

**University of Texas at El Paso
College of Health Sciences
Physical Therapy Program**

PT 6304 Evidence Based Practice in Physical Therapy Summer 2017

COURSE SYLLABUS

Credit Hours: 3

Contact Hours: 42.5 hours
 2.5 hours independent study

Schedule: Tues 1:00-3:30 pm and Wed 8:00-9:50 am
 Refer to tentative course schedule
 OOT and unavailable June 29-30- July 3(Midterm visits)
 And July 13-16 (Consortium meeting)

Instructor: Loretta Dillon, PT, DPT
 ldillon@utep.edu
 office: 747-8215, home: 757-9441, cell: 309-6394
 Office Hours (Rm 312): Mondays and Tuesdays 12-1

Course Description: Concepts developed in Research Methods, with a focus on incorporating scientific evidence into physical therapy practice are continued. The student is exposed to the discipline of retrieving, evaluating, and incorporating the findings of scientific literature in the conduct of clinical practice. Students will focus on the critical evaluation of new information from research findings and integration of the best research evidence into clinical practice.

Course Objectives: Upon completion of this course, the student will be able to: (7B)

1. Apply the principles of evidence-based practice and evidence-informed practice to paper patient cases.
2. Demonstrate effective search strategies and appraisal of retrieved articles to create a CAT.
3. Demonstrate proficiency in selecting and searching relevant electronic resources.
4. Apply evidence-based practice studies (diagnostic, prognostic, intervention, outcomes and clinical prediction rules) to patient and practice management.
5. Evaluate outcome measurement tools for reliability and validity.
6. Describe and explain the hierarchy of evidence for evidence-based practice.
7. Review research design and application for evidence-based practice.
8. Retrieve and critically evaluate studies from rehabilitation research literature including diagnosis, prognosis, and intervention studies and systematic reviews.
9. Critically evaluate the reliability, validity, clinical relevance, accuracy, and timeliness of any electronic published materials. (7D11)
10. Create an evidence table that answers a clinical question related to either the Neuromuscular or Musculoskeletal System.
11. Understand the use of health informatics in the health care environment. (7D40)
12. Demonstrate an awareness of legal and social issues involved with the use of information such as copyright infringement, plagiarism, censorship, etc. by the ability to differentiate among various types of sources and to cite these sources accurately in AMA format.
13. Demonstrate cross-curricular knowledge of EBP in an oral defense.

14. Interpret parametric and non-parametric statistical tests of relationships and tests of differences in published evidence.

Required Texts: Jewell DV. Guide to Evidence-Based Physical Therapy Practice. Boston: Jones and Bartlett; 3rd Ed; 2014. ISBN-13: 9781284034165

Required APTA Membership: to access online materials available to members only including PTNow

Methods of Instruction: Lecture, internet search and retrieval through data base access, article appraisal, case based activities, and other active learning assignments as indicated..

Methods of Evaluation: Pre and post test EBP knowledge evaluation. Quizzes, final exam, and team assignments make up the student assessment of knowledge. Late assignments will result in grade deductions. Percentage deductions vary on the assignment and how late submitted. NO ASSIGNMENTS ACCEPTED IF MORE THAN 48 HRS LATE. It is the student's/team's responsibility to stay on top of deadlines and manage time appropriately. There are no rubrics for the CAT, article appraisals and the evidence table. As second year students, the expectation is to read the directions, ask questions for clarification, and put forth your best effort to complete the assignments. There are homework assignments that are not graded (see Course Assignments below)

Weekly Quizzes (8 quizzes, Quiz 1 and 8 worth 2% each)	10%
Critically Appraised Topic (CAT)	15%
Article Appraisals (5 % each)	20%
Worksheets and articles will be posted on blackboard. See each assignment for detail.	
Evidence Table	10%
Research Defense	10%
Final Exam	35%

For all assignments submitted through the dropbox, FOLLOW THESE RULES:

- 1. Name your file YOUR LAST NAME and the name of the assignment (eg. Dillon_CAT)**
- 2. Type your name(s) on the WORD document.**
- 3. ALL STUDENT NAMES belong on the file and the document.**

Consequences for not following these rules will result in a 10% grade deduction on the assignment. NO EXCEPTIONS.

UTEP PHYSICAL THERAPY PROGRAM GRADING SCALE

The following letter grade scale is used for the UTEP Physical Therapy Program:

Letter Grade Scale	Numerical Grade Scale
A	90-100
B	80-89
C	75-79

Course Content: refer to topic outline

Course and Program Policies:

All students must come to class with a laptop prepared to conduct various internet searches and assignments. If the student does not own a laptop, one will be provided by the ILC, but the student needs to inform the instructor 24 hours prior to class time to make arrangements for a laptop to be checked out through the ILC.

If during the class time, students are found not to be engaged in the class assignment (eg on Facebook, studying for another course, etc) the student will be told to leave the class. This will result in an unexcused absence. Per the DPT Class of 2018 Handbook, "Each unexcused absence will result in a 5% decrease in the final grade for the course."

See PT Program Handbook for all policies on exams, electronic device use, dress code, attendance, and scholastic dishonesty. Your instructors encourage you to periodically review all handbook policies, but in light of past experiences, **I particularly direct you to review the policies on cheating, attendance, and the disclaimer that the syllabus is subject to change.**

Attendance/Tardiness:

Attendance is expected, however, life happens. Therefore, **ONE excused absence of a single class*** is permitted for *any* reason. In order for your first absence to be excused, you must meet the expectation described further down. **HOWEVER** (with very rare exception [eg, documented serious illness or emergency] that will be considered on a case by case basis) there will be **NO** accommodations offered for missed class time. Specifically, there is **NO** opportunity to make up quizzes, either in advance of or after the scheduled class, or provide individual tutoring for missed content. Additionally late work caused by your absence will not be accepted. You should make prior arrangements with a classmate to find out what you missed, turn in any work, and/or pick up any hand-outs. (***NOTE: Single class is defined as 2 or 2.5 hours**).

In order to be excused for your first missed class, you must do the following:

- Email me at ldillon@utep.edu or call my office line, 747-8215 or cell 915-309-6394 at least 2 hours in advance if you will not be attending class. I do not require you to give me a reason, but I expect notice in advance. A message from one of your classmates is not acceptable.

If you miss a second (or more) class for any reason, it will be considered unexcused unless it is due to documented illness or emergency. In these cases, you should email me and then arrange a meeting with me upon your return to school to discuss why you missed class. Documentation will be required for any additional absence (eg, doctor's note documenting illness or treatment). I will notify you after our meeting and review of your documentation whether or not the absence will be considered excused or unexcused.

Missing 50% or more of a class will be considered an absence.

For each incident of an unexcused absence, 5% will be deducted from your final semester grade.

Tardiness:

I use the clock on the computer to determine when class should start. If you expect to arrive late (eg, doctor's appointment), you should notify me in writing by email or call in at least 2 hours in advance. If you are consistently late for any reasons, I will contact you to meet with me to discuss the problem. Each subsequent incidence of tardiness may result in 1% deduction from your final semester grade.

Special Accommodations (ADA):

"If you have or suspect a disability and need accommodations, you should contact the Center for Accommodations and Support Services (CASS) at 747-5148." You can also e-mail the office at cass@utep.edu or go by their office in Union Building East. For additional information, visit the CASS website at <http://sa.utep.edu/cass/>

COURSE ASSIGNMENTS AND EVALUATION OF LEARNING

All assignments in this course are team-based assignments of 4-5 students. Effective communication is key to a well-functioning team. Discuss and agree upon expectations for all members including meeting dates and times and division of roles when applicable.

It is my expectation that ALL students are able to work with each team member in a respectful and professional manner. I also expect that each student reads and critically appraises the articles BEFORE meeting together as a team to discuss findings and complete the final submission.

It is every individual's responsibility to work as a team. If expectations are not met, then the team is not effective. The entire team has the right to dismiss a team member for not meeting expectations, but there are consequences to the team as a whole. If a team member is found to be disruptive to the process, the individual can be dismissed for the one assignment and will earn a 0 for that assignment. However, the other members of the team will lose 10% of the team grade for not being able to resolve the issues. If a team member is determined to not meet expectations for 2 assignments, then the student will lose a letter grade equivalent at the end of the course. It is in everyone's best interest to work together effectively and efficiently.

There are also individual assignments that do not receive a grade. However, if the assignment is missed, 1% of the overall total grade will be deducted at the end of the course for each assignment missed. If a student misses >3 assignments then 5% of the overall course grade average will be deducted.

Article Appraisals: (20%)

Articles will be assigned and posted on Blackboard with the appraisal worksheet. Appraisals will be completed on diagnostic, prognostic, and intervention studies and 1 systematic review. See Blackboard for further detail.

Evidence Table (10%)

Students in assigned teams will create an evidence table selecting one of 2 questions to perform a review of intervention literature. Expected outcomes: students will retrieve and

report on relevant research to answer the stated research question. Students will complete the table in their own words, free of grammatical/spelling errors, cite references in AMA format, and interpret each of the studies accurately to complete the table. A minimum of 3 references are required to answer the question and form the clinical decision. See Blackboard for the questions and patient case.

CAT Assignment (15%)

The critically appraised topic will be based on a Neuromuscular or Musculoskeletal PICO question that we will write in the first week. There is a sample CAT to view on BB and a detailed article on how to write a CAT. Teams must find a minimum of 2 high quality sources to cite to answer the question. This is a long term assignment that will be due in the 9th week.

Upload the CAT along with the articles that are included in the appraisal by the due date.

Mini-Systematic Review (SR) Presentation/Oral Defense (10%)

This is a continuation of the Mini-SR completed in PT 5311 Modalities in PT Practice and PT 6307 Cardiopulmonary Patient Management. Students are grouped in the same teams as in PT 5311. This is a cross-curricular assignment with PT 6314.

Each team will give a 5 minute presentation on their Mini-SR. This will be followed by an approximately 30 minute “oral defense” period, during which 2 faculty members will be asking questions of each team member. The students should be prepared to answer questions related to their search process, process of appraisal, and conclusions based on the 3 appraised articles that they used to answer their original PICO question. Additionally students will be expected to demonstrate knowledge of key research concepts, specifically ones that are relevant to their 3 appraised articles and to systematic reviews in general.

In preparation, you should know all elements of your appraised articles (eg, be able to explain research designs in your own words), be able to answer questions related to systematic reviews in general, and certainly be able to address any questions/issues that were noted in your manuscripts – as your reviewers will have the hard copy of Dr Garrard’s review with notes. I suggest you create your own questions for each other in advance, and practice defending in front of each other.

Each team must email mini-SR manuscript and PDFs of the 3 articles to faculty evaluators by midnight on JUNE 16, 2017. Failure to meet this deadline will lead to a deduction in the project grade. DEFENSE SCHEDULE will be posted on BB.

Team 1

Stephanie Carranza, Madeline Livergood, Vanessa Parra, Rodrigo Quevedo, Lisa Soule
The effectiveness of conventional rehabilitation combined with NMES in improving gait in patients with stroke. A systematic review

Team 2

Taylor Molnar, Sandra Walker, Michael Gallegos
Do Patients with Diagnosed Radiculopathy Have a Greater Decrease in Sign/Symptoms by Adding Cervical or Lumbar Traction to a Therapeutic Exercise Program: A Systematic Review

Team 3

Ashley V. Alvidrez, Ryan Canak, Samantha Guerrero, Shawna Lee, Alex Tafoya
Effects of Dexamethasone via Iontophoresis in Patients with Tendinopathy: A Mini Systematic Review

Team 4

Hope Castaneda, Kimberly Escobar, Ciara Fraher, Daniel Millar, Mitchell Rausch

The Effect of Occlusion Training on Hypertrophy in Athletes Combined with Low Load Resistance Training: Comparing Outcomes Among Training Techniques

Team 5

Lauren Cruz, Ana Lionel, Luis Nevarez, Nnedinma Ubani

The Effects of Trigger Point Dry Needling when used with Manual Therapy in Patients with Neck Pain

Team 6

Teffanie Banat, Ray Delgado, Andrea Goche, Nicholas Lehker, Grace Joo

A comparison of the effects of ultrasound therapy vs. exercise on non-specific chronic low back pain: a systematic review

Team 7

Pamela Isita, Reba Joseph, Kristopher Leon, Angel Perez, Alejandra Rodriguez

Does the use of Diathermy Improve Pain and Function in Individuals with Knee Osteoarthritis Compared to a Placebo Effect? A Systematic Review

Team 1	Team 2	Team 3	Team 4
Ashley Alvidrez Kimberly Escobar Joseph Reba Luis Nevarez Lauren Cruz	Teffanie Banatt Nicholas Lehker Rodrigo Quevedo Sandra Walker	Ubani Nmedmina Ciara Fraher Kristopher Leon Vanessa Parra Angel Perez	Ryan Canak Michael Gallegos Shawna Lee Grace Joo Alejandro Tafoya

Team 5	Team 6	Team 7
Stephanie Carranza Andrea Goche Ana Lionel Mitchell Rausch	Hope Castaneda Samantha Guerrero Madeline Livergood Alejandra Rodriguez	Taylor Molnar Pamela Isita Daniel Millar Lisa Soule Ray Delgado

The above teams are assigned for the CAT, Evidence Table, and Article Appraisal assignments.

Tentative Schedule with Topic/Assignment Outline:

Week	Date/Time	Topic/Assignments/Quizzes	Reading	Course objectives
1	May 30 1:00-3:30	<p>Pre-test (Quiz 1) over Research Methods and EBP baseline knowledge,</p> <p>Read all articles on BB and be ready to discuss key concepts.</p> <p>Review background and foreground questions.</p> <p>BRING LAPTOP or NOTEBOOK for electronic access for most every class period.</p>	<p>Review key terms Ch 1-8</p> <p>Articles on BB</p> <p>CEBM.net</p>	1, 6, 7
	May 31 8:00-10:00	<p>Review Elements of Evidence</p> <p>Key Concepts:</p> <ol style="list-style-type: none"> 1. Research questions/hypotheses 2. Quantitative vs qualitative design 3. Primary vs secondary analyses 4. Research design for diagnostic, prognostic, intervention, CPR, and outcomes 5. Research subjects/participants 6. Variables, reliability, validity 	Review Ch 4-8	1, 6, 7
2	June 6 1:00-3:30	<p>Quiz 2 (week 1 material)</p> <p>AMA format review, Search process, legitimate sources, academic integrity</p> <p>Evaluate various articles in class and search for evaluation tools. Bring in articles from PT 5311 SR</p>	<p>Articles on BB</p> <p>Pt cases to be provided in class</p>	1, 3, 10, 12
	June 7 8:00-10:00	<p>Search, retrieval, and application to patient cases.</p> <p>If time permits, begin work on Evidence Table.</p>		
3	June 13 1:00-3:30	<p>Quiz 3 (week 2 material)</p> <p>Unraveling Statistical Mysteries</p>	Ch 9-10 (ppts on BB)	9, 14
	June 14 8:00-10:00	<p>Unraveling Statistical Mysteries</p> <p>Paper patient application</p>	Articles on BB	
4	June 20	<p>Quiz 4 (week 3 material)</p>	Ch 9-11	4, 8

	1:00-3:30	Evidence Table due 1:00 pm Statistical analyses in Diagnostic research studies	(ppts on BB) Articles on BB	
	June 21 8:00-10:00	Appraising the evidence-Diagnosis Search and retrieval and appraisal of diagnostic articles Begin work on diagnostic worksheet in assigned teams.	Ch 11 (ppts on BB) Articles on BB	
5	June 27 1:00-3:30	Quiz 5 (week 4 material) Appraising the evidence-Prognostic Factors Statistical analyses in Prognostic studies Appraisal 1 due 1:00 PM (Diagnosis)	Ch 12 (ppts on BB) Articles on BB	4, 8
	June 28 8:00-10:00	Search and retrieval and appraisal of prognostic articles Begin work on prognostic worksheet in assigned teams.		
6	NO CLASS July 4	HOLIDAY Happy Independence Day!		
	July 5 8:00-10:00	Quiz 6 (week 5 material) Appraisal 2 due July 5, 8AM (Prognosis) <u>PPT for Research Defense due by 11:59PM on July 5 as well.</u> Systematic Reviews Meta-Analysis	Articles on BB Ch 17 (ppts on BB)	
7	July 11 1:00-3:30	ORAL DEFENSE on mini-SR. Schedule to be posted no later than July 5		13
	July 12 8:00-10:00	Biomedical Informatics Guest Speaker: Dr Kim Smith, UT School of Bioinformatics	Articles on BB	11
8	July 18 1:00-3:30	Quiz 7 (week 6 & 7 material) Appraisal 3 Systematic Review due 1PM Clinical Prediction Rules and Outcomes Research	Articles on BB Ch 13-16 (ppts on BB)	4, 5, 8
	July 19 8:00-10:00	Appraising the evidence-Interventions Statistical analyses in Intervention studies Begin work on Intervention worksheet		

9	July 25 1:00-3:30	Quiz 8 (search and retrieval quiz) Appraisal 4 Interventions due 1PM IOM Core Competencies, APTA Registry, Putting it altogether -cases	Ch 18-19	ALL
	July 26 8:00-10:00	<u>CAT due 8AM</u> Putting it altogether –cases and review of CAT		2
10	Aug 1 1:00-3:30	Feedback and wrap-up Review for final exam Expectations for full time clinical rotations with regard to EBP		ALL
	Aug 2 8:00-10:00	Study for exam-Independent Study		
	Aug 4 1:00-4:00	Comprehensive FINAL exam Room 234		