

University of Florida
College of Public Health & Health Professions Syllabus
PHT 6070C Functional Radiology and Diagnostic Imaging for Physical Therapists
Semester: Fall 2023 2nd year (2 credits)
Delivery Format: On-Campus
Course Website or E-Learning

Instructor Name: Matt Walser, PA-C, MPAS, ATC walserm@ufl.edu
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Email Address: walserm@ufl.edu
Office Hours: Friday 2-4 or by appointment
Class time: Tuesday 4:45-6:15 pm
Preferred Course Communications (e.g. email, office phone):email

Prerequisites: Functional Anatomy I, II, and Musculoskeletal I. Must be currently taking PHT 6771 Musculoskeletal II.

PURPOSE AND OUTCOME

Course Description: This course provides the DPT student with an intensive study of radiology and imaging. This will allow students to interpret images as related to common musculoskeletal disorders and determine if PT is appropriate for a patient or if a patient needs to be referred back to a physician.

Course Overview

The purpose of this course is to provide the doctoral level physical therapy student with an intensive study of radiology. By the end of the course, the student will understand the basic interpretative techniques in the many different areas of radiology. This course will emphasize the systematic approach for radiographic interpretation as well as interpretation of various radiology reports.

Relation to Program Outcomes

DPT program outcomes listed below directly relate to this course, connecting with the overall goals, activities, and course objectives.

This course will assist students to:

- *be independent problem-solvers and critical thinkers*: to prioritize and execute a plan of care for a pediatric patient by analyzing movement components using observational and hands on assessment for treatment building.
- *be autonomous practitioners able to diagnose and treat movement disorders*: Students will be able utilize differential diagnosis during an evaluation of a pediatric patient by analyzing movement components using observational and hands on assessment.
- *be physical therapists who provide safe and effective physical therapy services in a variety of clinical settings*. Students will work with pediatric patients during the clinical experience mentored by a pediatric therapist. Individual and group formative feedback will be given with regard to safety and execution of physical therapy services. Each member will develop an action plan to incorporate feedback.

Course Objectives and/or Goals

1. Recognize the importance of imaging technology used in musculoskeletal care.
2. Compare the differences and capabilities of radiography, MRI, CT, bone scintigraphy, and ultrasonography.
3. Demonstrates effective communication with other healthcare providers regarding radiological studies.
4. Explain the importance of understanding a radiological report.
5. Explain terms commonly used in diagnostic radiography, MRI, CT, bone scintigraphy, and ultrasonography.

6. Describe the basic fundamental physical principles of radiography, MRI, CT, bone scintigraphy, and ultrasonography.
7. Select appropriate positions utilized for radiography.
8. Differentiate basic anatomy in routine radiography, MRI, CT, bone scintigraphy, and ultrasonography.
9. Distinguish between the three types of densities usually seen on a radiograph and their significance.
10. Explain the importance of correlating the study with the patient's history and physical exam.
11. Determine the radiological findings that are important in formulating patient treatment plans.
12. Differentiate the different patterns of pathologic processes; including fractures, sprains, strains, effusions, stress reactions, DVT.
13. Identify the genetic anomalies commonly seen on radiographs.
14. Interpret routine radiographs and identify abnormalities and determine effect on selected treatment plan.

Instructional Methods: Blended learning, lecture, online educational experiences, demonstration, explanation, discussion, authentic cases, return demonstration, practice, and modification

Blended Learning

What is blended learning and why is it important?

A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

What is expected of you?

You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitate overall mastery of the course objectives.

Topical Outline/Course Schedule

Day	Date	Time	Topic	Required Readings
Tues	May 16	4:45p-6:15p	Introduction to Functional Radiology I	Ch. 1-3
Tues	May 23	4:45p-6:15p	Introduction to Functional Radiology II	Ch. 1-5
Tues	June 13	4:45p-6:15p	Foot and Ankle	Ch. 14
Tues	June 20	4:45p-6:15p	Knee	Ch. 13
Tues	July 18	4:45p-6:15p	Hip/Pelvis	Ch. 12
Tues	Sept 5	4:45p-6:15p	Thoracic/Lumbar Spine, SI Joint	Ch. 9,11
Tues	Sept 19	4:45p-6:15p	Soft Tissue/Non-Joint Radiology	
Tues	Oct 17	4:45p-6:15p	Cervical Spine	Ch. 7
Tues	Oct 31	4:45p-6:15p	Logistics of Imaging	
Tues	Nov 7	4:45p-6:15p	Shoulder	Ch. 15
Tues	Nov 14	4:45p-6:15p	Elbow/Wrist/Hand/Fingers	Ch. 16-17
Tues	Nov 28	4:45p-6:15p	Review/ Recap/ Misc/Etc...	
TBD	TBA	5:00p	FINAL EXAM (100pts) – aka “The Game”	

Course Materials and Technology

Textbook (required): Fundamentals of Musculoskeletal Imaging, 4th Ed. McKinnis, Lynn.
UF E learning Canvas page

For technical support for this class, please contact the UF Help Desk at:

- helpdesk@ufl.edu
- (352) 392-HELP - select option 2
- <https://helpdesk.ufl.edu/>

Additional Academic Resources

[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 On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information.](#)

On-Line Students Complaints: [View the Distance Learning Student Complaint Process.](#)

ACADEMIC REQUIREMENTS AND GRADING

Assignments

Grading

Requirement	Due date	Points or % of final grade (% must sum to 100%)
Exam 1 foot/ankle	June 20	50 points
Exam 2 knee	June 27	100 points
Exam 3 Hip	TBD	50 points
Exam 4 Thoracic/Lumbar Spine	TBD	50 points
Exam 5 Cervical Spine	TBD	50 points
Exam 6 Shoulder	TBD	50 points
Exam 7 Elbow, wrist, hand, fingers	TBD 8	100 points
Final exam	TBD	100 points
Participation exercises (10 total)	In-class	10 points each, total 100 points
Total points		650 points possible – percentage is calculated

Grading:

Percentage Earned	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	E

Exam Policy

Participation exercises: Late submissions will receive a maximum of 50% of the assigned points.

Policy Related to Make up Exams or Other Work

Students missing class because of an emergency or excused absence should contact the instructor regarding the process to complete missed exams, quizzes, or assignments and with fellow students to obtain class notes/hand-outs.

The ability to make up exams through an unexcused absence is at the instructor's discretion and will be determined on a case-by-case basis. Making up an exam missed due to an unexcused absence will be determined on a case-by-case basis and a minimum of 10% reduction will be assign from earned grade regardless of the reason for the missed exam.

A missed assignment will have a 50% point reduction is submitted late.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (<http://helpdesk.ufl.edu/>) correspondence. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

Attendance is MANDATORY. Only excused absences will be allowed, and students will need to submit the necessary documentation for these absences. Please contact the instructor as soon as possible if you are unable to attend a class for any reason. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis. Unexcused absences will result in the loss 5% of total percentage points (35 points)

Please note all faculty are bound by the UF and UFDPT policies for excused absences. Excused absences must be consistent with university policies in the Graduate Catalog (<https://catalog.ufl.edu/graduate/regulations/#text>).

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Professional Behavior is expected at all times, and can be defined as:

1. Personal responsibility for prompt arrival, and regular participation and attendance in all course activities; with appropriate and judicious use of class time.
2. **Students are expected to be thoroughly prepared for class.** Students are expected to read and study assigned materials as indicated on the course website and syllabus prior to coming to class. Students are expected to bring all materials necessary to effectively participate or those specifically designated by the instructor to class online meetings.
3. Professional work habits also include: being on time for class and staying until class is dismissed; being courteous in lecture by refraining from chatter or other distracting behaviors; turning off all other electronic devices at your end; not reading other material during class; meeting deadlines; arranging with instructor or peer to get materials or announcements if unable to attend class; arranging with the instructor in advance if unable to meet scheduled tests and assignments.
4. Students are expected to actively participate in lecture and small group discussions. Participation assists students to develop knowledge and skill in interpersonal relationships and communication by relating to one another of various backgrounds whether students, therapists, supervisors or professors. Students gain an understanding of relationships in a professional role.
5. Lecture notes and/or Power Point slides: are provided solely at the discretion of the presenter. Regardless of the provision of lecture notes/Power Point slides, students are responsible for all materials assigned and covered in class, labs, and small groups.
6. **Cell Phones:** Cell phones should be turned off and not used during online class time. This includes making or receiving phone calls and/or texting. Breaks are given throughout the block time periods to access/use your phone.

Communication Guidelines

The majority of work in this course is face to face. Consider participation in class to represent professional communication as outlined in the DPT student handbook. In addition, the following resource provides a guideline of acceptable online course communication etiquette: <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. 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.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Recording Within the Course:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Link to full policy:

<http://facstaff.php.ufl.edu/services/resourceguide/getstarted.htm>

Online Faculty Course Evaluation Process

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/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, it is strongly recommended you register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class or as soon as you believe you might be eligible for accommodations. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities should follow this procedure as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The **Counseling and Wellness Center** 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- **U Matter We Care** website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The **Student Health Care Center** at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789 <http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>
- **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; [Visit the UF Health Emergency Room and Trauma Center website.](#)

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website:

www.multicultural.ufl.edu