

Campus:

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EMP 873 : RESEARCH METHODOLOGY AND DESIGN

(3 Credits)

Overview of Course: The purpose of this course is to help doctoral learners move from a broad research concept or question to a doctoral-level research project with appropriate methodology to address a specific research question for a dissertation. Areas to be addressed include the following: mapping the research area; stating and refining the research problem; researching the professional literature; formulating appropriate research question(s) and hypotheses, if quantitative; choosing the best research design for the question and understanding its advantages and shortcomings; working with human subjects in research; choosing appropriate research instruments; and collecting data. The seminar will address how and when to use quantitative, qualitative, and mixed methods in research. Various aspects of different research designs will be covered, such as outcome studies, randomized controlled experimental quantitative studies, interviews, cross-over study designs, and surveys, among others. Examples of study designs will be taken from psychology, biology, energy medicine and other health studies. Critiquing the research of others, including the professional literature, will also be taught. Students are encouraged to bring their doctoral dissertation issues into the course for discussion with the instructor and other students. In addition, issues in human subjects research, including safety, ethics, recruitment, retaining subjects, confidentiality, informed consent, and the Institutional Review Board process, will be covered. {Note: this course does not cover statistical analysis or qualitative data analysis.

Course Topics: Paradigms and worldviews in research; the role of the researcher in research; mapping the research area; stating and refining the research problem; researching the professional literature; qualitative and quantitative research methodologies; mixed methodologies; the randomized controlled clinical trial, its usefulness and limitations; formulating appropriate research questions and hypotheses; common research designs and choosing the best one for the research question; limitations of research designs; working with human subjects or participants; validity issues; choosing appropriate research instruments; collecting data.

Learning Objectives:

1. To describe the various types of qualitative research methodologies, including the five types-- grounded theory, phenomenology, narrative research, ethnography, and case studies, and the rationale for using each of these types in research.

2. To describe and explain in working detail the types of quantitative and mixed methodologies, including experimental and quasi-experimental approaches, and the rationale for using these methodologies.

3. To explain how one's identity as a researcher (gender, race, socio-cultural context, beliefs, expectations, etc.), presence, and personal perspective may impact the inquiry process in various ways.

4. To evaluate and critique research studies, including reviewing relevant literature in the student's area of interest.

5. To formulate a novel research question that is informed by a literature review and to write a research proposal.

6. To elucidate the ethical and safety issues in human subject research.

Audience:

Students in the Doctoral Program. Masters students may also take this course if a foundation in research is desired.

COURSE DESCRIPTION

This course will address the issues pertaining to quantitative and mixed method (quantitative and qualitative combined) research design and implementation, to assist doctoral level students in their dissertation projects. Areas addressed include the following: identifying the research problem; formulating a testable research question; selecting an appropriate research design; choosing appropriate instruments; collecting data; and evaluating results. Specific examples of research designs will be drawn from psychology, biology, and health science. In addition, the spectrum of issues in research on human subjects, including safety, ethics, recruitment, retaining subjects, confidentiality, informed consent, and the review process, will also be covered. Students are encouraged to bring their doctoral research issues into the course for discussion with the instructor and other students.

NEED STATEMENT

Students will:

- 1) Develop an in-depth awareness of the scientific method as well as other methods of scholarly inquiry.
- 2) Understand the assumptions and values underlying the foundations of the scientific method and other methods of scholarly inquiry, in order to fully communicate their own knowledge, critically assess the work of other professionals, and extend their own research and understanding of research on therapeutic methods.
- 3) Develop skills needed in critically reviewing research reports and understanding research methodology and design.
- 4) Develop the critical skills needed to think like a researcher and begin original research by reviewing the literature around a key research question and drafting a research proposal.
- 5) Understand ethical and safety issues in human subject research.

FACULTY-STUDENT COMMUNICATION

- **Telephone Contact:** Students should arrange all telephone communications with the instructor by email beforehand. An initial phone or Skype contact to clarify course objectives and develop a schedule should be made prior to beginning the course. This contact should be scheduled within the first few weeks of commencement of the semester. After this, periodic telephone communication can be arranged with instructor. All telephone calls will be at student's expense.
- **Email Contact:** Reflection on and questions about the coursework papers and field placement internship should be addressed via email monthly or as needed. Students are always encouraged to contact the instructor via email whenever a problem arises.

• Communications

It is requested that students stay in weekly or every other week correspondence with the instructor using email. The student should also set up periodic telephone conversations, at their expense, to discuss problems, concerns, or determine the direction of their course work. Students are always encouraged to contact the instructor by email, fax, or telephone whenever a major concern may arise. It should be understood that as mature students, it is the responsibility of the students to stay in contact with their instructors. The instructor may be able to set up one-on-one discussions with the student using Skype. Students should check email frequently for professor and EMU messages.

Students will normally send communications via email and submit papers as MSWORD format files attached to email messages. Synchronous Internet sessions may be used for "chat sessions" using Yahoo Messenger Chat or Skype. Check with your instructor on the type of communications she uses.

Internet Forums: Please contact our Registrar to be included in the EMU Internet forums.

Length of Course:

Length of this Energy Medicine course is five (5) months or one (1) semester.

COURSE DELIVERY STYLE

Distance Education - Coursework is completed at a location determined by the student utilizing a computer that has the ability to play audio and video clips, with Microsoft Office Word, Excel, PowerPoint, Adobe Reader, along with a current web browser, internet connection and email address. Contact and communication with distance students is typically conducted by telephone, Internet, Skype, text chat, and email. Students are also encouraged to contact the University by facsimiles, and postal mail, and by personal visit to the University.

All lessons, coursework and papers must be copied to lessons@energymedineuniversity.org from both the student and professor.

1) Reading Assignments

Students will read the two paperback textbooks from cover to cover. Supplementary reading and video materials listed in course resources are recommended, but not required.

Email Contact: Reflection on and questions about the reading lessons should be addressed via email weekly or as needed. There also may be a student/faculty discussion chat group which creates a larger feedback mechanism though internet communication. Students are always encouraged to contact the instructor via email whenever a problem arises.

2) Three written assignments with written feedback from professor

--Literature Review and Novel Research Question

--Critique of Research Methodology and Research Design of a Published Paper in the Literature

--Original Research Proposal Draft

COURSE ASSIGNMENTS

Assignment #1: Read the textbooks Read the 2 textbooks cover to cover as indicated in the timetable below. Use them as reference books to help you prepare your written assignments.

Assignment #2: Literature Review

Prepare a scholarly literature review underlying a topic of key interest to you in subtle energies or energy medicine, one which leads up to and includes an original research question that you pose. This paper should be least 5 double-spaced typewritten pages, 12 point, Times Roman Font and have an additional section, References, that is at least 1 full page, in which the papers cited and discussed are listed in a standardized format. Grades will be given on content; use of scholarly source material presented and discussed in a logical order; crafting of an original research question; and also grammar and spelling. Use the American Psychological Association (APA) Style Manual for style and formatting.

Assignment #3: Critique of a Published Paper on Subtle Energies or Energy Medicine Choose a scholarly paper published in a peer-reviewed scholarly journal in your area of interest that is not one of the references that you cited in Assignment 2. Write a critique of the paper from the viewpoint of its research question(s), methodology(ies), and procedures, stating strengths and weaknesses, as if you were grading this paper or performing peer-review. The list of criteria to be used is as follows:

- a. Is(Are) the research question(s) clearly stated?
- b. Does the introduction, statement of the problem, and overview of the literature adequately set the background for the reader, and is this material

consistent with the research question? Explain.

- c. If hypotheses are stated, are they appropriate and clearly stated? Explain.
- d. Identify the variables in the research study. If there are independent and dependent variables, identify these as well.
- e. Is(Are) the research methodology(ies) used appropriate for the research question(s)? Explain.
- f. Is the research design—including procedures and methods---suitable to address the research question? Explain.
- g. Is the population appropriate for the research question? Were the participants properly selected, representative, and unbiased? Were ethical concerns handled appropriately? Explain.
- h. Did the investigators conduct the study in an unbiased manner? Explain.
- i. Does the study appropriately address issues of social justice and cultural diversity? Explain.
- j. Are there any other limitations or shortcomings of the study? Explain
- k. What are the strengths of the study? Explain.

Your critique should be 4 to 5 pages of double-spaced text, and include a cover sheet with your name, the course number, and date. Provide an electronic copy of the published paper as a PDF file along with your critique of it as a Word file.

Assignment #4: Preliminary Research Proposal Draft

Write a draft of a research proposal including the introduction and background to the problem area; the literature review (simply paste in Assignment #2, improved and updated); the research question; a research methodology section on the type of research methodology to be used and a justification statement; a section on the target population and sample, if appropriate (if your research question involves human subjects, that is). The body of this paper should be about 15 double-spaced pages of double-spaced text, font size 12, and include an additional cover sheet with your name, a descriptive title of research project, the course number, and date. It should also include a reference section (that goes beyond the page length stated above) in APA format. Finally, insert a consent form for participants in an Appendix, if your study will use human subjects.

Assignment File Names

Use the following file nomenclature system for each of your written assignments as follows:

Last name, first initial_EMP873_assign#.doc (or .docx) For example, for Jane Smith's first paper in this course, **Smith, J_EMP873_assign1.doc** is the proper file name. Any assignments not utilizing this file nomenclature will be returned.

INDIVIDUALIZATION OF STUDENT ASSIGNMENTS

Each assignment topic will be chosen by the student to best support their individual professional goals, yet each student will also benefit from seeing the fruits of all fellow students' research and providing professional criticism of each others' work.

Each student will be afforded the opportunity of writing on a subject that is related to his or her field of interest. This will assist the student in making each paper individualized. Also the student is encouraged to go outside the field and obtain research data from other interdisciplinary areas. Each student, based on his or her background, will be encouraged to transfer that theoretical information which the course provides into a practical format in the final paper or project.

COURSE EVALUATION

The course grade will be based upon the quality of the papers and the creative and engaging use of the class participation in phone calls or Skype conferences.

COURSE GRADING DETERMINANTS

Grades are based on the following elements of a student's participation and accomplishment. In determining a grade for this course, the following formula will be used:

Reading required texts and contributing to live discussion with professor: 25%

Assignment 2: 25% Assignment 3: 25% Assignment 4: 25%

Using this technique, there will be 100 points assigned to the course. Final semester grades will be calculated as follows:

92-100 points = A range 86-91 points = B range 80-85 points = C range 70-80 points = D range Under 70 points = F

COURSE COMPLETION TIMETABLE

- Week #1-5 Complete reading of Creswell, 2003 textbook
- Week #5: Assignment 2 due
- Week #9: Assignment 3 due
- Week #5-10 Complete reading of Creswell, 2007 textbook
- Week #15: Assignment 4 due

SPECIAL NOTES AND INSTRUCTIONS

All coursework must be completed in a timely fashion. Students are encouraged to phone or email the instructor whenever they need advice, comments, or instruction.

TEXTS

Creswell, J.W. (2003) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. (2nd ed.) Thousand Oaks, CA: Sage Publications (paperback).

Creswell, J.W. (2007) Qualitative Inquiry and Research Design: Choosing Among Five Approaches. Thousand Oaks, CA: Sage Publications (paperback).

ADDITIONAL RECOMMENDED SOURCES

Holton, G., et al. (1979) Limits of Scientific Inquiry. New York: W.W. Norton and Co.

Katrak, P., Bialowcerkowski, AF, et al. (2004). A systematic review of the content of critical appraisal tools. *BMC Medical Research Methodology*, *4*(22). Web-based journal article available at: <u>http://www.biomedcentral.com/1471-2288/4/22</u>

Kazdin, E. A. (2003). *Methodological Issues and Strategies in Clinical Research*, (Third Edition). Washington, DC: American Psychological Association. (paperback)

Locke, L.F., Spirduso, W.W., & Silverman, S.J. (2000) Proposals that Work: A Guide for Planning Dissertations and Grant Proposals (4th ed.). Thousand Oaks, CA: Sage Publications.

Marczyk, G, DeMatteo, D., & Festinger, D. (2005). *Essentials of Research Design and Methodology*. Hoboken, NJ: John Wiley & Sons. (paperback)

Meltzoff, J. (1998) *Critical Thinking about Research*. Washington, D.C.: American Psychological Association.

Nardi, P.M. (2002). *Doing Survey Research: A Guide to Quantitative Research Methods.* (paperback). Hempstead, England: Allyn and Bacon.

Online video lectures by Beverly Rubik on research methodology, critiquing research, writing a literature review, and other topics will be provided.