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

PT 6116 PHYSICAL THERAPY CAPSTONE PROJECT I Fall 2025

COURSE SYLLABUS
Class of 2027

Credit Hour: 1

Contact Hours: 15 hours

Schedule: Meetings with advisor determined by each Capstone Advisor

Instructors:

Dr. Kosaku Aoyagi
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Course Description: This is the first of two Capstone courses for Doctor of Physical Therapy (DPT) students. The Capstone courses will culminate in a completed study, a manuscript suitable for submission to a peer-reviewed journal, and a poster appropriate for presentation at a scholarly conference. The Capstone courses build upon relevant research content and experiences integrated across the DPT curriculum. By the end of the first Capstone course, students will complete a review of the literature, design a study, have data collection in progress, and begin to draft early components of the manuscript.

Course Prerequisites for DPT Students: The UTEP DPT Program curriculum is a lock-step curriculum. Therefore, students must pass all courses in the prior semester of the DPT Program in order to enroll in courses in the subsequent semester. Faculty may consider exceptions for PT 6116 PT Capstone Project I and PT 6117 PT Capstone Project II.

Course Objectives:
By the end of this semester, the student will have:

1. Defended a scholarly project (literature review or mini-systematic review). (7B: Evidence-based practice and applied statistics; 7C1) [Application]
2. Critiqued the research presentations of other graduate students. (7B: Evidence-based practice and applied statistics; 7C1) [Evaluation]
3. Developed a research question that may be answered by using primary and/or secondary data. (7B: Evidence-based practice and applied statistics; 7C1) [Synthesis]
4. Designed an appropriate study to answer the research question. (7B: Evidence-based practice and applied statistics; 7C1) [Synthesis]
5. Met advisor expectations for data collection process. (7B: Evidence-based practice and applied statistics; 7C1) [Application]

Curricular Threads

- **Cultural / Linguistic Engagement and Competence:** n/a
- **Evidence-Based Practice and Research:**
    - Students complete a Capstone research project. Completion of the project contributes directly towards the further development of students' research methods knowledge and skills, which support evidence-based practice.
- **Clinical Reasoning:**
    - Through the development of research methods knowledge and skills, students improve their ability to develop hypotheses, synthesize knowledge, and use current evidence.
- **Interprofessional Collaborative Practice:** n/a

Methods of Instruction: Individual &/or small group instruction, research, and writing activities as determined by the respective Capstone Advisor

Methods of Evaluation: Student competence and attainment of course objectives are assessed using a variety of methods. These methods and their contribution to the final grade are listed in the table below.

Item	**Grade Composition**
Attendance at & written assignment re: Class of 2025 poster presentations **Thursday of Finals Week** (tentatively 5-7pm) (See rubric at end of the syllabus)	5%
Oral defense/proposal defense related to research project or written project (from Summer EBP) on Week #4 of the semester – time *TBD* (See rubric at end of syllabus)	25%
RESEARCH QUESTION – developed and submitted by deadline	10%
DATA COLLECTION PROCESS - fulfillment of advisor-specific expectations	20%
Written assignment • Original research: Intro & Methods draft • Non-original research: PRISMA diagram, 10 appraisals, & evidence table	40%
Total	100%

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

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

Required Textbooks and Other Learning Resources:

1) UTEP Librarian for the College of Health Sciences
    - Harvey Castellano
        - hcastell@utep.edu
        - Phone: 915-747-6734
        - Office: Library 322
2) Resources related to Systematic Reviews:
    - UTEP Library Guide for Physical Therapy http://libguides.utep.edu/ptsr
        - See “What is a Systematic Review?”

- Murad MH et al. How to read a systematic review and meta-analysis and apply the results to patient care: users' guides to the medical literature. *JAMA*. 2014;312(2):201:171-179.
- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). PRISMA checklist and flow diagram. http://www.prisma-statement.org/

3) Resource related to formulating a PICO question:
   - UTEP Library Guide for Physical Therapy http://libguides.utep.edu/ptsr
     - See "Preparing for a SR"
   - Centre for Evidence-Based Medicine. Finding the Evidence 1 – Using PICO to formulate a search question. http://www.cebm.net/finding-the-evidence-1-using-pico-to-formulate-a-search-question/
4) Resources related to the Literature Search:
   - UTEP Library Guide for Physical Therapy http://libguides.utep.edu/ptsr
     - See "Find the Evidence"
5) Resources related to the appraisal and appraisal tools:
   - UTEP Library Guide for Physical Therapy http://libguides.utep.edu/ptsr
     - See "Appraise/Analyze"
   - International Centre for Allied Health Research. University of South Australia. Critical appraisal tools. https://www.unisa.edu.au/research/Health-Research/Research/Allied-Health-Evidence/Resources/CAT/
   - Centre for Evidence-Based Medicine. Critical appraisal tools. https://www.cebm.net/2014/06/critical-appraisal/
   - Critical Appraisal Skills Programme. CASP checklists. https://casp-uk.net/casp-tools-checklists/
6) American Medical Association. *AMA Manual of Style: A Guide for Authors and Editors*. 10th ed. New York City, NY: Oxford University Press; 2007.
   - Available for free to UTEP students through UTEP Library
   - Go to https://libguides.utep.edu/pt
7) Resources related to how to format the manuscript:
   - *Guidelines for Authors* (or *Author Guidelines*) are available online at the Web site for each journal.
     - For an original research project, students will follow the Guidelines for Authors / Author Guidelines for the faculty-approved journal to which the manuscript will be submitted.
     - For a systematic review, students will follow the Guidelines for Authors / Author Guidelines for *Physical Therapy* (*PTJ*) – unless the Capstone advisor approves a different peer-reviewed journal.

Recommended Textbooks and Other Learning Resources:

1) Jewell DV. *Guide to Evidence-Based Physical Therapist Practice.* 5th ed. Burlington, MA: Jones & Bartlett Learning; 2023. ISBN-13: 978-1-284-24754-1
2) Gough D, Oliver S, Thomas J. *An Introduction to Systematic Reviews*. London: SAGE Publications; 2012. ISBN-13: 978-1473929432
    - Available for free check-out in the DPT Program's Administrative Assistant's office

Resources Available for Student Success:

Confidential Resources:

- **Center for Accommodations and Support Services (CASS):** 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, room 106 (next to the UTEP post-office). For additional information, visit the CASS website at http://sa.utep.edu/cass.
- **The UTEP Student Health Center**: Union East Suite 100; 915.747.5624; www.utep.edu/chs/shc
- **The UTEP Counseling and Psychological Services:** 202 Union West, 915.747.5302; www.utep.edu/student-affairs/counsel

Additional Resources:

- Division of Student Affairs. 915.747.5076, www.utep.edu/student-affairs
- DPT Library Research Guide: http://libguides.utep.edu/pt
- Writing Center: 915.747.5112. https://uwc.utep.edu
- Computer Labs: Independent Learning Center (ILC), 1st floor Campbell Building
- Military Student Success Center: 915.747.5342, www.utep.edu/student-affairs/mssc
- Student Wellness Program. 915.747.6738, www.utep.edu/chs/wellness

University Policies: All students are responsible for following UTEP policies and procedures found in the Handbook of Operating Procedures at www.utep.edu/vpba/hoop

Program Policies: All DPT students are responsible for following all policies and procedures documented in the current DPT Student Handbook. Course policies found in the DPT Student Handbook apply to all courses in the DPT curriculum. The current DPT Student Handbook may be found on the DPT Student Resources site on Blackboard.

Academic Integrity: The UTEP DPT Program has a "zero tolerance policy" for scholastic dishonesty. DPT students must demonstrate academic integrity at all times. The current DPT Student Handbook outlines specific definitions, expectations, details, and consequences related to academic integrity and scholastic dishonesty. Additional information related to academic integrity is available through the UTEP Division of

Student Affairs at www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html

Course-Specific Policies:

1. **Attendance Policy - Absences**: Refer to current DPT Student Handbook "Attendance and Classroom Behavior" for the DPT Program policy.
2. **Attendance Policy - Tardiness & Early Departures**: Refer to current DPT Student Handbook "Attendance and Classroom Behavior" for DPT Program policy.
3. **Electronic Devices:** Refer to current DPT Student Handbook "Electronic Devices" for DPT Program policy.
4. **Professional Behavior Policy**: See DPT Student Handbook "Attendance and Classroom Behavior", "Professional Behaviors" and "Unprofessional Behavior:" for general program policy.
5. **Late or Missed Assignments and Assessments Policy:** See current DPT Student Handbook "Written Examination Policy".
6. **Skills Check Policy:** not applicable
7. **Practical Exam Policy:** not applicable

Course Content and Schedule: Each student should communicate directly with her/his Capstone Advisor to determine schedule; see below for Capstone Advisor assignment. See below for content and due dates:

CAPSTONE ADVISOR ASSIGNMENTS

ORIGINAL RESEARCH	
Advisor	**Students**
Dr. Kosaku Aoyagi	Vai Jaideep Alan Medina Elias Rivas
	Casandra Barua Reyes Kavon Childers Emeka Ojinnaka Melissa Santillan
Dr. Shashwati Geed	Angelica Garcia Marcos Munoz Daniel Tarin Luis Verduzco
	Mary (Kat) Williams
Dr. Alvaro Gurovich	Sebastian Blancas Pamela Escobar Brianna Ibarra Paulina Medrano

	Amanda Daiberl Ashley Zuniga Eduardo Garcia
Dr. Samuel Singleton	Jai'la Gray Victoria Lopez Javier Martinez Lamont Lindsey
	Ed Coronel Michael Pinon Ahad Rajwani Cristian Valero-Corbett
Dr. Camila Torriani-Pasin	Hailey Chavez Lauren Perry Natalie Rangel Isabelle Tellez
	Alyssa Baldwin Emily Noble Asbiyallah Oresanya Elisa Young
Dr Priyanka Rana	Lindsey Gass McKenna Hastings Melinda Morales Alejandra Ruedas
	Liliana Villa Victoria Perez
Dr. Reyes-Brooks	Adriana Estrada Michelle Portillo Alexander Quinones Itzel Torres
	Emma Rosencrans Juan Sanchez Aguirre Isaiah Villegas
NON ORIGINAL RESEARCH	
Advisor	**Students**
Dr. Balachandar Kathirvelu	Cole Biziak-McCue Alan Gardea Joaquin Morales
Dr. Levi Johnson	Sophia Gonzalez Christopher Lemley
	Tori Robinson Alex Sanchez

	Angel Rodriguez

OVERVIEW OF CAPSTONE STUDY OPTIONS

All students will complete a research study for their Capstone project. Two broad options exist:

Option 1 - Original Research: The student may complete an *original research* study. This research type will be using primary data or will be a registered systematic review.

- The topic of the study will be directly relevant to the research interests of a DPT faculty member who will serve as the primary Capstone advisor, except under the following condition:
    - The student may propose a plan to complete a Capstone study under the mentorship of a UTEP faculty member outside of the DPT Program (eg, to continue with research begun as an undergraduate in Kinesiology), but this option will require DPT faculty approval.
- All students are encouraged to explore opportunities to participate in original research, and to meet with faculty whose research interests align with theirs; however, each faculty member has the freedom to determine which students s/he will mentor for an original research study.
- Each study will be completed by 1-4 students, with the faculty member determining the number of students s/he is willing to mentor for an original research study.
- Work related to the original research study will begin no later than Spring 1; therefore, **students should begin meeting with faculty in Summer 1. They will need to obtain faculty approval to participate in original research no later than Nov 15 (Fall 1).**
- During Spring 1 and Summer 2, the student will complete research-related tasks as directed by their Capstone advisor (inside and outside of courses). By **Aug 1** (Summer 2), the student and faculty member will decide if completion of the original research study remains feasible, **AND if the student is meeting expectations**. If either or both is/are not true, then the student will complete a systematic review for his/her Capstone study.

Goals/Expectations of Original Research

1. Data acquisition, processing and analysis. Register the systematic review at PROSPERO.
2. Submit and present an abstract to a relevant national or international conference (e.g., CSM, ASNR, ACRM, AACA) (per student handbook: A student is eligible to take time off from classes to attend CSM if their cumulative DPT Program GPA is greater than 3.2).
3. Write a Capstone manuscript and poster.
4. Attend lab meetings and work actively in the lab, according to your advisor's requirements.

Because of these goals/expectations, original research may require more time commitment than non-original research. Students interested in participating in original

research need to meet the outlined eligibility criteria and demonstrate they have the extra bandwidth for the increased time commitments. The original research commitment should not detract markedly from the student's academic performance in the program or should not be any barrier to fulfilling and completing the DPT curriculum.

Student eligibility to participate in Original Research include:

a) student is not on probation;
b) student has a GPA of 3.2 or greater.

Final approval to pursue the Original research would be based on the advisor's decision.

Option 2 – Non-original research: The student will complete a *systematic review* using secondary data, but no need to register at PROSPERO.

- Students who do not complete an original research study will complete a non-original.
- Students may choose or default to the non-original option by **Nov 15** (Fall 1)
- Students may self-select teams of 3-4 students.
    - If one or more students has not joined a team by **April 15** (Spring 1), faculty will determine a plan (which may include: forming a team of unassigned students, or assigning unassigned students to existing teams).
- Student teams then will be asked to identify their broad research interests (eg, neuro rehab), which will be *considered* in assigning the teams to Capstone advisors in order to best match teams with faculty.
- In rare exceptions, a non-original research student could transition into an original research; this would need to be done by **July 15** (Summer 2).
- No guarantee is made that students will have the option to pursue their stated research interests. All student teams will complete non-original research on topics that are directly relevant to their Capstone advisor's research and/or teaching interests.

DEADLINES

Deadlines for PT Capstone Project I – Original Research

- Research question is due to the Capstone advisor on **Sept 1** (Fall 2).
    - Faculty will provide feedback within 48 hours (not including weekends)
    - NOTE: In most cases, the research question will have been defined in the previous spring or summer
- Revised research question and summary of study design are due to the Capstone advisor on **Sept 10** (Fall 2).
    - NOTE: In most cases, this task will have been completed in the previous spring or summer

- Draft of Introduction & Methods sections due to the Capstone advisor on **Nov 15** (Fall 2).
    - The Introduction / Background section will be written to meet the requirements of the peer-reviewed journal to which the Capstone manuscript will be submitted
    - The intended journal choice must be approved by the Capstone advisor
    - *Guidelines for Authors* (or *Author Guidelines*) for peer-reviewed journals are available online at the Web site for each journal; these Guidelines will be found and followed
- Data collection expectations as determined by Capstone advisor must be met by **Dec 1** (Fall 2).
    - NOTE: In most cases, data collection will have started in the previous spring or summer.
    - Students may also have options to leverage the pooled data that have been already collected (e.g., use of laboratory's pooled data, medical records in the Pro Bono Clinics, etc.)

Deadlines for PT Capstone Project I – Non-original research

- PICO question is due to the Capstone advisor on **Sept 1** (Fall 2).
    - The systematic review cannot duplicate a systematic review that was published within 5 years.
    - Faculty will provide feedback within 48 hours (not including weekends).
- Revised PICO question and summary of study design (including planned search strategy) are due to the Capstone advisor on **Sept 10** (Fall 2).
- Systematic search must be done to answer the PICO question, and a draft of a PRISMA diagram is due to the Capstone advisor by **Oct 15** (Fall 2).
- A minimum of 10 articles must be appraised using a standardized appraisal tool(s) (appropriate for the design of the research study in each article). The priority should be to find articles published within the past 10 years. However, published articles of any publication date may be included in the systematic review if they are relevant. The following is due to the Capstone advisor by **Nov 15** (Fall 2):
    - final PRISMA diagram
    - one file that includes a completed appraisal tool for each article
    - PDFs of all articles that were appraised
    - evidence table that synthesizes key results of appraisal based on PICO
        - use standard format found below unless otherwise instructed by the Capstone Advisor

Study Title	Quality Assessment [using any validated scale appropriate for study design]	# Participants	Participant Demographics	Experimental Group Intervention(s)	Control/ Comparison Intervention(s)	Results

INSTRUCTIONS

Original Research Instructions:

- The design of each original research study will be determined by the Capstone advisor in collaboration with his/her student / student team.
- Each student on the team is responsible for an equal portion of carrying out the study.

Non-original Research Instructions:

- The team must construct a clear, concise, and answerable question that is based on a specific patient problem in a content area determined by the Capstone advisor.
- All students will be active in the extraction and appraisal of articles found to answer the question.
- EVERY student will be involved in EVERY portion of the work – including:
    - EVERY student will have been involved in searching all databases.
    - EVERY student will APPRAISE every article that meets the study's eligibility. Every student will appraise all 10 articles (or more if the group has found more than 10).
- Of the 10+ articles that are formally appraised, a MINIMUM of the top 6 will be synthesized in the written systematic review that will be completed for PT 6117 Capstone II.

For Original Research and Non-original Research:

The team must work cohesively by setting structured objectives to complete the final product. The expectation is for all members to contribute equally to the completion of the study. 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 may include delayed graduation (at a minimum of one semester) for the dismissed team member. The individual will be expected to complete a new original research study on his/her own.

In preparing written products, the team will read and follow all details of the instructions on the approved journal's Website.

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PT 6116 ORAL DEFENSE/PROPOSAL DEFENSE RUBRIC

Student Name:_____Faculty Reviewer Name:_____

Expectations	Fully Meets Expectations (2 pts)	Partially Meets Expectations: (1 pt)	Does Not Meet Expectations: (0 pt)	Score
Preparation (group grade)	Groups arrives early, and presentation meets time limit, and has no major errors on the PowerPoint	PowerPoint has a several minor or a few major errors	Fails to arrive early and/or presentation exceeds time limit and/or has consistent errors throughout the PowerPoint	
Presentation (group grade)	Presentation appears well rehearsed, and addresses the 3 articles	Presentation is not coordinated at times, and/or presentation only partially addresses the 3 articles	Presentation is overall poorly coordinated, and/or does not address the 3 articles	
Vocabulary	Correct vocabulary is consistently used in answering the questions	Uses incorrect vocabulary on occasion	Consistently uses incorrect vocabulary in answering the questions	
Clarity	Precise language is used when answering questions such that a follow-up question(s) is not required by the reviewer(s)	Attempts to use precise language, but the reviewer(s) must ask a follow-up question to clarify knowledge base	Consistently unable to use precise language in answering the questions	
Speaking Skills	Is easily understandable, and answers the questions confidently, and keeps eye contact with the reviewers	Relies on notes and is somewhat uncomfortable with or unsure of the topic	Consistently unable to answer the questions confidently, relying on notes, and/or looking to others for answers	
Completeness and accuracy of answer to Question #1	Answer to question is overall complete, concise, and accurate (with <10% error)	Answer lacks completeness &/or rambling &/or are partially inaccurate	Answer is consistently incomplete and/or consistently inaccurate	

Completeness and accuracy of answer to Question #2	Answer to question is overall complete, concise, and accurate (with <10% error)	Answer lacks completeness &/or rambling &/or are partially inaccurate	Answer is consistently incomplete and/or consistently inaccurate	
Completeness and accuracy of answer to Question #3	Answer to question is overall complete, concise, and accurate (with <10% error)	Answer lacks completeness &/or rambling &/or are partially inaccurate	Answer is consistently incomplete and/or consistently inaccurate	
Completeness and accuracy of answer to Question #4	Answer to question is overall complete, concise, and accurate (with <10% error)	Answer lacks completeness &/or rambling &/or are partially inaccurate	Answer is consistently incomplete and/or consistently inaccurate	
Completeness and accuracy of answer to Question #5	Answer to question is overall complete, concise, and accurate (with <10% error)	Answer lacks completeness &/or rambling &/or are partially inaccurate	Answer is consistently incomplete and/or consistently inaccurate	
POINTS DEDUCTED		1 point deducted for each incident of answering a question for a teammate without being called upon. 4 points deducted for not arriving in professional dress (appropriate for presentation at a state or national conference).		
			TOTAL POINTS:	

PT 6116 Poster Session Rubric (for attending poster presentations of graduating cohort)

Student Evaluator Name:_____

NOTE: Each student must attend a minimum of 3 poster presentations, secure a signature from the presenter, & document their assessment below:

Poster Title	Signature of presenter(s)	Strengths of poster format & content*	Strengths of presentation*	Areas to improve poster format & content*	Areas to improve presentation*

***Note:** Provide at least 2 substantive comments in each area. 1 point = substantive comment; 0 point = no comment or not substantive
If there is no poster title &/or no signature, the student will not earn any points for attending that poster.

OVERALL REFLECTIONS:

What are the top 3 lessons you learned about evidence-based practice? (3 points)

What are the top 3 "take-home messages" that you learned related to successfully completing and presenting your Capstone research? (3 points)

Total points possible = 30 points **Final grade: ____/30 = _____**

Each student evaluator should submit this completed document to their shared UTEP DPT Program OneDrive folder by 5pm on the day immediately following Poster Presentations.
This Rubric is ONLY submitted by first-year DPT Students attending the poster sessions.
Students presenting posters (graduating students) DO NOT submit this rubric anywhere.

8/11/2025