

**EBP and the Medical Librarian**  
**INLS710.01W.SP19**  
**Syllabus**

Evidence-Based Practice is the conscientious use of current best evidence in making decisions about patient care. It incorporates clinical expertise, current clinical research and patient preference and values into a shared decision making process to improve health care. This course is designed to be an introduction to the process of evidence-based practice (EBP). This course will focus on understanding the knowledge management skills clinicians need to practice EBP, such as how to formulate relevant questions, efficiently search medical literature and evaluate the evidence for validity and applicability to the patient. The course also will focus on the role of the librarian in supporting EBP.

A prerequisite for this course is a basic understanding of search techniques for bibliographic databases such as PubMed/MEDLINE. The format of the course is a combination of course material, independent readings, self-correcting reviews and short essay exercises. Students are required to participate in discussions through the course Discussion Board. In addition, a research paper demonstrating an understanding of EBP and its application to teaching and clinical practice is also required.

**Course Identifier:**

INLS710.01W.SP19 is approved for 3 academic credits. The course is offered twice a year in the Spring and Fall semesters. This is an online course available through Sakai. There is a one face-to-face class meeting for UNC SILS students only to be scheduled within the first 2 weeks of the course to discuss searching PubMed.

**Instructor Identifiers:**

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**Target Audience:**

The course targets Library Science students interested in working in medical or health sciences libraries. The course is also open to practicing librarians for CE credit through the Medical Library Association.

**Course Prerequisites:**

This course is designed to be an introduction to the process of Evidence-Based Practice (EBP) and to the supporting roles and opportunities for medical librarians.

**Course Goals and Key Learning Objectives:**

1. Identify and explain the 6 steps in the practice of EBP
2. Identify the parts of a well-built clinical question and use them to formulate a search strategy

3. Identify appropriate resources to answer clinical questions
4. Identify and explain the criteria for assessing the risk of bias in:
  - a. Randomized controlled trials
  - b. Systematic Review/Meta-Analysis
  - c. Prognosis studies
  - d. Harm/Etiology studies
  - e. Diagnosis testing studies
5. Identify and explain the basic statistical terminology used to report the results of randomized controlled trials and systematic reviews
6. Identify at least 4 roles for librarians in supporting EBP training and practice for health care professionals

### **Course Content:**

#### Module One: Introduction and Question Building

- What is EBP?
- Why is EBP important?
- Is it reasonable to expect evidence from the literature?
- What is the librarian's role in EBP?
- Constructing a Well Built Clinical Question
- Study Designs in Clinical Research
- Class Review 1 and Exercise 1

#### Module Two: Selecting the Resources and Conducting the Search

- Selecting resources
- Searching PubMed/MEDLINE
- Class Review 2 and Exercise 2

#### Module Three: Evaluating the Evidence

- Role of the Librarian in critical appraisal
- Appraising articles on Therapy
- Appraising articles of Systematic Reviews
- Appraising articles on Diagnosis
- Appraising articles on Prognosis
- Appraising articles on Etiology/Harm
- Class Review 3 and Exercise 3

#### Module Four: Roles for the Librarian, Final Assignment

- Roles for the Librarian
- Final Assignment
- Class evaluation
- Research Paper (UNC SILS students only)

### **Course Requirements:**

For each Module students should:

- Read the course manual
- View the additional recommended material listed in the course manual
- Complete ALL of the Reviews and Exercises listed at the end of each Module
- Contact both instructors with specific questions about the course material
- Contribute to the class Forums for general comments and questions
- Attend a PubMed training session held at HSL during the first 2 weeks of the course (for UNC SILS students only)

- Conduct in-depth research on a topic related to evidence-based medicine (for UNC SILS students only). **The paper is expected to be a well-thought-out, in-depth exploration of an area of Evidence Based Practice. Papers should be 10 to 15 pages in length.**

### **Schedule:**

The course runs for 10 weeks. There is a weekly calendar, which serves as a guideline for keeping students focused on the cumulative class content. Assignments are due on each Sunday of the course. An outline, structured abstract, and a search strategy research paper are due 4 weeks into the course. The research paper is due 10 weeks after the start of the course; this may adjust due to spring break.

## **UNC SILS Grading and Research Paper Guidelines**

***Please note that the following section only applies to UNC SILS students.***

### **Grades:**

- Contributing to Forums 5%
- PubMed search session - mandatory
- Course exercises 30%
  - Final course exercise 25%
- Research Paper 40%

### **FORUMS:**

The Forums are the main communication for interacting with other students in the course, many of whom will be practicing librarians. If you are new to EBM or medical librarianship this is an opportunity to ask questions of practicing librarians.

### **PUBMED SEARCHING SESSION:**

There will be a mandatory PubMed searching session held during the first 2 weeks of the course. One of the course instructors will lead the session at the Health Sciences library or at Manning Hall. SILS students will be contacted to determine the best day and time for the session.

### **COURSE EXERCISES:**

**In order to receive full credit for the Exercises, they must be submitted by the Sunday of the week they are due.** See class schedule. You must complete all of the exercises. Individual feedback on every exercise will be given. In order to get the most out of the exercises, you should read all feedback before doing the next exercise. If you have any questions about the content or feedback please contact the instructors.

### **Exercises to complete:**

- Study Design
- Review 1 and Exercise 1
- Review 2 and Exercise 2
- Review 3 and ALL of Exercise 3: Therapy, Therapy (2<sup>nd</sup> article), Diagnosis, Harm, Prognosis and Systematic Review articles
- Final Exercise: select ONE scenario
- Research project

### **RESEARCH PAPER**

The research paper is a literature review that presents a well-thought-out, in-depth, and organized analysis of the barriers to practicing EBP in a specific population or setting and ways that librarians can help to eliminate them. Papers should be 7 to 10 pages double-spaced.

### **Deliverables:**

## 1. Week 4:

**Search strategy, basic outline, and structured abstract** - Submit to Sakai Drop Box and email both Instructors.

SEE: The Structured Abstract: an Essential Tool for researchers. <http://www.mlanet.org/page/structured-abstract>

## 2. Week 8:

**Detailed outline of content** – A more detailed outline that addresses the specific barriers and solutions. Submit to Sakai Drop Box and email both Instructors.

## 2. Week 10:

**Final paper and structured abstract** - Submit paper to Sakai Drop Box and email both instructors.

### GRADING CRITERIA FOR RESEARCH PAPER:

In grading the paper, which counts overall for 40% of your grade, the following areas will be taken into consideration:

- **Depth and quality of content - 50%**
  - Issues to consider:
    - Is the material original and well developed?
    - Is the literature search documented and reproducible?
    - Is there enough content to understand the topic without additional information?
    - Is the content unique (i.e. not copied from class content)?
- **Ease of understanding/organization - 25%**
  - Issues to consider:
    - Are objectives and audience clearly identified?
    - Is the paper organized in a logical fashion?
    - Is the language clear and unambiguous?
    - Are there typos or grammatical errors?
- **Authoritativeness of content - 25%**
  - Issues to consider:
    - Is the content accurate?
    - Are references appropriate?

### Course policies:

UNC SILS students must attend the PubMed training session. All reviews and exercises must be completed by Sunday of each week to receive full credit. The research paper is due 10 weeks after the start of the course; this may adjust due to spring break.

### Course resources:

All course resources are provided from the Course site in Sakai. Some of the required readings may be requested from the instructors or obtained from the Health Sciences Library eReserves and online collections. No additional textbooks are required.

### Honor Code:

Students are expected to support the principles of academic integrity and to refrain from all forms of academic dishonesty. See section IIB in The Instrument of Student Judicial Governance <https://studentconduct.unc.edu/sites/studentconduct.unc.edu/files/documents/Instrument.pdf>

**Instructors:** Megan von Isenburg and Sarah Cantrell