Berkshire Medical Center Medical Laboratory Science Program

Course Syllabus

Course No. : MEDT 410 Course Title: Research

Credits: 0

Description:

Discusses the use of the internet, the library, and other resources available for research and how to evaluate these sources for relevancy and validity. Provides students with instruction on creating and developing research and case study projects. Students evaluate journal articles, create and present research or case study projects to target audience.

Includes a capstone project. Students submit a research proposal or case study proposal in which they design and conduct approved research or select and work up a case study related to a specific area of the clinical lab. Required paper and oral presentation.

Primary Didactic/Research Instructors:

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Required text: None. Reference material: Reading and Evaluating the Journal Article: A Self-Instructional Unit 5th ed., 2003, Mary Ann Fiene and Ronald Schaffner. Teaching the Scientific Literature Review, 2nd edition, Schmidt, Syth, Kowalski, 2014. <u>Writing Science Through Critical Thinking</u> by Marilyn F. Moriarty (1997). <u>Health Sciences Literature Review Made</u> Easy by Judith Garrard (2007). <u>Successful Scientific Writing</u> by Janice Matthews and Robert Matthews (2009). <u>Research for the Health Professional: A Practical Guide</u> by Diana M. Bailey (1997).

Lecture:2 scheduled lecturesStudent Presentations:1Laboratory:Research conducted using BMC laboratory data and electronic medical record (EMR).

Course Goals and Objectives

Based on the didactic material students will pass or fail using the following evaluation tools (journal article review, capstone project) to demonstrate competency of the following objectives.

Upon completion of the Research course the student will:

- 1. Explain what types of resources are available and how to go about finding information.
- 2. Discuss the steps involved in evaluating published research.
- 3. Determine the validity of web-based information.
- 4. Evaluate a journal article using steps outlined in this course.
- 5. Discuss the importance of reading journal articles as it relates to continuing education, maintaining competency, and reference for research.
- 6. Describe the steps involved in developing a research project.
- 7. Design a research project or case study using information learned from this course.
- 8. Collect, analyze and evaluate information for the capstone (research or case study) project.
- 9. Develop conclusions from your capstone project.
- 10. Discuss the different target groups that may review your research and describe how you would disseminate the information.
- 11. Develop and practice oral presentation skills.
- 12. Present capstone project to members of the laboratory.

Basis for Student Evaluation

Evaluation will consist of grades from the journal article review and capstone project (journal article, written paper, oral presentation). See Research grade sheet for specific breakdown. Grade not transferable for college credits.

Affective behaviors

<u>Didactic</u>

Following appropriate training, during didactic instruction the student will:

- 1. Exhibit professional behavior during didactic instruction.
- 2. Attend lectures in a timely manner.
- 3. Respect other students and members of the laboratory.
- 4. Contribute to a positive learning environment.
- 5. Demonstrate an interest in the subject matter.
- 6. Comply with hospital and laboratory dress code and personal appearance policies.
- 7. Comply with institutional policies concerning safety.
- 8. Cooperate when situations arise and there is a necessary change in lecture schedule.

(Research syllabus)