

California University of Pennsylvania
University Course Syllabus
Department of Health Science
UCC Approval date:10/16/17

A. Protocol

Course Name: Principles of Research
Course Number: ATE 660
Credits: 2
Prerequisites: Enrollment in the PMSAT Program and EDP 600
Maximum Class Size (face-to-face): 30
Maximum Class Size (online): N/A

B. Objectives of the Course:

Upon completion of the course, students should be able to:

- 1) Define evidence-based practice (EBP) as it relates to clinical athletic training.
- 2) Understand evidence-based practice principles in clinical decisions.
- 3) Differentiate between the various types of research.
- 4) Identify the various components of research design including research topic selection, methods, data collection, data analysis and dissemination of findings.
- 5) Create a research question based in educational or applied athletic training.
- 6) Execute thorough literature searches and critically appraise the resources.

C. Catalog Description:

This course will introduce and explore scientific inquiry and interpretation of research in athletic training. Students will gain familiarity with the concepts of evidence-based practice, critically appraised topics, institutional review board processes and various fundamentals of experimental research. Additionally, students will become skilled at using library resources to conduct literature reviews. Students will create a research topic of their own and begin to outline their research interests and focus in educational and applied athletic training. Students will be introduced to current library research resources and methodology through interaction with librarian assigned to work with this discipline.

D. Outline of the Course:

Introduction to Research in Athletic Training

Evolution

Research Process and components

Ethics in Research

IRB Process and Importance

Utilizing Library Resources in Research

The Research Librarian as a Resource

Online Search Strategies - Electronic Databases

EBSCO Host and Search Terms

Evidence-Based Practice in Athletic Training

Applying EBP to Athletic Training

Constructing a Clinical Question using PICO

Levels of Evidence in Research
Reliability/Validity/Reproducibility
Critically Appraised Topic/Paper

Types of Research in Athletic Training

Basic Science
Applied and Clinical Studies
Multi-Center Studies
Injury Surveillance and Epidemiology
Systematic Reviews and Meta-Analysis
Educational Research
Qualitative research

Choosing a Topic for Research

Overview and Factors
Choosing a Theme or Focus
Utilizing a Research Mentor

E. Teaching Methodology:

- 1) Traditional Classroom Methodology
Lecture, Journal Club style discussion, small group activities

- 2) Online Methodology
NA

F. Text

Required

Arnold, Gansneder and Perrin *Research Methods in Athletic Training* F.A. Davis
ISBN0-8036-0778-4

G. Assessment Activities:

- 1) Traditional Classroom Assessment
Exams, quizzes, homework assignments, writing assignments.

- 2) Online Assessment
NA

H. Accommodations for Students with Disabilities:

OSD

Revised June 2015

STUDENTS WITH DISABILITIES

Students reserve the right to decide when to self-identify and when to request accommodations. Students requesting approval for reasonable accommodations should contact the Office for Students with Disabilities (OSD). Students are expected to adhere to OSD procedures for self-identifying, providing documentation and requesting accommodations in a timely manner.

Students will present the OSD Accommodation Approval Notice to faculty when requesting accommodations that involve the faculty.

Contact Information:

- Location: Carter Hall - G-35
- Phone: (724) 938-5781
- Fax: (724) 938-4599
- Email: osdmail@calu.edu
- Web Site: <http://www.calu.edu/osd>

I. Title IX Syllabus Addendum

California University of Pennsylvania
Reporting Obligations of Faculty Members under Title IX
of the Education Amendments of 1972, 20 U.S.C. §1681, et seq.

California University of Pennsylvania and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with the Title IX of the Education Amendments of 1972 and guidance from the Office of Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator, Dr. John A. Burnett, Special Assistant to the President for EEO, Office of Social Equity, South Hall 112, Burnett@calu.edu, 724-938-4014. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project. Faculty members are obligated to report sexual violence or any other abuse of a student who was, or is, a child (person under 18 years of age) when the abuse allegedly occurred to the person designated in the University protection of minors policy.

The University's information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at:

- **Office of Social Equity**, South Hall 112, 724-938-4014
 - Social Equity Home Page www.calu.edu/SocialEquity
 - Social Equity Policies www.calu.edu/SEpolicies
 - Social Equity Complaint Form www.calu.edu/SEcomplaint
- **Counseling Center**, Carter Hall G53, 724-938-4056
- **End Violence Center**, Carter Hall G94, 724-938-5707
- **Student Affairs**, Natali Student Center 311, 724-938-4439
- **Wellness Center**, Carter Hall G53, 724-938-4232
- **Women's Center**, Natali Student Center 117, 724-938-5857
- **Threat Response Assessment and Intervention Team (T.R.A.I.T.) & Dept. of Public Safety & University Police**, Pollock Maintenance Building, 724-938-4299
 - **EMERGENCY:** From any on-campus phone & Dial **H-E-L-P** or go to any public pay phone & **Dial *1**. (*Identify the situation as an emergency and an officer will be dispatched immediately)

J. Supportive Instructional Materials, e.g. library materials, web sites, etc.

Health Science Database in Library- <http://library.calu.edu/home>

AMA style manual- <http://www.amamanualofstyle.com/>

Zotero- <https://www.zotero.org/>

Centre for Evidence Based Medicine- www.cebm.net

SPSS tutorial sites- <https://www.spss-tutorials.com/basics/>

Purdue Online Writing Lab (OWL)- <https://owl.english.purdue.edu/owl/>

Professional literature sources: Journal of Athletic Training (<http://natajournals.org/?code=nata-site>),
Medicine in Science and Sports (<http://journals.lww.com/acsm-msse/pages/default.aspx>), American Journal
of Sports Medicine (<http://journals.sagepub.com/home/ajs>)

Physiotherapy Evidence Database (PEDRO) <https://www.pedro.org.au/>

Van Lunen, B., Hankemeier, D., & Welch, C. (2015). Evidence-Guided Practice: A Framework for Clinical Decision Making in Athletic Training. SLACK Inc.

Additional Information for Course Proposals

K. Proposed Instructors:

Any qualified Health Science faculty.

L. Rationale for the Course:

This course provides students with foundational knowledge about the research process and application clinically. Students will learn to become consumers of research, analyze the outcomes of research and ascertain how they can use the outcomes in their professional practice. Additionally, students will learn the process of experimental research and develop a research question that will become the foundation of their required research project in subsequent research courses.

M. Specialized Equipment or Supplies Needed:

None

N. Answer the following questions using complete sentences:

1) Does the course require additional human resources? (Please explain)

No

If Yes, click here to answer Question N1, above.

2) Does the course require additional physical resources? (Please explain)

No

If Yes, click here to answer Question N2, above.

3) Does the course change the requirements in any particular major? (Please explain)

Yes

This is a new course and is a part of the new/revised major, the Professional Master of Science in Athletic Training.

4) Does the course replace an existing course in your program? (If so, list the course)

No

If Yes, click here to answer Question N4, above.

5) How often will the course be taught?

Annually during the fall semester.

[Click here](#) to add text to qualify your selection for course timing, if necessary.

- 6) Does the course duplicate an existing course in another Department or College? (If the possibility exists, indicate course discipline, number, and name)

No

[Click here](#) if the answer to Question N6, above is YES. Indicate the other discipline/department and the other course number and name.

- O. If the proposed course includes substantial material that is traditionally taught in another discipline, you must request a statement of support from the department chair that houses that discipline.

NA

- P. Please identify if you are proposing to have this course considered as a menu course for General Education. The General Education Committee must consider and approve the course proposal before consideration by the UCC.

No

Q. Approval Form

Provide the Approval Form (Signature Page) with the signatures of your department Chair AND college Dean (electronically).