



**Berkshire Medical Center  
School of Medical Laboratory Science**

Course Syllabus

Course No. : MEDT 410

Course Title: Research and Clinical Study Design

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. Discusses the rationale for clinical studies and different types studies. Provides students with instruction on creating and developing their own clinical study or case study projects. Students evaluate journal articles, create and present their own clinical study or case study projects to target audience.

Includes a capstone project. Students submit a clinical study proposal or case study proposal in which they design and conduct approved study 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: Lori Moore, M.Ed. MLS(ASCP)  
[lmoore@bhs1.org](mailto:lmoore@bhs1.org)  
413-447-2580

**Required text:** None.

Reference material:

Reading and Evaluating the Journal Article: A Self-Instructional Unit  
5<sup>th</sup> ed., 2003, Mary Ann Fiene and Ronald Schaffner.

Teaching the Scientific Literature Review, 2<sup>nd</sup> edition, Schmidt, Syth, Kowalski, 2014.

Writing Science Through Critical Thinking by Marilyn F. Moriarty (1997).

Health Sciences Literature Review Made Easy by Judith Garrard (2007).

Successful Scientific Writing by Janice Matthews and Robert Matthews (2009).

Research for the Health Professional: A Practical Guide by Diana M. Bailey (1997).

Student Presentations: 1

Laboratory: Study conducted using BMC laboratory technology, 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 this 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. Explain the reason for conducting a clinical study.
7. Describe the steps involved in developing a clinical study.
8. Design a clinical study or case study using information learned from this course.
9. Collect, analyze and evaluate information for the capstone (clinical or case study) project.
10. Develop conclusions from your capstone project.
11. Discuss the different target groups that may review your clinical study and describe how you would disseminate the information.
12. Develop and practice oral presentation skills.
13. Present capstone project to members of the laboratory.

## **Research and Clinical Study Design Lecture Schedule**

### **November - January**

1. Evaluation of Journal Articles  
Assignment: journal article review
2. Research/Case Study Project  
Outline of expectations
3. Research and Clinical Study Design
  - a. Why do we need it
  - b. Design process
4. Internal Review Board (IRB) lecture
5. Capstone project

## **Basis for Student Evaluation**

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

## **Affective behaviors**

### Didactic

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.

### **Clinical**

Following appropriate training, the student will:

1. Comply with all hospital, laboratory, and school policies.
2. Demonstrate phone etiquette using BHS customer service standards.
3. Maintain a neat, clean, and orderly work area.
4. Value the advice and opinion of others.
5. Accept responsibility for their own actions by notifying the instructor or supervisor of any errors.
6. Be dependable and punctual for the clinical study.
7. Organize their time to complete tasks on time.
8. Accept constructive feedback and use it as a tool for improved performance.
9. Establish a good rapport with lab staff and uphold the concept of teamwork.
10. Cooperate when situations arise and there is a necessary change schedule.
11. Comply with hospital and laboratory dress code and personal appearance policies.
12. Contribute to a positive, inclusive environment.

## **Attendance**

Students follow the School of MLS attendance policy. Students are allotted 80 hours for personal time and sick time during the course of the internship. The Program Director and clinical department must be notified of any sudden absence as soon as possible. The main lab number may be called 24 hours a day to notify the lab of an absence. The Program Director should be emailed to document the absence.

Any coursework missed over the 80 hours allowed, will require consultation with the Program Director as to the course of action to make up lost time.

### **Snow days**

Cancellation of coursework due to inclement weather will be at the discretion of the Program Director.