

Strength and Conditioning for Beginning Practitioners

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APK5177 | 3 Credits | Fall 2024

Course Info

INSTRUCTOR

Christopher Brown, PhD, LAT, ATC, CSCS, TSAC-F, PES, OPE-C
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Clinical Education Coordinator, Doctor of Athletic Training Program
Office Location: 124FLG
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OFFICE HOURS

Will be posted in CANVAS during the semester
If you would like an appointment, please click [HERE](#)

MEETING TIME/LOCATION

Access course through Canvas on UF e-Learning
(<https://elearning.ufl.edu/>) & the Canvas mobile app by Instructure

COURSE DESCRIPTION

This course addresses the principles of designing training programs of varying duration aimed at improving muscular strength, power, speed, agility, endurance, balance, stability, and hypertrophy. Emphasis will be placed on creating and administering evidence-based periodized training programs and ensuring safe and productive technique of fundamental exercises in each modality.

PREREQUISITE KNOWLEDGE AND SKILLS

There are no prerequisites to the course.

REQUIRED AND RECOMMENDED MATERIALS

Textbook	ISBN	
Essentials of Strength and Conditioning Author: National Strength and Conditioning Association Publisher: Human Kinetics Year: 2015 Edition: 4th	9781492501626	Required
Exercise Technique Manual for Resistance Training Author: National Strength and Conditioning Association Publisher: Human Kinetics Year: 2016 Edition: 3 rd	9781492506928	Recommended
All other reading materials will be available on the class web page (E- Learning)		
Please view course fees (if applicable) at https://one.ufl.edu/soc/		

COURSE FORMAT

This course will utilize a lecture and assignment approach. You will be able to watch lectures on CANVAS and participate in discussions/assignments within the CANVAS shell. I will provide PowerPoint slides for you to access for information about specific points. You will need to review this information as well as the information in the textbook and from alternative readings for this course. You will be expected to be active learners outside of the classroom.

COURSE LEARNING OBJECTIVES:

- Identify the biomechanical factors that influence resistance training performance
- Describe the basic physiology of the skeletal, neuromuscular, and cardiovascular systems as they pertain to an athlete engaged in a strength and conditioning program
- Predict the expected physiological adaptations of anaerobic and aerobic training programs.
- Conduct a needs analysis of a sport and an athlete within the sport
- Create a periodized annual strength and conditioning program integrating training modalities relevant to a chosen sport
- Administer 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, and flexibility
- Adjust exercise prescriptions to meet the unique needs of youth and masters athletes
- Recommend evidence-based post-training recovery strategies to athletes.
- Identify facility administration safety considerations to limit liability risk
- Sit for the NSCA CSCS exam if desired.

Course & University Policies

PERSONAL CONDUCT POLICY

University of Florida students are bound by the Honor Pledge. On all work submitted for credit by a student, the following pledge is required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The [Student Honor Code and Conduct Code \(Regulation 4.040\)](#) specifies a number of behaviors that are in violation of this code, as well as the process for reported allegations and sanctions that may be implemented. All potential violations of the code will be reported to Student Conduct and Conflict Resolution. If a student is found responsible for an Honor Code violation in this course, the instructor will enter a Grade Adjustment sanction which may be up to or including failure of the course.

APPROPRIATE USE OF AI TECHNOLOGY

The UF Honor Code strictly prohibits [cheating](#). The use of any materials or resources prepared by another person or Entity (inclusive of generative AI tools) without the other person or Entity’s express consent or without proper attribution to the other person or Entity is considered *cheating*. Additionally, the use of any materials or resources, through any medium, which the Faculty / Instructor has not given express permission to use and that may confer an academic benefit to a student, constitutes *cheating*. The use of AI tools will facilitate student development of skills and knowledge acquisition within the stated learning objectives of the course and are permitted in this course. When students opt to leverage AI tools to augment their submitted products, they will be expected to appropriately cite the tool(s) utilized. Further, students will be held accountable under the scope of the UF Student Honor Code & Conduct Code for the content of all work they submit (including the portions that may have been produced in part or whole by an external Entity—including AI). Thus, students should engage in active editorial and underwriting efforts to ensure the totality of the work submitted reflects their intentions and ethical values.

EXAM MAKE-UP POLICY

There will be NO make-up examinations unless exceptional conditions occur (as defined in the University of Florida Undergraduate Catalog). Please see this link for more information.

<http://www.registrar.ufl.edu/catalog/policies/regulationattendance.html> Prior permission from the professor is required. There will be a time limit for each examination. Examinations will evaluate the understanding of material from lecture, text, and other supplemental material provided.

ACCOMMODATING STUDENTS WITH DISABILITIES

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting their Get Started page at <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

COURSE EVALUATIONS

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Thank you for serving as a partner in this important effort. Students should provide feedback on the quality of instruction in this course by completing online evaluations. 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. Summary results of these assessments are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Getting Help

- ***U Matter, We Care:*** If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- ***Counseling and Wellness Center:*** Visit the [Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.
- ***Student Health Care Center:*** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the [Student Health Care Center website](#).
- ***University Police Department:*** Visit [UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- ***UF Health Shands Emergency Room / Trauma Center:*** For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; or visit the [UF Health Emergency Room and Trauma Center website](#).
- ***GatorWell Health Promotion Services:*** For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273-4450.

ACADEMIC RESOURCES

- ***E-learning technical support:*** Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- ***Career Connections Center:*** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- ***Library Support:*** Various ways to receive assistance with respect to using the libraries or finding resources.
- ***Teaching Center:*** Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.
- ***Writing Studio:*** 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

- **Student Complaints & Grievances:** Students are encouraged to communicate first with the involved person(s), but [here](#) is more information on the appropriate reporting process.

APK ADMINISTRATORS

For suggestions or concerns related to APK courses or programming, please reach out to any of the following:

- Dr. David Vaillancourt (he/him), APK Department Chair, vcourt@ufl.edu
- Dr. Demetra Christou (she/her), APK Department Vice Chair, ddchristou@hhp.ufl.edu
- Dr. Steve Coombes (he/him), APK Graduate Coordinator, rachelseidler@ufl.edu
- Dr. Joslyn Ahlgren (she/her), APK Undergraduate Coordinator, jahlgren@ufl.edu

Grading

Students will earn their course grade based on completion of coursework as outlined in the Grading Criteria listed below. Percentage calculations are rounded up at “.6 or above” and rounded down at “.5 or below”. For more information regarding Grade Point Averages, Grade Values, etc. please visit the University registrar website <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

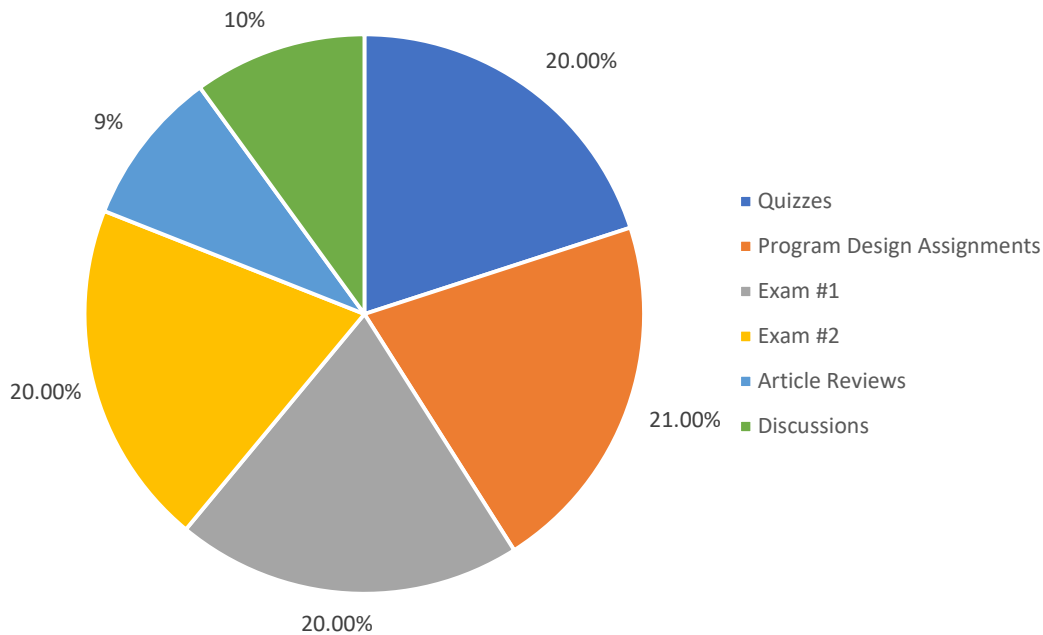
GRADING CRITERIA

Letter Grade	Grade Points	Percentage
A	4.00	100-91.5
A-	3.67	91.4-88.5
B+	3.33	88.4-86.5
B	3.00	86.4-79.5
C+	2.33	79.4-76.5
C	2.00	76.4-71.5
D+	1.33	71.4-69.5
D	1.00	69.4-59.5
E	0.00	Below 59.5

ASSIGNMENTS

• Quizzes (12)	20%
• Program Design Assignments (7)	21%
• Exam #1	20%
• Exam #2	20%
• Discussions	10%
• Article Reviews (3)	9%

Grade Breakdown



Quizzes:

- You have up to 3 attempts to answer all questions correctly
- You will be unable to see your responses or the correct answers between attempts.
- The highest score will be kept as your score.
- The quiz is untimed so please take all the time you need on each attempt.
- The quiz is open book and open note.
- Answers will display for 24 hours once the quiz has closed.

Program Design Assignments:

- These assignments give a chance to showcase the practical skills learned in select modules by designing a program for a select client or group of athletes
- Each program will be evaluated by a random peer in the course. The Peer evaluator will be randomly assigned by CANVAS.
- These assignments are graded as Complete/Incomplete

Exam #1:

- The exam is 50 questions, all multiple-choice.
- Each question only has three answer choices.
- I won't know what questions you'll get until after you take the exam.
- 50 Questions will be randomly pulled from the exam banks.
 - 45 from the general bank
 - 5 from the research articles bank
- You are allowed 2 attempts on the exam. You will be not able to view the questions and your answers between attempts. The highest score from the 2 attempts is used in calculating your final grade.
- You will not be able to see correct answers until after the exam window has passed.
 - Exam questions and correct answers will be posted the day after the Exam for 24 hours.
- The exam is not timed, but you can't work on it past the Due Date/Time. Be finished before then.
 - Keep in mind the exam is on Eastern Standard Time for those in different time zones.
- Honorlock will be on during the exam. There is a basic calculator. Notes, scratch paper, and textbook are **NOT** permitted (different than quizzes).

Exam #2:

- The exam is 65 questions, all multiple choice.
 - 14 questions will be pulled from the Exam #1 question bank
 - 51 questions will be from the Exam #2 question bank
- Each question only has three answer choices.
- You are allowed 2 attempts on the exam. You will be not able to view the questions and your answers between attempts. The highest score from the 2 attempts is used in calculating your final grade.
- These questions may involve the assigned chapter(s) in the modules, the assigned research article(s) in the modules. While some questions may overlap the 2 attempts, you should not expect the second attempt to be identical to the first.
- You will not be able to see correct answers until after the exam window has passed.
- Exam questions and correct answers will be posted the day after the Exam for 24 hours. The exam is not timed, but you can't work on it past the Due Date/Time. Be finished before then.
 - Keep in mind the exam is on Eastern Standard Time for those in different time zones.
- Honorlock will be on during the exam. There is a basic calculator. Notes, scratch paper, and textbook are **NOT** permitted (different than quizzes).

Discussions:

- This is the online discussion posting board for the course.
- Content will be based on course materials
- Rubric:

Criteria	Ratings		Pts
Length of Post Discussion thread posts should be 40 words or more in length.	1 pts Full Marks Post is 40 or more words in length	0 pts No Marks	1 pts
Depth of Post A thoughtful response to the discussion question is evident in the post.	1 pts Full Marks A thoughtful response to the discussion question is evident in the post.	0 pts No Marks	1 pts
Accuracy of Post The post contains information that is supported by the class learning materials or does not contradict class materials.	1 pts Full Marks The post contains information that is supported by the class learning materials or does not contradict class materials.	0 pts No Marks	1 pts
Writing Skill of Post The post should contain proper grammar and spelling.	1 pts Full Marks The post is written with proper grammar and spelling.	0 pts No Marks	1 pts
Collegiality Each student should reply to at least one of their classmate's posts by the due date of the discussion.	1 pts Full Marks Student replied to at least one of their classmate's posts by the due date	0 pts No Marks	1 pts
Total Points: 5			

Article Reviews:

- Students are expected to post 3 research article synopses to CANVAS by the Due Date. Each article synopsis requires students to search a relevant database of research journals (i.e. Google Scholar,

SportDiscus, PubMed) to find a peer-reviewed research article related to one of the course topics. Students should read the selected articles in their entirety.

- The synopsis should be written and should include the following headers:
 - Reason for Selection
 - Research Problem
 - Methods
 - Results/Conclusions
 - Takeaways.
- Students should briefly summarize why they selected the article, what research problem was addressed in the article, how the experiment was conducted, the most important results and explanations for the results provided by the authors of the study, and what information from the article can be used by classmates in their strength and conditioning decision making processes.
- All assignments will be automatically graded by Turn-it-in upon submission. Results should show blue or green.
- Please include a citation or copy of the article with the assignment.
- Rubric:

Criteria	Ratings		Pts	
Headers All 5 headers were listed	1 pts Full Marks All 5 headers were listed	0 pts No Marks Fewer than 5 headers were listed	1 pts	
Summaries A thoughtful summary was included under each header.	2 pts Full Marks A thoughtful summary was included under each header.	1 pts Partial A thoughtful summary was included under 4 out of 5 headers.	0 pts No Marks A thoughtful summary was included under 3 or fewer headers.	2 pts
Turn-it-in Turn-it-in score was Green or Blue	1 pts Full Marks Turn-it-in score was Green or Blue. If no score due to turn-it-in program issue then instructor will give point.		0 pts No Marks Turn-it-in score was not green or blue	1 pts
Article Citation/Copy A copy of the article or citation was included in the assignment	1 pts Full Marks A copy of the article or citation was included in the assignment	0 pts No Marks A copy of the article or citation was not included in the assignment	1 pts	
			Total Points: 5	

Weekly Course Schedule

Module Start	Topics	Assignments	Assignment Due Date
Aug 22 nd	Syllabus/Introduction	S&C History: Quiz Discussions Due Throughout Semester	Sept 8 th
Aug 22 nd	Body Systems and Bioenergetics	Chapter 1&3: Quiz Program Design: Bioenergetics	Sept 8 th
	Age and Sex	Chapter 7 Quiz	
Sept 9 th	Testing	Chapter 12-13: Quiz Program Design: Testing	Sept 22 nd
	Warm-up/Flexibility	Chapter 14: Quiz Program Design: Warm-up/Flexibility	
Sept 23 rd	Exercise Technique	Chapter 15-16: Quiz Article Review #1	Oct 6 th
	Program Design	Chapter 17: Quiz Program Design: Resistance Training	
Oct 7 th	Midterm		Oct 13 th
Oct 14 th	Plyometrics	Chapter 18: Quiz Program Design: Plyometrics	Oct 27 th
	Speed and Agility/Aerobic	Chapter 19-20: Quiz Article Review #2	
Oct 28 th	Periodization	Chapter 21: Quiz Program Design: Periodization	Nov 10 th
	Recovery	Program Design: Recovery	
Nov 11 th	Biomechanics	Chapter 2: Quiz	Dec 1 st
	Facility Design/Legal	Chapter 23-24: Quiz Article Review #3 Discussions Due Throughout Semester	
Dec 2 nd	Final Exam		Dec 8 th

***All Assignments are due by 11:59pm EST of the date listed.**