

# Clinical Research in Athletic Training II

ATR 7629 | 3 Credits | Spring 2023

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## Course Info

<b>INSTRUCTOR</b>	<b>Dr. Brady L. Tripp, LAT, ATC</b> Office: 148 FLG Office Phone: 352-294-1725 Email: <a href="mailto:trippb@ufl.edu">trippb@ufl.edu</a> Preferred Method of Contact: <b>Email</b>
<b>OFFICE HOURS</b>	By appointment, Tuesdays 2:00-4:00, email to confirm.
<b>MEETING TIME/LOCATION</b>	In-person Thursdays, 8:30AM-11:30AM / Yon Hall 11

## COURSE DESCRIPTION

Advances the research experience for Athletic Trainers and fosters the integration of evidence-based clinical practice for improved patient outcomes. Students will improve professional writing skills and scholarship appraisal and produce a scholarly work (e.g., presentation, publication).

## PREREQUISITE KNOWLEDGE & SKILLS

Pre-requisite: ATR 7628 Clinical Research in Athletic Training I.

## REQUIRED & RECOMMENDED MATERIALS

Textbook	ISBN	
Research Methods: A framework for evid. based clinical practice Author: Wendy Hurley, Jay Hertel, and Craig Denegar Year: 2010, Edition: 1st	978-0781797689	Required
All other reading materials will be available on the class Canvas page or the instructor will provide soft or hard copies in person. Journal articles will be used frequently. Other articles will be available online and retrieved from various libraries.		

## COURSE FORMAT

Course material will be presented through video and in-person lectures, online materials, and interactive workshop formats with 3.0 contact hours per week. This class will consist primarily of class roundtable discussions and some didactic presentations. Canvas will provide students with video lectures, content to supplement discussions, details regarding assignment expectations and grading criteria/rubrics and serve to assist the student with applicable resources for programmatic success within the Doctor of Athletic Training Program.

## COURSE LEARNING OBJECTIVES

1. Identify and examine the components and application of disablement models in sports medicine
2. Create clinically relevant questions; design and apply searches for recently published meta-analyses and systematic reviews
3. Locate and critique recently published studies, meta-analyses, and systematic reviews using critical appraisal tools (PEDRo, QUADAS, PRISMA, etc.)
4. Organize, evaluate, and synthesize published evidence and author professional writing and presentations to disseminate results yielding a scholarly project suitable for submission to a peer-reviewed journal and/or sports medicine related conference presentation

## Course & University Policies

### ATTENDANCE & PARTICIPATION POLICY

Attendance is mandatory. Students must provide a written notification of an absence (i.e., email) at least 24 hours prior to class; excused absences will be evaluated based on university policy. Students with an excused absence will be afforded make-up opportunities under the University guidelines. Prior preparation through chapter readings and outlining will enable active participation for productive discussions. Requirements related to class attendance are consistent with [University policies](#).

**Critical-Thinking Questions and Participation:** Each student, as part of his/her participation, is expected to ask questions. Insightful questions will be monitored during the year and contribute to participation grade. In addition, attending class, contributing to class, and useful information provided during class will be counted toward your participation grade. Any class period listed as "discussion", requires prior review of posted content to facilitate a valuable learning experience. Failure to come to class "prepared" creates an ineffective environment for valuable exchange of information. The instructor will use the rubric in the table below to assign participation points during discussion sessions (see dates within the course schedule listed as "discussion").

Excellent	10 pts	Defines, describes, and illustrates concepts Explains, assesses, and criticizes ideas Demonstrates preparation and reading of assignments
Good	8 pts	Defines, describes, and illustrates concepts Explains, assesses, and criticizes ideas Evidence of reading assignments, but not fully prepared
Reasonable	6 pts	Defines, describes, and illustrates concepts Explains, assesses, or criticize some ideas Evidence of incomplete reading of assignments and preparation
Basic	4 pts	Defines and describes some concepts Explains but cannot assess and criticize ideas Clearly unprepared and lacking evidence of reading assignments
Bare Minimum	2 pts	Defines and describes some concepts Unable to explain, assess, or criticize ideas Clearly unprepared and lacking evidence of reading assignments
Unacceptable	0 pts	Refuses to engage in discussion or answer questions when asked Engaged into inappropriate behaviors (using cell phone, social media, visiting irrelevant websites) Not present

## PERSONAL CONDUCT POLICY

**Academic Honesty:** 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](#) specifies several 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.

- All students are expected to conduct themselves in a respectful and responsible manner
- All students are expected to be on time for class
- All students are expected to turn off or silence their electronics
- All students are expected to not participate in actions that may disrupt the class
- The instructor reserves the right to ask any student to leave the classroom if the student violates any the above class expectations

**Plagiarism:** Defined as the use and appropriation of another's work without any indication of the source and the representation of such work as the student's own. Any student, who fails to give credit for ideas, expressions or materials taken from another source, including internet sources, projects/papers submitted for another course (either intentional or unintentional), is guilty of plagiarism (*please refer to the DAT Program Plagiarism Policy in the Student Handbook*).

## EXAMINATION & MAKE-UP POLICY

A written examination will be administered via e-learning and will range in points from 75 – 300 and include a variety of question formats (e.g., multiple choice, select all that apply, matching and rank order). There will be no make-up examinations unless exceptional conditions occur (as defined in the [University of Florida Catalog](#)). Prior permission from the professor is required.

A student experiencing an illness should visit the UF Student Health Care Center or their preferred healthcare provider to seek medical advice and obtain documentation. If you have an illness, family emergency or death, please contact the [Dean of Students Office](#) and follow the [DSO Care Team procedures](#) for documentation and submission of a request for make-up assignment. The DSO will contact the instructor. Do not provide any documentation to the instructor regarding illness or family emergency; this is your personal and protected information. The DSO is qualified to receive and verify the documents you provide. The instructor will follow the recommendations from the DSO. 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](#).

There will be a time limit for each examination. Examinations will evaluate your understanding of material from lecture, text, and other supplemental material provided. Examinations may be administered via e-learning using lock-down browser or additional proctoring method. You should visit the [website](#) (links to an external site) and download "Lock Down Browser" for either Windows or MAC. It may take 5-10 minutes to download so please complete the process prior to accessing an examination. As a reminder, please be sure to have a secure internet access when taking examinations - do not use a Wi-Fi access, as this is not a stable and consistent option. For MAC users, Safari is not a compatible internet browser with Canvas - please use either Internet Explorer, Google Chrome, or Firefox (version 10 or 12 - not version 11) when accessing the e-learning system. If you have issues during an examination, please call the help desk 352-392-4357. You should complete examinations during Help Desk hours so you will have access to assistance if needed. If you have an issue during a quiz/examination, please email the instructor once you have submitted the examination. Access to examinations after submission is restricted, but you will see the grade and it will be posted in the course gradebook. 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](#).

**Quizzes:** Quizzes will assess learning progress from lecture material and assigned readings. There will be a time limit for each quiz. To ensure that you are reading the assigned material, the quizzes may be both announced and unannounced. Quizzes will range from 1-25 points and include a variety of question formats (e.g., multiple choice, select all that apply, matching and rank order). For quizzes administered in e-Learning you may use notes only upon request of the instructor. You should employ examination best practices (stated above) for e-Learning quizzes. There will be no make-ups for missed quizzes (showing up late, etc.), unless exceptional conditions occur as defined in the University of Florida Undergraduate Catalog. Please see this [link](#) for more information. Peer-reviews and rubrics will be assigned by the instructor.

## GRADING

Letter Grade	Grade Points	Percentage
A	4.00	92 - 100
A-	3.67	89 - 91
B+	3.33	87 - 88
B	3.00	82 - 86
B-	2.67	79 - 81
C+	2.33	77 - 78
C	2.00	72 - 76
C-	1.67	69 - 71
D+	1.33	67 - 68
D	1.00	62 - 66
D-	0.67	60 - 61
E	0.00	Below 60

Item	Percentage
Canvas Written Exam (1)	20%
Systematic Review (1)	40%
Presentation of Systematic Review (1)	10%
Quizzes/Peer-Reviews/Progress Reports (11)	14%
Critical Appraisals (5-8)	14
Critical-Thinking Questions and Participation (14)	2%
<b>Total</b>	100%

More detailed information regarding current UF grading policies can be found [here](#).

## ASSIGNMENTS & PROJECTS

**Critical Appraisal Assignments:** Assignments are to be submitted on e-Learning prior to the onset of class. **LATE ASSIGNMENTS ARE NOT ACCEPTED!** The professor will assign topics a week in advance. Students will search published literature for evidence addressing the research question. Students will create a narrated PowerPoint presentation detailing their critical appraisal of an appropriate study (i.e., the assigned research design).

### Critical Appraisal Rubric:

Item	Points
Correct study design	8
Checklist items are interpreted and presented appropriately	50
PowerPoint quality	15
Video and narration quality	15
Video is within time restrictions (5 min. for a single study; 8 min. for SR or M-A)	8
A pdf of the article is included	4
<b>Total</b>	100

**Systematic Review:** Students prepare, perform, and complete an original systematic review in the format suitable for formal submission to the journal of athletic training. Various options for topics of the paper will be discussed in class and should be approved by the instructor.

**Presentation of Systematic Review:** Students develop a 10-minute presentation of their systematic review. There will be an additional 5 minutes for discussion and questions after each presentation. Students create a narrated PowerPoint presentation detailing each component of their systematic review. Presentations are to be submitted on e-Learning prior to the onset of class. LATE ASSIGNMENTS ARE NOT ACCEPTED!

**Presentation of Systematic Review Rubric:**

Section and Topic	Item #	Checklist item	Points
<b>TITLE</b>			
<b>Title</b>	1	Identify the report as a systematic review.	1
<b>ABSTRACT</b>			
<b>Abstract</b>	2	See the PRISMA 2020 for Abstracts checklist.	4
<b>INTRODUCTION</b>			
<b>Rationale</b>	3	Describe the rationale for the review in the context of existing knowledge.	2
<b>Objectives</b>	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	2
<b>METHODS</b>			
<b>Eligibility criteria</b>	5	Specify your inclusion and exclusion criteria for the review and how you grouped studies for the syntheses.	3
<b>Information sources</b>	6	Specify all databases, registers, websites, organizations, reference lists and other sources searched or consulted to identify studies. Specify the date when you last searched or consulted each source.	2
<b>Search strategy</b>	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	3
<b>Selection process</b>	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	3
<b>Data collection process</b>	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	3
<b>Data items</b>	10a	Define all outcomes for which you sought data. Specify whether you sought all results that were compatible with each outcome domain in each study (e.g., for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	2
	10b	List and define all other variables for which you sought data (e.g., participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	1
<b>Study risk of bias assessment</b>	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	2
<b>Effect measures</b>	12	Specify for each outcome the effect measure(s) (e.g., risk ratio, mean difference) used in the synthesis or presentation of results.	2

<b>Synthesis methods</b>	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g., tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	1
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	1
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	1
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	1
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g., subgroup analysis, meta-regression).	1
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	1
<b>Reporting bias assessment</b>	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	1
<b>Certainty assessment</b>	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	1
<b>RESULTS</b>			
<b>Study selection</b>	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	2
	16b	Cite studies that might appear to meet the inclusion criteria, but which you excluded, and explain why they were excluded.	2
<b>Study characteristics</b>	17	Cite each included study and present its characteristics.	6
<b>Risk of bias in studies</b>	18	Present assessments of risk of bias for each included study.	6
<b>Results of individual studies</b>	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	6
<b>Results of syntheses</b>	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	1
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g., confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	1
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	1
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	1
<b>Reporting biases</b>	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	1
<b>Certainty of evidence</b>	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	1
<b>DISCUSSION</b>			

<b>Discussion</b>	23a	Provide a general interpretation of results in context of other evidence.	5
	23b	Any limitations of the evidence included in the review.	2
	23c	Any limitations of the review processes used.	2
	23d	Implications of the results for practice, policy, and future research.	2
<b>OTHER</b>			
<b>Topic</b>		Appropriate body of evidence is available supporting/refuting question	4
<b>Format</b>		Format is correct (follows all JAT submission guidelines: Introduction (no heading), Methods (appropriate subheadings), Results (appropriate subheadings), Discussion (appropriate subheadings); see JAT guidelines for style	5
<b>References</b>		Reference list is complete (comprehensive list of appropriate literature, both reviewed and cited); citations are employed when appropriate and in correct format	4
<b>Quality of writing</b>		See 'Writing Tips' for Content, Structure and Clarity, Tenses, Jargon, Passive Voice, Author Focus, Reporting Numbers, etc.	10
			100

## Weekly Course Schedule

The course progression will tentatively follow the schedule below:

Week	Topics	Assignments
1	Overview of Syllabus, SR, & EBM	Syllabus Quiz; Discussion (CTQP)
2	Review EBM & Searching the Literature	Search Strategy Draft-1; Quiz; Discussion (CTQP)
3	Developing & Interpreting Systematic Reviews & Meta-Analyses	Search Strategy Draft-2; Quiz; Discussion (CTQP)
4	Stats Review & Developing & Interpreting SR & M-A	Quiz; Discussion (CTQP)
5	Critical Appraisal of Single Published Studies	Critical Appraisal; Quiz; Discussion (CTQP)
6	Critical Appraisal of Single Published Studies (cont.)	Critical Appraisal; SR Progress Report-1
7	Critical Appraisal of Systematic Reviews & Meta-Analyses	Critical Appraisal; Quiz; Discussion (CTQP)
8	Professional Writing - Overview & Systematic Reviews; Individual Meetings	SR Progress Report-2; Critical Appraisal; Outline SR Paper; Quiz; Discussion (CTQP)
9	Systematic Reviews & Professional Presentation Guidelines Individual Meetings	SR Progress Report-3; Peer-Review-1 of Your SR Paper (3-6); Draft-1 SR Paper; Your Peer-Review-1 of a Peer's SR Paper;
10	Disablement Models in Sports Medicine	Critical Appraisal; Peer-Review-2 of Your SR Paper; Draft-2 SR Paper; Your Peer-Review-2 of a Peer's SR Paper; Discussion (CTQP)
11	Exam; Individual Meetings	Quiz; Discussion (CTQP)
12	Individual Meetings	SR Progress Report-4
13	Presentations	Your Peer-Review of a Peer's Presentation; Peer-Review of Your Presentation; Final Presentation Video; Discussion (CTQP)
14	Presentations	Peer-Review-3 of Your SR Paper; Final SR Paper; Your Peer-Review-3 of a Peer's SR Paper; Discussion (CTQP)

CTQP, Critical Thinking Questions & Participation

## 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 [here](#). 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/>. Summaries of course evaluation results are available to students [here](#).

## Getting Help

### HEALTH & WELLNESS

- U Matter, We Care: If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575
- [Counseling and Wellness Center](#), 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)

### 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](#). 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.

### ACADEMIC RESOURCES

- [E-learning technical support](#), 352-392-4357 (select option 2) or e-mail to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu).
- [Career Connections Center](#), Reitz Union, 392-1601. Career assistance and counseling.
- [Library Support](#). 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.
- [Writing Studio](#), 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
- [Student Complaints On-Campus](#); [On-Line Students Complaints](#)

### INCLUSION, DIVERSITY, EQUITY, & ACCESSIBILITY RESOURCES

For suggestions or concerns related to IDEA, please reach out to any of the following:

- Dr. Linda Nguyen, APK IDEA Liaison, [linda.nguyen@hhp.ufl.edu](mailto:linda.nguyen@hhp.ufl.edu)
- Dr. Rachael Seidler, APK Graduate Coordinator, [rachaelseidler@ufl.edu](mailto:rachaelseidler@ufl.edu)
- Dr. Joslyn Ahlgren, APK Undergraduate Coordinator, [jahlgren@ufl.edu](mailto:jahlgren@ufl.edu)