PRINCIPLES OF STRENGTH AND CONDITIONING

APK3113C ~ 3 ~ FALL 2019

INSTRUCTOR: Blain Harrison, Ph.D, ATC, CSCS
Office: FLG106B
Office Phone: 352-294-1704
Email: blaincharrison@ufl.edu
Preferred Method of Contact: email

OFFICE HOURS: Office Hours are MWF period 3 and 5 or by appointment

MEETING TIME/LOCATION: FLG 280, MWF period 2

COURSE DESCRIPTION: For individuals who are interested in becoming certified
personal trainers (NSCA-PT) or certified strength and conditioning specialists (CSCS)
through the National Strength and Conditioning Association.

PREREQUISITE KNOWLEDGE AND SKILLS: APK 2100C and APK 2105C with minimum
grades of C.

REQUIRED AND RECOMMENDED MATERIALS: All required course materials will be
provided on the APK3113 Canvas page. These materials include weekly chapter modules
written by the instructor and the following research articles (articles not on this list may
be added to modules at the discretion of the instructor):

Understanding the Science of Resistance Training: An Evolutionary Perspective. Sports


COURSE FORMAT:

Students will complete weekly reading assignments and accompanying questions prior to class on Monday. Monday’s class-time will be spent completing active learning assignments to clarify any content from the reading.

Students will report to the gymnasium (FLG105) during Wednesday’s scheduled class-time to complete hands-on lab activities.

Students will complete and submit a program design assignment prior to Friday’s class each week. During Friday’s class, student’s will answer additional questions in class and be presented with a sample program that will be used to complete a self-review of their program design submission by the end of class.

COURSE LEARNING OBJECTIVES:

At the conclusion of the course students will be able to:
• Describe the basic physiology of the skeletal, neuromuscular, and cardiovascular systems as they pertain to an athlete engaged in a strength and conditioning program
• Identify the biomechanical factors that influence strength, power, and speed performance
• Analyze a sport with regards to the primary energy system, motor skills, joint movements, and skeletal muscles involved in its execution
• Compare the expected physiological adaptations of anaerobic and aerobic training programs.
• Recommend appropriate assessments of athletic performance and interpret test results.
• Prescribe exercise training sessions with the intention of improving athletic performance in the areas of strength, power, speed, agility, aerobic capacity, anaerobic capacity, hypertrophy, core stability, and flexibility
• Create a periodized annual strength and conditioning program incorporating all of the variables described above.
• Utilize recommendations regarding the health and safety of athletes completing strength and conditioning sessions following a transition period.
• Summarize the available evidence related to the effectiveness of various recovery modalities.
• Sit for the NSCA CSCS exam in your senior year, or upon graduation, if desired.

COURSE AND UNIVERSITY POLICIES:

ATTENDANCE POLICY: Students are expected to attend all classes and to have completed assigned readings or assignments prior to class as scheduled by the instructor. Attendance will be taken through the TopHat platform at the start of each class and lab. TopHat will generate an attendance score (out of 100%) based on the number of classes attended. This score will be included as part of the participation grades for the course. Questions related to assigned readings will be available on Canvas. The following link outlines the UF Attendance Policy found in the Graduate Catalog
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

PERSONAL CONDUCT POLICY: UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions.
Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult the instructor or TA in this class.

EXAM MAKE-UP POLICY: No make-up exams are offered. Students who will be unavailable on the day of an exam may provide the instructor with evidence of their excuse and may be permitted the opportunity to complete the exam early at the discretion of the instructor. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx.”

ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

COURSE EVALUATIONS: Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu or directly in CANVAS. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open.

GETTING HELP:

Health and Wellness
- U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575
- Counseling and Wellness Center: https://counseling.ufl.edu/, 352-392-1575
- Sexual Assault Recovery Services (SARS) - Student Health Care Center, 392-1161
- University Police Department, 392-1111 (or 9-1-1 for emergencies) http://www.police.ufl.edu/

Academic Resources
- E-learning technical support, 352-392-4357 (select opti on 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml
- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. https://career.ufl.edu/
• Library Support, [http://cms.uflib.ufl.edu/ask](http://cms.uflib.ufl.edu/ask). Various ways to receive assistance with respect to using the libraries or finding resources.

• Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. [http://teachingcenter.ufl.edu/](http://teachingcenter.ufl.edu/)

• Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. [http://writing.ufl.edu/writing-studio/](http://writing.ufl.edu/writing-studio/)


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**GRADING:**

<table>
<thead>
<tr>
<th>Evaluation Components (number of each)</th>
<th>Points Per Component</th>
<th>Weighted % of Total Grade</th>
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</thead>
<tbody>
<tr>
<td>Lecture Exams (3)</td>
<td>100 pts each = 300 pts</td>
<td>30% (10% each)</td>
</tr>
<tr>
<td>Module Quizzes (15)</td>
<td>10 pts each = 150 pts</td>
<td>10%</td>
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<tr>
<td>Participation/Attendance</td>
<td>600 points</td>
<td>15%</td>
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<tr>
<td>Lab Practical Exam (1)</td>
<td>30 points</td>
<td>10%</td>
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<tr>
<td>Comprehensive Final (1)</td>
<td>200 points</td>
<td>20%</td>
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<tr>
<td>Program Design Project</td>
<td>150 points</td>
<td>15%</td>
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**Lecture Exams** – Each exam will consist of 30 multiple-choice questions, 3 points per question and 5 short-answer questions, 2 points per question for a total of 100 points. Questions may require the application of course material to provided cases or analysis of research article content. Students will complete the exam in class on the day designated on the course schedule. Students will NOT be allowed the use of any outside resources on the exam.

**Weekly Participation Assignments** – Each week students will have one participation assignment due per day Monday – Thursday. Questions related to weekly chapter readings are due Monday, Research Article Questions are due Tuesdays, Lab Questions are due Wednesdays, and Weekly Training Programs are due on Thursdays. Each participation assignment is worth 5-10 points and will be available one week prior to the due date at a minimum.

**Weekly Module Quizzes** – A quiz pertaining to each week’s module will be assigned each Friday throughout the semester. The 10-12 question quiz will be available for 24 hours and students will have 15min to complete it within that window of time. Module quizzes are open-book and open-note with questions focusing on the practical application of course material.
**Applied Strength and Conditioning Project** – Students will submit a training program each Thursday and edit the program on Friday as part of class activities on these days. At the end of the semester, students will submit a final version of the spreadsheet used throughout the semester when submitting weekly programs. A rubric will be provided on Canvas.

**Lab Practical Exam** – A lab practical exam will be administered over the final two weeks of the semester. The exam will consist of a student leading a classmate in one of the exercises performed in weekly labs throughout the semester. The lab practical exam is comprehensive meaning any exercise performed during weekly lab sessions is eligible for random assignment. Students will select an exercise at the start of the exam, obtain the necessary equipment, set up the equipment to perform the exercise, verbally and physically demonstrate the exercise, and provide feedback to their classmate based on the classmate’s movement competency.

**Comprehensive Final** – The final exam will consist of 75 multiple-choice questions each worth 1 point and 5 short-answer questions each worth 5 points. The exam will be completed through the APK3113 Canvas page and will have a 2-hour time limit. The exam will be administered on the assigned exam day and in the assigned classroom according to UF’s academic calendar. Students are NOT permitted to use course materials on the exam.

**Grading Scale:** All course assignments are administered and graded within the APK3113 Canvas course page, so students will have access to all grades as they submit assignments. Any assignment that requires the instructor to manually grade some aspect of it will be graded within one week of its due date, including the semester exams and final project. Final Grades will be rounded up at ___-.5 and above. More detailed information regarding current UF grading policies can be found here: [https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/](https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/). Any requests for additional extra credit or special exceptions to these grading policies will be interpreted as an honor code violation (i.e. asking for preferential treatment) and will be handled accordingly.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percent of Total Points Associated with Each Letter Grade</th>
<th>GPA Impact of Each Letter Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
<td>4.0</td>
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<tr>
<td>A-</td>
<td>90 – 92.99%</td>
<td>3.7</td>
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<tr>
<td>B+</td>
<td>87.00-89.99%</td>
<td>3.33</td>
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<tr>
<td>B</td>
<td>80.00-86.99%</td>
<td>3.0</td>
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<tr>
<td>C+</td>
<td>77.00-79.99%</td>
<td>2.33</td>
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<tr>
<td>C</td>
<td>70.00-76.99%</td>
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<tr>
<td>D+</td>
<td>67.00-69.99%</td>
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<tr>
<td>D</td>
<td>60.00-66.99%</td>
<td>1.0</td>
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<tr>
<td>E</td>
<td>0-59.99%</td>
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# WEEKLY COURSE SCHEDULE:

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>(9/2 - 9/6)</td>
<td><em>Periodization – Annual Plan</em></td>
<td>Fri – FCS Part 1 Lab</td>
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<td></td>
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<td><strong>NO CLASS MONDAY – LABOR DAY</strong></td>
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<td>5</td>
<td>(9/16 – 9/20)</td>
<td><em>Corrective Exercise Program Design</em></td>
<td>Wed – Self Myofascial Release Lab Exam 1 - Friday 9/20 (Module 1)</td>
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<tr>
<td>6</td>
<td>(9/23 – 9/27)</td>
<td><em>Movement Preparation/Warm Up</em></td>
<td>Wed – Dynamic Warm Up Lab</td>
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<tr>
<td>7</td>
<td>(9/30 – 10/4)</td>
<td><em>Flexibility Program Design</em></td>
<td>Wed – PNF Stretching Lab</td>
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<td><strong>NO CLASS FRIDAY - HOMECOMING</strong></td>
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<tr>
<td>8</td>
<td>(10/7 – 10/11)</td>
<td><em>Core Training Program Design</em></td>
<td>Wed – Core Training Lab</td>
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<tr>
<td>9</td>
<td>(10/14 – 10/18)</td>
<td><em>Hypertrophy and Local Muscular Endurance Program Design</em></td>
<td>Wed – Fundamental Resistance Exercise lab Exam 2 - Friday 10/18 (Module 2)</td>
</tr>
<tr>
<td>12</td>
<td>(11/4 – 11/8)</td>
<td><em>Linear Speed Program Design</em></td>
<td>Wed – Speed Drills Lab</td>
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</table>
13  (11/11 – 11/15)  *SAQ Program Design*
   Wed – SAQ Drills Lab
   **NO CLASS MONDAY – VETERANS DAY**
   Exam 3 – Friday 11/15 (Module 3)

14  (11/18 – 11/22)  *Conditioning Program Design*
   Wed – Conditioning Lab

15  (11/25 – 11/29)  *Athlete Safety During Conditioning*
   **NO CLASS WED OR FRI - THANKSGIVING**

16  (12/2 – 12/4)  *Recovery Modalities*
   Lab Practical Exam – 11/25-12/4
   Final Project Due 12/4

**FINAL EXAM: THURSDAY 12/12/2019 AT 12:30 – 2:30PM**

**SUCCESS AND STUDY TIPS:**

- Complete all assignments. It may seem like there are too many assignments, but each one is designed to take 15min or less and is meant to engage you on a daily basis with the material.
- Read module chapters and research articles carefully
- There are lots of participation points that collectively account for a large percentage of your grade. Performing well on exams is not enough to earn an A in this course, you must participate in the course by completing all assignments.