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

PT 6116  
Physical Therapy Capstone Project  
Fall 2016

Credit Hours: 1  
Contact Hours: 15

COURSE SYLLABUS

Schedule:  
Independent Study  
Private Poster Presentation and Oral Defense with Faculty December 5, 2016  
  •  Time to be announced  
Public Poster Presentation December 8, 2016 from 5-7 pm

Capstone Instructors:  
Mark Caulkins, MD, DPT  
Loretta Dillon, PT, DPT  
Michelle Gutierrez, PT, DSc  
Celia Pechak, PT, PhD, MPH  
Kathy Reyes-Brooks, PT, DPT

Course Description:  
During the final semester of the Doctor of Physical Therapy Program, students will complete an evidence-based research manuscript and poster presentation relevant to physical therapy practice. Most students will complete an evidence-based report related to a patient case. Selected students, at the invitation of a core faculty member, will participate in the faculty member’s original research line. All students must produce a manuscript suitable for publication in a peer-reviewed journal and a poster appropriate for presentation at a state or national conference.

Course Objectives:  
Prior to this semester, the student will have:  
  1. Developed a research question  
  2. Designed an appropriate study to answer the research question (for most students, this will be a systematic review to answer a PICO question)

Prior to &/or during this course, the student will:  
  1. Complete a study to answer the research question  
  2. Produce a manuscript consistent with the requirements of Physical Therapy (PTJ)  
  3. Produce a poster that summarizes his/her research project and is appropriate for presentation at a state or national conference

During this course, the student will:  
  1. Demonstrate knowledge of research design and validity through a professional quality presentation and an oral defense of his/her research project
Resources:
Resources related to Systematic Reviews:
  - http://www.medicine.ox.ac.uk/bandolier/painres/download/whatis/Syst-review.pdf
  - http://research.library.gsu.edu/c.php?g=115802&p=752506

Library Guide for Poster Design: http://libguides.utep.edu/posters

Copies of the American Medical Association [AMA] Manual of Style (10th ed) are available in Beverly Scarborough’s office and in the UTEP library. For students who are not in El Paso during the fall semester, we recommend that you check in local public libraries and/or other university libraries.

Recommended Texts:


Methods of Instruction: Individual instruction will be held with respective Capstone advisor to complete the manuscript and poster presentation requirements.

Methods of Evaluation:
Graded activities and their weight are as follows:

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<thead>
<tr>
<th>Activity</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Research Manuscript</td>
<td>40%</td>
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<tr>
<td>Poster</td>
<td>20%</td>
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<td>Poster Presentation</td>
<td>20%</td>
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<tr>
<td>Oral Defense (individual grade)</td>
<td>10%</td>
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<tr>
<td>Reflection Paper (individual grade)</td>
<td>10%</td>
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**UTEP DOCTOR OF PHYSICAL THERAPY PROGRAM GRADING SCALE**

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

<table>
<thead>
<tr>
<th>Letter Grade Scale</th>
<th>Numerical Grade Scale</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
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<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: Research project (systematic review or other project)

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/

Deadlines for Capstone Project:
- Full 1st draft of manuscript (with all sections completed per PTJ author instructions, including abstract) is due to your Capstone advisor on Friday September 16
  - Each advisor has the option to set earlier deadlines for portions of the manuscript
  - Faculty are required to send you their input within 2 weeks
- FINAL manuscript & PDFs of all journal articles cited in the manuscript are due to your Capstone advisor on Friday October 21 – this is the paper that will be graded. Additionally these documents must be sent to the 2nd faculty member who will evaluate your Poster Presentation and Oral Defense.
- Full 1st draft of the Poster is due to your Capstone advisor on Friday November 4
  - Faculty are required to send you their input within 1 week
- FINAL draft of the Poster (formatted for 48” width x 36” height) is due to your Capstone advisor & to John Pena in ILC jpena13@utep.edu on Monday November 21
  - John will print out a ½-size hard copy of poster that week (paid for by DPT Program) that advisors and students will look at next week
- You will meet with your advisor on Monday November 28 to complete final edits on the hard copy of the poster – communicate directly with your advisor regarding time and location
- You must submit FINAL-FINAL poster for printing no later than Wed November 30 (paid for by DPT Program) – more details to follow about if we will use library vs ILC for this
  - The file with the single PowerPoint slide of your poster should be sent to Beverly Scarborough, your Capstone advisor, and the 2nd faculty member who will evaluate your Poster Presentation and Oral Defense
- Reflection paper is due Wednesday November 30 to Capstone advisor
- DEFENSE of your research project will be scheduled on Monday December 5 with 2 faculty members; you will EACH be required to answer questions regarding your project and general research knowledge & you receive an individual grade
- Public poster presentation – Thursday December 8
  - Communicate directly with your Capstone advisor regarding a possible additional practice session prior to your public poster presentation
  - Have your signature page ready for your Capstone advisor to sign (one signature page per student)
- Submit electronic file with signature page(s) and manuscript to Beverly Scarborough on Friday December 9.

Private Poster Presentation and Oral Defense Date:
Private Oral Defenses with 2 faculty members will be on Monday December 5 at the Campbell Building Schedule & room number to be announced
**Public Poster Presentation Date:**
Thursday December 8 from 5-7pm (poster must be mounted in Health Sciences and Nursing (HSN)
Building 2nd floor lobby by 4:30pm)

**Reflection Paper: (10% of final grade)**
- Reflection paper is due Wednesday November 30
- Each student will submit a 1 ½ to 2 page doubled-spaced paper electronically to his/her advisor
- Each paper should have 6 paragraphs: an introductory paragraph, one paragraph answering each of the following questions, and a concluding paragraph.
  1. What did the Capstone project teach you with respect to evidence-based practice?
  2. How did this project enhance your clinical reasoning skills?
  3. How will you become a better PT based on what you learned from this Capstone project?
  4. How could this Capstone project be improved for future cohorts?

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<tr>
<th><strong>INDEPENDENT RESEARCH PROJECT</strong></th>
<th><strong>SYSTEMATIC REVIEWS</strong></th>
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<tbody>
<tr>
<td>Advisor</td>
<td>Student</td>
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<tr>
<td>Dr Celia Pechak</td>
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<td><strong>Advisor</strong></td>
<td><strong>Students</strong></td>
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<tr>
<td>Dr Loretta Dillon</td>
<td>Tynan, Ainsa, Moreno, Bitton</td>
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<td></td>
<td>Aguinaga, De La Torre-Alva, Nuanes</td>
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<td>Dr Michelle Gutierrez</td>
<td>Flores, Garcia T, Prodo</td>
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<td>Rhodes, Withrow, Vargas</td>
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<td>Dr Mark Caulkins</td>
<td>Valencia, Brooks, Cole</td>
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<td>Dr Kathy Reyes-Brooks</td>
<td>Menez, Moreno, Thurman</td>
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<td>Dr Celia Pechak</td>
<td>Cottman, Hall, Reyna, Soy</td>
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<td>Lee, Garcia E, Robalin, Marusich</td>
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**Systematic Review Instructions:**
The systematic review will be completed by a team of 3-4 students. All students will be active in the extraction and appraisal of articles found to answer a clinical question. The team must construct a clear, concise, and answerable question that is based on a specific patient problem students encountered during the curriculum.
- EVERY student should be involved in EVERY portion of the work – including:
  - EVERY student should have been involved in searching all databases, and it should be clear in your Methods section how you did it. (For 2016 course only: if all students were not involved, then just clarify that in the Methods. For future cohorts, the expectation that all students searched all databases will be enforced).
  - EVERY student should APPRAISE every article. You should not be splitting the articles among the group. Every student should appraise all 10 articles (or more if you have more than 10).
  - While you may of course choose to split up sections of the manuscript, particularly initially, EVERY student should still be involved in editing every portion of the paper.
- Your Methods section should clearly explain how your search was completed – including all words used in the search. The point is that you give enough information that it is reproducible.
Create a table like below as an APPENDIX in your paper. You can find more information about it at: http://www.cebm.net/finding-the-evidence-1-using-pico-to-formulate-a-search-question/

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<td>Elder</td>
<td>Closed-chain</td>
<td>Aerobic exercise</td>
<td>Functional mobility</td>
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<tr>
<td>Geriatric</td>
<td>Strengthening</td>
<td>endurance</td>
<td>balance</td>
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<tr>
<td></td>
<td>Strength training</td>
<td></td>
<td>Fall risk</td>
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- Of the 10 articles that you formally appraise, a MINIMUM of the top six (6) should be synthesized in your systematic review.
  - You must include the appraisal table(s) of all them in your paper as a table(s) OR as an appendix(es)
- Each group can choose whatever standardized appraisal tool(s) to use as appropriate – you must justify why you chose them (eg, used in other published systematic reviews in PTJ) and you discuss validity/reliability issues in your paper (with references)
  - Here is a good link with lots of options depending on the type of study: http://www.unisa.edu.au/Research/Sansom-Institute-for-Health-Research/Research/Allied-Health-Evidence/Resources/CAT/
  - The CEBM worksheets are found at: http://www.cebm.net/critical-appraisal/
  - Other resources can be found at: http://www.casp-uk.net/#!checklists/cb36
  - If in doubt, get pre-approval from your advisor

Each group will present to his/her advisor on August 24 (as part of your grade for Specific Populations PT 5225). You should be prepared to provide a 15-20 minute PowerPoint presentation addressing the following:
  - PICO question
  - Briefly review Methods
  - Briefly review Appraisal table(s) for ALL articles
  - Then explain the single BEST article in depth that addresses your PICO question

Then your advisor will further probe your knowledge with questions related to your methods, the articles, and research methods in general – to help prepare you for the REAL Capstone defense in December

The team must work cohesively by setting structured objectives to complete the final product. The goal of which is for all members to contribute equally to the completion of a systematic review suitable for publication. Through using effective communication and constructive conflict resolution as necessary, the faculty expects that the team will meet all objectives in a professional manner. However, in the event a conflict cannot be resolved, the team has the power to dismiss a team member. The consequences of being dismissed from a team will delay graduation, at a minimum of one semester, for the dismissed team member. The individual will have to complete an independent project and present an oral defense in the spring semester to the satisfaction of all faculty.

All students who complete a systematic review must follow the relevant Physical Therapy (PTJ) author guidelines found at: http://ptjournal.apta.org/content/information-authors-requirements-systematic-reviews
Read and follow all details of the instructions on the PTJ Website. The exception is that only an unmasked manuscript will be submitted to the faculty advisor; a “masked version” (or blinded version – ie, where your name and institution would not be included) does not have to be submitted. Also students do not need to submit “online-only” materials nor video for this assignment.

1. Read the review process in detail as well as the PRISMA checklist and flow diagram.
2. PRISMA requirements are found at: http://www.prisma-statement.org/
3. The manuscript formatting instructions must be followed:
   a. Title-follow character limits (this title will be used in the doctoral reception documents and on your graduation application)
   b. Abstract –follow word limits and use of required subheadings
   c. Body of manuscript-follow all instructions for word count, subheadings as stated, and for all sections as listed below:
      i. Introduction
      ii. Methods (with required subheadings per PTJ Website)
      iii. Results
      iv. Discussion
   d. Acknowledgments
   e. References
   f. Tables
   g. Figures
   h. Appendices

The title page of the manuscript should have the following included:
- Title
- The University of Texas at El Paso
- Author(s)
- Capstone Advisor
- Capstone project submitted in partial satisfaction of the requirements for the Doctor of Physical Therapy Degree.

A signature page that meets the UTEP Graduate School’s expectations is also required – it will be signed on December 8 after all requirements are met as described at bottom of this page.

Independent Research Project Instructions: Students who are completing an independent research project should be communicating closely with his/her faculty advisor regarding expectations.

Manuscript Submission:
On or before October 21:
Each group for systematic reviews (and each individual for independent research projects) will submit the following to the Capstone advisor and the 2nd faculty member assigned to evaluate the group or individual’s Private Poster Presentation and Oral Defense:
- electronic file of the Word-processed manuscript
- PDFs for all journal articles which are referenced in the manuscript

On or before December 9:
If a student earns a passing grade for the manuscript, poster, and oral defense and then publicly presents his/her poster on December 8, s/he should provide a signature page for his/her Capstone
advisor to sign on December 8 at the Public Poster Presentation. (Each student will have a separate signature page, regardless of whether or not it was a group project).

Then the final manuscript along with all relevant signature page(s) must be scanned into one file and emailed to Beverly Scarborough at bscarborough@utep.edu (signature page[s] should be placed in front of the manuscript in the file).

**Poster Submission:**

*On or before November 30:*

Each group (or individual for an independent research project) must send an electronic file of the single PowerPoint slide of the poster to Beverly Scarborough, the Capstone advisor, and the 2nd faculty member who will be evaluate the Poster Presentation and Oral Defense.

**Manuscript Rubric:** The manuscript rubric for students who complete a systematic review will follow the outline described in *PTJ*’s author instructions for systematic reviews. The actual rubric will be provided no later than September 16. Students who complete an independent research project will have similar expectations as described in *PTJ*’s author instructions for his/her type of study.

**Private Poster Presentation and Oral Defense Rubric:** The poster presentation and oral defense rubric will be provided no later than October 21.