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

PT 6304 Evidence Based Practice in Physical Therapy  

Summer 2015  

COURSE SYLLABUS  

Credit Hours: 3  

Contact Hours: 45 hours over 10 week semester  

Schedule: Wed 1:30-4:00 and Th 2:30-4:30 (except when OOT)  
 Make up days June 26, June 30 and July 14 from 8-10am  
 Refer to tentative course schedule  
 OOT and unavailable July 1-7(Midterm visits)  
 And July 15-17 (Consortium meeting)  

Instructor: Loretta Dillon, PT, DPT  
ldillon@utep.edu  
Office Hours (Rm 312): One hour prior to class each day and by appointment except when OOT  

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:  
1. Describe the principles of evidence-based practice and evidence-informed practice. (CC-2)  
2. Demonstrate effective search strategies for the PICO question developed in PT 5105 following PTJ systematic review guidelines. (CC-2)  
3. Demonstrate proficiency in selecting and searching relevant electronic resources. (CC-2)  
4. Apply evidence-based practice studies (diagnostic, prognostic, intervention, outcomes and clinical prediction rules) to patient and practice management. (CC-2, CC-5.21)  
5. Evaluate outcome measurement tools for reliability and validity. (CC-5.49)  
6. Describe and explain the hierarchy of evidence for evidence-based practice. (CC-5.22)  
7. Review research design and statistical test selection for evidence-based practice (CC-2)  
8. Retrieve and critically evaluate studies from rehabilitation research literature including diagnosis, prognosis, and intervention studies. (CC-5.22)  
9. Critically evaluate the reliability, validity, clinical relevance, accuracy, and timeliness of any electronic published materials. (CC-2, CC-5.22)  
10. Create an evidence table that answers a clinical question related to either the Neuromuscular or Musculoskeletal System (CC-5.23, 5.25)  
11. 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. (CC-2)

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. Pre and post test EBP knowledge evaluation.

Methods of Evaluation: Quizzes, final exam, assignments, and article appraisals. No late assignments will be accepted. It is the student’s responsibility to stay on top of deadlines and manage time appropriately.

Weekly Quizzes (8, drop lowest) 35%
Ciccone Replication (see below) 5%
PICO continuation (see below) 20%
Article Appraisals (5 points each) 15%
Worksheets and articles will be posted on blackboard.
See each assignment for detail.
Evidence Table (see below) 10%
Final Exam 15%

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_PICO)
2. Type your name on the WORD document.
3. If the assignment is for 2 students, BOTH NAMES belong on the file and the document.

Consequences for not following these rules will result in your assignment possibly not being grading.

UTEP PHYSICAL THERAPY PROGRAM GRADING SCALE

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

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numerical Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
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<tr>
<td>B</td>
<td>80-89</td>
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<td>C</td>
<td>75-79</td>
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<td>F</td>
<td>Below 75</td>
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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.

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, accumulated knowledge, generic abilities, 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 in-class 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 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/
<table>
<thead>
<tr>
<th>Week</th>
<th>Date/Time</th>
<th>Topic/Assignments/Quizzes</th>
<th>Reading</th>
<th>Course objectives</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>May 27</td>
<td><strong>Pre-test (Quiz 1), Research Methods and EBP baseline knowledge,</strong> What is Evidence? Compare and contrast “evidence-based practice” vs “evidence-informed practice” Hierarchy of evidence. Systematic review instructions including PRISMA guidelines.</td>
<td>Ch 1-3 (ppts on BB)</td>
<td>1, 3, 6</td>
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<tr>
<td></td>
<td>1:30-4:00</td>
<td><strong>EBP in Physical Therapy</strong> What is Evidence? The Quest for Evidence: Getting Started Differentiation of legitimate electronic resources</td>
<td>Instructions to authors at PTJ for systematic review</td>
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<td></td>
<td>May 28</td>
<td><strong>EBP in Physical Therapy</strong> What is Evidence? The Quest for Evidence: Getting Started Differentiation of legitimate electronic resources</td>
<td>CEBM.net</td>
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<td>2:30-4:30</td>
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<td>2</td>
<td>June 3</td>
<td>Quiz 2 (week 1 material) Questions, Theories, and Hypotheses Research Design Legal and social issues AMA format</td>
<td>Ch 4-5 (ppts on BB)</td>
<td>7, 11</td>
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<td>1:30-4:00</td>
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<td>June 4</td>
<td>PubMed tutorial Review of RefWorks Angela Lucero, Librarian</td>
<td>Articles on BB</td>
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<td>2:30-4:30</td>
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<td>3</td>
<td>June 10</td>
<td>Quiz 3 (week 2 material) Research Subjects, Variables, Research Validity</td>
<td>Ch 6-8 (ppts on BB)</td>
<td>2, 7</td>
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<td>1:30-4:00</td>
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<td>June 11</td>
<td>In class work on Ciccone Replication Ciccone Replication due 11:59 pm</td>
<td>Articles on BB</td>
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<td>2:30-4:30</td>
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<td>4</td>
<td>June 17</td>
<td>Quiz 4 (week 3 material) Unraveling Statistical Mysteries In class work on PICO continuation</td>
<td>Ch 9-10 (ppts on BB)</td>
<td>7</td>
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<td>1:30-4:00</td>
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<td>June 18</td>
<td>Appraising the evidence-Diagnosis Search and retrieval and appraisal of diagnostic articles Begin work on diagnostic worksheet in assigned pairs.</td>
<td>Ch 11 (ppts on BB)</td>
<td>4, 8, 9</td>
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<td>2:30-4:30</td>
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<td>5</td>
<td>June 24</td>
<td>Quiz 5 (week 4 material) Appraising the evidence-Prognostic Factors and Interventions Appraisal 1 due 1:30 pm (Diagnosis)</td>
<td>Ch 12-13 (ppts on BB)</td>
<td>4, 8, 9</td>
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<td>1:30-4:00</td>
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<tr>
<td>Date</td>
<td>Event Description</td>
<td>Chapter(s)</td>
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<td>June 25</td>
<td>Evidence-informed practice- Begin work on Prognostic worksheet in assigned pairs.</td>
<td>Ch 18</td>
<td>1</td>
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<tr>
<td>June 26</td>
<td>Clinical Prediction Rules and Outcomes Research</td>
<td>Ch 14-16 (ppts on BB)</td>
<td>5</td>
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<td>June 30</td>
<td>Quiz 6 (week 5 material) Work on PICO assignment</td>
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<td>NO CLASS</td>
<td>Appraisal 2 due July 1, 1:30 pm (Prognostic Factors)</td>
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<td>July 8</td>
<td>Quiz 7 (Review) Appraising the evidence-Interventions Begin work on Intervention worksheet in assigned pairs.</td>
<td>Ch 11-15 (Articles on BB)</td>
<td>4, 6, 8, 10</td>
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<td>July 9</td>
<td>Biomedical Informatics, IOM Core Competencies, APTA Registry Work on Evidence Table in assigned pairs if time permits</td>
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<td>July 14</td>
<td>Quiz 8 (week 6 and 7 material) Appraisal 3 Intervention due 8:00 am Systematic Reviews Meta-Analysis</td>
<td>Ch 17 (ppts on BB)</td>
<td>8</td>
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<tr>
<td>NO CLASS</td>
<td>Home study to work on Evidence Table Evidence Table due July 16 11:59 pm</td>
<td>Ch 14-17</td>
<td>10</td>
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<td>July 22</td>
<td>Putting it altogether -cases PICO worksheet and ppt due on BB 1:30 pm</td>
<td>Ch 19</td>
<td>All</td>
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<td>July 23</td>
<td>PICO Presentations- 11 students</td>
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<td>2</td>
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<td>July 29</td>
<td>PICO Presentations- 14 students</td>
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<td>July 30</td>
<td>PICO Presentations-10 students</td>
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<td>July 31</td>
<td>Comprehensive exam ILC</td>
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Updated May 14, 2015
Ciccone Replication (5%)
1. Read the posted Evidence in Practice article by Hoppenrath and Ciccone.
2. Replicate their search using the 4 databases (available through the UTEP Library).
3. Create a file YOURLASTNAME_Ciccone. Save the screen to show which databases you searched. (hit print screen, paste to word). You must submit this printed screen to demonstrate which databases were searched. This will be the first page of your file.
4. Use the first two key words the authors used to begin your search. Save the list of “hits” or citations retrieved and save to your file.
5. Copy and paste ONLY those abstracts that have since been published since the Ciccone EiP article was published.
6. Continue with the extended search as described. Copy and paste the list of hits.
7. Summarize your experience at the end of the file (eg how easy was this to do, was it helpful in going through a step by step process, did you find the same articles that Ciccone found, how many more did you find, how long did it take, etc). Identify the study with the highest level of evidence that answers the original question and briefly state why the clinical decision was made.
8. Submit the file YOURLASTNAME_Ciccone to the assignment dropbox by June 11, 11:59 pm. No late assignments will be accepted.

Article Appraisals: (15%)
Articles will be assigned and posted on Blackboard with the appraisal worksheet. Appraisals will be completed on diagnostic, prognostic, and intervention studies. See Blackboard for further detail.

Evidence Table (10%)
Students in assigned pairs 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 free of grammatical/spelling errors, cite references in AMA format, and interpret each of the studies accurately to complete the table. A minimum of 5 references are required to answer the question and form the clinical decision. See Blackboard for further detail.

PICO Continuation: (20%)
1. Evaluate the effectiveness of your search in answering your PICO question based on the Ciccone assignment. (You may need to revise your question)
2. Redo your search using the steps you learned from Ciccone and see if you are able to retrieve any more articles.
3. Document thoroughly your systematic approach including details on databases, keywords or keyword combinations, MeSH terms, limits, etc.
4. Submit a copy of the article that best answers your question.

Updated May 14, 2015
5. The assignment (worksheet and ppt) must be submitted via the dropbox on BB by July 22 1:30 pm.
6. Students will give a presentation (no longer than 8 minutes) on their findings and should all be ready to present on July 23. Order will be based on order of receipt of files on BB.

Rubric for the PICO presentation:

**Part 1- The Study Information (66 points)**

1. Introductory Slide(s) (3 points)
   a. Student name (1)
   b. Title of presentation (1)
   c. PICO question (1)

2. Purpose slide(s) (10 points)
   Authors’ stated purpose and clinical significance of research question (10)

3. Background Slide(s) (10 points)
   a. Search process: data bases, key words, hits (3)
   b. Manuscript Citations of articles excluded (2)
   c. Manuscript Citations of articles included (2)
   d. PRISMA figure included (3)

4. Methods and Results sections (30 points)
   Summary of primary article that best answered the question
   i. Population (3)
   ii. Sampling technique (3)
   iii. Sample size (3)
   iv. Inclusion criteria/exclusion criteria (3)
   v. Clinical characteristics (3)
   vi. Procedures (3)
   vii. Blinding (3)
   viii. Interventions, NNT if applicable (3)
   ix. Outcome measures and results (3)
   x. Statistical tests used, Confidence Interval (3)

5. Discussion and conclusion of articles (13 points)
   a. Summary of evidence from all articles (3)
   b. Importance of studies to clinical practice (3)
   c. Limitations of studies addressed (3)
   d. Appropriate conclusions are drawn and adequately described (“take home message”) (4)

**Total Part 1 / 66**
Part 2 - Technical Style/Format (34)

I. Organization of Presentation (20 points)
   a. Organization is clear and logical (4)
   b. Each slide contains an appropriate amount of information (2)
   c. No important content is omitted (2)
   d. An appropriate number of slides are displayed (2)
   e. All text and graphics are of an appropriate size (2)
   f. Colors provide sufficient contrast for visual acuity (2)
   g. Appropriate use of graphics and text (2)
   h. Follows AMA format (slides and PICO form) (2)
   h. Finishes within 8 minutes (2)

2. Speaking Style (14 points)
   a. Delivery is clearly audible (2)
   b. Delivery is appropriately paced (2)
   c. Ideas are expressed in a clear and concise manner (2)
   d. Appropriate terminology is used (2)
   e. Correct grammar is used (2)
   f. Eye contact is established with the audience (2)
   g. Answers questions (2)

Total Part 2 ___/34

TOTAL SCORE = ___ /66 (Part 1) + ___/34 (Part 2)

TOTAL SCORE = ____________/100