NEW JERSEY DENTAL SCHOOL

DEPARTMENT OF GENERAL DENTISTRY AND COMMUNITY HEALTH

COURSE#: GDEN8108
COURSE NAME: Preventive Dentistry
COURSE DIRECTOR: Ms. Diane Schoen

ACADEMIC YEAR: Year 1, 2001-2002, Class of 2005
TRIMESTER(S): Winter

CONTACT HOURS:
| Lecture      | 12 |
| Seminar/PBL  |  2 |
| Exams        |  2 |
| Other        |  2 |
| TOTAL        | 18 |

DAYS & TIME: Tuesdays, Winter, 10:00-11:50 a.m.

ROOM #: B554

RECOMMENDED OR REQUIRED TEXT(s): None

COURSE DESCRIPTION:
The goal of this course is to introduce the student to the fundamentals of preventive dentistry.

COURSE GOALS:
To introduce the student to the fundamentals of preventive dentistry.

At the completion of this course, the student should be able to:

1. Identify the dentists’ role in preventive dentistry.
2. Identify factors that affect the onset and progress of dental caries.
3. Explain the various research studies conducted to substantiate that specific factors play a significant role in the caries process.
4. Assess the patient’s caries risk level based on recommended ADA guidelines.
5. Describe the characteristics of deposits found in the mouth.
6. Discuss the indications for and proper use of mechanical and chemotherapeutic plaque removal devices.
7. Provide oral hygiene education of preventive practices.
8. Describe the role of the diagnostic process in prevention.
9. Assess the cariogenicity of a patient’s diet.
10. Make recommendations to modify a patient’s diet to prevent dental caries.
11. Describe the benefits of systemic and topical fluoride.
12. Identify factors that affect the onset and progress of periodontal disease.
13. Describe the cause and treatment of nursing caries.
14. Discuss the use of mouthguards in the prevention of trauma.
15. Discuss the role of the dentist in initiating smoking intervention.
16. Understand the general and oral effects related to the use of smokeless and smoking tobacco products.
17. Recommend preventive therapies based on patient risk classification.

NJDS COURSE COMPETENCIES TEST TO:
None

NJDS COURSE COMPETENCIES TAUGHT TO:
V1. Demonstrate a philosophy of care in which the patient’s well being is the primary goal.
V2. Demonstrate the attitudes and behavioral characteristics of a health care provider who is a caring, competent individual.
1. Apply basic biomedical, behavioral and clinical science knowledge to the management of patients, including evaluation, diagnosis, treatment or referral.
2. Apply critical thinking skills to patient care and management.
22. Identify predisposing and etiologic factors that require intervention to prevent disease.
29a. Manage dental caries.
29b. Manage periodontal disease.
29i. Manage oral manifestations of systemic disease.
30a. Manage patient needs in prevention of oral diseases and maintenance of oral health by educating patients concerning etiology and prevention of oral diseases and abnormalities.
30b. Manage patient needs in prevention of oral disease and maintenance of oral health by prescribing and monitoring chemotherapeutic agents.
30c. Manage patient needs in prevention of oral disease and maintenance of oral health by placing sealants.
30e. Manage patient needs in prevention of oral disease and maintenance of oral health by providing diet counseling.
30f. Manage patient needs in prevention of oral disease and maintenance of oral health by fabricating athletic mouthguards.
41. Monitor the outcome of treatment and modify the diagnosis or therapy as necessary.

COURSE REQUIREMENTS:
1. Develop and present oral health educational program for Newark school children per attachment #1.

2. Write one (1) literature review abstract per attachment #2.

EXAMINATION CONDITIONS:
A. All examinations will be conducted during scheduled course hours.

B. Proctors - there will be a minimum of two to a room. They will be constantly attentive through the examination period and will act affirmatively when cheating is suspected and/or can be documented.

C. Each student is responsible for presenting himself/herself at the scheduled hour for an examination. Tardiness by a student will result in no extension in time beyond the scheduled end of the examination.

D. Books, notes, models, or student aids are not allowed.

GRADING POLICY:
The course grade will be calculated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Guides</td>
<td>10%</td>
</tr>
<tr>
<td>Literature Review</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>35%</td>
</tr>
<tr>
<td>Smilemakers</td>
<td>5%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
</tbody>
</table>

A    - 90-100
B+   - 85-89
B    - 80-84
C+   - 75-79
C    - 70-74
D    - 65-69
F    - 64 & below

ABSENTEE POLICY:
The Department adheres to the New Jersey Dental School policy on students’ absenteeism from examinations, which is as follows:

A. It is each student’s personal responsibility to be present for all scheduled examinations.

B. Illness or a sudden unexpected emergency must be reported to the Office of Student Affairs (#973/972-5064) or the office of the department chairman, if possible, before the examination takes place. The telephone number of the department is (#973-972-3796).

C. A student missing an examination for an excused absence will be subsequently examined, such examination to occur as soon as possible in accordance with the dental school policy after the student’s return to school.

D. Unexcused absence from an examination will automatically result in a failure grade in lieu of another departmental policy.

STANDARDS OF PROFESSIONAL CONDUCT/ETHICS:
The Department adheres to the New Jersey Dental school policy on student rights and responsibilities (including Cheating). Refer to pages 66-74 in the UMDNJ-New Jersey Dental School Student Handbook 1996-1999.

Attendance is recorded at the start of the period. Signing an attendance sheet for a student not present will be considered unethical and appropriate action, as outlined in the Student Handbook, will be taken.

TUTORIAL/REMEDIATION:
The Department adheres to the New Jersey Dental School policy on tutorials. Refer to page 103 in the UMDNJ- New Jersey Dental School Student Handbook 1996-1999.

The Department adheres to the New Jersey Dental School policy on Academic Actions for remediations. Refer to page 27 in the UMDNJ-, New Jersey Dental School Student Handbook 1996-1999.

MAKE-UP POLICY:
The Department adheres to the New Jersey Dental School policy on make-up examination policy. Refer to page 25 in the UMDNJ-New Jersey Dental School Student Handbook 1996-1999.

**STUDENTS REQUIRING ACCOMMODATIONS:**
Any student who feels he/she needs accommodations in order to participate in this course must present a request in writing to the Associate Dean of Academic Affairs. Students are not permitted to make arrangements for accommodations directly with the course director. Course directors will direct all student requests to the Associate Dean of Academic Affairs.
<table>
<thead>
<tr>
<th>SESSION #</th>
<th>DATE</th>
<th>HOURS</th>
<th>TOPIC/EXAM</th>
<th>LECTURER</th>
<th>METHOD</th>
<th>ASSIGNMENT/SPECIAL PROJECT</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>01/08/02</td>
<td>2</td>
<td>Introduction to Preventive Dentistry/Dental Caries</td>
<td>Ms. Schoen</td>
<td>Lecture</td>
<td>None</td>
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<tr>
<td></td>
<td></td>
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<td>Cariogenic Foods/Food Fads</td>
<td>Dr. Touger-Decker</td>
<td>Lecture</td>
<td>None</td>
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<tr>
<td>2</td>
<td>01/15/02</td>
<td>2</td>
<td>Mechanical Plaque Removal Prevention &amp; the Diagnostic Process</td>
<td>Ms. Schoen</td>
<td>Lecture</td>
<td>None</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Dr. Schneiderman</td>
<td>Lecture</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>01/22/02</td>
<td>2</td>
<td>Introduction to Periodontal Disease</td>
<td>Dr. Fenesy</td>
<td>Lecture</td>
<td>Schoen /Dean Text Ch. 7</td>
</tr>
<tr>
<td>4</td>
<td>01/29/02</td>
<td>2</td>
<td>Chemotherapeutic Plaque Removal Prevention of Trauma</td>
<td>Dr. Rosivack</td>
<td>Lecture</td>
<td>Outline for Smilermakers Due</td>
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<td></td>
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<td></td>
<td>Early Childhood Caries</td>
<td>Dr. Rosivack</td>
<td>Lecture</td>
<td>None</td>
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<td></td>
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<td>Dr. Oppenheim</td>
<td>Lecture</td>
<td>None</td>
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<tr>
<td>5</td>
<td>02/05/02</td>
<td>2</td>
<td>Midterm Exam Caries Risk Assessment</td>
<td>Ms. Schoen</td>
<td>Lecture</td>
<td>None</td>
</tr>
<tr>
<td>6</td>
<td>02/12/02</td>
<td>3</td>
<td>Smilermakers Extramural Rotation (9-12)</td>
<td>Ms. Schoen</td>
<td>Seminar</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>02/19/02</td>
<td>2</td>
<td>Systemic Fluorides/Sealants Topical Fluoride</td>
<td>Dr. Ramos</td>
<td>Lecture</td>
<td>Critique of Scientific</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tobacco &amp; Oral Disease</td>
<td>Ms. Schoen</td>
<td>Lecture</td>
<td>Literature due</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ms. Schoen</td>
<td>Lecture</td>
<td>None</td>
</tr>
<tr>
<td>8</td>
<td>02/26/02</td>
<td>1</td>
<td>FINAL EXAM</td>
<td></td>
<td></td>
<td>None</td>
</tr>
</tbody>
</table>
First year dental students will visit the Newark public schools to present dental health messages. The date will be: **Tuesday, February 12, 2002, 9:00 -12:00 p.m.**

The program will not only provide important dental health information to public school children, but it will also enable students to become more familiar with the surrounding community and to promote the services available to the dental school. Keep in mind that many of these pupils already receive dental treatment in our pediatric dentistry clinic.

The assignment includes the following:

1. Each team of students will deliver two 30 minute PRESENTATIONS to public school classes then respond to questions from the class. Creative PRESENTATIONS, e.g. role playing or short skit, are encouraged.

2. Depending upon resources, toothbrushes will be purchased for each elementary student. Toothbrushes will be distributed to each team immediately following a designated Preventive Dentistry lecture.

3. At the end of the presentation, you will complete a student self-evaluation.

4. Suggested topics include: toothbrush and floss instruction, diet counseling, healthy snacks, plaque control, the role of fluoride, athletics and the need for mouth guards, effects of tobacco use on the mouth, careers in dentistry, or a description of services at the dental school. Selected topics should reflect the grade or age level of the class. Resources can be found at the UMDNJ library or see Ms. Schoen for additional assistance.

5. Each group should submit a one page outline of their presentation **due on -01/29/02**
UMDNJ-NEW JERSEY DENTAL SCHOOL
Department of General and Hospital Dentistry

CRITIQUE OF SCIENTIFIC LITERATURE ASSIGNMENT
Preventive Dentistry - Freshman Academic Year 2001-2002

A. INTRODUCTION

Dentistry is based on science which is continually changing. To keep abreast of new developments, the practitioner must become a continual student and critically read the scientific literature on a regular basis. This exercise provides an opportunity for the student to read, discuss, abstract, critically review, and report on one research article related to preventive dentistry.

B. PROCEDURES

1. Each student will search for and select one research article relating to the topic assigned to you. The article should have been published since 1/1/90. The article must be related to prevention of oral diseases. It must be an original research article, not a review of the literature article or an opinion article. If there is difficulty finding an appropriate article, request an alternate assignment before January 29, 2002. Journal articles may be Xeroxed, but journals should not be removed from the library.

2. The following is the list of topic assignments:

<table>
<thead>
<tr>
<th>LAST NAME</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - B</td>
<td>Dental caries: e.g. prevention, risk assessment, prevalence (epidemiology)</td>
</tr>
<tr>
<td>C - E</td>
<td>Mechanical plaque removal: e.g. electric vs manual toothbrushes</td>
</tr>
<tr>
<td>F - G</td>
<td>Systemic Fluoride/Fluoridation</td>
</tr>
<tr>
<td>H - J</td>
<td>Sealants</td>
</tr>
<tr>
<td>K - L</td>
<td>Tobacco use and oral health</td>
</tr>
<tr>
<td>M - N</td>
<td>Prevention of trauma: e.g. use of athletic mouthguards</td>
</tr>
<tr>
<td>O - Q</td>
<td>Chemotherapeutic plaque removal: e.g. antimicrobial mouthrinses, dentifrices</td>
</tr>
<tr>
<td>R - S</td>
<td>Diet/nutrition &amp; oral health</td>
</tr>
<tr>
<td>T - V</td>
<td>Periodontal diseases: prevention</td>
</tr>
</tbody>
</table>
3. The following is a list of suggested journals. Your article can come from any refereed journal. This list is meant to be a guide.

   Journal of the American Dental Association
   Journal of Dental Hygiene
   International Dental Journal
   Journal of Dental Research
   Journal of Dentistry for Children
   Journal of Periodontology
   Journal of Public Health Dentistry
   Pediatric Dentistry

4. Once you have selected an article, read the article and evaluate it by answering questions such as the following:

   - Is the research problem clearly stated and adequately described?
   - Are the purposes for the study stated clearly?
   - Are the experimental methods specified in adequate detail?
   - Has the method for sample selection been described?
   - Was the sample selected randomly?
   - Was a control group used for the experiment?
   - Were the data collections and data analysis procedures specified in detail?
   - Was there an indication of the reliability of measurement for the data?
   - Were appropriate statistical tests used and were the results of statistical tests reported?
   - Were the conclusions derived by the author supported by the results of the study?

5. Prepare an abstract of the research article to include: Author, Title, Journal Citation, Introduction, Purpose, Methods, Results and Conclusions. (Refer to attached sample).

6. A complete report should be typewritten, single spaced, and should not exceed one page. It should be submitted along with a copy of the research article at the start of the Preventive Dentistry lecture on **Tuesday, February 19, 2002**.

7. All reports will be evaluated and returned. Unsatisfactory reports will have to be corrected and resubmitted. Typical errors to be avoided are:

   **Selection of an inappropriate article:** Select only an original research article which is related to preventive dentistry. Many articles on these topics will be related to preventive dentistry, but they will not necessarily be research articles.

   **Preparation of incomplete abstract:** All sections of the abstract must be included and labeled as in the sample provided.

   **Inadequate critique of the article:** The research article should be evaluated according to the
questions specified above. In particular, mention should be made of the adequacy of the experimental sample, whether data were adequately analyzed and reported, and whether the conclusions were justified by the results obtained.

Previous studies have demonstrated a positive correlation between physical development and motor performance. This study investigated the relationship of skull thickness and hand dexterity in baboons. Ten Krawen baboons were subjected to the Essex battery of hand dexterity tests. The GZ series was administered on a Monday morning, and the SZ series was administered in the afternoon, each lasting for approximately one hour. Skull thickness was determined with the Odep sonic oscillator with the subject in a supine position. Dexterity scores ranged from 2 to 20, $x = 16 \pm 1$ and skull thickness ranged from 2 to 8 mm, $x=5\pm1.5$. There was a correlation of $+.40$ between the two variables. The author concluded that hand dexterity has a strong positive correlation to skull thickness in baboons.

This study was well planned, with experimental methods adequately described. However, the sample size was too small for this type of study. Further, the age and sex of the sample was not described. The author did not report the reliability of the measures used for the type and results of all statistical tests used. A conclusion is drawn by the author, but it is not adequately supported by the data obtained in the study. A correlation of .40 does not indicate a strong correlation between variables. The purpose of the study is important and needs to be explored with a larger sample which is adequately described.

**Academic Year 2001-2002, Class of 2005**