University of Florida College of Public Health & Health Professions Syllabus PHT 6608: Evidence Based Practice II (3 credit hours)

Semester: Summer 2025

Location: Building – Online through Zoom or Communicore 1-17 as indicated

Time: Tuesday, 9:00 – 11:00 unless otherwise indicated Delivery Format: Online and On-Campus

Course hosted on Canvas in e-Learning: https://lss.at.ufl.edu/

Co- Course Instructor:

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Prerequisites

Course participation is limited to entry-level Doctor of Physical Therapy (DPT) program students. PHT 6605

PURPOSE AND OUTCOME

Course Overview

The purpose of the evidence based practice sequence at the University of Florida is to promote active learning and to provide the student with skills to become critical consumers of the rehabilitation literature, as well as implementing these skills into their own clinical practice. Evidence Based Practice II (EBPII) will introduce important elements of the Patient/Client Management Model (Guide to PT Practice) related to intervention and outcomes with special emphasis placed on common statistical estimate interpretation, determining the validity of an intervention study, and critically analyzing the properties of outcome measures. An emphasis will be placed on using evidence to supplement clinical decision making in this part of the sequence and will prepare students for collection of standardized outcomes as required for your EBP3 Project.

Relation to Program Outcomes

The primary goal of the entry-level DPT program is to prepare entry-level students/graduates to become practitioners of collaborative, interdisciplinary, evidence-based practice and meet the dynamic needs of physical therapy healthcare consumers; with an expected outcome being that students/graduates will be independent problem-solvers and critical thinkers (<u>UF DPT Student Handbook</u>).

This course is the second of three courses in the UF DPT curriculum that focus on evidence based practice. This course directly addresses the following standards required by the Commission on Accreditation in Physical Therapy Education (CAPTE), updated most recently in October 2023:

Standard 7C: The physical therapist professional curriculum provides learning experiences in lifelong learning, education, and health care disparities* in the ever-changing health care environment.

7C1: Provide learning experiences in contemporary physical therapy knowledge and practice including:

- Evidence-informed practice.
- Interpretation of statistical evidence.

- Clinical reasoning and decision making.
- Scholarly inquiry.

Standard 7D: The physical therapist professional curriculum includes content and learning experiences designed to prepare students to achieve educational outcomes required for entry-level practice of physical therapy for patient and client management in the ever-changing health care environment

7D5: Determine a prognosis that includes patient and client goals and expected outcomes within available resources (including applicable payment sources) and specify expected length of time to achieve the goals and outcomes

7D10: Select and perform physical therapy interventions for each of the following to achieve patient and client goals and outcomes:

7D11: Monitor and adjust the plan of care to optimize patient or client health outcomes.

7D12: Assess patient outcomes, including the use of appropriate standardized tests and measures that address impairments of body functions and structures, activity limitations, and participation restrictions.

Course Objectives

Upon successful completion of this course, students will be able to:

Goal 1: Ask a focused clinical question

- 1.1 Describe and use <u>PICOTS formula</u> to develop a focused clinical question related to intervention and outcome assessment
- 1.2 Formulate patient-centered answerable (focused, searchable) clinical questions, using a systematic process for each of the principle elements of clinical practice: screening, intervention, and outcome measurement.

Goal 2: Search for the best available evidence

- 2.1 Describe and perform efficient literature search strategies.
- 2.2 Develop and effective search strategy for a clinical question related to intervention and/or outcomes

Goal 3: Critical appraisal of the evidence

- 3.1 Describing how Type I and II error rates can affect the interpretation of a statistical finding.
- 3.2 Define statistical power and identify factors which influence statistical power.
- 3.3 Differentiating between hypothesis testing for 2 means and more than 2 means.
- 3.4 Discussing different methods of post-hoc testing.
- 3.5 Differentiating between interaction and main effects reported in 2 x 2 ANOVA models.
- 3.6 Completing interpretation of selected statistical procedures.
- 3.7 Identifying ideal design for study addressing screening and prevention.
- 3.8 Identifying special issues for studies addressing harm.
- 3.9 Discussing the potential consequences of diagnostic or preventative "labeling."
- 3.10 Describing selected methodological issues related to systematic reviews, meta-analyses, and clinical practice guidelines.
- 3.11 Discussing advantages and disadvantages of systematic reviews, meta-analyses, and clinical practice guidelines.
- 3.12 Critically appraise studies of interventions and outcomes.

Goal 4: Apply the evidence

- 4.1 Discuss the facilitators and barriers to implementing evidence based practice into physical therapy clinical practice.
- 4.2 Justify the application of findings from a research study to an individual patient

Goal 5: Evaluate outcomes

- 5.1 Discuss the opportunities and challenges of implementing the collection and use of patient-reported outcomes into clinical practice.
- 5.2 Interpret estimates of magnitude (treatment effect) for interventions (i.e., effect size, NNT, relative and absolute risk, odds ratio)
- 5.3 Describe different types of outcome measures and commonly reported domains.
- 5.4 Describe key psychometric properties of outcome measures related to reliability, validity, responsiveness, floor and ceiling effects
- 5.5 Differentiate between different estimates of change in outcomes measures (i.e. SEM, MDC, and MCID)
- 5.6 Differentiate between statistical and clinical significance

Instructional Methods

The course instructor will utilize the following techniques: lecture, focused pre-class readings and videos, class discussion, group projects, audience polling, and discussion board sessions. The teaching philosophy for this course will be focused on the Socratic Method (i.e., cooperative argumentative dialogue between individuals, based on asking and answering questions to stimulate critical thinking and draw out ideas and underlying presumptions). Active student participation is vital for the success of this class.

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. 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 (e.g., voiceover PowerPoint lectures, online videos, class readings). This preparation gives you the knowledge or practice needed to engage in higher levels of learning during 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 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.

DESCRIPTION OF COURSE CONTENT

Topical Outline/ Course Schedule

Week	Date	Topic Pre- Class Assignment					
1	5/13	EBP Sequence Revisited and Ambiguity					
Time: 9:00-		Introduction to course	•	None			
11:00		Ambiguity					
Comm	nunicore	Instructor: Dr. Alappattu					
1.	-17						
2	5/20	Intervention Studies Part 1					
Time: 9	9:00-	T tests and AVOVA	•	View/ read online material			
11:00		Non parametric tests for difference i.e. chi	•	QUIZ			
Online/		square					
synchr	onous	Instructor: Dr. Beneciuk					
3	5/27	Intervention Studies Part 2					
Time: 9	9:00-	Threats to validity	•	View/ read online material			
11:00		Intervention study credibility		QUIZ			
Communicore		Instructor: Dr. Bialosky					
1-17		,					
4	6/3	Intervention Studies Part 3					

Week Date	Topic	Pre- Class Assignment		
Time: 9:00-	Error and power	View/ read online material		
11:00	Absolute and relative Risk reduction	QUIZ		
Communicore	Absolute and relative Benefit increase			
1-17	Odd ratios			
	Numbers needed to treat			
	Instructor: Dr. Bialosky			
E C/40	-			
5 6/10 Time: 9:00-	Intervention Studies Part 4	View/ read online read viel		
11:00	Prevention and harm	View/ read online material		
Communicore	Pragmatic studies	• QUIZ		
1-17	Instructor: Dr. Alappattu			
6 6/17	Outcomes			
Time 9:00 –	Outcome measures (types and common	View/ read online material		
11:00	domains)	QUIZ		
Communicore	Clinimetric properties			
1-17	SEM/MDC/ MCID			
	Instructor: Dr. Bialosky	1		
7 6/24	Journal Club			
Time: Lab A:	Journal Club Discussion	Submit validity of intervention		
9:00-10:00;		study assignment through		
Lab B: 10:00-		Canvas prior to class		
11:00		Read assigned study and come		
Online/		to class prepared to discuss		
synchronous/				
Communicore		<u>_</u>		
1-17	Instructor: All			
8 7/1	Compilation			
Time: 9:00-	Systematic reviews	 View/ read online material 		
11:00	Meta analysis	• QUIZ		
Online/	Clinical practice guidelines			
synchronous	Instructor: Dr. Beneciuk			
9 7/8	Presentation of decision aids			
Time: 9:00-	Group presentations	Upload final decision aid prior to		
11:00	Group presentations	start of class		
Communicore	Instructor: All	Start or slage		
1-17				
10 7/15	Learning health systems			
Time: 9:00-		Submit Psychometric analysis of		
11:00		outcome measures assignment		
Communicore	Instructor: Dr. Mark Bowden	through Canvas prior to class		
1-17				
11 7/22	Application			
Time: 9:00-	Dr. Bishop present re: EBP3			
11:00	Facilitators and Barriers to integrating EBP into			
Communicore	clinical practice			
1-17				
12 7/29	Exam			
Time 9:00-				
11:00				
TBD				

Course Materials and Technology

- The following textbook is recommended for the EBP sequence: Jewell, Dianne V. Guide to Evidence-Based Physical Therapy Practice, 4th Edition. Jones & Bartlett (ISBN 9781284247541)
- Supplemental reading material is provided to enhance overall learning experiences.

- The course instructor will assign required journal articles for lecture.
- Mobile devices or laptop computers will be required for audience polling during class.
- For technical support for this class, please contact the UF Help Desk at e-Learning
 - Learning-support@ufl.edu
 - o (352) 392-HELP select option 2
 - o https:// https://elearning.ufl.edu/

ACADEMIC REQUIREMENTS AND GRADING

Group Project: Patient Decision Aid (Group presentation during class 7/8/2025)

"Patient decision aids are tools to help people participate in their health decisions in the ways they prefer. They are used when there is more than one medically reasonable option to diagnose or treat a health problem. Each of the options has good and bad features that people value differently. Even when two people are in the same situation, what is important to one person may be different for another person. Therefore, there is no clear answer that applies to everyone. The best choice involves matching which features matter most to a person with the option that has these features. To make a good decision, you need an expert on the facts (e.g. a health practitioner) and an expert on which features matter most (e.g. the patient) and a way to share their views with each other in ways they prefer." (International Patient Decision Aid Standards (IPDAS) Collaboration)

- This is a group project consisting of 3-5 students. (Each group will be assigned a course instructor that will serve as project mentor)
- Participation from all group members is expected.
- If individual group member participation is a concern, communicate with lead instructor ASAP.
- Refer to the grading rubric in Canvas to identify how the project will be evaluated.
- Final Decision Aids must be uploaded into Canvas by one member of the group <u>PRIOR</u> to the start of class 7/8/2025

Quizzes

There will be several quizzes' over the course of the semester related to content you are expected to review prior to class. Quizzes will be administered through Canvas and should be completed prior to class. Expected time to complete the quizzes is approximately 10 minutes each.

Examination (7/29/2025)

There will be one examination in this course held during finals week. The exam includes multiple choice, matching, and short answer responses. The exam is expected to take approximately 2 hours to complete.

Grading

Requirement	Due Date	Percent of Final Grade
Group Project: Patient Decision Aid	July 8	30%
Validity of intervention study assignment	June 24	10%
Psychometric analysis of outcome measures assignment	July 15	10%
Quizzes	N/A	10%
Exam	July 29	40%
		100% (Total)

Points Earned 418.5-450 405-418 391.5-404.5 373.5-391 360-373 315-355.5 270-314.5 0-269.5

Percent Grade	93-100	90-92	87-89	83-86	80-82	70-79	60-69	<60
Letter Grade	Α	A-	B+	В	B-	С	D	E

Please be aware that a C- is not an acceptable grade for graduate students. GPA for graduate students must be (3.0) in all 5000 level courses and above to graduate. A grade of C counts toward a graduate degree only if sufficient numbers of credits in courses numbered 5000 or higher have been earned with a B+ or higher.

Letter Grade	Α	A-	B+	В	B-	С	D	E
Grade Points	4.0	3.67	3.33	3.0	2.67	2.0	1.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Exam Policy

Policy Related to Make up Exams or Other Work

Make up exams or other work is not assigned or allowed to replace required assignments and will only be considered in extenuating circumstances and approved by the course instructors. Personal issues related to fulfillment of course requirements will be handled on an individual basis. Submission of late assignments (projects) will result in a 10 point reduction in final score; again will be handled on an individual basis depending on extenuating circumstances.

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 highly suggested for this class, though it will not be directly monitored. We do expect you to attend and be prepared to participate in all class sessions. It is the responsibility of the student to make up any material missed in class. Students are expected to arrive on time. Students arriving after class has started should wait until the next break to enter the classroom. Students that enter class after lecture has started may be asked to leave. Personal issues related to the inability to attend class will be handled on an individual basis.

Excused absences must be consistent with university policies in the Graduate Catalog (http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance) and require appropriate documentation. Additional information can be found here: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Professionalism Expectations

Students will be expected to attend all classes, complete required reading assignments before class (if posted), actively participate in class discussions, and demonstrate professional behavior at all times. Laptops may be used in class only for taking notes, viewing slides, or accessing course assigned materials. Cell phones are only allowed in class for audience polling.

Professional behavior is critical for a successful transition from the classroom to the clinical setting. The faculty recognizes the importance of this by incorporating the development and evaluation of professional behavior into each academic course. All students must attain developmentally appropriate levels of professionalism while in the University of Florida's Doctor of Physical Therapy Program. Professionalism will be determined by observation of behaviors in classroom and lab settings. Additional feedback will be provided by peers, instructors, and teaching assistants. Additional information regarding Professionalism is provided in the University of Florida, Department of Physical Therapy Student Handbook (that each student

receives and acknowledges reading/understanding upon beginning the DPT program) and that can be accessed at: http://pt.phhp.ufl.edu/dpt-program/current-students/

Mastering core areas of professional behavior is critical for a successful transition from the classroom to the clinical setting. We recognize the importance of these behaviors and have incorporated the development, as well as the evaluation, of these professional behaviors into each academic course. Core areas of professional development and growth:

- 1. Critical Thinking
- 2. Communication
- 3. Problem Solving
- 4. Interpersonal Skills
- 5. Responsibility
- 6. Professionalism
- 7. Use of Constructive Feedback
- 8. Effective Use of Time and Resources
- 9. Stress Management
- 10. Commitment to Learning

Professional Behavior is described in the DPT Student Handbook and is exemplified by the following:

- 1. attendance to classes and labs,
- 2. timeliness,
- 3. attentiveness.
- 4. respectful and polite interaction with peers, instructors, and patients,
- 5. active learning as demonstrated by questions and discussion,
- 6. active participation in lab activities,
- 7. responsibility shown for maintenance, organization, and cleanliness of lab equipment and facilities
- 8. leads and/or contributes to lab preparation and clean-up, as requested,
- 9. appropriate communication with the course instructor when absence from class is unavoidable.
- 10. appropriate lab and lecture attire,
- 11. adherence to all university policies,
- 12. acceptance of self-responsibility e.g., test preparation, seeking of information, seeking assistance when necessary, maintaining professional demeanor, recognizing one's own stressors, et al., and other attributes as described on Professional Behaviors and Student Responsibilities in the Student manual.

You will receive constructive feedback from instructors for the first observed minor deviation from expected "beginning level" professional behavior (see Professional Development Tool). Repeated deviation from expected behavior will result in the deduction of 1-point from the total class grade and referral to your mentor and Professional Development Committee (PDC) to develop a growth plan to improve behaviors to the expected level. Major/serious deviations from expected behaviors will result in referral to the Dean of Students Office (DSO) and PDC. Major or serious deviations may result in loss of points or letter grade as determined by DSO.

Communication Guidelines

The preferred method of communication between students, course instructor, and teaching assistants outside of class is UF email. Students are expected to demonstrate professionalism during communication with instructor, teaching assistants, other students at all times. Failure to do so may result in referral to department professionalism committee.

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.

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/.

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.phhp.ufl.edu/services/resourceguide/getstarted.htm

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.

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. 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.

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.
- You 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

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