UF Department of Applied Physiology and Kinesiology
College of Health and Human Performance
UNIVERSITY of FLORIDA

Strength and Conditioning for Beginning Practitioners

APK5177 | 3 Credits | Fall 2025

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Course Info

INSTRUCTOR

Christopher Brown, PhD, LAT, ATC, CSCS, TSAC-F, PES, OPE-C
Clinical Associate Professor
Clinical Education Coordinator, Doctor of Athletic Training Program
Office Location: 122FLG
Email: cdbrown7@ufl.edu

OFFICE HOURS

Office Hours: Will be held for 2 hours each week and the schedule will be posted on CANVAS.
If you would like an appointment, please click HERE

MEETING TIME/LOCATION

Access course through Canvas on UF e-Learning & 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: 2022 Edition: 4th	9781718211704	Recommended
All other reading materials will be available on the class web page (E-Learning)		
Please view course fees (if applicable)		

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.

University Policies

- University policy is listed **here**

Course Policies

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). 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.

COURSE EVALUATIONS

1) The email they receive from GatorEvals,
2) Their Canvas course menu under GatorEvals,
3) The central portal
    a. Guidance on how to provide constructive feedback is available here.
    b. Students will be notified when the evaluation period opens. Summaries of course evaluation results are available to students here

APK ADMINISTRATORS

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

- Dr. David Vaillancourt, APK Department Chair, vcourt@ufl.edu
- Dr. Demetra Christou, APK Department Vice Chair, ddchristou@hhp.ufl.edu
- Dr. Steve Coombes, APK Graduate Coordinator, rachaelseidler@ufl.edu
- Dr. Anna Gardner, APK Undergraduate Coordinator, akgardner@ufl.edu

Grading

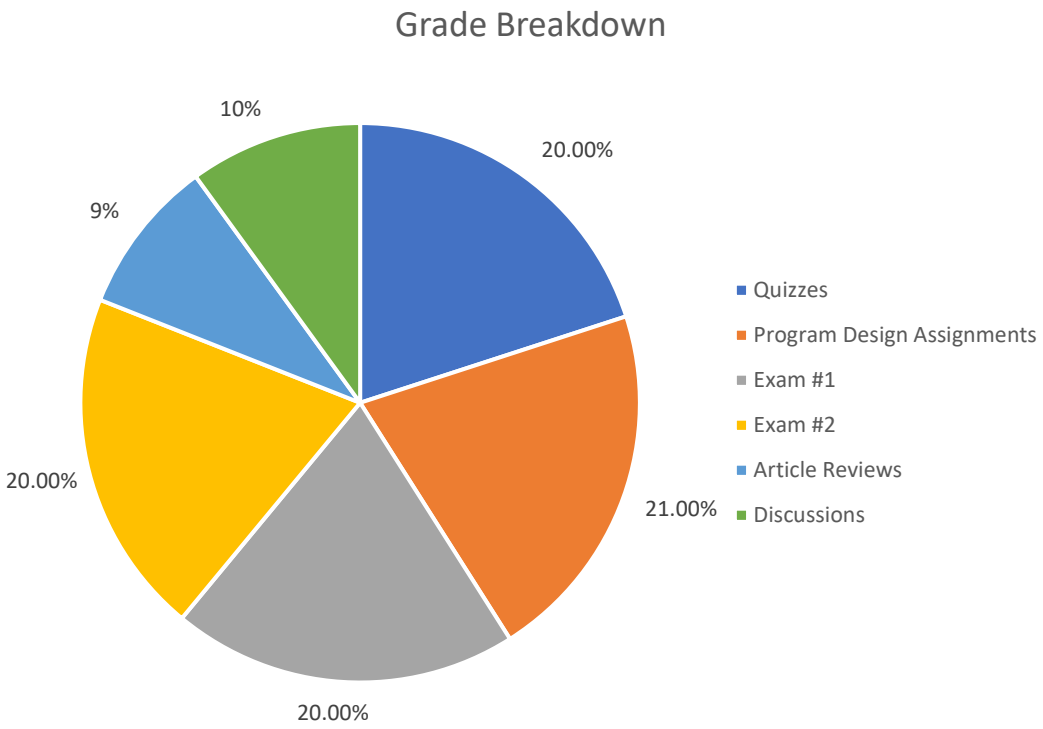
Students will earn their course grade based on completion of coursework as outlined in the Grading Criteria listed below. Percentage calculations are rounded up at ".6 or above" and rounded down at ".5 or below". For more information regarding Grade Point Averages, Grade Values, etc. please visit the University registrar website

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%



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 21st	Syllabus/Introduction	S&C History: Quiz Discussions Due Throughout Semester	Sept 7th
Aug 21st	Body Systems and Bioenergetics	Chapter 1&3: Quiz Program Design: Bioenergetics	Sept 7th
	Age and Sex	Chapter 7 Quiz	
Sept 8th	Testing	Chapter 12-13: Quiz Program Design: Testing	Sept 21st
	Warm-up/Flexibility	Chapter 14: Quiz Program Design: Warm-up/Flexibility	
Sept 22nd	Exercise Technique	Chapter 15-16: Quiz Article Review #1	Oct 5th
	Program Design	Chapter 17: Quiz Program Design: Resistance Training	
Oct 6th	Midterm		Oct 12th
Oct 13th	Plyometrics	Chapter 18: Quiz Program Design: Plyometrics	Oct 26th
	Speed and Agility/Aerobic	Chapter 19-20: Quiz Article Review #2	
Oct 27th	Periodization	Chapter 21: Quiz Program Design: Periodization	Nov 9th
	Recovery	Program Design: Recovery	
Nov 10th	Biomechanics	Chapter 2: Quiz	Nov 30th
	Facility Design/Legal	Chapter 23-24: Quiz Article Review #3 Discussions Due Throughout Semester	
Dec 1st	Final Exam		Dec 7th

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