Course Title: Evidence Based Practice I
College: Public Health and Health Professions
Department: Department of Physical Therapy, University of Florida

Course Number: PHT 6605
Course Website: Hosted on Canvas at https://lss.at.ufl.edu/
Course Semester and Year: 2017 Fall Semester (Year 1 in DPT Program)
Course Prerequisites: Course participation is limited to the entry-level DPT students
Credit Hours: 3
Clock Hours: 1, 3 hr lecture/discussion session per week
Course Location: Building – HPNP, Room – PT1104
Course Dates and Times: Wednesday, 1:30PM – 4:30PM (Exception: Friday, 10/20 noted on schedule)

Course Instructor: Jason M. Beneciuk, PT, PhD, MPH
Course Instructor Office: HPNP, Room 1131
Course Instructor Email Address: beneciuk@phhp.ufl.edu
Course Instructor Phone Number: (352) 273-6696
Course Instructor Office Hours: By appointment

Teaching Assistant: Abigail Wilson, PT, DPT
Teaching Assistant Office: HPNP, Room 1159
Teaching Assistant Email Address: abigail.wilson@ufl.edu
Teaching Assistant Office Hours: Scheduled during semester and announced on Canvas

Course Description
The purpose of the evidence based practice sequence at the University of Florida is to provide the student with knowledge and skills to become critical consumers of rehabilitation literature. Evidence Based Practice I will introduce topics related to research philosophy, critical thinking, sampling, research design, descriptive statistics, correlation, reliability, and validity. Evidence Based Practice I also will introduce important concepts related to diagnosis, prognosis, and intervention practice patterns. The material presented in lecture will be accentuated with “real-world” examples from the literature and the course instructor’s ongoing research. Student competence will be assessed by completion of class projects and written examination.

Course Objectives
After completing this course, the student will be competent in:

1. Describing different research philosophies.
2. Interpreting and/or creating research questions appropriate for descriptive and experimental designs.
3. Describing common sampling techniques used in rehabilitation research.
4. Calculating measures of central tendency and variance from sample data.
5. Describing signal to noise theory.
6. Interpreting statistical significance.
7. Interpreting correlation coefficients.
8. Describing the importance of reliability for tests and measures.
10. Describing key components of critical thinking.
11. Interpreting a rehabilitation research article from a peer-reviewed journal.
12. Describing the philosophy of an evidence-based approach.
15. Interpreting measures of diagnostic accuracy.
17. Describing components of a prognosis.
18. Differentiating between odds ratios and relative risk ratios.
19. Calculating how a clinical finding alters prognosis.
20. Describing the general goals of intervention.
22. Using feedback from course instructor and teaching assistants in a timely fashion without defensiveness.

**Teaching Methods and Learning Experiences**
The course instructor will utilize all of the following techniques: lecture, focused readings, class discussion, individual projects, audience polling, and small group sessions (Socratic Method). Active student participation is vital for the success of this class, therefore is expected in all components of the class.

**Readings**
The course instructor will assign required journal articles for lecture material.

The following textbook is required for the Evidence-Based Practice sequence:
  - Please note that the 2nd Edition is also acceptable as required textbook.

The following supplemental textbooks are available containing source material for many of the lectures:
- SE Straus, WS Richardson, P Glasziou. RB Haynes. Evidence-Based Medicine, 3rd edition. (Elsevier, 2005)

Access to a statistical reference book may be beneficial for some parts of the Evidence Based Practice sequence.

**Journal Club Discussion Thread**
Readings are an important part of the course, but there is often not enough class time to discuss them sufficiently. Therefore, during the semester a Discussion Thread will be posted on Canvas for September, October, and November. This Discussion Thread will focus on a reading (to be determined over course of semester) that allows for student-to-student comments as a strategy to increase understanding of the topic. Discussion Threads will be monitored by the instructor and TA, but they will not be expected to be active participants. Material from the Discussion Thread can be brought into the classroom if indicated. Students will be required to post at least 2 comments total (either an initial post or response to another post) for each of the 3 discussion threads to get full participation credit by the end of the semester.

**General Review and Office Hours**
The TA’s involved with this class have multiple years experience in EBP and are very familiar with the course content; if not they will quickly become proficient. Our TA’s also perform research so in order to accommodate their schedule they will provide structured times for office hours. These TA schedules will be made available on Canvas. Finally, Dr. Beneciuk will lead a review session before each examination and is available for individual meetings by appointment.
Projects
Each project is to be completed individually, include the UF honor code, and student signature.

These are not group projects (refer to the aforementioned “individually”!
Due dates subject to change depending on pace of class

Project #1 – Involves the calculation and interpretation of measures of central tendency, variance, and correlation from a sample database using Excel software. Project #1 will be assigned sometime in September and will be due before class on September 27th (submitted through Canvas).

Project #2 – Involves the interpretation of a diagnostic journal article and completion of a written assignment. Project #2 will be due before class on November 1st (to start a trend, submitted through Canvas).

Project #3 – Involves the interpretation of a prognostic journal article and completion of a written assignment. Project #3 will be due before class on November 15th (surprisingly this will be submitted through Canvas).

Project #4 – Involves the interpretation of an intervention journal article and completion of a written assignment. Project #4 will be due before class on December 6th (shockingly to be submitted through Canvas).

Critical Thinking
Critical thinking is a key component of Evidence-Based Practice; however, it is rarely explicitly addressed in courses. Therefore, “Critical Thinking: Concepts & Tools” (Foundation for Critical Thinking, 2016) will be issued to students to bring discussion of critical thinking to the forefront in this class. There will be critical thinking “break out” sessions interspersed during this class. Students are expected to actively participate by having their guide books handy and by providing their input. The goal of these sessions is to expose students to examples of critical thinking in preparation for future class discussion. This book may be used in other classes, so keep it handy during the next 3 years.

Course Outline
The course instructor can (and will) make changes to this schedule at his discretion. All changes will be announced during class or by email (to UF address) or on course website (if one is used).

Advanced preparation is recommended by 4 out of 5 DPT students who passed EBP I.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>August 23</td>
<td>Introduction to EBP sequence, review of research philosophy</td>
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<tr>
<td></td>
<td><em>In class readings:</em></td>
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<tr>
<td></td>
<td>Hayhurst C. Follow the Evidence. PT in Motion, June 2014.</td>
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<tr>
<td>August 30</td>
<td>Populations to samples – how they are obtained and described</td>
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<tr>
<td></td>
<td><em>Readings</em></td>
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<tr>
<td></td>
<td>Jewell DV, 3rd edition Chapters 4, 6, 7; 123-132; and 9; 167-171</td>
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<tr>
<td></td>
<td>or 2nd edition Chapters 4, 6, 7; 137-148 and 9; 185-193</td>
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<td></td>
<td>Roach KE. A clinician’s guide to specification and sampling.</td>
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<td></td>
<td><em>J Othop Sports Phys Ther</em> 2001;31:753-758</td>
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<td></td>
<td><strong>Critical thinking break-out:</strong> Introduction and three kinds of questions (pages 2-3 and 16)</td>
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</tbody>
</table>
September 6  Signal to noise and statistical significance
Reading
Jewell DV, 3rd edition Chapters 9; 173 and 10; 189-194 or 2nd edition Chapter 9; 210-213

September 13  Research designs
Reading
Jewell DV, 3rd edition Chapter 5; 81-87 or 2nd edition Chapter 5; 91-97
Critical thinking break-out: Elements of thought, checklist for reasoning and elements of thought (pages 3-7)

September 20  Correlation and reliability
Readings
Jewell DV, 3rd edition Chapter 7; 132-135 or 2nd edition Chapters 7; 148-150 and 9; 195-200

September 27  Validity
Readings
Jewell DV, 3rd edition Chapter 7; 136-140 or 2nd edition Chapters 7; 150-156

Project #1 due. (review in class; take notes and keep copy to study for test – you will not have your Project #1 grade before Test #1).

October 4  Test #1 (includes material from 1st 6 lectures)

October 11  Introduction to an evidence based approach
Readings
Jewell DV, 3rd edition Chapters 1, 2, and 8; 143-147 or 2nd edition Chapters 1, 2, and 8; 159-163
Glaros S. All evidence is not created equal: a discussion of levels of evidence. PT Magazine 2003;Oct:42-52

October 18  Developing clinical questions & literature search
Reading
Jewell DV, 3rd edition Chapter 3 or 2nd edition Chapter 3
Rothstein JL, Evidence or snake oil? Phys Ther 2000; September: Editor’s Note.
Critical thinking break-out: Analyzing logic of articles and research (pages 11 and 18)

October 20  Special Friday Afternoon Unhappy Hour from 10:50AM – 1:50PM PT1104
Diagnosis #1
Readings
Jewell DV, 3rd edition Chapter 11 or 2nd edition Chapter 10

November 1  Diagnosis #2
Project #2 due.
November 8  Prognosis #1

Readings
Jewell DV, 3rd edition Chapter 12 or 2nd edition Chapter 11

November 15  Prognosis #2

Project #3 due.

November 22  Bye week

November 29  Intervention #1

Readings
Jewell DV, 3rd edition Chapter 13 or 2nd edition Chapter 12

December 6  Intervention #2

Readings
Rothstein JL, Thirty years later… Phys Ther 2000; January - Editor’s Note.
Critical thinking break-out: Final thoughts on reasoning (pages 19-22)
Project #4 due and review for test (time permitting and student initiated)

Finals Week  Test #2 (comprehensive)

Grading
Grading is scored according to the grading policy; University of Florida, College of Health Professions, Department of Physical Therapy, Student Handbook. 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

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Due date</th>
<th>% of final grade (must sum to 100%)</th>
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<tbody>
<tr>
<td>Project #1</td>
<td>September 27</td>
<td>5%</td>
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<tr>
<td>Test #1</td>
<td>October 4</td>
<td>35%</td>
</tr>
<tr>
<td>Project #2</td>
<td>November 1</td>
<td>5%</td>
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<tr>
<td>Project #3</td>
<td>November 15</td>
<td>5%</td>
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<tr>
<td>Project #4</td>
<td>December 6</td>
<td>5%</td>
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<tr>
<td>Discussion Board Participation</td>
<td>December 6</td>
<td>10%</td>
</tr>
<tr>
<td>Test #2</td>
<td>Finals Week</td>
<td>35%</td>
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The following grading scale is used:

<table>
<thead>
<tr>
<th>Class Percentage</th>
<th>93%-%100%</th>
<th>90%-%92%</th>
<th>87%-%89%</th>
<th>83%-%86%</th>
<th>80%-%82%</th>
<th>70%-%79%</th>
<th>60%-%69%</th>
<th>Below 60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grade</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td>C</td>
<td>D</td>
<td>E</td>
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Grading

Test #1 35%
Test #2 35%
Class Projects (n = 4) 20%
Discussion Boards (n = 3) 10%

Assessment Methods
Multiple assessment methods are used to allow students multiple opportunities to display application of their knowledge in this class. Written tests incorporate multiple choice questions (including true/false), short answer responses, and interpretation of simple calculations. Projects incorporate written responses that emphasize critical analysis of a journal article and providing the rationale for the analysis. Projects also incorporate written justification of how data reported in the article may influence clinical application. A standard rubric is used for each project to ensure consistent assessment methods are used. In general, the assessments for this class are designed to closely match the previously listed course objectives.

Attendance
Attendance is highly suggested for this class, though it will not be monitored. I 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.

Professional Behavior
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 the classroom and lab. 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 can be accessed at:
http://pt.phhp.ufl.edu/dpt-program/current-students/

Key professionalism areas emphasized in this class: responsibility, communication, and critical thinking.

Lecture dress is required for all class sessions, except tests.

Academic Integrity
Students are expected to act in accordance with the University of Florida policy on academic integrity (see Student Conduct Code, the Graduate Student Handbook or these web sites for more details):

http://www.dso.ufl.edu/scr/honorcodes/conductcode.php
http://www.dso.ufl.edu/studenthandbook/studentrights.php
http://gradschool.ufl.edu/students/introduction.html

Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.
In this professional program we are particularly sensitive to students submitting independent work. All students are required to abide by the academic integrity guidelines and the following pledge has been accepted by the University and is expected of all students,

*I understand that the University of Florida expects its students to be honest in all of their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action, up to and including expulsion from the University.

On all work submitted for credit by UF students, the following pledge is required or implied:

*On my honor, I have neither given nor received unauthorized aid in doing this assignment.

In this class all students submitting a project or test are indicating they have neither given nor received unauthorized aid even if this statement is not included and signed.

Unless specified otherwise in writing, all assignments, quizzes, and exams are to be completed independently. This means that collaboration with or assistance from any other person on assignments, projects or exams will be considered a violation of the UF Honor Code and referred to the Dean of Students office.

Make-up Work
Make up work is not assigned or allowed to replace required assignments and will only be considered in extenuating circumstances. Personal issues related to fulfillment of course requirements will be handled on an individual basis.

Accommodations for Students with Disabilities
If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office (http://www.dso.ufl.edu/). The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health
Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the UF Counseling & Wellness Center, 352-392-1575. Visit their web site for more information: http://www.counseling.ufl.edu/.

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, including primary care, women's health care, immunizations, mental health care, and pharmacy 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: www.health.ufl.edu/shcc

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.