

University of Detroit Mercy School of Dentistry

Periodontology and Dental Hygiene

Course Syllabus

**Physical Assessment and Management of Medical Emergencies
DS 811**

Course Information

Web Address: <http://knowledge.udmercy.edu>

Course Director:

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Fall Term , 2007

DH2 Students (Class of 2008)

Middleton Lounge, Friday mornings, 7:40 – 9:30 AM

One time small group seminar in the OMS Clinic immediately following class lecture
10:00-11:50 AM, with assigned dates: Sept 7, Sept 21, Oct 5, and Oct 12

Credit Hours: 2.0

Prerequisites: None

Academic Policies:

All policies in the School of Dentistry Academic Policies Handbook including but not limited to academic integrity, mandatory attendance, professional decorum & dress code, identification (ID) badges, preclinical and classroom decorum, use of cell phone and electronic devices, examination policies and exam/quiz absences apply.

Accommodations:

If you would like to request a classroom, testing, preclinical, clinical, or other accommodation because of a legally protected disability, or if you might require any special assistance in the event of an emergency or evacuation, please contact the University of Detroit Mercy's Office of University Academic Services (UAC) at 313-578-0310 or email your request for information to gallegem@udmercy.edu

Student Evaluation of Instruction

Student feedback is valued by the faculty and the administration. All students are required to complete the School of Dentistry's on-line course evaluation by a specified date. Failure to comply by posted deadline dates will result in the receipt of an F (Failing) grade of record for the Evaluation Responsibility Course. Only constructive, professional recommendations will be reported and considered.

Course Description

Purpose of the course:

This course is designed to give the dental hygiene student to a basic understanding of disease states that may trigger medical emergencies and the means to prevent these emergencies through careful preoperative assessment and treatment modification. Through both didactic and laboratory experiences, students will further develop the assessment skills necessary for treating a patient with a significant medical problem as well as recognize and manage medical emergencies.

Course Goals:

This course will provide the dental hygiene student with practical knowledge for health assessment and patient management to prevent medical emergencies. The course is designed to familiarize the dental hygiene student for provision of emergency care to dental patients with existing medical problems.

Specific Instructional Objectives:

1. At the conclusion of learning unit one, the dental hygiene student will be able to:
 - Discuss why an accurate assessment of the health history is important in providing comprehensive and quality dental hygiene care.
 - Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
 - Discuss the legal responsibility in potential emergency situations.
 - Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
 - Define an oral regimen for prevention of bacterial endocarditis.

- Demonstrate ability to use review of systems format in identifying signs and symptoms indicative of disease processes.
 - Recognize the implications of the following: anxiety or agitation states and respiratory conditions (unconsciousness, vasodepressor syncope, and orthostatic hypotension).
 - Recognize and initiate appropriate treatment, for the following medical emergencies: syncope and postural hypotension.
 - Demonstrate ability to list correct medications and use references to obtain medications.
 - Discuss why knowledge and purpose of the following parameters are important to assessing the general appearance, manner, appropriateness, and patient compliance: techniques for physical evaluation, laboratory/functional tests, vital signs and their implications
2. At the conclusion of learning unit two, the dental hygiene student will be able to:
- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
 - Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
 - Recognize the implications of the following respiratory conditions: airway obstruction, hyperventilation, asthma
 - Recognize and initiate appropriate treatment, for the following medical emergencies: airway obstruction, hyperventilation, asthma
3. At the conclusion of learning unit three, the dental hygiene student will be able to:
- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
 - Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
 - Demonstrate ability to list correct medications and use references to obtain medications.
 - Recognize the implications of the following respiratory and endocrine systems: heart failure, pulmonary edema, pregnancy

- Recognize and initiate appropriate treatment, for the following medical emergencies: heart failure, pulmonary edema, pregnancy
4. At the conclusion of learning unit four, the dental hygiene student will be able to:
- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
 - Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
 - Demonstrate ability to list correct medications and use references to obtain medications.
 - Recognize the implications of the following endocrine systems: diabetes mellitus, thyroid gland disorders, adrenal insufficiency
 - Recognize and initiate appropriate treatment, for the following medical emergencies: glucose disorders, thyroid gland disorders, adrenal insufficiency
5. At the conclusion of learning unit five, the dental hygiene student will be able to:
- Demonstrate ability in assigned small groups to identify issues from PBC #1 (problem based case) assignment distributed in class and to share with entire class.
6. At the conclusion of learning unit six, the dental hygiene student will be able to:
- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
 - Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
 - Demonstrate ability to list correct medications and use references to obtain medications.
 - Recognize the implications of the following cardiovascular conditions and chest pain differentials: non-cardiac related chest pain, cardiac related chest pain.
 - Recognize and initiate appropriate treatment, for the following medical emergencies: non-cardiac related chest pain, angina, acute myocardial infarction, sudden death, and cpr.

- Demonstrate ability in assigned small groups to re-identify issues from PBC#1 (problem based case) assignment distributed in class and to share with entire class. Individual team leaders assign issues to their small groups for research and report on for PBC #1 project and discuss PEER evaluations .

7. At the conclusion of learning unit seven, the dental hygiene student will be able to:

- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
- Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
- Demonstrate ability to list correct medications and use references to obtain medications.
- Recognize the implications of the following cardiovascular conditions and chest pain differentials: non-cardiac related chest pain, cardiac related chest pain.
- Recognize and initiate appropriate treatment for the following medical emergencies: non-related chest pain, angina, acute myocardial infarction, sudden death, and CPR.
- Demonstrate ability in small groups to report on PBC#1 (problem based case) assigned issues with therapeutic goals and to share them with entire class.
- Demonstrate ability to perform peer review on PBC#1.

8. At the conclusion of learning unit eight, the dental hygiene student will be able to:

- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
- Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
- Demonstrate ability to list correct medications and use references to obtain medications.
- Recognize the implication for the following neurological disorders: cerebrovascular diseases, seizures, Parkinson's Disease, Bell's Palsy
- Recognize and initiate appropriate treatment for the following medical emergencies: stroke and seizure.

9. At the conclusion of learning unit nine, the dental hygiene student will be able to:

- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
- Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
- Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
- Recognize the implication for the following: Hematological disorders, in addition to digestive and renal system conditions

10. At the conclusion of learning unit ten, the dental hygiene student will be able to:

- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
- Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
- Demonstrate ability to list correct medications and use references to obtain medications.
- Recognize the implication for the following: drug related emergencies to include overdose and allergic reactions.
- Recognize and initiate appropriate treatment for the following medical emergencies: allergic and hypersensitivity reactions.
- Demonstrate ability in assigned small groups to identify issues from PBC #2 (problem based case) assignment distributed in class and to share with entire class.
- Demonstrate ability in assigned small groups to identify issues from PBC #2 (problem based case) assignment distributed in class and to share with entire class.

11. At the conclusion of learning unit eleven, the dental hygiene student will be able to:

- Discuss when dental hygiene treatment should be continued, modified, or postponed after all assessment data has been gathered.
- Describe appropriate preventive measures (positioning, preoperative instructions and medications, and /or sedation) prior to initiating dental hygiene care on the medically compromised patient.
- Demonstrate ability to list correct medications and use references to obtain medications.
- Recognize and initiate appropriate treatment for the following medical emergencies: dental office injuries (facial).
- Demonstrate ability in assigned small groups to re-identify issues from PBC#2 (problem based case) assignment distributed in class and to share with entire class. Individual team leaders assign issues to their small groups for research and report on for PBC #2 project and discuss PEER evaluations.

12. At the conclusion of learning unit twelve, the dental hygiene student will be able to:

- Demonstrate ability in small groups to report on PBC#2 (problem based case) assigned issues with therapeutic goals and to share them with entire class.
- Demonstrate ability to perform peer review on PBC#2.
- Demonstrate class participation in DS 811 Study Guide Review

Instructional Methods:

Instructional methods utilized in the course include lecture, in-class written exercises, laboratory group sessions, lecture handouts, PBC (Problem-Based Case) Presentations (2), and MOCK emergency drill exercises.

School of Dentistry Competencies

Competency-based Education: Assumes that learning to become an entry-level professional is a progression through stages from novice to competent.

Stages of Progression to Competence:

F or Foundation Knowledge: Basic knowledge, skills, and attitudes needed to begin the journey to competence.

N or Novice Level: Ability to articulate or describe the appropriate skills, knowledge, and professional attitudes. Novices need structure, clarity of goals, single and clearly explained approaches.

B or Beginner Level: Combines the appropriate skills, knowledge, and professional attitudes, all of which are performed with guidance and correction.

C or Competent Level: Combines the appropriate supporting skills, knowledge, and professional attitudes, all of which are performed reliably without assistance.

	Competencies of the Graduating Dental Hygiene Student	Addressed	Evaluated	Method
1.	The graduate demonstrates interpersonal communication skills to function successfully in a multicultural work environment with diverse populations.	NO	NO	NA NA NA
2.	The graduate makes professional decisions affecting the practice of dental hygiene that satisfy legal, societal and ethical principles.	NO	NO	<input type="checkbox"/> NA NA NA
3.	The graduate performs routine evaluation of self and staff members and takes corrective action to address perceived deficiencies.	NO	NO	NA NA NA
4.	The graduate critically evaluates the validity of new information, new products, and/or techniques and their relevance to the practice of dental hygiene.	NO	NO	NA NA NA
5.	The graduate applies business and practice management skills.	NO	NO	NA NA NA
6.	The graduate promotes health maintenance and disease prevention.	NO	NO	NA NA NA
7.	The graduate applies the principles of infection control and environmental safety.	NO	NO	NA NA NA
8.	The graduate obtains, records, updates and organizes accurate and complete medical/dental histories including pertinent psychological and socioeconomic information.	YES	B	Written Evaluation NA NA
9.	The graduate performs, records and organizes a physical assessment appropriate for dental care.	YES	B	Written Evaluation Written Project/Report NA
10.	The graduate determines differential, provisional or definitive dental hygiene diagnoses related to and	YES	B	Written Evaluation

	congruent with the diagnosis of the dentist and other health professionals.			Written Project/Report NA
11.	The graduate develops alternative dental hygiene care plans which are sequenced to address patients' needs, consistent with assessment and diagnoses.	NO	NO	NA NA NA
12.	The graduate establishes with the patient a mutually acceptable dental hygiene care plan.	NO	NO	NA NA NA
13.	The graduate monitors and provides for patient comfort associated with dental hygiene care.	YES	B	Written Evaluation NA NA
14.	The graduate delivers and/or manages planned dental hygiene treatment and education in sequence and in accordance with accepted standards of care.	NO	NO	NA NA NA

Course Policies

Student Evaluation Procedures:

Although reading assignments are extensive, handouts, lecture notes, surgical clinic practicum and take-home written exercises need to be reviewed. Anyone experiencing difficulty in this course is encouraged to contact this course director. Selections from this course will occur in OSCE.

Written exercises and examinations will consist of the following: multiple choice, true-false, matching concepts and essay. CORRECT SPELLING, LEGIBLE, TURNED IN ON TIME, AND DONE IN INK OR TYPED (when applicable) WILL BE EXPECTED, OTHERWISE, POINTS WILL BE TAKEN OFF.

Protocol for missed exams, etc.:

All excused absences must be documented with the Office of the Associate Dean for Academic Administration. No examination will be rescheduled without written authorization from the Associate Dean for Academic Administration.

Tardiness promotes disruption in the class. Thus, one form or another of behavior management will be utilized, as decided by this course instructor.

* Peer Review Evaluation Procedure: All **students will be required to evaluate their peers** within the assigned working group for each of the scheduled Problem-Based Case presentation projects, and composite scores will be determined from these evaluations.

Textbook and Resource Materials

Textbook and Resource Materials: * Required Text ** Supplemental Text
* References**

Malamed, Stanley F. **Medical Emergencies in the Dental Office**, 6th Edition, C.V. Mosby 2007 ***

Meiller, Wynn, McMuffin, Biron, Crossley. **Dental Office Medical Emergencies – A Manual of Office Response Protocols**, 2nd Edition, Lexi-Comp 2006 ***

Wynn, Meiller, and Crossley. **Drug Information Handbook for Dentistry**, 12th Edition 2006, Lexi-Comp **

Wilkins, Esther M. **Clinical Practices of the Dental Hygienist**, 9th Edition, Lippincott Williams & Wilkins 2004 *

On-line Dental Hygiene Clinic Manual http://dental.udmercy.edu/clinic_manual/display
and Course Handouts

DH 810 Basic Dental Hygiene Care: Medical History Taking re: Abbreviations *

Note: As part of the learning experience, students will be expected to research various possibilities including the internet web and other search engines, library resources, etc. when working in small groups on assigned case-based projects.

Evaluation and Grading

Grading Scale

A	=94-100%
A-	=90-93%
B+	=87-89%
B	=83-86%
B-	=80-82%
C+	=77-79%
C	=73-76%
C-	=70-72%
D+	=67-69
D	=60-66
F	=below 60%
W	Withdraw, no credit
I	Incomplete, a temporary grade not of record

Course Grade Components

Quizzes	(15 %)
(1) Midterm Examination	(35 %)
(1) Final Examination	(40%)
Peer Review *	(10%)

Course Evaluation Methods:

Quizzes

Random number of unannounced take-home and/or in-class written exercises determined by instructor will be given. **NONE** of these exercises will be dropped.

Midterm Examination

Multiple choice, true and false, fill-in-the-blanks, matching concepts, and essay will make up this exam. Material will be based on the first four learning units.

Final Examination

Multiple choice, true and false, fill-in-the-blanks, matching concepts, and essay will make up this exam. Material will be based on learning units six through twelve, both PBCs, and small group lab sessions in the OS Clinic. A study guide review will be distributed.

Projects

Two PBCs (Problem Based Cases) will be small group projects for presentation during this course. Peer evaluations will be done on both projects.

Rotations

A one time small group rotation through OS Clinic will be scheduled.

COURSE SCHEDULE

DATE	TOPICS	LECTURERS	READINGS/ASSIGNMENTS
Friday, Aug 17 7:40-930 AM Middleton Lounge	Introduction to Medical Emergencies in the Dental Office: Unconsciousness, Vasodepressor Syncope, Postural Hypotension	Sordyl	Malamed Chapters 1,2 pp 3-57 Chapters 5,6,7,9 pp 119-154; pp 171-175 Meiller p 5; p 23-28; pp 67-68 Handouts.
Friday, Aug 24 7:40-930 AM Middleton Lounge	Respiratory Conditions: Airway Obstruction, Hyperventilation, Asthma	Sordyl	Malamed pp 179-234 Chapters 10,11,12,13 Meiller pp 31-37 Handouts
Friday, Aug 31 7:40-930 AM Middleton Lounge	Respiratory Conditions cont'd: Heart Failure, Pulmonary Edema; Endocrine Imbalances: Pregnancy	Sordyl	Malamed Chapters 14,15 pp 233-254
Friday, Sept 7 7:40-930 AM Middleton Lounge Small Group #1 OS Clinic Rotation Lab Suite #2 10-1150AM	Endocrine Imbalances: Diabetes Mellitus, Thyroid Gland Dysfunction, Adrenal Insufficiency	Sordyl	Malamed Chapter 8 pp 155-170 Chapters 16,17,18 pp 257-298 Meiller pp29-30 Handouts
Friday, Sept 14 7:40-930 AM Middleton Lounge	MT Examination 1 hour Problem Based Case #1 Part 1	Sordyl	Handouts
Friday, Sept 21 7:40-930 AM Middleton Lounge Small Group #2 OS Clinic Rotation Lab Suite #2 10-1150AM	Cardiovascular Conditions: Chest Pain Differentials – Non Cardiac and Cardiac Related Chest Pain: angina, AMI: Problem Based Case #1 Part II	Sordyl	Malamed Chapters 26-30 pp 435-514 Meiller pp 39-44 p 59 Handouts
Friday, Sept 28 7:40-930 AM Middleton Lounge	Cardiovascular Conditions cont'd: Sudden Death, Cardiopulmonary Resuscitation; Problem Based Case #1 Part III	Sordyl	Malamed Chapters 26-30 pp 435-514 Meiller pp 39-44 p12-14 Handouts
Friday, Oct 5 7:40-930 AM Middleton Lounge Small Group #3 OS Clinic Rotation Lab Suite #2 10-1150AM	Neurologic Disorders: Cerebrovascular Disease, Seizure Disorders, Parkinson, Bell's Palsy	Sordyl	Malamed Chapters 19-21 pp 299-346 Meiller pp 53-57 Handouts
Friday, Oct 12 7:40-930 AM Middleton Lounge Small Group #4 OS Clinic Rotation Lab	Hematological Disorders, Digestive, and Renal Systems	Sordyl	Malamed Chapter 2 pp16-47 Handouts

Suite #2 10-1150AM			
Friday, Oct 19 7:40-930 AM Middleton Lounge	Drug Related Emergencies: Overdosage, Allergic Reaction; Problem Based Case #2 Part I	Sordyl	Malamed Chapters 22-25 pp 347-434 Meiller pp 45-52
Friday, Oct 26 7:40-930 AM Middleton Lounge	Dental Office Injuries; Problem Based Case #2 Part II	Sordyl	Meiller pp 61 Handouts
Friday, Nov 2	No scheduled class SADHA Day	Sordyl	
Friday, Nov 9 7:40-930 AM Middleton Lounge	Problem Based Case #2 Part III DS 811 Study Guide Review	Sordyl	Handouts
Friday, Nov 16 7:40-930 AM Middleton Lounge	Final Term Examination As Arranged - Two Hours	Sordyl	
Friday, Nov 23	No scheduled class Thanksgiving	Sordyl	

NOTE: Throughout the duration of this course students will receive numerous handouts and/or other assigned readings, etc. Students are responsible for any of this material as well as all topics/ matters discussed in conjunction with any of the problem-based case presentations and review. There will exam questions based on the two Problem Based Cases (PBCs).

Group seminars need to READ CHAPTER # 3 from Malamed Text (pp 59-104) and Meiller Text (pp 6-11; pp 15-22) PRIOR TO attending session:

1. Emergency “crash cart” setups – cardiac monitoring equipment and drug modalities.
2. Adjuncts for airway control, supplemental oxygen, and ventilation.
3. Mock emergency drill exercises