I. Course Title: Evidence-Based Clinical Dentistry

Total Course Hours: GENP 307 110 Cumulative Hours

Course Description:

Evidence-based Dentistry (EBD) uses current scientific evidence to guide decision-making in dentistry. It is an approach to oral health that requires the application and examination of relevant scientific data related to the patient’s oral and medical health. Along with the dentist's professional skill and expertise, EBD allows dentists to stay up to date on the latest procedures and patients to receive improved treatment. A new paradigm for medical education designed to incorporate current research into education and practice was developed to help practitioners provide the best care for their patients. JAMA 1992; 268:2420-5.

The ADA defines Evidence-Based Dentistry (EBD) is an approach to oral health care that requires the judicious integration of systemic 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.

Based Dentistry as:

This course will provide guidelines for clinical practice application based upon evidence-based principles applied to the dental profession. These principles will be discussed in a clinical group setting with the Group Leaders, through student research and presentations.

II. Course Co-Directors: Mark Jensen MS, DDS, PhD - Professor Chairman Department of General Practice Dentistry/ Denise Terese-Koch, DDS, FAGD - Assistant Professor of General Practice Dentistry and Director of COD Faculty Practice

III. Department: Department of General Practice Dentistry
IV. Faculty Group Leaders: Responsible for working with students in their group to teach EBD and assure competency in EBD.

Dr. Bernard Blen
Dr. William Callahan
Dr. Staley Colvert
Dr. Frank Dalton
Dr. Patricia Dingeldein
Dr. Marlin Duff
Dr. Denise Terese-Koch
Dr. Paul Gregory
Dr. James Lane
Dr. Layne Levy
Dr. William Noyes
Dr. David Redmond
Dr. Brian Rhoads
Dr. Gary Rollins
Dr. Roy Selvidge
Dr. Charlotte Taylor
Dr. Darton Taylor
Dr. Constance West

V. Prerequisites

Successful completion of all first and second year didactic courses in the D1 and D2 curriculum.

VI. Purpose:

The purpose of this course is to provide the student with critical thinking skills necessary to integrate the principles of evidence-based dentistry into the practice of clinical dentistry. The students will apply these necessary skills in order to provide quality dental care to a patient population with a wide variety of dental needs. The students will integrate their knowledge in a variety of dental disciplines.

VII. Learning Objectives:

- Implement best evidence into clinical practice
- Use evidence-based literature to guide clinical decision-making based upon recommendations
- Critically analyze dental research articles and application to practice
- Understand clinical trial design in relation to diagnosis, treatment and patient outcomes
- Demonstrate structured, concise clinical questions with patients
- Discuss the appropriate dental materials and techniques
- Apply evidence-based dentistry in the development of comprehensive patient treatment plans
Teaching Strategies:

• Student presentation
• Discussion of research articles
• Student preparation and discussion of comprehensive patient treatment plans
• Faculty role-modeling of effective time management skills
• Critique of research articles

This course will address the College of Dentistry Competency Statements Including:

1. Behavioral Sciences
2. Diversity and Communication skills
3. Health care delivery
4. Professionalism
5. The use of critical thinking in the assessment of patients
6. Infection control
7. Informed consent
8. Pain Management
9. Restoration and Replacement of teeth
10. Periodontal Therapy
11. Pulpal Therapy
12. Oral Mucosal Disorders
13. Surgery
14. Dental and Medical Emergencies
15. Malocclusion
16. Space Management
17. Treatment Outcomes Assessment
18. Special needs Patients
19. Therapeutics
20. Sleep medicine

VIII. Course Meeting Time:
8:00 am to 9:00 am- Monday, Tuesday, Thursday and Friday

Fall Term:
D3 Students GENP 307 52 Hours

Spring/Summer Term:
D3 Students GENP 307 58 Hours

GENP 307 110 Cumulative Hours
IX. Course Expectations:

• Students are to arrive on time to prepare for pre-clinical meeting.
• Students are expected to present literature to support their proposed patient treatment plans.
• Each student will do two, thirty-minute case presentations per semester. The student will present a comprehensive treatment plan on one of their patients. The student will provide evidence-based literature and present a topic (approved by the Group Leader).
• Students must use a minimum of three scientific research journal articles for each topic presentation.
• Student participation is expected during each course meeting.
• Students are expected to be prepared to present the patient’s clinical treatment plan, including mounted study models and diagnostic radiographs.
• Mandatory attendance is required at all pre-clinical morning meetings.
• Cell phones and all other electronics should be turned off during the pre-clinical meeting as well as in the clinic area.

X. Evaluation Methods:
This course is a Pass/Fail course. In order to pass the class, the following requirements must be met:

• Consistent attendance at all pre-clinical morning meetings.
• Preparation of case presentation, including patient introduction, comprehensive medical history, supportive radiographs and mounted study models, periodontal examination, diagnosis and treatment plan. Case presentation should include one complex and comprehensive dental case during each semester.
• Case presentation with supportive research literature on topic of interest (subject to the approval of the Group Leader). Students will be required to turn in a copy of both the presentation and any supporting reference literature.
• Proper student preparation that provides supportive literature-based evidence of his/her proposed treatment plan.
• Each student should demonstrate initiative through group participation and demonstrate a sound knowledge of the principles of evidence-based dentistry as it applies to the dental procedures that he/she will be performing during that clinical day.

Pass/Fail based upon the following:

Case Presentation #1-40%
Case Presentation #2-40%
Student Participation-20%

*** Please note that student attendance is mandatory based upon the
guidelines and policies set forth in the clinic manual.
Course Evaluation:

All students are expected to complete the online instructor and course evaluations at the end of the semester.

XI. Remediation:
Failure to meet the requirements listed above will result in remediation determined by the course director. It will be necessary to pass this course in order to continue to the next level of clinical studies.

XII. Instructions Materials:

Students must provide one research-based article to the clinical group one week prior to his/her presentation. This will be discussed during the student’s clinical presentations. In addition, online materials and any pertinent scientific articles may be given.

WEEKLY TOPIC EXAMPLES: (RECOMMENDATIONS BY DR. DENISE TERESE-KOCH)

1. Rational and evidence for keeping a patient in pre-molar occlusion.
2. Rational and evidence for keeping a patient in first molar occlusion.
3. Implant placement v. Root canal therapy, post and core, and crown.
5. Resin based cements v. glass ionomer cements.
6. Cad Cam Crowns v. traditional lab fabricated crowns.
7. Utilizing laser therapy for pocket depth reduction in periodontal therapy.
8. Ideal age of sealant placement v. preventive resin restorations.
14. Endodontics – Lateral condensation v. Thermafil obturation techniques
15. Discuss UT, Wave 1, and Traditional Crown down techniques for endodontic therapy.
16. Parameters for implant placement and adjacent tooth location. Discuss marginal integrity of Class I and II composites v. inlays.
17. Class I amalgams and evidence of tooth fracture.
18. Caries controls utilizing laser therapy.
19. Intentional endodontics in a tooth that has had multiple traumatic events, i.e. Carious lesions, fillings, etc.
20. Discuss Endodontic success in vital v. non-vital teeth.
21. Discuss the indications v. contraindications for post placement v core build up following endodontic therapy.
22. Discuss the indications v contraindications for utilizing fiberglass, screw, or cast posts following endodontic therapy.

Students with Disabilities.

Students with disabilities: Students with disabilities in the College of Dentistry at UTHSC must register and officially request accommodations through the Disability Coordinator in Student Academic Support Services and Inclusion (SASSI) (http://www.uthsc.edu/sassi/). Regardless of a student’s geographic location for experiential education, all requests for accommodations must be submitted with supporting documentation and reviewed for reasonableness by the Disability Coordinator. At the beginning of each academic year, students who are approved for accommodations are required to meet with Disability Coordinator in the SASS. The Disability Coordinator is Laurie Brooks, 448-1452 or lbrook15@uthsc.edu. All conversations regarding requests for accommodations are confidential.