof or documentation of hospital/clinic visits or family deaths, so use these excuses with caution.

**Assignments**

A STRICK, ABSOLUTELY ZERO TOLERANCE POLICY EXISTS FOR LATE ASSIGNMENTS, NO EXCEPTIONS WILL BE MADE, PERIOD. ANY ASSIGNMENT/EXAM/ETC. WILL BE CONSIDERED LATE BY 10:00 (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.

1. **Podcast Write-up** – Students will find and watch 2 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, double spaced) summary for each. The summary MUST include all of the following: 1) who the person(s) is(are) (0.5 points), 2) why they are famous (2 pts), 3) what topic they covered in the podcast (2 pts), 4) what you learned (3 pts), 5) what you liked (2.5 pts), and 6) what you did not like (2.5 pts). Both are due at the beginning of class on the assigned due date.

2. **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 anytime BEFORE 10:00 am 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 is available on TITANium.

**Final Project or Paper**
The final exam WILL be cumulative and is scheduled for Monday, December 14th, from noon – 1:50 pm.

**Additional evaluation criteria:**

**Research Participation**
In addition to the above, you MUST participate in a research project on campus within the Kinesiology Department as either a subject or a lab assistant (worth 25 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 a grade of 0. All research participation must be completed and turned in prior to December 1st.

**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 ahead.

**Class Participation**
You are expected to engage heavily in all class discussions and activities.

**Grading criteria:**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Podcast Write-up</td>
<td>~5%</td>
<td>25</td>
</tr>
<tr>
<td>Written Exams (3 @ 20% each)</td>
<td>~57%</td>
<td>100 Each</td>
</tr>
<tr>
<td>Mesocycle</td>
<td>~9%</td>
<td>50</td>
</tr>
<tr>
<td>Research Participation</td>
<td>~5%</td>
<td>25</td>
</tr>
<tr>
<td>Discussion, Class Participation, &amp; Quizes</td>
<td>~5%</td>
<td>25</td>
</tr>
<tr>
<td>Comprehensive Final</td>
<td>~19%</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Total 100%</td>
<td>Total 550</td>
</tr>
</tbody>
</table>

**Grading scale:**

A = 90 – 100%
B+ = 86 - 89%
B = 80 – 85%
C+ = 76 - 79%
C = 70 – 75%
D+ = 66 – 69%
D = 60 – 65%
F = <60%

**ACADEMIC DISHONESTY:**
The following is taken from the University Rules (UPS 300.021):
“Academic dishonesty includes such things as cheating, inventing false information or citations, plagiarism, and helping someone else commit an act of dishonesty. It usually involves an attempt by the student to show possession of a level of knowledge or skill in which he/ she in fact does not possess.”

“Cheating is defined as the act of obtaining or attempting to take credit for work by the use of any dishonest, deceptive, fraudulent, or unauthorized means. Examples include, but are not limited to, the following: using notes or aids or the help of other students on tests and examinations in ways other than those expressly permitted by the instructor, plagiarism as defined below, tampering with grading procedures, and collaborating with others on any assignment where such collaboration is expressly forbidden by an instructor. Violation of this prohibition of collaboration shall be deemed an offense for the person or persons collaborating on the work, in addition to the person submitting the work.”
“Plagiarism is defined as the act of taking the work of another and offering it as one’s own without giving credit to that source. When sources are used in a paper, acknowledgement of the original author or source must be made through appropriate references, and, if directly quoted, quotation marks or indents must be used. There is a fine line between academic dishonesty and collaboration. Students may help each other while discussing the problem. However, each student must do their own work and submit their answers in their own words.”

The penalties for academic dishonesty for the purposes of this class are as follows:
1. the student will be excused from the class; and
2. the student will automatically receive an “F” for the course; and
3. a letter will be sent to the student’s file, their Department Chair, the Dean of their School, the Dean of Students, the Dean of Academic Affairs, and the CSUF President.

SPECIAL NEEDS:
Please inform the instructor during the first week of the semester about any disabilities or special needs you have that may required specific arrangements related to attending the class sessions, completing assignments, the project, or examinations. According to CSU Policy, students need to document their needs with the Disabled Student Services Office.

EMERGENCY PROCEDURES FOR STUDENTS:
The safety of all students attending California State University Fullerton is of paramount importance. During an emergency it is necessary for students to have a basic understanding of their personal responsibilities and the University’s emergency response procedures. In the event of an emergency please adhere to the following guidelines.

Before an emergency occurs:
1. Know the safe evacuation routes for your specific building and floor.
2. Know the evacuation assembly areas for your building.

When an emergency occurs:
1. Keep clam and do not run or panic. Your best chance of emerging from an emergency is with a clear head.
2. Evacuation is not always the safest course of action. If directed to evacuate, take all of your belongings and proceed safely to the nearest evacuation route.
3. Do not leave the area, remember that faculty and other staff must be able to account for your whereabouts.
4. Do not reenter the building until informed it is safe by a building marshal or other campus authority.
5. If directed to evacuate the campus please follow the evacuation routes by either parking or police officers.

After an emergency:
1. If an emergency disrupts normal campus operations or causes the university to close for a prolonged period of time (more than three days), students are expected to complete the course assignments listed on the syllabus as soon as it is reasonably possible to do so.
2. Students can determine the University’s operational status by checking the University’s web site at http://www.fullerton.edu, calling the University’s hotline number at 657-278-0911, or tuning into area radio or television stations. Students should assume that classes will be held unless they hear or read an official closure announcement.
EMERGENCY NUMBER    dial 9-1-1
(all campus phones and cell phones on campus reach the University Police Department)
Non-emergency line: 657-278-2515; 24- hour recorded emergency information line: (657) 278-0911
# COURSE OUTLINE

**Course:** KNES 351 – Principles of Strength and Conditioning  
**Semester:** Fall 2015  
**Day & Time:** Monday & Wednesday, 10:00 – 11:15 am

<table>
<thead>
<tr>
<th>Day:</th>
<th>Topic:</th>
<th>Assigned reading:</th>
</tr>
</thead>
</table>
| Monday, August 24           | Introducing Dr. Galpin  
Class Expectations/Objectives  
Syllabus  
Strength and Conditioning Principles | Nothing  
Syllabus  
S&C Notes |
| Wednesday, August 26        | Strength and Conditioning Principles                                     | S&C Notes  
Dr. Kapovich Reading |
| Monday, August 31           | Program Design Principles                                               | Program Design Notes |
| Wednesday, September 02     | Program Design Principles  
& Emergency Evacuation Drill                                               | Program Design Notes |
| Monday, September 07        | Labor Day!                                                              | Study… |
| Wednesday, September 09     | Program Design Principles                                               | Program Design Notes |
| Monday, September 14        | Class Introductions                                                     | TBD |
| Wednesday, September 16     | Bioenergetics                                                           | Chapter 1 |
| Monday, September 21        | Bioenergetics                                                           | Chapter 1 |
| Wednesday, September 23     | Bioenergetics  
Exam 1 Review                                                           | Chapter 1 |
| Monday, September 28        | Exam 1                                                                  | Everything!! |
| Wednesday, September 30     | Neuromuscular                                                           | Chapter 3 |
| Monday, October 05          | Neuromuscular                                                           | Chapter 3 |
| Wednesday, October 07       | Neuromuscular  
Biomechanics                                                          | Chapter 3  
Chapter 5 |
| Monday, October 12          | Podcast Assignment                                                      | N/A |
| Wednesday, October 14       | Podcast Assignment Due                                                   | Chapter 2 |
| Monday, October 19          | Cardiorespiratory                                                       | Chapter 2 |
| Wednesday, October 21       | Exam 2                                                                  | Everything |
| Monday, October 26          | Endocrine & Muscle Regulation                                            | Chapter 6 |
| Wednesday, October 28       | Endocrine & Muscle Regulation                                            | Chapter 6 |
| Monday, November 02         | Introduce Mesocycle  
Needs Analysis  
Squatting                                                           | Chapter 8 |
<p>| Wednesday, November 04      | Program Design Basics                                                   | Chapter 14-16 |
| Monday, November 09         | Designing Microcycles                                                   | Chapter 14-16 |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, November 11</td>
<td>Dynamic Warm-up</td>
<td>Chapter 9</td>
</tr>
<tr>
<td></td>
<td>Plyo, SAQ, &amp; Sprinting</td>
<td>Chapter 17</td>
</tr>
<tr>
<td>Monday, November 16</td>
<td>Exam 3</td>
<td>Everything</td>
</tr>
<tr>
<td>Wednesday, November 18</td>
<td>Weightlifting Technique</td>
<td>Notes</td>
</tr>
<tr>
<td>Monday, November 23</td>
<td>Thanksgiving</td>
<td>Food!</td>
</tr>
<tr>
<td>Wednesday, November 25</td>
<td>Thanksgiving</td>
<td>Food!</td>
</tr>
<tr>
<td>Monday, November 30</td>
<td>Guest Speaker!</td>
<td>TBD</td>
</tr>
<tr>
<td>Wednesday, December 02</td>
<td>Exercise Technique &amp; Spotting</td>
<td>Chapter 10</td>
</tr>
<tr>
<td></td>
<td>Final day to turn in Research Participation</td>
<td></td>
</tr>
<tr>
<td>Monday, December 07</td>
<td>Mesocycle Due!</td>
<td>Notes</td>
</tr>
<tr>
<td></td>
<td>CSCS Activity</td>
<td></td>
</tr>
<tr>
<td>Wednesday, December 09</td>
<td>Course Review</td>
<td>Everything</td>
</tr>
</tbody>
</table>

I reserve the right to make changes within the course syllabus listed above.