

Strength and Conditioning for Beginning Practitioners

APK5177 | 3 Credits | Summer 2025

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Course Info

INSTRUCTOR

Blain Harrison, Ph.D, CSCS*D, TSAC-F, PES
Instructional Associate Professor
Office Location: FLG106J
Email: blainharrison@ufl.edu

OFFICE HOURS

Mondays 12 – 2PM on 6/30, 7/7, and 8/4

If you would like an appointment, please click [HERE](#)

MEETING

TIME/LOCATION

See Study Abroad Itinerary for class meeting times

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	Optional

Instructional materials for this course consist of only those materials specifically reviewed, selected, and assigned by the instructor(s). The instructor(s) is only responsible for these instructional materials.

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 information about specific points. You will need to review this information as well as the information in the textbook. You will be expected to be active learners inside and 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

UF STUDENT COMPUTING REQUIREMENTS:

Per the UF student computing requirements, “access to and on-going use of a computer is required for all students.” UF does not recommend students relying on/regularly using tablet devices, mobile phones or Chromebook devices as their primary computer as it may not be compatible with specific platforms used in this course or UF (<https://it.ufl.edu/policies/student-computing-requirements/>). Access to fast, secure Wi-Fi will be necessary for this course. If a student is in an area with limited wi-fi access, UF students can access **eduroam** for free with their GatorLink log-in credentials.

How to connect to eduroam:

1. If you can get a Wi-Fi signal at any of the eduroam locations (see below) and your mobile device (laptop, smartphone, or tablet) has already been configured for eduroam, then you will automatically connect.
2. Otherwise, follow the instructions for connecting here: <https://helpdesk.ufl.edu/connecting-to-eduroam-off-campus/>.

There are more than 100 Wi-Fi hotspots in Florida, including several state university campuses and community colleges. You don't have to sit in a car--many locations have open spaces and communal rooms available so you can get online while socially distancing and following CDC guidelines in an air-conditioned space. Also, in Florida all of the UF/IFAS Research and Education Centers (REC) are equipped with eduroam, so if you live in a rural area of your county you can visit an REC to securely watch course videos and take care of your academic needs. Here's a link to all the eduroam sites in the U.S.: <https://incommon.org/eduroam/eduroam-u-s-locator-map/>.

If you have any problems connecting to eduroam you can call (352-392-HELP/4357) or [email](#) the UF Computing Help

Desk.

The UF Computing Help Desk is available to assist students with technical issues. If you have any issues accessing the online course material, you must contact the UF Computing Help Desk immediately for assistance and obtain a case number. **I will not accept late assignments, or change any course dates, due to technology difficulties if you do not have a case number prior to the due date for the assignment.**

Other resources are available at: <https://distance.ufl.edu/getting-help/>

ATTENDANCE

While an attendance grade is not used to calculate your final grade in this course, students are expected to attend all weekly class meetings. The midterm and final exam will be administered in class only.

PARTICIPATION POLICY

Active participation in the course is mandatory. Interaction with the course through graded Discussion boards in each module makes up the participation grade and is part of the final grade in the course.

PERSONAL CONDUCT POLICY

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." Students will exhibit behavior consistent with this commitment to the UF academic community. Academic misconduct appears in a variety of forms (including plagiarism) and may be punishable in a variety of ways, from failing the assignment and/or the entire course to academic probation, suspension or expulsion. On all work submitted for credit by students at the university, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."** Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Faculty will not tolerate violations of the Honor Code at the University of Florida and will report incidents to the Dean of Students Office for consideration of disciplinary action. The Honor Code (<https://sccr.dso.ufl.edu/students/student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. If you have questions about what constitutes academic misconduct before handing in an assignment, see your instructor.

EXAM MAKE-UP POLICY

Unless excused based on [University policies](#) missed examinations and non-submitted or late assignments will be not be evaluated and will be assigned a grade of 0. Obtaining approval for make-up exams or make-up assignments is the responsibility of the student. Students with medically or emergency related circumstances should utilize the UF Care Team's [Contact My Instructor](#) service provided by the UF Dean of Students Office.

Any non-medical or emergency related circumstances require students to submit a written request explaining why an exception is being requested. The written request must include official documentation that provides proof that the missed coursework was due to acceptable reasons outlined by University policy.

ACCOMMODATING STUDENTS WITH DISABILITIES

Students requesting accommodation for disabilities must first register with the [Dean of Students Office](#). 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. Accommodation is 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 professional and respectful feedback on the quality of instruction in this course by completing course evaluations online. Students can complete evaluations in three ways:

1. The email they receive from GatorEvals,
2. Their Canvas course menu under GatorEvals, or
3. The central portal at <https://my-ufl.bluera.com>

Guidance on how to provide constructive feedback is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Getting Help

HEALTH & 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 option 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>. 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/>
- Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<http://writing.ufl.edu/writing-studio/>
- Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> On-Line Students Complaints: <http://distance.ufl.edu/student-complaint-process/>

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	100-92.5
A-	3.67	91.4-89.5
B+	3.33	89.4-86.5
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

Evaluation Components	Points Per Component	Weighted % of Total Grade
Module Quizzes	160 points	25%
Discussion Boards	125 points	10%
Applied Assignments	100 points	15%
Article Synopses (x4)	50 points	10%
Exam 1	100 points	20%
Exam 2	100 points	20%

Module Quizzes - Each learning module contains a graded quiz consisting of 10 or 20 objective questions related to all components of the module. Quiz questions will be randomly selected from a question bank specific to each module. All quizzes are available from the first day of classes, and all assignments are due by 11:59pm, Friday August 8. Students are permitted **ONE** attempt on each module quiz. Students are permitted to utilize their textbooks, lecture notes, or lecture videos while completing the quizzes. Explanations are provided for every question within the quiz question banks and students will be able to see the correct answer along with the corresponding explanation upon submitting the quiz. Honorlock is NOT needed for Module Quizzes.

Discussion Boards – Each of the 12 learning modules contains a graded Discussion Board assignment. These assignments offer students an opportunity to reflect on the application of the course material and how it may impact their personal life and career. Each Discussion Board assignment is worth 5 points. A rubric is used to grade responses to ensure students provide thoughtful reflections and meaningful interactions with their classmates. The rubric used is provided below:

Length of Post: Discussion thread posts should be 200 words or more in length.	2 pts Full Marks Post is 200 or more words in length.	0 pts No Marks Post is less than 200 words in length.
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Depth of post: The post demonstrates a thoughtful response to the discussion question.	2 pts Full Marks A thoughtful response to the discussion question is evident in the post.	0 pts No Marks A thoughtful response to the discussion question is not evident in the post.
Accuracy of Post: The post contains information that is supported by the class learning materials.	2 pts Full Marks The post contains information that is supported by the class learning materials.	0 pts No Marks The post contains information that is not supported by the class learning materials.
Writing skill of post: The post should contain proper grammar and spelling.	2 pts Full Marks The post is written with proper grammar and spelling.	0 pts No Marks The post contains one or more grammar or spelling errors.
Collegiality: Each student should reply to at least one of their classmate's posts with a minimum of 50 words by the due date of the discussion.	2 pts Full Marks Student replied to at least one of their classmate's posts with a minimum of 50 words by the due date.	0 pts No Marks Student did not reply to one of their classmate's posts and/or did not use a minimum of 50 words by the due date.

Applied Assignments – Involve practical application of course content. Specific instructions are provided for each assignment within Canvas and each assignment is graded as “Complete” or “Incomplete” according to whether the instructions were followed completely.

Article Synopses - Students will search the available sports nutrition literature using a relevant database of research journals (i.e., Google Scholar, SportDiscus, PubMed) to find 4 peer-reviewed research articles related to one of the course topics for deeper reflection. Article synopses are due at the end of modules 3, 6, 9, and 12, respectively. After reading the article, the student will write a synopsis of it to include the following 9 topic headers: 1. Reason for Selection 2. Background, 3. Purpose of Study, 4. Methods, 5. Results and Conclusions, 6. Transferability, 7. Takeaways, 8. Follow Up Study, 9. Limitations. Each article synopsis assignment is worth 10 points and a rubric is used for grading. The rubric is provided below:

Reason for Selection	1 pts Full Marks A description of why the student selected the article is provided.	0 pts No Marks A description of why the student selected the article is not provided.
Background	1 pts Full Marks Background information on the article topic is provided	0 pts No Marks Background information on the article topic is not provided
Purpose of the Study	1 pts Full Marks Purpose of the study is provided in student's own words.	0 pts No Marks Purpose of the study is not provided or is pasted directly from the article.
Methods	1 pts Full Marks	0 pts No Marks Description of how the study was conducted is not provided

	Description of how the study was conducted is provided in student's own words.	or is pasted directly from the article.
Results and Conclusions	1 pts Full Marks Explanation of data reported and relevant conclusions are provided.	0 pts No Marks Explanation of data reported and relevant conclusions are not provided.
Transferability	1 pts Full Marks The post demonstrates a thoughtful response to the reflection of how the results may impact different populations from those in the study.	0 pts No Marks The post does not demonstrate a thoughtful response to the reflection of how the results may impact different populations from those in the study.
Takeaways	1 pts Full Marks The student describes what aspects of the article they will use in their own practice.	0 pts No Marks The student does not describe what aspects of the article they will use in their own practice.
Follow Up Study	1 pts Full Marks The student proposes a design for a follow up study.	0 pts No Marks The student does not propose a design for a follow up study
Limitations	1 pts Full Marks The student describes what they would have done differently had they designed the study themselves.	0 pts No Marks The student does not describe what they would have done differently had they designed the study themselves.
Article Upload	1 pts Full Marks A pdf copy of the article is uploaded with the synopsis.	0 pts No Marks A pdf copy of the article is not uploaded with the synopsis.

Exam #1 – The midterm exam consists of 50 objective questions (multiple choice, matching, true/false) worth **2 points** each. Questions will require the application of course material or knowledge of basic scientific principles covered within each of the first 6 learning modules. Exam questions are generated by the course instructor and are randomly selected from midterm exam specific question banks from the first 6 modules. Students should prepare for the exam by completing all weekly course readings, practice activities, and module quizzes prior to the exam. **ONE** attempt is allowed on Exam #1. Explanations are provided for every question within the exam question banks and students will be able to see the correct answer along with the corresponding explanation upon submitting the exam.

Exam #2 - The cumulative final exam will consist of 100 objective questions (multiple choice, matching, true/false) worth **1 points** each. Questions will require the application of course material or knowledge of basic scientific principles covered within each of the 12 learning modules. Exam questions are generated by the course instructor and are randomly selected from final exam specific question banks from all 12 learning modules. Students should prepare for the exam by completing all weekly course readings, practice activities, and module quizzes prior to the exam. The

exam is not timed; however, the Honorlock proctoring service is required to complete it. Honorlock is included on the e-Learning platform and no additional downloads are required. **ONE attempt** is allowed on the final exam. Explanations are provided for every question within the exam question banks and students will be able to see the correct answer along with the corresponding explanation upon submitting the exam.

Weekly Course Schedule

	Module Topic	Assignments
Module 1	Body Systems/Bioenergetics	Quiz, Discussion, Applied Assignment 1
Module 2	Biomechanics	Quiz, Discussion
Module 3	Endocrine System	Quiz, Discussion, Article Synopsis 1
Module 4	Adaptations to Exercise	Quiz, Discussion
Module 5	Age and Sex Differences/Warm-Up	Quiz, Discussion, Applied Assignment 2
Module 6	Exercise Testing	Quiz, Discussion, Applied Assignment 3, Synopsis 2
Exam #1		Exam #1 in class
Module 7	Resistance Exercise Technique	Quiz, Discussion
Module 8	Resistance Program Design	Quiz, Discussion, Applied Assignment 4
Module 9	Plyometrics/SAQ Training	Quiz, Discussion, Applied Assignment 5, Synopsis 3
Module 10	Aerobic Program Design	Quiz, Discussion
Module 11	Periodization/Recovery	Quiz, Discussion, Applied Assignment 6
Module 12	Facility Management	Quiz, Discussion, Applied Assignment 7, Synopsis 4
Exam #2		Exam #2 (online)

All 12 learning modules are available from the first day of classes and all module assignments are set to be due on the last day of classes in the term. Students should complete as many module assignments as possible prior to traveling to Australia to minimize the time needed to dedicate to course assignments while in country. Students will have one week remaining in the term upon their return from Australia. All assignments must be submitted by the last day of the term, including Exam #2. Exam #2 is proctored using Honorlock.