Upon completion of this course, the successful student will be able to:

1. Medical Knowledge
2. Patient Care
3. Practical-based Learning and Improvement
4. Systems-based Practice
5. Professionalism
6. Interpersonal Communication Skills

GENERAL COURSE DESCRIPTION:
Building on the skills learned in the evidence-based practice curriculum, this course emphasizes the professional application of Evidence-Based Practice (EBP). Focusing on clinically relevant topics, students will form appropriate clinical questions and search the research and clinical literature, including complementary and alternative medicine (CAM) databases using limits, MeSH terms, etc. Students will develop and demonstrate the skills to analyze and evaluate the literature, and determine the clinical value and relevance of the evidence. The course will also focus on communicating the presentation of the evidence to peers, professionals and patients. Students will develop clinical reasoning, critical thinking, creativity, resourcefulness and coping skills, using an evidence-based practice approach to professional development and continuing education.

COURSE OBJECTIVES:
Upon completion of this course, the successful student will be able to:
1. Develop an understanding of the basic tenants of EBP, including its strengths, clinical application, and limitations, by: defining EBP; describing how evidence-based care and best practice recommendations may lead to better patient outcomes; and, describing the role that EBP can serve to improve chiropractic's positioning in societal, political, health care, and insurance environments.
2. Develop the medical informatics skills to effectively and efficiently seek the best available evidence from the research literature, by: naming appropriate search engines and/or evidence-based databases; describing the strengths, weaknesses, and suitability of search engines and evidence-based databases; naming recommended resources for finding primary studies, systematic reviews, and clinical practice guidelines; and, defining and describing the suitability of evidenced-based professional journals, open-source journals, trade journals, and lay publications.
3. Develop and demonstrate the skills necessary to access the appropriate and relevant clinical evidence, by: accessing search engines and/or evidence databases for primary studies, systematic reviews, and clinical practice guidelines; and, accessing primary studies, systematic reviews, and clinical practice guidelines based on a posed clinical question.
4. Perform a critical assessment of clinical information to determine what evidence is the best evidence available and if any source has sufficient evidence to answer the clinical question.
5. Evaluate the clinical application of scientific research literature information to determine how it will affect a patient outcome and whether the evidence is sufficient to change a practitioner's clinical practice, by: determining if the evidence surrounding a potential therapy is strong enough to deem the therapy appropriate for a particular patient; determining if the study subjects were sufficiently similar to the practitioner’s patient; determining if the study setting is similar to their practice setting; determining whether the action taken based on the results of a study will have a significant impact on the patient based on degree of efficacy, cost-effectiveness, safety, and patient preference; selecting and interpreting diagnostic tests appropriate to a patient’s problem; and, choosing an outcome measure based on validly,
reliability, and responsiveness of the health parameter to be monitored.

6. Show progressive improvement regarding recognizing and defining a clinical problem and knowledge gap, finding, analyzing, and interpreting medical information and dealing with its limitations.

7. Demonstrate increased ability to apply the techniques, skills, and behaviors, including questioning, researching, analyzing, and communicating clinically relevant information.

8. Develop a strategy for continuing education and the appropriate use of EBP, by: developing a plan on how to further EBP skills on efficient accessing, appraising, and incorporating new evidence into practice; developing a plan on how to acquire and maintain adequate access to health care information resources and databases; developing a plan on how to devote sufficient time to keep current with expanding health care information and EBP skills; developing a plan on how to coalesce, organize, store, and retrieve previously searched health care information; and, describing the financial investment necessary for training and technology to stay current with EBP skills.

INSTRUCTOR INFORMATION AND OFFICE HOURS:
Mabel Chang, DC, MPH
Assistant Professor, Clinical Studies
National University of Health Sciences

Office hours by appointment.

INSTRUCTIONAL MATERIALS:
Required Text:
ISBN (10): 076373571X

Recommended/Supplemental Text:
Swinscow TDV, Campbell MJ. Statistics at square one. http://www.bmj.com/collections/statsbk/ (FREE ONLINE)

EVALUATION OF STUDENT’S ACHIEVEMENT:
Grading Procedure:

<table>
<thead>
<tr>
<th>Assessment or Assignment</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Hot Topic Search Assignment</td>
<td>10/1</td>
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<tr>
<td>Evaluating Guidelines Assignment</td>
<td>10/15</td>
</tr>
<tr>
<td>Medical Letter of Necessity Assignment</td>
<td>10/29</td>
</tr>
<tr>
<td>Patient Education Assignment</td>
<td>11/19</td>
</tr>
<tr>
<td>Final Exam</td>
<td>12/9</td>
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</tbody>
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Grading Scale:
Grades for overall scores (assuming other passing criteria are met) will be assigned as follows:
80% - 100% = P (Pass)
<80% = F (Fail)

Missed Assessments/Assignments:
Students are required to participate in the initial assessment or will not be given a passing grade for the term. Missed assignments will not be accepted without prior approval or an excused absence.

Late Assignments:
A penalty of 5% for each day that the assignment is late will be assessed.
ATTENDANCE:
ATTENDANCE IS MANDATORY – ROLL WILL BE TAKEN EVERY CLASS
In accordance with the NUHS Student Attendance Policy students are expected to maintain a 90% attendance rate in each of their scheduled classes. Attendance is mandatory and failure to adhere to the 90% attendance rate for a class will result in the student being issued a grade of F for that class.

Late arrivals or early departures from class are not acceptable. Students are expected to arrive on time and remain for the entire class. Any time a student is not in class for 90% of the scheduled class time will be considered an absence.

PROFESSIONAL RESPONSIBILITY: The College of Professional Studies’ policy on code of conduct, as published in the most recent National University of Health Science’s Student Handbook, will be followed.

DISABILITY SUPPORT SERVICES: Please refer to the most recently published National University of Health Sciences Student Handbook for further information regarding disability disclosure and support services.

TEACHING METHODS AND ACTIVITIES:

1. Lecture will be augmented by audiovisual aids, handouts and suggested readings.
2. Assignments will involve computer use, testing competence of the presented material. Ensure your student e-mail account is active, as it is the only way available to me to communicated with the entire class. Check it often.

This course is constructed towards you, the adult learner, based upon the Adult Learning Model developed by Malcolm Knowles. The adult learner:

- Is self-motivated, self-supervising;
- Focuses on understanding why and how, in addition to what;
- Draws upon a reservoir of life experiences as a resource for learning;
- Respects and embraces diversity of experience and opinions;
- Values learning by interacting with peers;
- Focuses increasingly on applying knowledge to address problems instead of accumulating knowledge for possible future use;
- Applies critical thinking, challenges the validity of sources, and evaluates rather than accepts evidence;
- Integrates knowledge, explores alternative interpretations, identify gaps, inconsistencies, and needs for new knowledge;
- Seeks sources of knowledge and learning experiences beyond the required curriculum; and,
- Relates to faculty as a guide, mentor, resource, and source of critical and affirming feedback.

You the student, as future health care professionals, will be evaluated against these high standards.

COURSE OUTLINE *(May be subject to change)*:

Note that the lecture topics, readings and assignments may be modified slightly to fit the pace of the class and any special situations (interruption of class due to weather, etc). Changes to the schedule and calendar will be posted on CygNET under Announcements and Syllabus as well as announced in class. Lecture materials, notes and assignments will be posted weekly on CygNET.

<table>
<thead>
<tr>
<th>Week</th>
<th>1</th>
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Week 1:

Lecture:
- Faculty Hot Topic

Week 2:

Lecture:
- Class overview/syllabus

Suggested Reading:

Resources:

Week 3:

Lecture:
- Databases and sources of information

Assignment:
- Introduction to Hot Topic assignment (DUE 10/1)

Suggested Reading:

Resources:
- Evidence-based answers to clinical questions for busy clinicians. Melbourne, Australia: The Centre for Clinical Effectiveness, Monash Institute of Health Services; 2006.

Week 4

**NO lecture this week, work on hot topic search**

- Hot topic search

Suggested Reading:
- Haneline M., Cooperstein R. Appraisal of journal articles: asking the right questions. JACA 2006 May/Jun
- Bolton J. Clinicians and the “s-word.” Clinical Chiropractic 2006;9:88-91,

Week 5:

- **Lecture:**
  - Practice Guidelines

Suggested Reading:

Resources:

**Hot Topic Assignment DUE**
Assignment:
- Evaluating Guidelines (DUE 10/15)

Week 6:
Lecture:
- Guest Speaker or Faculty Hot Topic
Suggested Reading:

Week 7:
Lecture:
- Letters of Medical Necessity
Suggested Reading:
- Speaker notes and related articles

Evaluating Guidelines Assignment DUE
Assignment:
- Letters of Medical Necessity Assignment (DUE 10/29)

Week 8:
Lecture:
- Guest Speaker or Faculty Hot Topic
Suggested Reading:
- Speaker notes and related articles

Week 9:
Letters of Medical Necessity Assignment DUE

Week 10:
Lecture:
- Patient Education
Assignment:
- Patient Education Assignment (DUE 11/19)

Week 11:
Lecture:
- Guest Speaker or Faculty Hot Topic
Suggested Reading:
- Speaker notes and related articles

Week 12:
Lecture:
- Guest Speaker or Faculty Hot Topic
Suggested Reading:

Patient Education Assignment DUE

Week 13:
• NO CLASS – THANKSGIVING HOLIDAY

Week 14:
Lecture:
• Guest Speaker or Faculty Hot Topic

Suggested Reading:
• Speaker notes and related articles

Finals Week
• FINAL EXAM Monday 12/9 10am