

Diagnostic Imaging for Athletic Trainers

ATR 7229c | 3 Credits | Fall 2025

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Course Info

INSTRUCTOR Dr. Brady L. Tripp, LAT, ATC
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Office Phone: 352-294-1725
Email: trippb@ufl.edu
Preferred Method of Contact: Email

OFFICE HOURS By appointment, Tuesdays 2:00-4:00, email to confirm.

**MEETING
TIME/LOCATION** In-person
Tuesdays, 10:40 AM-1:40 PM / Yon Hall 11

COURSE DESCRIPTION

Provides Athletic Trainers background information on the physics, physiology, appropriate use and appraisal of diagnostic imaging techniques used in sports medicine including: radiography, magnetic resonance imaging, ultrasonography and nuclear medicine. Athletic Trainers develop skills interpreting diagnostic imaging and analyze the principles and procedures used in each technique.

PREREQUISITE KNOWLEDGE & SKILLS

Pre-requisite: Admission into the Doctor of Athletic Training program.

REQUIRED & RECOMMENDED MATERIALS

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, compare, and contrast the physics and physiology behind various diagnostic imaging techniques
2. Evaluate normal and abnormal anatomy or physiology on various diagnostic imaging techniques
3. Evaluate pathologic anatomy or physiology associated with conditions commonly sustained by the physically-active population
4. Critically assess the published evidence evaluating the diagnostic value of imaging used in sports medicine

Course Policies

ATTENDANCE & PARTICIPATION POLICY

Attendance is mandatory. Students must attend class to successfully reach the learning outcomes for the course. Please notify the instructor via email regarding absences at least 24 hours prior to the class. University [guidelines](#) will determine excused vs. unexcused for the absence.

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

- Please conduct yourself in a respectful and responsible manner
- Please be on time for class
- Please turn off or silence your cell phones
- Please do not participate in actions that may disrupt the class
- Please stay home if you feel unwell and notify instructor via email
- The instructor reserves the right to ask any student to leave the classroom, if the student violates any the above classroom expectations.

APPROPRIATE USE OF ARTIFICIAL INTELLIGENCE (AI) TECHNOLOGY POLICY

The UF Honor Code strictly prohibits [cheating](#). Within our course, *cheating* is 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. Additionally, the use of any materials or resources through any medium, which the instructor has not given express permission to use and that may confer an academic benefit to a student, constitutes *cheating*. In some instances, within this course, the use of AI tools will facilitate student development of skills and knowledge acquisition within the stated learning objectives. However, in other components, the use of any AI enabled tool in this course substantially compromises the student's ability to achieve the stated learning objectives. Each assignment and assessment will include a statement clarifying acceptable AI use for that respective learning assessment. When students opt to leverage AI tools to augment their submitted products, they must appropriately cite the tool(s) utilized. Further, students are accountable under the scope of the UF Student Honor Code & Conduct Code for the content of all work they submit (including the portions generated in part or whole by an external Entity—inclusive of 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.

PLAGIARISM POLICY

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*).

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DEPARTMENT OF APPLIED PHYSIOLOGY & KINESIOLOGY ADMINISTRATORS

The Athletic Training Program supports an inclusive learning environment and promotes diversity of thoughts, perspectives, and experiences. We value critical reasoning, evidence-based arguments, and self-reflection to support the growth of each student. Please refer to the Doctor of Athletic Training Program Policies and Procedures Manual (Canvas) for additional information. 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, rachaelseidler@ufl.edu
- Dr. Anna Gardner (she/her), APK Undergraduate Coordinator, akgardner@ufl.edu

EXAMINATION & MAKE-UP POLICY

Written examinations will be administered via Canvas 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). Each examination will include a practical portion that will include palpations, special tests, and diagnostic imaging. Practical portions will include a time limit of 10 to 20 minutes. 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.

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 Exams (2)	34%
Practical Exams (2)	14%
Critical Appraisals (4-5)	22%
Quizzes (13-18)	20%
Diagnostic Ultrasound Demonstration (1)	6%
Critical-Thinking Questions and Participation (13)	4%
Total	100%

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

ASSIGNMENTS & PROJECTS

Assignments/projects are to be uploaded prior to the onset of class on the date assigned to them. Late assignments/projects may not be accepted. However, we understand that different life events happen. If an assignment or project needs to be turned in late to ensure quality work and accommodate any life events you may be experiencing, please communicate this with Dr. Tripp, and the TAs. If you are traveling for a clinical-sanctioned event, your assignment/project remains due prior to the onset of class on the date assigned to them.

You will complete the following **Assignments/Projects** throughout the semester:

Critical Appraisals: Dr. Tripp will assign topics in advance. Students will search published literature for evidence quantifying the diagnostic value of an assigned imaging technique on an assigned pathology. Students complete a critical appraisal of an appropriate study (highest level of evidence and most applicable) using the appropriate checklist (QUADAS primarily, for others, see [How to Critically Appraise an Article](#)). Students create a narrated PowerPoint presentation detailing their search strategy, results and critical appraisal. Assignments are to be submitted on Canvas prior to the onset of class.

Literature Search Results and Critical Appraisal Rubric:

Criteria	Points
Search terms and results are appropriate	7
Correct study design checklist employed	7
Checklist items are interpreted and presented appropriately	48
PowerPoint quality; including a table of best evidence from 2-4 of the highest quality studies (including- and in addition to, the article you review)	14
Video and narration quality	14
Video is within time restrictions (5 min. for a single study; 8 min. for SR or M-A)	7
A pdf of the article is included	3
Total	100

Diagnostic Ultrasound Demonstration: Dr. Tripp will assign topics in advance. Students create a narrated PowerPoint/video demonstrating themselves identifying an anatomic structure using diagnostic ultrasound. Videos should be under 3 minutes in length and suitable for training classmates to perform the same technique. Students demonstrate the technique during class.

Weekly Course Schedule

The course progression will tentatively follow the schedule below:

Week	Date	Topics	Assignments
1	8-26	Overview of Syllabus and Materials; Radiography	Syllabus Quiz; Quiz-1; Discussion (Critical Thinking Questions and Participation)
2	9-2	Magnetic Resonance	Critical Appraisal; Quiz-2; Discussion (CTQP)
3	9-9	Ultrasonography	Critical Appraisal; Quiz-3; Discussion (CTQP)
4	9-16	Nuclear Medicine: Bone Scintigraphy, SPECT, PET	Critical Appraisal; Quiz-4; Discussion (CTQP)
5	9-23	SC and Shoulder	Critical Appraisal; Quiz-5; Discussion (CTQP)
6	9-30	Elbow	Critical Appraisal; Quiz-6; Discussion (CTQP)
7	10-7	Written and Practical Exam I	
8	10-14	Forearm, Wrist and Hand	Critical Appraisal; Quiz-7; Discussion (CTQP)
9	10-21	Foot and Ankle	Critical Appraisal; Quiz-8; Discussion (CTQP)
10	10-28	Knee	Critical Appraisal; Quiz-9; Discussion (CTQP)
11	11-4	Hip and Pelvis	Critical Appraisal; Quiz-10; Discussion (CTQP)
12	11-11	Thoracic and Lumbar Spine	Critical Appraisal; Quiz-11; Discussion (CTQP)
13	11-18	Cervical Spine	Critical Appraisal; Quiz-12; Discussion (CTQP)
14	12-2	Face and Mandibular / Review	Critical Appraisal; Quiz-13; Discussion (CTQP)
15	12-9	Written and Practical Exam II	

University Policies

University Academic Policies, and Academic, and Campus Health and Wellness Resources are available [here](#).