Course Description:

This course introduces the student to evidence-based dentistry (EBD), which is the process of integration of the best research evidence with clinical expertise and patient values.

I. General Information

Course Director: Jaana Gold  
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Phone: (352) 273-5971  
Course Credits: 1  
Semester: Summer

Contributing Faculty  
Sarah L Meyer  (352) 273-5559  meyer.sarah@ufl.edu

Support Staff  
Jennifer Brock Bushnell  (352) 273-6800  JBROCK@dental.ufl.edu  TA / Grade  
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II. Course Goals

Eliminating disease and maintaining health are the ultimate goals of any health profession. Evidence-based dentistry (EBD) is an approach to oral health care that requires the judicious integration of systematic assessments of clinically relevant scientific evidence, relating to the patient's oral and medical condition and history, with the dentist's clinical expertise and the patient's treatment needs and preferences. Dentistry is a rapidly changing profession that requires lifelong learning beyond dental school. Thus, student needs to develop the skills that will allow her/him to make independent informed decisions when faced with new or controversial evidence and technological advances.

The goal of this course is to introduce students to the EBD process by providing the introduction to the necessary scientific foundation of knowledge and skills required to practice effective “Evidence-based Dentistry.” Specifically, students will gain knowledge and basic skills to form critical questions, locate information, judge the quality of available information, and apply the evidence to clinical decision making. Students will learn the basic EBD process in selecting the current best evidence when making decisions about the care of the individual patients.
and/or populations. This course will help students to develop skills for problem solving and introductory skills for lifelong learning to become sophisticated consumers of dental literature.

III. Course Overview

In this course, the EBD process will be introduced, which will help students selecting the current best evidence when making decisions about the care of the individual patients and/or populations. Students will learn to access relevant scientific literature and conduct searches, and tools and methodology to critique the scientific literature. This course will use e-learning methods and CANVAS platform for online learning and discussions, in addition to large group lectures, interactive seminars, exercises, quizzes and reviews of published journal articles to develop foundation knowledge in evidence-based dentistry.

This course is fully online in CANVAS platform.
If you have any questions, feel free to contact course director Dr. Gold at jgold@dental.ufl.edu.

IV. Course Outline

- Introduction to evidence-based dentistry (EBD)
- Introduction to study designs
- Levels of evidence
- EBD resources
- Converting problems into clinical questions (PICO)
- Finding the evidence, library databases
- Observational and experimental studies
- Systematic reviews and meta-analysis
- Intro to Statistics
- Study validity, bias and confounding
- Critical appraisal of the evidence, appraisal guidelines
- Web-based information, online resources
- Implementation of EBD, practice guidelines

V. Course Material

A. Required Text

1. Textbook:
   - Carrasco-Labra, Brignardello-Petersen, Glick, Azarpazhooh, Guyatt, How to Use Evidence-Based Dental Practices to Improve Your Clinical Decision-Making. ADA. ISBN-978-1-68447-061-7

2. Websites: (links under "Documents" folder, click the "Weblinks" tab)
   - CANVAS e-learning site
   - http://library.health.ufl.edu/ (library website)
   - ADA Center for Evidence-based Dentistry
   - The Cochrane Library (Dentistry and oral health)
B. Supplemental reading resources:

- Additional documents/files in CANVAS
  - http://guides.lib.unc.edu/content.php?pid=137375&sid=1176206
  - http://guides.mclibrary.duke.edu/content.php?pid=431451&sid=3529491

Professional Organizations:

- American Dental Association (ADA)
- Food and Drug Administration (FDA)
- World Dental Federation (FDI)
- American/International Association for Dental Research (AADR/IADR)
- National Institutes of Health/National Institute of Dental and Craniofacial Research (NIH/NIDCR)
- Centers for Disease Control and Prevention (CDC)
- American Heart Association (AHA)
- American Medical Association (AMA)
- American Academy of Oral Medicine (AAOM)

Evidence-based Journals (articles available through PubMed):

- Evidence-based Dentistry (EBD)
- Journal of Evidence-based Dental Practice (JEBDP)

Optional resource:

HSC Dental Library Guide

VI. Course Objectives

- Develop basic skills to find best evidence for clinical questions.
- Understand the importance of evidence-based decision making in health care.
- Describe the five steps and skills necessary to perform evidence-based decision making.
- Identify characteristics of a good research question.
- Formulate an appropriate clinical question to assist in literature search.
- Identify at least two databases in which primary and secondary research can be found.
- Effectively use PubMed to find evidence using the key functions of PubMed including MeSH, Boolean Operators, Search History, Limits, and Clinical Queries.
- Discuss the difference between experimental and non-experimental research.
- Identify distinguishing characteristics of various research designs: randomized controlled studies, cross-sectional, cohort, case-control design, systematic reviews, meta-analysis
- Identify the levels of evidence.
- Identify the type of study most appropriate to answer questions related to therapy/prevention, diagnosis, harm/etiology/causation, and prognosis.
- Define the critical appraisal process.
- Identify international guidelines and evaluation tools for critical appraisal process.
• Identify sources of bias and confounding.
• Identify and evaluate Web-based health resources.

VII. Course Competencies
This course teaches to the following competencies in the "Competencies for the New Dental Graduate".

2: Evidence-Based Patient Care: Access, critically appraise, apply and communicate scientific and lay literature as it relates to providing evidence-based patient care.

VIII. Evaluation
Student evaluation will be based on the student's active participation in all course activities, timely completion of assignments, quality of work and performance on written examination. It is expected that each student will:

• Pursue a systematic and thoughtful course of study independent of class sessions that will result in his/her highest level of achievement;
• Prepare diligently for each class session; and
• Consult with the faculty as needed.

GRADE WEIGHT/DISTRIBUTION
Grades are distributed as follows:

10%  Attendance
30%  Quizzes (6 @ 5 points=30%)
15%  Team Assignments (3 @ 5 points =20%)
5%   M2 Blog
40%  EBD Project and Presentation

Team Assignments (15%)
There will be 3 team assignments, each worth 5% of the total grade (5 points).

Assignments are graded. “Pass” is equal to 5% and it is earned by the entire team for submitting a completed assignment on time.

The workload should be carried out in full and evenly by each member of the team. The purpose of the teams is to discuss individual work and reach consensus, not to split duties or reduce individual workload. Only one copy of the assignment (#1-#3) should be submitted by each team by the due date and time. Each student in the team will earn 5 points per assignment if passed. Team has a chance to revise and resubmit if less than 5 points earned with first submission.

Attendance (10%)
You attendance in lectures and seminars will be monitored.

Quizzes (30%)
There will be 5 quizzes for certain lecture modules. Each quiz is worth of 6 points. There is no multiple attempts. total points earned will be 30% of the final grade.

**EBD Project (40%)**

Your EBD project in this course is the final powerpoint presentation of the evidence search for the clinical case that was provided to you in the beginning of the course. Instructions for this project will be given during the course. The EBD project grade represents the quality of the final EBD presentation. EBD project will be evaluated based on the process of finding the evidence to the problem and presenting the final powerpoint presentation. Presentation includes peer reviews of assigned classmates' presentations.

**Competency:** Quizzes, team assignments and final EBD projects will serve as a formative competency assessment.

**GRADE CHANGE POLICY**

Grades are final and not individually negotiable. Students submitting requests to have their grade changed after an assignment or project completion will be referred to this section of the syllabus for guidance.

Requests for clarification of specific exam items are welcome. Faculty members are available to discuss assignments and exam questions to enhance students' learning as described in the Administrative Practices section of this syllabus.

**MISSED EXAM OR DEADLINE**

Late submission of assignments or EBD project, will result in point deductions as described above, except for a documented medical emergency. As described in the manual "Best Practices for Classroom Teaching and Student Evaluation in the DMD Educational Program", missed exams or assignments are excused only in the event of sickness (documented by a physician's note), a documented personal or family emergency or for a scheduled rotation. Please refer to the College brochure for additional details on how to make-up examinations. Failure to follow policies or failure to complete a make-up examination within the allotted time will result in a failing exam grade. For further information on missed exam policies, please consult the UFCD Best Practices manual at [http://www.dental.ufl.edu/offices/Education/DMD/publications.asp](http://www.dental.ufl.edu/offices/Education/DMD/publications.asp)

**Remediation:**

Students failing this course and who have been awarded an "E" grade, may remediate the course by taking a written essay exam. Student need to contact course director for additional information.

If a student scores lower than 65% they must take a new quiz until successfully passed.

**IX. Administrative Practices**

Administrative practices for all UFCD courses are universally applied. Exceptions to or deviations from these practices are stated in the individual syllabi by the course director. When not individually stated in the syllabus, course administrative practices default to those identified under "Course Policies" on the DMD Student Website:
**X. Grade Scale**

<table>
<thead>
<tr>
<th>Method</th>
<th>Scale</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grade</td>
<td>100</td>
<td>0.5 (Final letter grades within this range will be rounded up.)</td>
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</tbody>
</table>

- **A** 95 - 100
- **A-** 90 - 95
- **B+** 85 - 90
- **B** 80 - 85
- **B-** 75 - 80
- **C+** 70 - 75
- **C** 65 - 70
- **E** 0 - 65