

2015



SELF-STUDY REPORT

PRE-DOCTORAL PROGRAM

GENERAL EDUCATIONAL OBJECTIVES

AND COURSE OUTLINES



SEPTEMBER 1-3, 2015

Pre-doctoral General Education Objectives & Course Outlines

The course outline summaries have been prepared to provide an overview of each course presented in the D.M.D. educational program. Each course consists of the following:

- Course Number and Title
- Credit Hours
- Term Offered
- Grade Type
- Course Description
- Course Objectives

Course topics are available in the course syllabi for Fall of Spring for the didactic and clinical courses. The course topics provide a detailed analysis of each instructional session in terms of topics presented, classification by ADA major teaching code, method of instruction and clock hours of instruction. The table of contents organizes the course listings by semester.

D1 YEAR

BMSC 802-01 Histology (General and Oral)	9
BMSC 804-02 Biochemistry	11
BMSC 805-01 Physiology	15
BMSC 809-02 Survey of Dental Gross and Neuroanatomy	18
GDOM 800-12 Dental Anatomy and Occlusion Lecture	22
GDOM 801-12 Dental Anatomy and Occlusion Laboratory	25
GDOM 802-02 Introduction to Preventative Dentistry	29
GDOM 804-12 Preclinical Operative Dentistry Laboratory I	25
GDOM 805-12 Introduction to Clinical Dentistry I	32
GDOM 807-01 Evidence Based Dentistry	36
OHR 801-01 Infection Control	38
OHR 830-02 Periodontics I	41
OPSC 800-02 Growth and Development	43
SUHD 800-01 Correlated Sciences	47
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GDOM 810-01 Physical Diagnosis	61
GDOM 812-34 Introduction to Clinical Dentistry II	64
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IDSC 821-34 Pathomedicine	76
OHR 835-03 Periodontics II	82
OHR 838-04 Periodontal Modular Learning	85
OHR 860-03 Preclinical Occlusion & Temporomandibular Disorders	90
OHR 861-03 Introduction to Indirect Restorations Lecture	94
OHR 862-03 Introduction to Indirect Restorations Laboratory	98
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OHR 864-03 Removable Partial Dentures Laboratory	107
OHR 865-04 Preclinical Fixed Prosthodontics Lecture	114
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OHR 869-04 Removable Partial Dentures II	128
OHR 870-04 Introduction to Implant Dentistry	131
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OPSC 815-04 Preclinical Orthodontic/Pediatric Lecture & Lab	136
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GDOM 834-56 Clinical Operative Dentistry I	164
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GDOM 845-58 Clinical Diagnosis	173
GDOM 849-06 Ethical Issues in Dentistry	175
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OHR 805-05 Endodontics I	182
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OHR 818-56 Jr. Clinical Endodontics	189
OHR 840-05 Periodontics III	191
OHR 852-58 Clinical Periodontics	194
OHR 855-58 Clinical Preventive Dentistry	194
OHR 856-06 Advanced Periodontics Selective	198
OHR 881-05 Implant Dentistry	202
OHR 885-05 Clinical Complete Dentures I Lecture	204
OHR 886-56 Clinical CD II Experience	207
OHR 888-56 Jr. Clinical Fixed Prosthodontics	209
OHR 889-07 Advanced Concepts in Dentistry I	212
OPSC 805-06 Principles of Orthodontics II	214

OPSC 806-05 Pediatric Dentistry II	217
OPSC 811-06 Concepts in Special Patient Care	220
OPSC 813-58 Clinical Pediatric Dentistry	224
OPSC 816-06 Pediatric Special Needs	226
SUHD 802-05 Pain and Anxiety Control	229
SUHD 803-06 Oral Pathology	232
SUHD 805-05 Principles of Oral Surgery I	236
SUHD 806-06 Principles of Oral Surgery II	239
SUHD 807-56 Clinical Oral Surgery I	242

D4 YEAR

GDOM 820-07 Community Service	244
GDOM 841-07 Senior Practice Management	247
GDOM 842-07 Restorative Dentistry Review	251
GDOM 844-78 Clinical Treatment Planning II	252
GDOM 845-58 Clinical Diagnosis	173
GDOM 846-78 Clinical Operative Dentistry II	260
GDOM 848-07 Clinical Extramural Experience	264
GDOM 855-78 Clinical Patient Management II	267
GDOM 856-07 Special Topics in Clinical Dentistry	274
GDOM 879-01 Principles of Photography	276
GDOM 880-08 A Multidisciplinary Approach to Geriatric Dentistry	278
GDOM 881-01 Adv. Occlusion & Restorative Dentistry	283
OHR 825-78 Senior Clinical Endodontics	286
OHR 828-08 Sr. Selective Endodontics	288
OHR 850-07 Advanced Periodontics	291
OHR 852-58 Clinical Periodontics	194
OHR 855-58 Clinical Preventive Dentistry	194
OHR 891-78 Clinical Complete Dentures IV	207
OHR 893-08 Clinical Removable Partial Dentures	293
OHR 895-08 Senior Clinical Fixed Prosthodontics	296
OHR 897-08 Advanced Concepts in Dentistry II	299
OPSC 809-78 Clinical Orthodontics	302
OPSC 813-58 Clinical Pediatric Dentistry	224

SUHD 808-07 Clinical Oral Surgery II	304
SUHD 811-07 General Medicine in Dentistry	306
SUHD 816-78 Advanced Radiologic Interpretation	308
SUHD 823-08 Oral Pathology	311

BMSC-802-01 (GENERAL AND ORAL HISTOLOGY COURSE) Credit: 5.0

Semester Offered – D1, Fall Semester

Course Description

The course provides instruction on histological and ultrastructure of cell, tissues, and organs. Following the completion of general histology section, oral histology are presented in detail. Lecture series is complimented by image exercised toward a comprehensive understanding of any given topic. A question and answer period offers the final interaction between the lecturer and the students which concludes the study for a given morning. In addition, two clinical correlation lectures are presented during the semester.

Course Objectives

Upon completion of this course, the students should be able to:

1. List and explain the general feature of cell, tissue, and organs system of the human body.
2. List and explain the features of the soft tissues found in the oral cavity.
3. Identify and explain all components of the tooth.
4. Identify and explain all elements of the Periodontium.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of self-directed lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care and practice management.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.10 Diagnose and manage patients with oral mucosal and osseous disorders.
- 6.16 Recognize and manage medical emergencies that may occur in dental practice.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school.

Course Outline

Date	Title	Presenter
Aug 26	Introduction, Cell I	Dr. Rink
Aug 28	Cell II & III	Drs. Rink & Krimm
Sept 4	Epithelium and Glands	Dr. Moore
Sept 9	Connective Tissue Proper	Dr. Rink
Sept 11	Cartilage and Bone	Dr. Rink
Sept 16	Muscle	Dr. Krimm
Sept 18	Nervous Tissue	Dr. Krimm
Sept 25	Circulatory System	Dr. Rink
Sept 30	The Skin	Dr. Krimm
Oct 2	The Respiratory System and Urinary system	Drs. Bickford & Qiu
Oct 9	Blood	Dr. Colella
Oct 16	Lymphatic Tissues	Dr. Colella
Oct 21	Digestive Tract	Dr. Tseng
Oct 23	Liver, Gall Bladder and Pancreas	Dr. Tseng
Oct 28	Endocrine glands	Dr. Moore
Oct 30	Male & Female Reproduction	Dr. Moore & Colella
Nov 6	Development of the face	Dr. Rink
Nov 11	Tooth Development / Enamel	Dr. Rink
Nov 13	Dentin	Dr. Tseng
Nov 18	Pulp and Cementum	Dr. Tseng
Nov 20	Oral Mucosa	Dr. Krimm
Nov 25	Development of Dental Arches, Alveolar Process, Periodontal Ligament	Dr. Rink
Dec 2	Eruption & Shedding	Dr. Tseng
Dec 4	Salivary Gland	Dr. Krimm

Evaluation

A total of eight exams are given during this course. On the exam days, one written exam and an image identification exam will be given. All exams are weighted equally (12.5% toward the course grade); there is no cumulative final exam. Periodic examinations will be given at the designated time indicated above. The course grade is calculated and compiled at the end of course

Grading

92 - 100% = A

85 - 92% = B

75 - 84% = C

70 - 74% = D

<69% = F

Course Faculty

Dr. Martha Bickford

Dr. Rita Collella

Dr. Robin Krimm

Dr. Patrick Moore

Dr. Matthew Qiu

Dr. Richard Rink

Dr. Michael Tseng, Course director

Semester Offered - D1 Year; Second Semester

Course Description

Dental Biochemistry is a comprehensive course, and although primarily designed for dental students, it can serve as a suitable course for graduate students in oral biology. Dental Biochemistry covers the fundamentals of biochemistry and molecular biology with special emphasis given to areas applicable to dentistry. Topics include cell biology, chemical principles of biological systems and the structure, function and metabolism of amino acids, proteins, carbohydrates, lipids and nucleic acids. Clinical correlates include sickle cell anemia and hemoglobinopathies, blood clotting disorders, collagen diseases, diabetes, nutritional disorders, diseases of amino acid and lipid metabolism and the molecular basis of genetic diseases.

Course Objectives

Upon completion of this course, the students should be able to:

1. to provide students a solid foundation of biochemical information relating to the structure: function relationships of biomolecules and the regulation of metabolism;
2. to teach students to appreciate and understand the molecular logic behind living systems and the integration of biochemistry with other basic and clinical sciences;
3. to enhance critical thinking skills when evaluating scientific findings in biomedical areas;
4. to prepare our graduates for a professional career and personal life in the 21st century.
5. the chemistry of biological compounds; principles of pH and buffering.
6. the biochemistry of the cell and organelles.
7. amino acids, peptides, high energy biomolecules, bioenergetics.
8. the elements of protein structure, membrane proteins and receptors.
9. collagen and elastin structure, biosynthesis, diseases.
10. plasma proteins, immunoglobulins, blood clotting and inhibition.
11. hemoglobin and Hb S biochemistry and regulation of O₂ binding.
12. enzymes, enzyme active sites and enzyme kinetics.
13. the biochemistry of muscle proteins and muscle contraction.
14. carbohydrate chemistry, digestion and absorption
15. glycolysis, gluconeogenesis, glycogen metabolism, diabetes.
16. the citric acid cycle.
17. electron transport and oxidative phosphorylation.
18. lipid structures, lipid digestion and absorption.
19. fatty acid synthesis and cholesterol metabolism.
20. the urea cycle and N metabolism.
21. nutritional biochemistry - water soluble/fat soluble vitamins, trace metals.
22. the biochemistry of trace element metabolism.
23. nucleic acid structure, replication, mutation, repair and recombination.
24. the regulation of gene expression.
25. RNA structure, transcription, processing.
26. the biochemistry of protein synthesis.

27. molecular biology, recombinant DNA technology, the human genome.
28. biochemical aspects of calcium homeostasis and vitamin D metabolism.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

Outline

Date	Activity	Presenter
Jan 7-10	Course Intro/Chem of Biological Compounds Macromolecular & Cellular Structures & Functions Macromolecular & Cellular Structures & Functions Water/pH/Chemical Bonds/Metric Units Ionization/Buffering Amino Acids: Structures/Posttranslational Modifications	
Jan 14-17	Quiz 1 - Lectures #1-6 (in Rm 131; 3%)/Peptides Peptides / Elements of Protein Structure Elements of Protein Structure / Proteins Soluble and Fibrous Proteins Collagen and Elastin Extracellular Matrix / Weekly Review (for Quiz 2 #7-12)	
Jan 21-24	Purification Protein Purification Protein Purification & Characterization Protein Characterization Plasma Proteins Immunoglobulins / Weekly Review (for Quiz 3 #13-18)	
Jan 28-31	Quiz 3 - Lectures #13-18 (in Rm 131; 3%) Blood Clotting Blood Clotting Blood Clotting / Hemoglobin Hemoglobin/Heme Metabolism Heme Metabolism Membranes & Receptors/ Weekly Review (for Quiz 4 #19-24)	
Feb 4-7	Quiz 4 - Lectures #19-24 (in Rm 131; 3%) / Bioenergetics Bioenergetics/Enzymes Enzyme Kinetics / Enzyme Inhibition Muscle Proteins / Muscle Contraction Muscle Contraction / (Muscle Protein Mutations/Disease)	

	Review for Exam 1 (These Fri lectures will be in B Bldg)	
Feb 10	EXAM 1	
Feb 10-14	Metabolism - Basic Concepts Water-Soluble Vitamins Carbohydrates Carbohydrate Chemistry	Dr. Feldhoff
Feb 18-21	Carbohydrate Digestion & Absorption Glycolysis Gluconeogenesis Glycogen Metabolism Citric Acid Cycle Electron Transport & Oxidative Phosphorylation	Dr. Dholakia
Feb 24	Exam 2	
Feb 25-28	PentoseP/Other Sugar Metabolism Hormone Action & Signal Transduction Regulation of Carbohydrate Metabolism Tentative TA REVIEW for EXAM 3 Review of Carbohydrates & Carbohydrate Metabolism	Dr. John Houston Dr. Dholakia
Mar 3	Exam 3	
Mar 4-7	Lipid Structure Lipid Digestion and Transport Atherosclerosis and Lipid Storage Fatty Acid Mobilization and Beta-Oxidation Ketone Bodies and Fatty Acid Biosynthesis Synthesis of Other Lipids	Dr. Bill Dean
Mar 11-14	Review of Lipid Metabolism for Mini-Exam 1 Purines & Pyrimidines Nucleotide Metabolism Mini-Exam 1 (7%) – Lecs #44-50 DNA Structure, Genes and Chromosomes DNA Replication	Dr. Bill Dean Dr. Ron Gregg
Mar 25-28	Reboot Molec Biol - DNA Mutation & Repair I DNA Mutation & Repair II Review Lecs #51-56 for Mini-Exam 2 Mini-Exam 2 (8%) – Lectures #51-57 RNA Synthesis RNA Processing/Translation & the Genetic Code	Dr. Gregg
Apr 1-4	Post-translational Modification Regulation of Gene Expression Genetic Technology Review Lectures #58-62 for Mini-Exam 3 Mini-Exam 3 (7%) – Lectures #58-63	Dr. Gregg
Apr 8-11	Amino Acid & Protein Metabolism Transamination, Deamination & Glucose-Alanine Cycle Urea Cycle and Urinary Nitrogen Amino Acid Metabolism Amino Acid Catabolism Review-Lecs #64-68 for Quiz 5	Dr. P. Feldhoff

Apr 15-18	Quiz 5 - Lecs #64-69 (Rm 131; 3%)/Fat Soluble Vitamins Fat Soluble Vitamins / Mineral Metabolism Nutrition, Ethanol Metabolism, Dietary Supplements Calcium Homeostasis I Calcium Homeostasis II Tentative TA REVIEW for Mini-Exam 4	Dr. P. Feldhoff John Houston
Apr 21-25	Mini-Exam 4 – Rm 131 or HSC-AUD RC Feldhoff Review Session (Lectures 1-29; 73-74) RC Feldhoff Review Session JN Dholakia Review Session (Lectures 30-43) WL Dean Review Session (Lectures 44-50) RG Gregg Review Session (Lectures 51-63) PW Feldhoff Review Session (Lectures 64-72)	Dr. Eldairi Dr. Crim
APRIL 28	Final Exam	

Evaluation

The value of each question on a quiz or exam is identical so only the total questions correct of the 300 given in the course determines your grade. Except for the comprehensive final, examinations will be based upon blocks of material taught by each instructor. The lectures covered, questions per quiz/exam, percentage of the total grade for each quiz/exam, and the location of each quiz/exam are summarized below. The Final will consist of 72 Board style questions covering the entire course.

Grade Scale

A+ = Honors	4.0	Top 10% of class
A	4.0	≥ 90.00 - < Honors
A-	3.7	87.00 - 89.99%
B+	3.3	84.00 - 86.99%
B	3.0	80.00 - 83.99%
C	2.0	75.00 - 79.99%
D	1.0	70.00 - 74.99%
F	0.0	Less than 69.99%

Faculty

Dr. Rick Feldhoff (Course Director)
Dr. Jaydev Dholakia
Dr. Bill Dean
Dr. Ron Gregg
Dr. Pamela Feldhoff

Semester Offered: D1, Fall

Course Description

This course provides an in-depth view of the fundamental principles concerning function of the circulatory, respiratory, kidney, endocrine, gastrointestinal, muscle, and central nervous systems. Emphasis is placed on the physiologic mechanisms for feedback control of physiologic function in humans. Overall, this course offers a strong background in physiology as a scientific basis for clinical dentistry. It will consist of didactic lectures and readings from the course lecture notes and textbook. All dental students will take this course on a letter-grade basis.

Course Objectives

Upon completion of this course, the students should be able to:

1. For students to understand physiological mechanisms.
2. For students to appreciate the integrative nature of physiology and the potential applications of physiology to the practice of dentistry.
3. For students to appreciate that the knowledge base of physiology changes with time and that continual study is necessary in order to remain current.
4. Evaluate scientific information.
5. Apply a basic understanding of the scientific basis of health and disease to oral health care delivery.
6. Demonstrate competency in the understanding of physiological processes and mechanisms.
7. Appreciate basic indices of physiological states of the cardiovascular, muscular neurophysiologic, endocrine, body fluids, excretory and respiratory systems and be able to integrate that knowledge into whole organism physiology.
8. Understand the basic physiology of the oral cavity.
9. Understand alterations of physiological mechanisms in pathophysiological states, conditions, or diseases.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Professionalism, Ethics, and the Law
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care and practice management.
- 2.1 Information Management and Critical Thinking
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.1 Patient Assessment
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.8 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.9 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.

- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 6.0 Establishment and Maintenance of a Healthy Dental Patient
- 6.1 Recognize and manage medical emergencies that may occur in dental practice.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

Outline

Date	Activity	Presenter
Aug 13	Introduction Membrane Physiology	Dr. Miller
Aug 15	Membrane Physiology The Autonomic Nervous System	Dr. Miller
Aug 16	Body Fluids	Dr. Miller
Aug 20	Muscle	Dr. Miller
Aug 22	Muscle	Dr. Miller
Aug 23	Cardiac	Dr. Maldonado
Aug 27	Cardiac	Dr. Maldonado
Aug 29	Cardiac	Dr. Maldonado
Sept 3	TBL-1	Dr. Baughman
Sept 5	Exam 1	Dr. Mansfield
Sept 6	Circulation	Dr. Miller
Sept 10	Circulation	Dr. Miller
Sept 12	Circulation	Dr. Miller
Sept 13	Circulation	Dr. Miller
Sept 17	Circulation	Dr. Miller
Sept 19	Cultural Competency Symposium	
Sept 20	Respiration	Dr. Stremel
Sept 24	Respiration	Dr. Stremel
Sept 26	Respiration	Dr. Stremel
Sept 27	Respiration	Dr. Stremel
Oct 1	Respiration	Dr. Stremel
Oct 3	Exam 2	
Oct 4	Renal	Dr. Miller
Oct 10	Renal	Dr. Miller
Oct 11	Renal	Dr. Miller
Oct 15	Renal	Dr. Miller
Oct 17	Renal	Dr. Miller
Oct 18	Acid Base	Dr. Stremel
Oct 22	Acid Base	Dr. Stremel
Oct 24	Gastrointestinal	Dr. Falcone
Oct 29	Gastrointestinal	Dr. Falcone
Oct 31	Gastrointestinal	Dr. Falcone
Nov 1	Gastrointestinal	Dr. Falcone
Nov 5	TBL-2	
Nov 7	Exam 3	
Nov 8	Neurophysiology	Dr. Roberts

Nov 12	Neurophysiology	Dr. Roberts
Nov 14	Neurophysiology	Dr. Roberts
Nov 15	Neurophysiology	Dr. Roberts
Nov 19	Neurophysiology	Dr. Roberts
Nov 21	Endocrine	Dr. Miller
Nov 22	Endocrine	Dr. Miller
Nov 26	Endocrine	Dr. Miller
Dec 3	Endocrine	Dr. Miller
Dec 5	Endocrine	Dr. Miller
Dec 6	Exam 4	
Dec 10	Review	Dr. Miller
Dec 12	Final Exam	

Grade Scale

A: 810-953

B: 715-809

C: 667-714

F: <667

Faculty

Dr. Cynthia J. Miller

Dr. Claudio Maldonado

Dr. Richard Stremel

Dr. Jeff Falcone

Dr. Andrew Roberts

Semester Offered - D1 Year; Spring Semester

Course Description

This course is designed for 1st year Dental students. The primary goal of the course is to provide students with a working knowledge of human structure by introducing basic and clinically oriented concepts and principles of gross- and neuroanatomy, with larger emphasis on the head and neck. It will foster logical and critical thinking skills necessary for students to diagnose their patients and solve problems. Dissection of human cadaver corresponding to lectures is the essential part of the course, which allows students to develop scientific attitude through accurate observation and appreciation of three-dimensional relationship of the various structures.

Course Objectives

Upon completion of this course, the students should be able to:

1. demonstrate a working knowledge of anatomy especially head and neck as it relates to the practice of dentistry.
2. cultivate a scientific attitude and a desire for lifelong learning.
3. understand anatomical terminology
4. describe human structures using anatomical terms and concept
5. understand three dimensional relationship of structure in each region
6. appreciate clinical importance of structures
7. understand the structural bases of dental infections

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

Outline

Date	Activity	Presenter
January 7	Course Introduction Pectoral region and upper limb overview	Dr. Kuwabara
January 8	Typical spinal nerve and ANS (Lab) Pectoral region	Dr. Brueckner Lab Instructors

January 10	Axilla and arm (Lab) Axilla	Dr. Brueckner Lab Instructors
January 14	Cortex Sensory and motor pathways	Dr. Kuwabara Dr. Kuwabara
January 15	Forearm and hand (Lab) Arm and forearm	Dr. Brueckner Lab Instructors
January 17	Quiz - 1 Thoracic wall, lung and respiratory system (Lab) Thoracic wall and lung	Dr. Kuwabara Lab Instructors
January 21	Heart Development of heart	Dr. Brueckner Dr. Brueckner
January 22	Mediastinum and regional ANS (Lab) Heart	Dr. Brueckner Lab Instructors
January 24	Lymphatic system (Lab) Mediastinum	Dr. Herring Lab Instructors
January 28	Ant. abdominal wall Inguinal region	Dr. Kuwabara Dr. Kuwabara
January 29	(Lab) Ant. abdominal wall, Inguinal region	Lab Instructors
January 31	(Lab) Review, Practice practical	Lab Instructors
February 3	Exam - 1	
February 4	Peritoneal cavity, mesenteries, abdominal viscera Abdominal arteries and veins	Dr. Davis Dr. Davis
February 5	Abdominal nerves (ANS) (Lab) Peritoneal cavity, Mesenteries	Dr. Davis Lab Instructors
February 7	(Lab) Abdominal arteries and veins	Lab Instructors
February 11	Posterior abdominal wall U-G system and pelvic viscera	Dr. Davis Dr. Brueckner
February 12	(Lab) Posterior abdominal wall and pelvis	Lab Instructors
February 14	No Class (Student Convo.)	
February 18	Introduction to Head & Neck / Cranial nerves Functional components of cranial nerves	Dr. Kuwabara Dr. Kuwabara
February 19	Blood supply to brain (Dry lab) Skull demonstration - 1	Dr. Herring Dr. Kuwabara
February 21	Dural sinuses and CSF (Dry lab) Skull Demonstration - 2	Dr. Herring Dr. Kuwabara
February 24	Quiz - 2	
February 25	Superficial neck, Posterior cervical triangle Anterior cervical triangle	Dr. Benton Dr. Benton
February 26	(Lab) Superficial neck, Posterior cervical triangle	Lab Instructors
February 28	(Lab) Anterior cervical triangle	Lab Instructors
March 4	Root of neck ANS of head	Dr. Benton Dr. Brueckner
March 5	(Lab) Root of neck	Lab Instructors
March 7	(Lab) Review and Practice practical	Lab Instructors
March 10	Exam - 2	
March 11	Face and parotid region CN V (Trigeminal nerve) on face	Dr. Kuwabara Dr. Kuwabara
March 12	CN VII (Facial nerve) peripheral and central pathways	Dr. Scott
March 14	Pain (Lab) Face and parotid region (completed)	Dr. Benton Lab Instructors
March 18	No class (Spring break)	
March 20	No class (Spring break)	
March 21	No class (Spring break)	
March 25	Infratemporal region	Dr. Herring

	Clinical correlation: Facial pain, TMJ, Cranial nn. test	Dr. Esposito
March 26	(Lab) Infratemporal fossa	Lab Instructors
March 28	(Lab) Infratemporal fossa (Completed)	Lab Instructors
April 1	Orbit Visual system and eye-related pathways	Dr. Scott Dr. Scott
April 2	(Lab) Orbit	Lab Instructors
April 4	Pharynx (Lab) Pharynx	Dr. Kuwabara Lab Instructors
April 7	Quiz - 3	
April 8	Nose and paranasal sinuses Smell and taste	Dr. Kuwabara Dr. Kuwabara
April 9	Pterygopalatine fossa (Topography and contents) (Lab) Nasal cavity	Dr. Herring Lab Instructors
April 11	CN IX, X, XI, XII central pathways (Lab) Pterygopalatine fossa	Dr. Kuwabara Lab Instructors
April 15	Oral cavity CN V (Trigeminal nerve) central pathways	Dr. Kuwabara Dr. Kuwabara
April 16	Lymphatics and infection (Lab) Oral cavity	Dr. Herring Lab Instructors
April 18	Clinical correlation: Dental infection Clinical correlation: Trigeminal blocking	Dr. Kushner Dr. Clark
April 22	CN VIII (Vestibulocochlear nerve) Larynx	Dr. Kuwabara Dr. Herring
April 23	(Lab) Larynx	Lab Instructors
April 25	(Lab) Review and Practice practical	Lab Instructors
April 28	Exam – 3 (Final)	

Evaluation -

Lecture part: 3 written exams are given

3 quizzes are given

Lab part: 3 practical exams are given

Grade Scale

95.0% ≤ A+

90.0% ≤ A < 95.0%

87.0% ≤ A- < 90.0%

84.0% ≤ B+ < 87.0%

80.0% ≤ B < 84.0%

77.0% ≤ B- < 80.0%

74.0% ≤ C+ < 77.0%

70.0% ≤ C < 74.0%

F < 70%

Faculty

Dr. Yuki Kuwabara (Course Director)

Dr. Richard Benton

Dr. Jennifer Brueckner-Collins

Dr. Brian Davis

Dr. Nicole Herring

Dr. Patrick Scott

Dr. Carmine Esposito
Dr. George Kushner
Dr. Thomas Clark

Semester Offered - D1 Year; Summer, First, and Second Semester

Course Description

Dental Anatomy: Designed to familiarize the first year student with general anatomical characteristics of the oral cavity. The external and internal crown and root form of both primary and permanent teeth is presented in detail. The relationship of anatomical features of teeth to the practice of clinical dentistry is stressed throughout the course. Emphasis is placed on the function of occluding surfaces and the relationships of external crown form to prevention of periodontal disease and dental caries.

Operative Dentistry: Lecture and laboratory series designed to introduce the first year student to the basic theory and techniques used in Operative Dentistry. The study of the physical properties, manipulation, and chemistry of the dental materials utilized is included. Emphasis is placed on preservation of tooth structure from further destruction by dental disease. Technical skills used in the placement of composite resin and amalgam restorations are developed.

Course Objectives

Upon completion of this course, the students should be able to:

1. list and explain the principles of cavity preparation.
2. list advantages, disadvantages, benefits and risks of various operative dentistry procedures.
3. identify rotary and hand dental instruments.
4. identify and explain the use of materials for pulpal protection.
5. define the composition and properties of operative restorative materials.
6. describe the process of the etching of tooth structure and the bonding mechanism of modern adhesive agents.
7. classify various bases and liners according to use .
8. describe the indications for and the use of the Class II resin restoration.
9. describe the indications for and the use of veneer restorations.
10. describe the six types of cavities according to Black's classification system.
11. describe the preparation procedure for the various types of cavities.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
(Written examinations)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
(Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including

their use in the comprehensive care of patients, scientific inquiry, and research methodology.

- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Outline

Date	Activity	Presenter
July 15	Course Introduction; Ergonomics	Dr. Crim Dr. Mansfield
July 16	Ergonomics	Dr. Mansfield
July 18	Rotary Instruments; Ergonomics	Dr. Crim Dr. Mansfield
July 22	Operative Terminology; Hand Instruments	Dr. Fadel Dr. Mansfield
July 23	Dental Anatomy Terminology Molars, Part 1 (DA)	Dr. Mansfield Dr. Crim
July 25	Dental Anatomy Terminology (DA) Molars, Part 2 (DA)	Dr. Mansfield Dr. Crim
July 29	Class I, Class I- Pit (Op)	Dr. Bohn
Aug. 1	Amalgam Placement (Op)	Dr. McCants/Metz
Aug. 5 th -9 th	Break	
Aug. 13	Premolars (DA)	Dr. Eldairi
Aug. 16	Amalgam (Dental Materials)	Dr. Metz
Aug. 20	Wax (DA)	Dr. Mansfield
Aug. 23	Class II Preparation (Op)	Dr. Crim
Aug. 27	Class II Restoration, Matrix Band and Amalgam	Dr. McCants
Aug. 30	Amalgam – Clinical Aspects (Dental Material)	Dr. Metz
Sept. 3	Practical Exam 1 – Class I #31-O Waxing	
Sept. 6	Bases & Liners (Op)	Dr. McCants
Sept. 10	Written Exam 1	
Sept. 13	Introduction to Periodontics and Relevance to DA	Dr. Hill
Sept. 17	Occlusion, Part 1 (DA)	Dr. Crim
Sept. 20	Occlusion, Part 1 (DA)	Dr. Crim
Sept. 24	Proximal Slot & OL (Op) Special Class II Preparations (Op)	Dr. Eldairi Dr. Crim
Sept. 27	No Class	
Oct. 1	No lecture	
Oct. 4	Temporary Restoration (Op)	Dr. Sanders
Oct. 15	No lecture	
Oct. 18	No lecture	
Oct. 22	Practical Exam 2	
Oct. 25	Halloween Project – Extramural activity	
Oct. 29	Pins & Other Retention (Op)	Dr. Metz
Nov. 1	Written Exam 2	
Nov. 5	Rubber Dam (Op)	Dr. O'Malley
Nov. 8	Caries (Op)	Dr. McCants
Nov. 19	No lecture	
Nov. 22	Competency Exam #2	
Jan. 6	Canine (DA)	Dr. Eldairi

Jan. 7	No lecture	
Jan.13	Incisors (DA)	Dr. Crim
Jan 14	Practical Exam 3	
Jan. 21	Class V Preparation (Op) Composite Placement (Op)	Dr. Crim
Jan. 27	Root canal anatomy - Endodontics	Dr. Clark
Jan 28	Class III Preparation (Op) Composite Materials (Op)	Dr. Eldairi Dr. Metz
Feb. 3	Practical exam 4	
Feb.4	Posselt (DA)	Dr. Mattingly
Feb. 10	Written Exam 3	
Feb. 11	Composite - Dental Materials (Op)	Dr. Metz
Feb.17	DL Preparation for the Canine (Op)	Dr. Eldairi
Feb. 18	Adhesives	Dr. Oliveira
Feb. 24	Competency Exam 3	
Feb. 25	Tooth Anomalies (DA)	Dr. Sasek
March 3	Glass Ionomer (Op)	Dr. Metz
March.4	Introduction to Veneers in Restorative Dentistry	Dr. Sasek
March 10	Root canal anatomy - Endodontics	Dr. Clark
March.11	Class II Composite Resin Restoration (Op)	Dr. Crim
March 24	Prefabricated Post (Op)	Dr.Oliveira
March 25	Practical Exam 5	
March 31	Class IV (Op)	Dr. Crim
April 1	Primary Dentition	Dr. Rozo
April 7	Lecture: Written Exam 4	
April 15	Final Competency Exam	
April 22	Tooth ID Exam	

Evaluation

Lecture - 4 written examinations will be given during the course.

Grade Scale

A: 92 - 100%

B: 85 - 91%

C: 77 - 84%

D: 70 - 76%

F: 0 - 69%

Faculty

Dr. Alia Eldairi & Dr. Gary Crim (Course Directors)

Dr. Robert Bohn

Dr. Mike Mansfield

Dr. Jennifer McCants

Dr. Doug Cotton

Dr. Greice Oliveira

Dr. Gustavo Oliveira

Dr. Richard Keeling

Dr. Madeline Hicks

Dr. Jolene Zirnheld

Dr. Rachel Davis

GDOM 804-12 Preclinical Operative Dentistry Laboratory
GDOM 801-12 Dental Anatomy & Occlusion Laboratory

Credits: 6
Credits: 3

Semesters Offered – D1 Year; Summer, First, and Second Semester

Course Description

Description: Lecture and laboratory series that is designed to introduce the first year student to the basic theory and techniques used in Operative Dentistry. The study of the physical properties of the dental materials utilized is included. Emphasis is placed on preservation of tooth structure from further destruction by dental disease. Technical skills used in the placement of composite resin and amalgam restorations are developed.

Course Objectives

Upon completion of this course, the students should be able to:

1. properly utilize rotary and hand dental instruments.
2. appropriately manipulate operative restorative materials.
3. restore teeth to proper anatomical form, function and esthetics.
4. correctly prepare and restore a Class I and Class II amalgam preparation.
5. triturate, place, condense and carve the amalgam restoration to produce a smooth surface, correct anatomy, marginal integrity and proper occlusion.
6. correctly prepare and restore a Class III, Class IV and veneer composite resin.
7. evaluate restorations that meet and do not meet the performance criteria.
8. demonstrate the proper technique for finishing and polishing amalgam and resin restorations

Competency Statements (Student Learning Outcomes) for Laboratory Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
(Laboratory competency examinations)
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
(Laboratory competency examinations)
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
(Laboratory competency examinations)

Commission on Dental Accreditation (CODA) for Laboratory Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Outline

Date	Activity	Presenter
July 15	No lab	
July 16	No lab	
July 18	No lab	
July 22	Instrument Identification	
July 23	No lab	
July 25	No lab	
July 29	Learn-a-Prep	
July 30	Class I Preparations: #20-O, #30-O/BP, #31-O/BP	
Aug. 1	Demonstration Continue preparations: #13-O, #14-O	Dr. McCants/Metz
Aug. 5 th -9 th	Break	
Aug. 13	Restore Preparations	
Aug.16	Wax demo Continue Preparations/Restorations and Enlarge #31 for Practical	Dr. Eldairi
Aug. 20	Wax up #31 Occlusal	
Aug. 23	Prep #29-MO	
Aug. 27	Demonstration of carving Practice waxing #31 Occlusal	Dr. Metz (Lab)
Aug. 30	Practice waxing #31-O	
Sept. 3	Practical Exam 1 – Class I #31-O Waxing	
Sept. 6	Prep #14-MO	
Sept. 10	Continue	
Sept. 13	Continue/practice for Competency Exam 1	
Sept 17	Class II preparation #32-MO (prep ideal, then enlarge); place base	
Sept. 20	Continue	
Sept. 24	Slot & OL preparations: #3	
Sept. 27	No Class	
Oct.1	Competency Exam 1: Prep #20-MO, Restore #29-MO	
Oct. 4	Class II preparations #15-MO/DO, #12-MOD	
Oct.7-11	No class this week	
Oct. 15	Temporary placement demo Place temporary #32, Practice waxing full crown #20	Dr. Sanders
Oct. 18	Practice waxing full crown #20	
Oct. 22	Practical Exam 2: Wax Premolar Full Crown	
Oct. 25	Extramural activity	
Oct. 29	Prepare #30-MODL for slot retention, #4-MODL for pin	
Nov.1	Continue	
Nov. 5	Continue	
Nov. 8	Continue	
Nov. 12	Continue; enlarge #12 – MOD for waxing practical Prepare #19-MO for Competency exam	
Nov. 15	Continue	
Nov. 19	Continue	
Nov. 22	Competency Exam #2: #31–MOD and #19–MO Restoration	
Nov. 26	Continue	
Nov.29	Thanksgiving Break	

Dec. 3	Continue	
Jan.6	Practice #12- MOD Practice #30 – Wax Full Crown	
Jan. 7	Practice #12- MOD, #30 Wax up	
Jan.13	Practice #30 – Full Crown Wax	
Jan 14	Practical Exam 3: Wax. #12- MOD	
Jan.20	School is closed (MLK day)	
Jan. 21	Class V Preparations: #6-F, #18-F, #30-F	
Jan. 27	Practice waxing #30 full crown	
Jan 28	Class III Preparations: #10-M, #24-M	
Feb. 3	Practical exam 4: Wax #30 full crown	
Feb.4	Continue	
Feb. 10	Continue	
Feb. 11	Continue	
Feb.17	DL Preparation #6	
Feb. 18	Continue	
Feb. 24	Competency Exam 3: #8 Class III & V Preparations	
Feb. 25	Continue	
March 3	Prepare Class 5: #12-F	
March.4	Full crown wax up #8 #2-MOD (amalgam)	
March 10	Continue Powerpoint on Blackboard	
March.11	Prepare #13-MO (resin), #21-MO (resin), Restore #21 Composite Resin, #2 Amalgam	
March.17 March 18	No Class SPRING BREAK	
March 24	Lab. Full crown #8 wax up	
March 25	Practical Exam 5: Full Crown #8 wax up (DA)	
March 31	Prepare Class IV: #8-MI	
April 1	Continue and restore #8-MI	
April 7	Continue	
April 8	Replacement Day	
April 14	Continue	
April 15	Final Competency Exam: Prep #30-MO (Amalgam), Restore #13-MO Resin	
April 21	Continue	
April 22	Tooth ID Exam	

Evaluation

Laboratory - Daily work must be judged by the faculty to be at least a "C" level to be passing and signed off. Faculty have the option of requiring higher quality for daily work since these procedures can be refined or redone to ensure that the concepts are learned. Preparations must sometimes be redone on new teeth to achieve an acceptable result.

Daily work does not constitute part of the final course grade when it is completed by the deadline specified.

Five practical examinations will be given in Dental Anatomy and eight laboratory competency examinations will be given in Operative Dentistry throughout the Fall and Spring semesters. The evaluations are based on the written Performance Criteria as provided on Blackboard.

Grade Scale

A: 92 - 100%

B: 85 - 91%

C: 77 - 84%

D: 70 - 76%

F: 0 - 69%

Faculty

Dr. Alia Eldairi & Dr. Gary Crim (Course Directors)

Dr. Robert Bohn

Dr. Mike Mansfield

Dr. Jennifer McCants

Dr. Doug Cotton

Dr. Greice Oliveira

Dr. Gustavo Oliveira

Dr. Richard Keeling

Dr. Madeline Hicks

Dr. Jolene Zirnheld

Dr. Rachel Davis

Semester Offered – D1, Summer/ Fall Semester

Course Description - Introduction to Preventive Dentistry is a one hour graded didactic course for the incoming D1 students. It is a preliminary approach to the etiology and pathogenesis of dental caries and periodontitis with discussions of salivary physiology, caries risk assessment, OTC preventive products, RX preventive products and clinical applications of fluoride.

Course Objectives

Upon completion of this course, the students should be able to:

1. Provide students with the basic understanding of the anatomy and physiology of salivary tissue and its role in digestion, caries risk, mineral concentration and innate immunity.
2. Provide students with the basic understanding of the caries process with staging of various lesion progressions.
3. Provide students with the basic understanding of the role fermentable carbohydrates on the dental caries process according to overall caries risk.
4. Provide students with the basic understating of fluoride therapy as it relates to mechanisms of action, metabolism, forms available and various marketed products.
5. Provide students the basic understanding of oral health products as it relates to caries and periodontitis. Biofilm communication and quorum sensing as it relates to overall risk assessment.
6. Provide students with the basic understanding of data collection and treatment planning individual patients by relative risk.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively with peers, other professionals, staff, patients and guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 3.1 Comply with federal, state and local regulations as related to infection control, radiation and environmental safety measures on all clinical procedures
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.

- 2-2 If students do not meet the didactic, behavioral and/or clinical criteria as published and distributed, individual evaluations must be performed that lead to an appropriate decision in accordance with institutional due process policies.
- 2-6 Biomedical, behavioral and clinical science instruction must be integrated and of sufficient depth, scope, timeliness, quality and emphasis to ensure achievement of the curriculum's defined competencies.
- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - d. health promotion and disease prevention

Outline

Date	Activity	Presenter
July 22, 2013	Introduction to Primary Preventive Dentistry Oral Anatomy, Salivary Tissue and Salivary Importance to Oral Health Physiology of Saliva	Cynthia Miller
July 23, 2013	Demineralization and Remineralization: Homeostasis of Minerals in Health The Development of Dental Plaque and Mechanical Removal The Developing Carious Lesion: White spot to Cavitation via Mineral Loss	Dr. Metz
July 29, 2013	Topical Fluoride Therapy: Mechanisms of Action Topical Fluoride Therapy: Intake and Metabolism Topical Fluoride Therapy: Available Forms	Dr. Metz
July 30, 2013	Preventive Occlusal Dental Sealant Simulated Dental Sealant Placement (Dentoform Exercise in South Labs)	Dr. Metz
August 12, 2013	Diagnosis versus Detection of Dental Caries: Dull Explorer and Sharp Mind Caries Risk Assessment: Treatment Planning the Data Oral Health and Systemic Disease	Dr. Metz
August 14, 2013	Preventive Oral Health for Geriatric Patients Patient Case Based Treatment Planning Group Exercises	Dr. Metz
August 19, 2013	Final Exam	

Grade Scale

A = 92.5 -100
B = 82.5 – 92.4
C = 74.5 – 82.4
D = 70 – 74.4
F = below 69.9

Evaluation

Written Examination-70%/ TBL-15%/ Quiz-7.5%/ Simulation-7.5%

Exams: There will be one final written examination worth 70% (150 points) of the total grade for this course. If a student misses an exam, it must be made up on the next day back and may be an oral exam at the discretion of the faculty. Exams are retained by the course director after viewing by the student and may be viewed before the final exam.

Team Base Learning (TBL): There will be two case-based studies where grouped students (4-5 students) will formulate a caries risk assessment, create an individualized preventive treatment plan and write any prescriptions necessary to treat their simulated patient. This will be worth 15% (24 points) of the total grade for this course. The students will have the entire class period (3 hours) to prepare the treatment plan and proposed treatment.

Simulation Clinic Exercise: Each student will perform a light-cured resin composite dental sealant on a dentoform molar following a lecture series on sealants. This activity will be worth 7.5% (5 points) of the overall grade.

Classroom Quizzes: There will be one pop quiz during the course with approximately 18 questions. Performance on this pop quiz will gauge the students grasp and retention of the concepts presented. All points earned on this pop quiz will go towards total points on the final examination. Additionally, there will be one announced quiz (usually the 3 day before) that will gauge the students grasp and retention of the concepts presented. This will count for 7.5% (8 points) of the overall grade.

Faculty

Dr. Michael Metz (course director)

Dr. Cynthia Miller (lecturer)

Semester Offered – D1, Fall and Spring Semesters

Course Description

This course serves to introduce the first year dental students to the School of Dentistry's clinical operations with special attention to alginate impressions, pouring casts, critical thinking, oral health and preventive dentistry. Emphasis will be placed on systemically cultivated excellence in thought. The course includes a wide variety of lectures and activities in many areas of the Dental School. Exercises may include pre-clinical and clinical exercises including treating standardized patients. BlackBoard and Tegrity (a classroom capture technique) will be used for this course. Various classroom assessment techniques will be used to promote learning and increase your ability to become more effective, self-assessing, self-directed learners.

Course Objectives

1. To think critically and to be able to apply what you have learned in peer work, case studies and patient evaluations, to be able to think from the "end"
2. To gain an overview of key topics and issues in dentistry
3. Interact with presenters and experts in the dental field
4. Gain practical knowledge
5. Logically and effectively reason through clinical cases involving challenging patient related decisions
6. Clearly and accurately articulate multiple plans of action involving patient needs
7. Accurately self-assess your work in preparation for the transition into clinic
8. Distinguish between fact and opinion
9. Identify bias and stereotypes
10. Make and pour alginate impressions
11. Have rudimentary knowledge of the ULSD instrument system
12. Identify common landmarks
13. Have a rudimentary knowledge of Axium as the clinical information system
14. Provide basic life support
15. Understand the importance of risk management in a healthcare environment (e.g., informed consent and accurate documentation)
16. Have a foundation for professional ethics
17. Understand the importance of communication with patients and colleagues from diverse populations
18. Have knowledge of basic preventive dentistry
19. Have knowledge of educating and counseling patients regarding oral health
20. Provide effective tobacco cessation counseling
21. Provide effective dietary counseling and nutritional education to patients
22. Have knowledge of how to prescribe and monitor effects of pharmacotherapeutic agents to prevent oral disease

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies: Professionalism, Ethics and the Law

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
 - 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
 - 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
 - 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- Information Management and Critical thinking
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
 - 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
 - 3.4 Establish and maintain patient records and assure confidentiality of information.
 - 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
 - 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
 - 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.
 - 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.
 - 6.18 Recognize and manage (refer or treat) substance abuse in dental patients.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 1-3 The dental education program must have a stated commitment to a humanistic culture and learning environment that is regularly evaluated. “Intent” Statement: the dental education program should ensure collaboration, mutual respect, cooperation, and alumni. The program should also support and cultivate the development of professionalism and ethical behavior by fostering diversity of faculty, students, and staff, open communication, leadership, and scholarship.
- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.
- 2- 9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2-16 Graduates must be competent in managing a diverse patient population and have the interpersonal and communication skills to function successfully in a multicultural work environment.

- 2-18 Graduates must be competent in applying the basic principles and philosophies of practice management, models of oral health care delivery, and how to function successfully as the leader of the oral health care team.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2-22 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life.
- 5-2 Patient care must be evidenced-based, integrating the best research evidence and patient values.

Outline

Date	Title	Presenter
Aug 14	Course Introduction.and Syllabus Review Privacy/Security Issues	Dr. Baughman Donna Kremer
Aug 21	Normal Oral Landmarks	Dr. Hupp
Aug 28	This I Believe-Book in Common Experience	Dr. Baughman
Sept 4	Vital Signs	Dr. Firriollo
Sept 11	Oral Hygiene Instruction Techniques Introduction to Periodontics	Dr. Singleton Dr. Zirnheld
Sept 18	Time to Flip over Evidence-Based Dentistry	Professor Smigielski
Sept 25	The Impaired Dentist	Mr. Brian Fingerson
Oct 2	What Does Anatomy Have to Do With Alginate Impressions?	Dr. Nobuyuki Kuwabara
Oct 9	Making an Alginate Impression: A Dozen Ways to Flub an Alginate Impression	Dr. Baughman
Oct 16	Understanding Gypsum Products & How to Make Good Casts!	Dr. Mansfield
Oct 23	Lab Only	
Oct 30	Lab Only	
Nov 6	Lab Only	
Nov 13	Using Axium To Understand the Basics of Treatment Planning	Dr. Haake Dr. Noble
Nov 20	Lab only	
Dec 4	Lab Only	
Dec 11	Exam I	
Jan 9	Tobacco Cessation Counseling Motivational Interviewing	Celeste Worth Street Russell
Jan 16	Lab Only	
Jan 23	Lab Only	
Jan 30	Opioid Addiction and the Dental Patient Dentistry and Domestic Violence	Brian Fingerson Sharon LaRue
Feb 6	Lab Only	
Feb 13	Lab Only	
Feb 20	Lab Only	
Feb 27	Physicians of the Masticatory System	Dr. Shannon Johnson
March 6	Treating Special Needs Patients	Dr. Linel Holwager
March 13	Nutritional Counseling and Infant Health	Pedo Residents
March 27	Polishing Complete Dentures	Dr. Paul Boyd
April 3	Lab Only	
April 10	Legal Issues in Dentistry	Dr. Ragan

April 17	Using Critical Thinking Skills to Create a Plan of Action for Ethical Dental Dilemmas	Dr. Ross
	Treatment Planning: Putting the Pieces Together	Dr. Haake
April 24	Excellent Patient Communication	Mr. Henschen
May 1	Exam II	

Grading Scale

A: 1175-1081

B: 1080-975

C: 974-846

F: <846

Faculty

Dr. P. Gay Baughman (co-course director)

Dr. Jolene Zirnheld (co-course director)

GDOM 807-01 Evidence-Based Dentistry

Credits: 1

Semester Offered – D1 Year, Fall Semester

Course Description

Evidence-Based Dentistry is designed to provide students with important concepts and develop their ability to search the scientific literature databases, to critically evaluate the gathered information, and to find objective and relevant answers for clinical questions. The student will learn how to apply the evidence to practice and to self-evaluate the adoption of a new evidence-based approach. A major emphasis will be the development of the critical thinking process (based on the SEE-I approach – State, Elaborate, Exemplify, Illustrate).

Course Objectives

Upon completion of this course, the students should be able to:

1. define evidence-based dentistry
2. list the steps in the EBD process
3. explain the hierarchy of evidence
4. utilize the literature databases to find relevant information to clinical questions

Competency Statements (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients (written examinations)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice (written examinations)
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics (written examinations).

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

Outline

Date	Title	Presenter
Aug 16	Introduction to EBD/ PICO Model	Dr. Oliveira
Aug 23	Research Design and Sources of Evidence	Dr. Lin
Aug 30	Levels of Evidence	Dr. Azim
Sept 06	Introduction to Biostatistics	Dr. Brock
Sept 13	Finding the Evidence using PICO to Guide the Search	Smigielski
Sept 20	Midterm Written Exam	Dr. Oliveira
Oct 04	Critical Thinking	Dr. Baughman
Oct 11	Applying the Evidence to Practice	Dr. Sarrett
Oct 18	Critical Appraisal of the Evidence	Dr. Azim
Oct 25	Evaluating the Process and Your Performance	Dr. Oliveira

Nov 01	Final Project Due	Dr. Oliveira
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Grade Scale

93 - 100% = A

85 - 92% = B

77 - 84% = C

70 - 76% = D

<69% = F

Faculty

Dr. Gustavo Oliveira (course director)

Dr. Tamer Abdel-Azim

Dr. Gay Baughman

Dr. Weishao Lin

Dr. William Michael Mansfield

Elizabeth Smigielski (Librarian)

Semester Offered – D1, Summer**Course Description**

This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, CDC Guidelines and OSHA standards. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards and CDC Guidelines.

Course Objectives

Upon completion of this course, the students should be able to:

1. Describe the role of microorganisms in infection control.
2. Describe the general structure of bacteria, viruses, and fungi and the diseases that result from bacterial, viral, and fungus overgrowth.
3. Describe the various stages of an infectious disease and the modes of transmission.
4. Demonstrate an understanding of emerging diseases and how these diseases spread.
5. Define the blood-borne pathogens important to the practice of dentistry and describe their relative infectivity after an occupational exposure.
6. Compare infectious disease, systemic disease, respiratory disease, waterborne disease and MRSA and how they may produce oral lesions and may be spread in the dental office.
7. Describe the rationale for performing infection control procedures in a dental office.
8. Discuss the various government agencies roles in the dental profession and the role of the dentist, as an employer overseeing various regulation and recommendations.
9. Outline the blood-borne pathogens standard of the occupational safety and health administration and centers for disease control and prevention.
10. Define standard precautions, engineering and work practice controls and methods of compliance and give examples of each.
11. Identify the role of immunizations in preventing diseases in the dental office.
12. Demonstrate a basic understanding of the types of hand hygiene and the role that hand hygiene plays in infection control.
13. Differentiate between resident and transient skin flora.
14. Describe the value of gloves, masks, protective eyewear, and protective clothing, and list their uses, types, and limitations.
15. Demonstrate the sequence of donning and removing personal protective barriers and the properties of protective equipment.
16. Differentiate between sterilization and disinfection.
17. Differentiate between critical, semi-critical, and noncritical patient care items and describe differences in how such items are processed.
18. List the steps and rationale involved in instrument processing
19. Compare the three methods of sterilization monitoring and describe how to perform each method.
20. Describe what causes sterilization failures and what to do when they are detected
21. Differentiate between clinical contact surfaces and housekeeping surfaces.

22. List the types of disinfectants, describe their properties and when they should be used.
23. Demonstrate how to preclean and disinfect contaminated surfaces and equipment.
24. Define biofilm and describe how it forms inside dental unit water lines.
25. Describe the concerns of having microbes present in dental unit water, current infection control recommendations, and different approaches for reducing the microbial quantity in dental unit water.
26. Describe the procedures for monitoring the quality of dental unit water, what a “boil-water” notice means, backflow prevention measures, and contamination of dental air concerns.
27. Describe additional aseptic techniques to limit the spread of disease agents in the dental office.
28. Discuss proper infection control protocols with regards to radiographic techniques.
29. Describe all elements of CDC/OSHA approved laboratory practices.
30. Understand the different types of regulated waste and design an acceptable action plan for the management of regulated dental waste.
31. Describe some of the risks from sharps injuries.
32. List some examples of when sharps injuries may occur in a dental office.
33. Describe a culture of safety and list the three basic approaches to preventing sharps injuries.
34. Describe the clinical asepsis protocol during all treatment phases.
35. Describe examples of potentially dangerous or injurious incidents that may occur in a dental office and how to maintain asepsis in the dental office reception room
36. Define ‘greener’ infection control as it applies to dentistry.
37. Describe how cross contamination occurs between work and home.
38. Describe OSHA’s purpose and why it was formed.
39. Outline why and how OSHA conducts workplace inspections.
40. Describe how to manage and evaluate the office infection control program and list the safety documents, policy statements, and records needed by a dental office.
41. Understand the Hazard Communication Standard and develop a method to managing chemicals safely in the dental office.
42. Design employee fire prevention and emergency action plans.
43. Understanding Infection Control Concerns when remodeling or building a new office.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 3.1 Comply with federal, state and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 5.8 The dental school must establish and enforce a mechanism to ensure adequate preclinical/clinical/laboratory asepsis, infection and biohazard control and disposal of hazardous waste.

Outline

Date	Title	Presenter
July 17	Infection Control Syllabus Rationale and Regulations Characteristics of Microorganisms	Byrd
July 18	Development Of Infectious Diseases Blood-Borne Pathogens Oral/Respiratory Diseases/Emerging Diseases	Byrd
July 19	Hand Hygiene Personal Protective Equipment Surface and Equipment Asepsis	Byrd
July 24	Immunizations Preventing Sharps Injuries and Occupational Exposure Waste Management Dental Unit Water Lines	Byrd
July 25	Instrument Processing Procedures Sterilization: Monitoring, Methods, Maintaining Sterility	Byrd
July 26	Aseptic Techniques Hazardous Chemicals In The Workplace Emergency Action Plans	Byrd
July 31	Dental Laboratory	Mansfield
August 1	Exam	Byrd

Grading

Quizzes will be given sometime during the class. The format of the quizzes may include essay, short answer, fill in, matching, true-false, multiple choice, or other types of questions. Quizzes will cover material presented in a previous lecture. Participation in the infection control exercise is necessary for successful completion of this course. The final grade will be given at the end of the fall semester and will be based on the following parameters:

Grade Scale	Point Scale
A: $\geq 92 - 100\%$	368 - 400
B: ≥ 85 and $< 92\%$	340 - 367
C: ≥ 77 and $< 85\%$	308 - 339
D: ≥ 70 and $< 77\%$	280 - 307
F: $< 70\%$	< 280

Faculty

Patty Bonasso Byrd, RDH, BS (course director)

Semester Offered – D1, Spring Semester

Course Description

This class is presented in a lecture/discussion format, held on Wednesday at 2:00 p.m. Active participation is encouraged. Quizzes based on the reading assignment for the day and other information may be given. Abstracts based on journal articles are also an integral part of the course. The material is basic introductory material that forms the foundation for the study of periodontics and preventive dentistry. It is critical that you have a strong grasp of the fundamental concepts that are presented in this class. The textbook is Periodontics-Medicine, Surgery, Implants. Editors are Rose, Mealey, Genco, and Cohen; 2004.

Course Objectives

Upon completion of this course, the students should be able to:

1. Identify microscopic and gross anatomy of the periodontium.
2. Discuss concepts of inflammation and specific defense mechanisms of the periodontium.
3. Introduce the systematic classification of periodontal diseases
4. Discuss relationship of systemic diseases and periodontal diseases.
5. Identify and discuss systemic and local risk factors for periodontal diseases.
6. Identify and discuss acute gingival diseases and conditions of gingival enlargement.
7. Identify desquamative gingival diseases.
8. Introduce relationship of occlusion and periodontitis.
9. Introduce concepts of periodontal microbiology, plaque, and calculus.

Competencies (Student Learning Outcomes)

- 1.3. Recognize the role of self-directed lifelong learning and self-assessment in maintaining competency.
- 4.6. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7. Recognize predisposing, genetic, environmental, and etiologic factors that require intervention to prevent disease.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures
- 6.5. Diagnose and manage (refer or treat) patients with periodontal disease.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. Patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent
 - c. Recognizing the complexity of patient treatment and identifying when referral is indicated
 - d. Health promotion and disease prevention
 - i. Periodontal therapy

- o. Evaluation of the outcomes of treatment, recall strategies, and prognosis

Outline

Date	Activity	Presenter
January 8, 2014	Introduction to Periodontics 800	
January 15, 2014	Clinical and Microscopic Anatomy of the Periodontium (<i>Ch. 1</i>)	
January 22, 2014	Clinical and Microscopic Anatomy cont. (<i>Chapter 1</i>)	
January 29, 2014	Defense Mechanisms and Inflammation (<i>Chapter 5</i>)	
February 5, 2014	Gingival Diseases (<i>Chapter 2</i>)	
February 12, 2014	Periodontal Diseases (<i>Chapter 2</i>)	
February 19, 2014	Immunology of Periodontal Diseases (<i>Chapter 31-32</i>)	
February 26, 2014	<i>Midterm Examination</i>	
March 5, 2014	Acute Gingival Infections (<i>Chapter 12</i>)	
March 19, 2014	No Class - <i>SPRING BREAK</i>	
March 26, 2014	Gingival Enlargements (<i>Chapter 12</i>)	
April 2, 2014	Desquamative Diseases of the Periodontium (<i>Chapter 12</i>)	
April 9, 2014	Plaque and Calculus (<i>Chapter 6</i>)/ Periodontal Microbiology <i>Ch. 4</i>	
April 16, 2014	Occlusion and the Periodontium (<i>Chapter 29</i>)	
April 23, 2014	Systemic Risk Factors	
April 30, 2014	Final Exam	

Grade Scale

A = 93-100%

B = 84-92%

C = 83-70%

F = 00-69%

Faculty

Dr. Margaret Hill (course director)

OPSC 800-02 Growth, Development, And Aging

Credit 1

Semester Offered: D1 Year, Fall

Course Description

The goal of the course in growth and development is to introduce the First year students to the basic concepts of Growth and Development through lectures. The topics covered in this course include the principles of physical (body) development and emotional and behavioral development, which emphasizes the infant normal milestones including the physical, emotional, mental and social development and their environmental influences until adulthood, considering also the patients cultural aspects. Particular focus is placed upon the mechanisms of pre-and post-natal craniofacial development. Emphasis will be directed to the growth and development of the mandible, maxilla, teeth and supporting structures. Cranial base, vault and soft tissue components of the maturational processes should be presented in terms of clinical relevance. Development of the occlusion, prevention and interception of malocclusion, significance of premature loss of primary teeth and space maintainer, anterior and posterior crossbites, ankylosis, craniofacial anomalies, acquired or developmental disturbances.

The course will provide background information to the (first year) dental students, for later courses (OPGD 801-04 Principles in Orthodontics I), (OPGD 805-06 Principles in Orthodontics II), OPGD-809-78-4132 Preclinical Ortho –Pedo and OPSD 806-05 Pediatric Dentistry II)

Course Objectives

At the end of this course, the student will be able to:

1. Understand the Principles of Growth and development
2. Understand the factors involved in physical (body) development
3. Understand Principles of emotional and behavioral development
4. Understand the Pre-natal and post-natal development of cranium, face, jaws, teeth and supporting structures
5. Understand the concepts of the patterns, pattern variability and timing of growth due to heredity and environment
6. Know the Chronology of dental development
7. Know the development of occlusion (primary, mixed and permanent dentition)
8. Understand the dimensional changes in dental arches
9. Understand the interaction between growth pattern and tooth position
10. Understand the use of cephalometric evaluation of growth
11. Recognize Oral pathological conditions and the most common craniofacial malformations in pediatric patients
12. Etiologies of malocclusion including inherited or acquired.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of self-directed lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply ethical reasoning, evidence based information, community service learning and professional responsibility while addressing patient's oral health.

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence based practice.
- 2.3: Apply information technology resources with proper security safeguards in contemporary dental practice.
- 4.7 Recognize predisposing genetic, environmental and etiological factors that require intervention to prevent disease.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance
- 6.15 Diagnose and manage, refer or treat patients whose medical, physical, psychological or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to people with developmental and/or mental disabilities, complex medical problems and significant physical limitations

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
- 1.2 Communicate effectively and in a professional manner.
- 1.3 Obtain informed consent for oral health therapies that meet ethical and legal responsibilities.
- 2.1 Acquire and understand information in a scientific and effective manner to assist critical thinking and problem solving skills in the comprehensive care of patients.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, rognosis, and informed consent;
 - b. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - c. malocclusion and space management
- 3.2 Evaluate relevant models of oral health care management and delivery.
- 3.3 Establish and maintain patient records and assure confidentiality of information; caries risk assessment, patient education, and preventive treatment plan and follow up expectations.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.4 Assess the need for and apply radiographic selection criteria, perform selected intra-extra oral radiographic procedures and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring and management.

- 4.7 Recognize predisposing genetic, environmental and etiological factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery and outcome of dental care.
- 4.10 Integrate subjective and objective clinical findings including evidence based and emerging science in the formulation of the diagnosis.
- 4.11 Evaluate the prognosis of various treatment options.
- 5.1 Formulate an individual, comprehensive sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.3 Identify the need for and manage timely referrals and consultations with other healthcare providers when appropriate.
- 6.4 Diagnose and manage, refer or treat patients with uncomplicated partial or complete edentulous areas.
- 6.7 Diagnose and manage, refer or treat patients with Temporomandibular disorders.
- 6.8 Diagnose and manage, refer or treat patients with malocclusion of the primary, mix or permanent dentition.
- 6.9 Diagnose and manage, refer or treat patients requiring orthodontic treatment or space maintenance
- 6.15 Diagnose and manage, refer or treat patients whose medical, physical, psychological or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to people with developmental and/or mental disabilities, complex medical problems and significant physical limitations.
- 6.19 Anticipate, prevent and manage refer or treat complications of dental treatment.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Outline

Date	Activity	Presenter
Jan. 7	Lecture #1 Course Introduction	Dr. Rozo
Jan. 14	Lecture #2 Malocclusion and Dentofacial Deformity in Contemporary Society	Dr. Rozo
Jan. 21	Lecture #3 Concepts of Physical Growth and Development	Dr. Martinez
Jan. 28	Lecture #4 The Nature of Craniofacial Growth	Dr. Martinez
Feb. 4	Lecture #5 Physical, Social, Behavioral, and Cognitive Development in Childhood	Dr. Rozo
Feb. 11	Lecture #6 Theories of Craniofacial Growth	Dr. Martinez
Feb 18	MIDTERM EXAM	Dr. Rozo
Feb. 18	Lecture #7 Growth pattern in the dentofacial complex	Dr. Atarodi
Feb. 25	Lectures #9 Early Development of the Dentition Part I	Dr. Rozo
Mar. 4	Lecture #10 Early Development of the Dentition Part II	Dr. Rozo
Mar. 9 13	Spring Break	
Mar. 18	Lectures #11 Pre-Natal Influences on Facial	Dr. Martinez

	Development	
Mar. 25	Lecture #12 Adolescence and the Adolescent Growth Spurt	Dr. Martinez
Apr. 1	Lectures #13 and #14-Etiology of Orthodontic Problems	Dr. Rozo
Apr. 8	Final exam	Dr. Rozo

Grade Scale

A: 90 - 100%

B: 80 - 89%

C: 70 - 79%

F: 0 - 69%

Faculty

Dr. Merila Atarodi

Dr. Hector Martinez

Course Director Dr. Liliana Rozo

Semester Offered – D1, Fall Semester

Course Description

A diverse lecture series designed to introduce the relevance of basic science to the DMD curriculum.

Course Objectives

At the end of the course students should:

1. Understand the concept of the need to maintain a holistic scientific view of the body when providing dental care.
2. Be introduced to anatomical, histological, immunological, biochemical, physiological, microbiological, pharmacological and/or pathological research concepts that could, ultimately, lead to improvements in the examination, evaluation, diagnosis and / or treatment of dental patients.
3. Be familiar the wide range of clinical, basic and translational research that currently takes place in the School of Dentistry and – most importantly - how they can become actively involved.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

Professionalism, Ethics, and the Law

- 1.3 Recognize the role of lifelong learning and self- assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Apply information technology resources in contemporary dental practice.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 5.3 Identify the need for and manage (treat or refer) timely referrals and consultations with other health care providers when appropriate.
- 6.5 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.7 Diagnose and manage patients with periodontal disease.
- 6.11 Diagnose and manage patients with oral mucosal disorders.
- 6.12 Diagnose and manage patients requiring oral surgical procedures.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.

- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

Outline

Activity	Date	Presenter
Distribution of Syllabus and Course Introduction	8/13	Scott
Dental Research at the University of Louisville: What is going on and how you can join in	8/20	Scott
Oral Bacterial Infections	8/27	Demuth
Antibiotic Prophylaxis for the Prevention of Prosthetic Joint Infection	9/10	Firriolo
Animal Models of Periodontitis	9/17	Potempa
Bioinformatics	9/24	Kalbfleisch
Oro-facial Developmental Abnormalities	10/1	Ding
Mid-term Exam (50 minutes; Multiple Choice)	10/15	Scott
The Oral Cavity & Pulmonary Infections	10/22	Binkley
Oral Cancers	10/29	Hupp
Tobacco Smoking & Oral Health	11/5	Scott
Birth Defects	11/12	Sandell
Forensic Dentistry I	11/19	Bernstein
Forensic Dentistry II	11/26	Bernstein
Pre-examination Tutorial	12/3	Scott
Final Examination (50 minutes; Multiple Choice)	T.B.D.	Scott

Grading

This course is graded on a pass /fail basis.

Students are expected to attend all classes.

A minimum 80% attendance is an absolute requirement.

A sign-in sheet will be provided at each session; please see the course coordinator if you have an excused absence.

Course grades will be based on a combination of (i) attendance (50%) and (ii) a mid-term and final examination (50%).

A total score of 75% is needed to pass.

Faculty

Dr. David Scott (course director)

Drs. Don Demuth

John Firriolo

Jan Potempa

Ted Kalbfleisch;

Jiang Ding

Kathy Binkley

Wendy Hupp

Lisa Sandell

Mark Bernstein.

Semester Offered – D1, Fall Semester

Course Description

This didactic course covers radiation physics, radiation biology, radiation safety/protection, imaging theory, dental and maxillofacial radiographic techniques, and interpretation of normal structures and common disease processes using radiographs. The course must be completed in a satisfactory manner prior to enrollment in Oral Radiology II..

Course Objectives

Upon completion of this course, the students should be able to:

1. demonstrate knowledge of the basic principles and concepts of radiation in general and x-ray radiation in particular.
2. demonstrate knowledge of the component parts and workings of the dental x-ray machine.
3. demonstrate knowledge of the effects of ionizing radiation on living tissues.
4. demonstrate the ability to practice radiation protection procedures, observe radiation safety measures and maintain quality control in the dental office.
5. demonstrate the knowledge of factors in the production of radiographs (choice of film, digital receptors, kVp, mA, exposure time, filtration, objective parameters, contrast resolution, spatial resolution, signal-to-noise ratio, geometric imaging factors, and receptor and processing considerations).
6. demonstrate knowledge of the principles of selection of the appropriate radiographic investigation based upon patient history, clinical assessment and high yield criteria.
7. demonstrate knowledge of the principles of image casting theory and techniques for intra-oral radiography, including occlusal methods.
8. demonstrate knowledge of the principles and functions of panoramic dental radiography and other extra-oral techniques, including examination of the temporomandibular joints and paranasal sinuses.
9. demonstrate the ability to interpret normal radiographic landmarks, technique error artifact, and basic disease processes of the teeth and supporting structures..

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1. Provide compassionate and ethical care to a diverse population of patients. (Lecture, classroom discussion, formal examination)
- 1.2. Recognize the role of lifelong learning and self-assessment in maintaining competency. (Lecture, classroom discussion, formal examination)
- 1.3. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities. (Lecture, classroom discussion, formal examination)
- 1.4. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care and practice management. (Lecture, classroom discussion, formal examination)
- 2.1. Apply information technology resources in contemporary dental practice. (Use of online learning through Blackboard and assigned www. References)
- 2.2. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures. (Lecture, classroom discussion,

- formal examination)
- 2.3. Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team. (Lecture, classroom discussion, formal examination)
 - 2.4. Establish and maintain patient records and assure confidentiality of information. (Lecture, classroom discussion, formal examination)
 - 3.1. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis. (Lecture, classroom discussion, formal examination)
 - 3.2. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management. (Lecture, classroom discussion, formal examination)
 - 3.3. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures. (Lecture, classroom discussion, formal examination)
 - 4.1. Interpret periodontal disease. (Lecture, classroom discussion, formal examination)
 - 4.2. Interpret pulpal disease and related peri-radicular pathology. (Lecture, classroom discussion, formal examination)
 - 4.3. Interpret temporomandibular disorders. (Lecture, classroom discussion, formal examination)
 - 4.4. Interpret traumatic injuries to the tooth, pulp, and maxillofacial structures. (Lecture, classroom discussion, formal examination)
 - 4.5. Modify radiographic services for patients with special care needs. (Lecture, classroom discussion, formal examination)
 - 4.6. Periodically radiographically assess & monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2-13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;

Outline

Date	Title	Presenter
Aug 11	1. What are X rays?	Scarfe
Aug 11	2. Production of X rays and their interaction with matter.	Scarfe
Aug 18	3. The X-ray generator.	Scarfe

Aug 18	4. Image receptors and processing.	Scarfe
Aug 25	5. Factors in imaging I.	Scarfe
Aug 25	6. Factors in imaging II.	Scarfe
Sep 8	7. Biologic effects of radiation.	Scarfe
Sep 8	8. Radiation safety and protection.	Scarfe
Sep 15	9. Intraoral radiographic technique I.	Grammer
Sep 15	10. Intraoral radiographic technique II.	Grammer
Sep 22	11. Anatomic landmarks (maxilla).	Grammer
Sep 22	12. Anatomic landmarks (mandible).	Grammer
Sep 29	13. Exam # 1 (lectures 1-12) – 50% of grade.	Staff
Sep 29	14. Exam # 1 continues.	Staff
Oct 06	15. Radiograph selection criteria.	Scarfe
Oct 06	16. Errors in technique/Quality Control.	Scarfe
Oct 13	17. Quality control I.	Blackboard
Oct 13	18. Quality control II.	Blackboard
Oct 20	19. Panoramic imaging theory and normal landmarks.	Scarfe
Oct 20	20. Panoramic imaging pitfalls and errors.	Scarfe
Oct 27	21. Temporomandibular joint imaging.	Scarfe
Oct 27	22. Extra-oral projection techniques (inc. sinuses).	Scarfe
Nov 3	23. Infection control and waste management.	Byrd
Nov 3	24. Special pt. procedures and occlusal radiography.	Scarfe
Nov 10	25. Dental caries and look-alike conditions.	Scarfe
Nov 10	26. Periodontal disease.	Scarfe
Nov 17	27. Developmental anomalies of teeth I.	Scarfe
Nov 17	28. Developmental anomalies of teeth II.	Scarfe
Nov 24	29. Dental periapical pathoses cysts of the jaws.	Scarfe
Nov 24	30. Traumatic injuries and jawbone infections.	Scarfe
TBA	31. Final Examination (lectures 15-30)–50 % of grade).	Scarfe

Grading

90 - 100% = A

80 - 89.99% = B

75 - 79.99% = C

70 – 74.00% = D

<70% = F

Faculty

Dr. William C. Scarfe (course director)

Ms. Susan Grammer

Ms. Patricia Byrd

SUHD 817-02 Cariology

Credits: 0.5

Semester Offered – D1, Spring Semester

Course Description

This course is designed to provide the scientific basis for the etiology and control of the infectious disease known as dental caries.

Course Objectives

Upon completion of this course, the students should be able to:

1. The basic structure and function of dental plaque and its relationship to infectious dental diseases.
2. The characteristics of plaque associated with initiating and continuing the carious process develop a plan for setting up and managing a radiographic facility for a dental practice.
3. The basis for the carcinogenicity of sucrose.
4. The dissolution of hydroxyapatite.
5. Prevention based on interfering with any one of the three factors required for disease initiation.
6. The etiology of root surface caries.
7. Caries risk assessment strategies.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Outline

Date	Title	Presenter
	Microbial Structure of Plaque	Dr. Staat
	Dental Diseases	Dr. Staat

	Pellicle	Dr. Staat
	Plaque accumulation - Minnesota Study	Dr. Staat
	Stephan curve	Dr. Staat
	Anecdotal evidence	Dr. Staat
	Controlled studies	Dr. Staat
	Hopewood House	Dr. Staat
	Etiology	Dr. Staat
	Definitive plaque studies in humans	Dr. Staat
	Sucrose Chemistry	Dr. Staat
	Cariology Outline IV	Dr. Staat
	Summary of caries process.	Dr. Staat
	Effects on the tooth - hydroxyapatite.	Dr. Staat
	Demineralization	Dr. Staat
	Root Surface Caries	Dr. Staat
	Caries Risk Assessment.	Dr. Staat

Grading Scale

90 - 100% = A

80 - 89% = B

70 - 79% = C

<70% = F

Faculty

Dr. Robert Staat

Semester Offered –D1, Spring Semester, and D2, Summer Semester

Course Description

A series of lectures and some supplemental videos will cover aspects of the infectious disease process and the response of the human body to challenge by an infectious agent which are important for dentists. Fundamental aspects of microbial physiology, and characteristics of microbial pathogens will be presented. The practice of dentistry entails occupational hazards, particularly from microbial pathogens, and infectious disease as an occupational hazard will be emphasized in this course. Bacteria such as *Mycobacterium tuberculosis* and viruses such as hepatitis B and herpes simplex virus have been recognized as significant occupational infectious hazards for a number of decades. In contemporary dentistry, the AIDS virus, HIV-1, and hepatitis C virus pose additional challenges with respect to blood-borne infectious agents, while the threat of hepatitis B virus is being reduced in significance because of the development of a safe and effective vaccine and its current use in routine childhood immunization.

In addition, there are a number of generally less severe pathogens which can be easily transmitted as contagious agents via the respiratory route or fecal-oral route between staff and patients in your dental practice if proper hygiene and infection control are not routinely practiced. Dentists should also have an up-to-date and accurate knowledge of the functioning of the human immune system and the major role of vaccines and immunization as one of the most cost-efficient tools in modern public health and preventative medicine – dentists can serve as highly effective educators with their patient population concerning both childhood immunization and important annual immunization of “at-risk” adults with influenza viral and pneumococcal bacterial vaccines. The emerging knowledge on the role of infectious agents in dental caries and periodontal disease will also be emphasized.

Course Objectives

Upon completion of this course, the students should:

1. understand infectious diseases as an occupational hazard for dentists
2. be familiar with all the major human infectious disease pathogens, particularly those found in North America and those that may be encountered in foreign travel
3. be able to describe the major characteristics of oral pathogens
4. a basic understanding of bacterial physiology, molecular biology and anti-microbial mechanisms
5. possess basic knowledge of all commonly used human vaccines, including composition and recommended use
6. be able to describe the essential features of the human immune system, emphasizing oral immunity
7. have acquired the knowledge to read and understand all aspects of the contemporary dental microbiology and immunology literature.

Core Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of the following student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures --- especially those related to infection control, including blood-borne infectious agents and contagious infectious agents transmitted by respiratory or fecal-oral routes
- 4.3 Perform a clinical examination of the head and neck and intraoral structures --- especially lesions or signs of inflammation due to infectious agents
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate --- especially laboratory tests for immunological function or infectious agents
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease - --- especially immunodeficiencies, hypersensitivities, or risk factors for infective endocarditis which require prophylactic antibiotics
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care ---- such as chronic viral infections with HIV, hepatitis B or C viruses, or medical conditions which may place the patient at risk of bacterial endocarditis
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care -- especially bacterial agents responsible for plaque and periodontal disease
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease --- using knowledge of the bacterial etiology and relevant diagnostic techniques and appropriate anti-bacterial therapies
- 6.10 Diagnose and manage patients with oral mucosal and osseous disorders disorders ----- especially those related to infectious agents and/or immunodeficiencies
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease ---- especially antibiotics and other antimicrobial compounds and solutions, and penciclovir for recurrent herpes labialis
- 6.16 Recognize and manage medical emergencies that may occur in dental practice especially drug allergies which may result in anaphylaxis

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2.11 Biomedical science instruction in dental education must ensure an in-depth understanding of basic biological principals, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems.
- 2.12 The biomedical knowledge base must emphasize the oro-facial complex as an important anatomical area existing in a complex biological interrelationship with the entire body.

- 2.13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders.
- 2.14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care
- 2.21 Graduates must be competent to access, critically appraise, apply and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - d. health promotion and disease prevention
 - k. oral mucosal and osseous disorders
 - m. dental emergencies

Outline

Date	Title	Presenter
Apr 2	Acquired/specific immunity	Dr. Hunt
Apr 2	Antibody/antigen structures and interactions	Dr. Hunt
Apr 3	Antibody isotopes and effector functions	Dr. Hunt
Apr 3	Complement system; cytokines and receptors	Dr. Hunt
Apr 3	Innate immunity	Dr. Alard
Apr 4	Maturation/selection of B cell precursors and Ig genes	Dr. Hunt
Apr 4	Inflammation	Dr. Alard
Apr 9	HLA: human major histocompatibility complex (MHC)	Dr. Hunt
Apr 9	Protein antigen processing and presentation by HLA	Dr. Hunt
Apr 10	Maturation/selection of T cell precursors and TCR genes	Dr. Hunt
Apr 10	Activation, differentiation, effector functions of T cells	Dr. Hunt
Apr 11	Activation and differentiation of B cells	Dr. Hunt
Apr 11	Immunity to infections	Dr. Alard
Apr 16	Hypersensitivity type I	Dr. Fernandez
Apr 16	Hypersensitivities types II - IV	Dr. Fernandez
Apr 17	Genetic and acquired immunodeficiencies	Dr. Hunt
Apr 17	Autoimmunity	Dr. Kosiewicz
Apr 18	Bacterial ultrastructure and taxonomy	Dr. Graham
Apr 18	Bacterial cell wall and envelope: structure and function	Dr. Graham
Apr 23	Bacterial growth and physiology	Dr. Graham
Apr 23	Bacterial genetics and molecular biology	Dr. Graham
Apr 24	Antimicrobial agents: structures, mechanisms of action	Dr. Graham
Apr 24	Clinical use of antibiotics	Dr. Graham
Apr 25	Introduction to mycology – structure and growth	Dr. Miller
Apr 25	Candida and other dermatophyte infections	Dr. Miller
Apr 25	Other mycoses: soft tissue, respiratory, systemic	Dr. Miller
May 14	Normal microbiota	Dr. Miller
May 14	Staphylococci	Dr. Miller
May 14	Beta-hemolytic Streptococci	Dr. Miller
May 15	Streptococcus pneumoniae	Dr. Miller
May 15	Mycobacteria, including M. tuberculosis	Dr. Graham

May 15	Gram-positive rods	Dr. Graham
May 16	Neisseria, Haemophilus, Bordetella	Dr. Miller
May 16	Helminths, including Tichinella, Enterobious (pinworm)	Dr. Graham
May 16	Parasitology: overview and oral parasites	Dr. Graham
May 16	Protozoa, including Plasmodium (malaria) and intestinal	Dr. Graham
May 21	Dental unit waterline biofilms	Dr. Staat
May 21	Porphyromonas gingivalis, other periodontal pathogens	Dr. Staat
May 21	Mutans streptococci and other agents of dental caries	Dr. Staat
May 22	Pseudomonas, Legionella, water microbes	Dr. Miller
May 22	E. coli and other Gram-negative enterics	Dr. Miller
May 22	Bacterial STDs” syphilis and gonorrhea	Dr. Miller
May 22	Nature of human viruses: structure and properties	Dr. Hunt
May 23	Virus-cell interactions, cell culture for virus replication	Dr. Hunt
May 23	How viruses replicate in human cells	Dr. Hunt
May 23	Antiviral agents and interferon	Dr. Hunt
May 30	Viral immunology and human viral vaccines	Dr. Hunt
May 30	How human viruses are transmitted and cause disease	Dr. Hunt
May 30	Human retroviruses: HIV and HTLV	Dr. Hunt
Jun 4	HIV and AIDS, prevention and therapies	Dr. Hunt
Jun 4	Paramyxo, Corona and Rhino: respiratory viruses	Dr. Hunt
Jun 4	Influenza viruses and vaccines	Dr. Hunt
Jun 5	Human RNA viruses transmitted by fecal-oral route	Dr. Hunt
Jun 5	Rabies virus and other zoonotic RNA viruses	Dr. Hunt
Jun 5	Human arboviral diseases; prion diseases	Dr. Hunt
Jun 6	Infections and diseases of human herpesviruses	Dr. Hunt
Jun 6	Adeno, papilloma, pox and parvo-viral diseases	Dr. Hunt
Jun 6	Human hepatitis viruses	Dr. Hunt

Grading

H (Honors)	4.0 GPA	Top 10% of class (rounded to nearest whole student)
A	4.0 GPA	> 90.00 % - < Honors
A-	3.7 GPA	87.00 – 89.99 %
B+	3.3 GPA	84.00 – 86.99 %
B	3.0 GPA	80.00 – 83.99 %
B-	2.7 GPA	77.00 – 79.99 %
C+	2.3 GPA	74.00 – 76.99 %
C	2.0 GPA	70.00 – 73.99 %
F	0.0 GPA	≤ 69.99 %

Faculty

Lawrence A. Hunt, Ph.D. Course Director
James E. Graham, Ph.D. Course Co-Director
Pascale Alard, Ph.D.
Rafael Fernandez-Botran, Ph.D.
Michele Kosiewicz, Ph.D.
Richard D. Miller, Ph.D.
Robert H. Staat, Ph.D.

BMSC 807-04 Pharmacology and Dental Therapeutics

Credits 4

Semester Offered: D1, Spring**Course Objectives**

The overall objective of the course is to provide the fundamental knowledge necessary for life-long learning towards excellence in the treatment of patients in dental practice

Outline

Date	Activity	Presenter
Jan 6	UofL classes canceled due to weather	Dr. Hein
Jan 9	Introduction to the course Drug Administration, Absorption, Distribution, and Metabolism	Dr. Hein
Jan 13	Drug Excretion and Pharmacokinetics Pharmacodynamics and Pharmacotherapeutics	Dr. Rowell
Jan 16	Introduction to Autonomic Nervous System Drugs Adrenergic Agonists and Antagonists	Dr. Rowell
Jan 20	Martin Luther King Holiday: No class	Dr. Rowell
Jan 23	Cholinergic Agonists and Antagonists	Dr. Rowell
Jan 27	Antidepressants Sedative-Hypnotics, Antianxiety Drugs, CNS Muscle Relaxants Management of Fear and Anxiety	Dr. Rowell
Jan 30	Exam 1	
Feb 3	Non-opioid Analgesics, Nonsteroidal Anti-inflammatory Drugs, and Antirheumatic and Anticancer Drugs Analgesic Use for Effective Pain Control	Dr. Myers
Feb 6	Anticonvulsants Anti-Parkinson Drugs	Dr. Myers & States
Feb 10	Opioid Analgesics and Antagonists Drugs for Treating Orofacial Pain Syndromes	Dr. Song
Feb 13	Drugs of Abuse Antipsychotic Drugs	Dr. Song
Feb 17	Local Anesthetics General Anesthetics	Dr. Myers
Feb 20	Antineoplastic Agents Oral Complications of Cancer Therapy	Dr. Myers

Feb 24	Exam 2	
Feb 27	Principles of Antibiotic Therapy Antibacterial and Antibiotic Drugs	Dr. Nerland
March 3	Antifungal and Antiviral Agents Anticaries Agents	Dr. Nerland
March 6	Antiplaque and Antigingivitis Agents Antiseptics and Disinfectants Antibiotic Prophylaxis	Dr. Nerland
March 10	Adrenocortical Steroids Pituitary, Thyroid and Parathyroid Pharmacology	Dr. G. Arteel
March 13	Insulin, Oral Hypoglycemics and Glucagon	Dr. Epstein
March 17-23	Spring Break- No class	
March 24	Oral Contraceptives	Dr. Pierce
March 27	Exam 3	
March 31	Histamine/Antihistamines Drugs Acting on the Respiratory System	Dr. Benz
April 3	Diuretics Antihypertensive Drugs	Dr. Myers Dr. Kang
April 7	Antianginal Drugs Heart failure Drugs	Dr. Kang
April 10	Antiarrhythmic Drugs Lipid Lowering Drugs	Dr. Kang Dr. Benz
April 14	Antianemic and Hematopoietic Stimulating Drugs Procoagulant, Anticoagulant and Thrombolytic Drugs	Dr. Benz
April 17	Drugs Acting on the Gastrointestinal Tract Immunopharmacology	Dr. Myers
April 21	Alcohol Pharmacogenetics and Pharmacogenomics	Dr. G. Arteel Dr. Hein
April 24	EXAM #4	
Week of April 28	Final Exam	

Grading

89.99 - 100% = A

80 - 86.99% = B

70 - 79.99% = C

60- 69.99% = D

<60% = F

Faculty

David Hein

Heddy Rubin-Teitel

J. States

Y. Kang

William Pierce

Paul Epstein

Peter Rowell

Tracey Pender
Donald Nerland
Steven Myers
Florence Su
Gavin Arteel
Frederick Benz
Zhao-Hui Song

GDOM 810-01 Physical Diagnosis

Credit: 1.0

Semester Offered – D2 Year; Summer

Course Description

Physical Diagnosis is an introductory course to teach clinical patient evaluation. Presented in the second year the emphasis is on obtaining a medical history, reviewing normal structures, vital signs, and supplementary data for working diagnoses. A portion of this course will be integrated with the Advanced Clinical Assessment Course (UL School of Nursing, NURS 656-01).

Course Objectives

The objectives of this course are to

1. Introduce basic techniques and principles of physical diagnosis and evaluation.
2. Develop the student's ability to collect and consolidate biological and behavioral findings.
3. Develop the ability to assess the medical and psychosocial conditions of the patient as they affect oral health.
4. Determine and record chief complaint, history of chief complaint, and past medical, family, social, and dental history of the patient.
5. Understand and apply the principles of basic vital signs, take and record vital signs.
6. List appropriate medications, dosages, side effects, and contraindications of a patient's medications.
7. Identify systemic conditions that may require modification of dental treatment or pose a threat to dental personnel or other patients.
8. Write and appraise medical consultations; communicate with other health care providers.
9. Perform a head and neck examination including a clinical intraoral and extraoral soft tissue examination of the patient.
10. Identify and record normal intraoral structures, and pathological changes.
11. Write an appropriate progress note.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients. (Written examinations, clinical and standardized patient exercises)
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large. (Written examinations, clinical and standardized patient exercises)
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities. (Written examinations, clinical and standardized patient exercises)
- 2.3 Apply information technology resources in contemporary dental practice. (Written examinations, clinical and standardized patient exercises)
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations. (Written examinations, clinical and standardized patient exercises)
- 4.2 Obtain patient data adequate to provide dental treatment. (Written examinations, clinical and standardized patient exercises)
- 4.3 Perform a clinical examination of the head and neck and intraoral structures. (Written examinations, clinical and standardized patient exercises)

- 4.5 Obtain other relevant diagnostic information such as vital signs, laboratory tests and medical consultations when appropriate. (Written examinations, clinical and standardized patient exercises)
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management. (Written examinations, clinical and standardized patient exercises)
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures. (Written examinations, clinical and standardized patient exercises)
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care. (Written examinations, clinical and standardized patient exercises)
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis. (Written examinations, clinical and standardized patient exercises)
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations. (Written examinations, clinical and standardized patient exercises)
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice. (Written examinations, clinical and standardized patient exercises)

Commission on Dental Accreditation (CODA)

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.11 Biomedical science instruction in dental education must ensure an in-depth understanding of basic biological principals, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems.
- 2.12 The biomedical knowledge base must emphasize the oro-facial complex as an important anatomical area existing in a complex biological interrelationship with the entire body.
- 2.13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders.
- 2.14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2.15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2.16 Graduates must be competent in managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.22 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life.

- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
- a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - b. screening and risk assessment for head and neck cancer;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - d. health promotion and disease prevention;

Outline

Date	Activity	Presenter
6/17/13	Overview of Course, Interview Techniques, Health Literacy, Cultural Diversity, Interprofessional Education/Practice	
6/18/13	HIPAA Review, Ethics, Medical History (preview of Pathology)	
6/19/13	axiUm forms (MH, Oral Exam, Adm/Triage, med con), drug references, POMHS, progress notes	
6/20/13	Group 1 Sim Clinic axiUm	
6/24/13	Group 2 Sim Clinic axiUm	
6/25/13	Group 3 Sim Clinic axiUm	
6/26/13	Written Examination #1	
6/27/13	Oral Exam/Descriptive terminology	
6/27/13	Tour nursing school labs/facilities/Oral/head/neck exam practice	
7/9/13	Vital Signs, CN exam, ASA Classifications, Medical Consultations/Treatment Modifications	
7/11/13	ENT	
7/11/13	Groups 1,2,3 for SP Exercise	
7/15/13	First ½ Sim Clinic axiUm MH exercise	
7/16/13	Second ½ Sim Clinic axiUm MH exercise	
7/18/13	Head/Neck/Oral Common Oral Pathology	
7/18/13	Groups 4,5,6 for SP Exercise	
7/25/13	Common Lab tests, Sensitivity and Specificity	
7/25/13	No lab for Dental Students	
7/26/13	Written Examination #2	

Grading

A = 90 - 100

B = 80 - 89.99

C = 70 - 79.99

F = less than 69.99

Faculty

Dr. Wendy Hupp (Course Director)

Dr. John Firriolo

Dr. Lee Ridner

Semester Offered - D1 Year; Summer, First, and Spring Semester

Course Description

This course serves to introduce the D2 student to the ULSD's clinical operations with special attention to the delivery of care to patients in the school's comprehensive care & admissions clinics. Will include dental auxiliary utilization (DAU) & dental practice ergonomics exercises with a wide variety of lectures & activities in many areas of the dental school. Exercises will also include preclinical, clinical and Axium training.

Course Objectives

The following objectives serve for the entire three year curriculum in treatment planning. The student should be able to:

1. Deliver clinical care to patients with special attention to patients in the patient admission and assignment clinics by performing an initial assessment of the patient's medical and oral health status including:
 - A. Medical history review
 - B. Vital Signs
 - C. Head and neck examination
 - D. Abbreviated TMD evaluation
 - E. Caries detection and charting
 - F. Radiographic evaluation
 - G. Medical consultations when indicated
 - H. Recordkeeping, Confidentiality, HIPAA
 - I. Infection Control
2. Function as the leader of the oral health care team by applying proper sequencing of clinical procedures to provide optimal and effective restorative care including:
 - A. Application of operator ergonomics and dental auxiliary utilization
 - B. Operatory set-up including needed instrumentation, supplies and infection control procedure
 - C. Application of a rubber dam
 - D. Use of indirect vision
 - E. Proper sequencing of amalgam and composite restorative procedures
3. Determine and record chief complaint, history of present illness, and past medical and dental history of the patient.
4. Understand and apply the principles of basic vital signs, take and record vital signs.
5. List appropriate medications, dosages, side effects, and contraindications of a patient's medications.
6. Identify systemic conditions that may require modification of dental treatment or pose a threat to dental personnel or other patients.
7. Write and appraise medical consultations.
8. Perform a head and neck examination including a clinical extraoral and intraoral soft tissue examination of the patient.
9. Identify and record normal intraoral structures, and pathological changes.
10. Complete hard tissue/caries charting on patients.

11. Perform an abbreviated TMD examination and referral for a consultation and complete examination as needed.
12. Complete a detailed PARTS note in AxiUm using the appropriate format and procedure codes for the day.
13. Follow appropriate infection control protocols.
14. Complete and record all patient encounters (written or in axiUm) following all guidelines and regulations regarding confidentiality and HIPAA
15. Be familiar with the methods used to track clinical activities.
16. Participate in a variety of experiences in various clinical areas of the dental school.
17. Be familiar with the Student Policy Handbook.
18. Understand and apply basic ethical principles to interactions with patients, staff, faculty and other students.
19. Upon completion of the DAU/ergonomics component of the course the student should be able to:
 - A. Properly position a patient in the dental chair.
 - B. Obtain and maintain proper operator position.
 - C. Properly position the dental assistant.
 - D. Describe the classification of motions.
 - E. Properly maintain a finger rest.
 - F. Utilize the appropriate grasp when operating.
 - G. Obtain maximum visibility for the area of operation.
 - H. Effectively transfer instruments with a dental assistant.
 - I. Operate utilizing indirect vision.
 - J. Set-up an operatory including needed instrumentation supplies, following appropriate infection control guidelines.
 - K. Demonstrate application of a rubber dam
 - L. Demonstrate use of indirect vision
 - M. Perform proper sequencing of amalgam and composite restorative procedures

Competency Statements (Student Learning Outcomes)

- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.3 Understand the basic principles and philosophies of practice management and have skills to function successfully as the leader of the oral health care team.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.

- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 5.3 Identify the need for and manage (treat or refer) timely referrals and consultations with other health care providers when appropriate.

Commission on Dental Accreditation (CODA)

- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. Patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - b. Screening and risk assessment for head and neck cancer;
 - c. Recognizing the complexity of patient treatment and identifying when referral is indicated.

Grading Scale

90 – 100% = A

80 - 89% = B

75 - 79% = C

<75% = F

Faculty

Dr. Randall L. Vaught

Dr. David Willis

Dr. Wendy Hupp

Dr. Stephen Mattingly

Dr. John D. Moore

Dr. Gary Tabb

Dr. Delia Forster

Dr. Richard Keeling

Semester Offered – D2 Year, Spring Semester

Course Description

The treatment planning curriculum is designed to teach the student the interrelationship of all of the clinical disciplines in dentistry. We attempt to have the student recognize the proper and necessary diagnostic and treatment steps to recommend and implement for an individual patient, within the context of a Comprehensive Care Philosophy.

Course Objectives

The following objectives serve for the entire three year curriculum in treatment planning. The student should be able to:

1. recognize the rights and responsibilities of the dentist.
2. recognize the rights and responsibilities of the student dentist as a developing professional.
3. recognize the rights and responsibilities of the patient.
4. effectively use the axiUm clinical computer software.
5. interpret and evaluate the following as each relates to the treatment plan of a patient:
 - A. Medical History.
 - B. Family History.
 - C. Social History.
 - D. Dental History.
 - E. Chief Complaint/Concern.
6. distinguish between normal and abnormal findings contained in a medical history and be able to relate these findings to systemic and dental disease processes.
7. correlate the medical history with clinical signs and symptoms.
8. determine whether conditions found in a medical history or clinical observations and vital signs necessitate further evaluation by a physician and/or medical consultations and follow-up.
9. correlate the dental history with clinical signs and symptoms of dental disease.
10. consult with a patient's previous dentist if the history warrants further investigation.
11. explain why knowledge of general state of physical and mental health, social and cultural background, patient attitude about health and health care, teeth, and supporting structures of patient is important to the synthesis of a treatment plan.
12. identify a patient's knowledge and appreciation of dentistry.
13. determine the effect of a patient's past dental experience on a treatment plan.
14. determine when psychological or psychiatric consultation is necessary to insure successful dental treatment.
15. discuss the significance of the patient's medications as they relate to the patient's illness, the choice of anesthesia, the overall treatment plan, and determine if treatment modifications are necessary.
16. predict the possible significance of any finding in dental or medical history to the total care of a patient.
17. state precautions/modifications necessary when treating patients with any of the following medical conditions:
 - A. Allergies.

- B. Anticoagulant Therapy.
 - C. Asthma/COPD.
 - D. Bisphosphonates Use.
 - E. Cardiovascular Disease.
 - F. Cerebrovascular Disease.
 - G. Cirrhosis.
 - H. Diabetes.
 - I. Hepatitis.
 - J. HIV/AIDS.
 - K. Hypertension.
 - L. Infective Endocarditis.
 - M. Pregnancy.
 - N. Prosthetic Joints.
 - O. Psychiatric/Cognitive Disorders.
 - P. Renal Disease.
 - Q. Seizure Disorder/Epilepsy.
 - R. Tuberculosis.
18. identify undiagnosed systemic diseases based on observed signs and patient symptoms.
 19. describe current AHA recommendations for prevention of subacute bacterial endocarditis.
 20. recommend to treatment planning faculty the appropriate medications required for the treatment of a patient.
 21. indicate appropriate drugs which might substitute for penicillin when prophylactic antibiotic coverage is indicated.
 22. state what medical and dental complications may develop in an uncontrolled diabetic.
 23. evaluate the results of heat, cold, percussion, and electric pulp tests in relation to a sequential comprehensive treatment plan.
 24. identify the need for endodontic treatment/retreatment and endodontic surgery.
 25. evaluate a patient's ability to perform oral hygiene procedures in relation to the proposed comprehensive treatment plan.
 26. evaluate a patient's diet in relation to proposed comprehensive treatment plan.
 27. evaluate the effect of oral habits on the proposed comprehensive treatment plan.
 28. list the possible dental implications of xerostomia.
 29. evaluate the indication for fluoride and sealants as related to a proposed comprehensive treatment plan.
 30. correlate dental radiographic findings with clinical dental findings.
 31. detect clinical dental caries.
 32. identify radiographically incipient carious lesions and recommend appropriate therapeutic measures.
 33. identify the classification and surfaces of a required restoration.
 34. recognize the diagnostic value of therapeutic services.
 35. recognize and interpret roentgenologic signs of traumatic occlusion.
 36. recognize and interpret roentgenologic signs tooth pathology.
 37. identify when the use of mounted casts is indicated for diagnostic purposes.
 38. demonstrate ability to obtain an accurate facebow transfer.
 39. determine when diagnostic casts must be mounted in MICP vs. RJP.
 40. understand the importance of properly mounted diagnostic casts.

41. identify the significant findings from the collected data which may contribute to the diagnosis and plan of treatment.
42. identify the Angle's orthodontic classification of a patient.
43. diagnosis need and determine proper sequencing of orthodontic treatment in a comprehensive treatment plan.
44. identify indications for orthognathic surgery.
45. recognize a patient's need for specialty consultations within and outside of the comprehensive care clinic and demonstrate the ability to clearly communicate the issues with the appropriate specialist.
46. demonstrate the ability to properly diagnose periodontal disease.
47. correlate the relationship of all local etiologic factors contributing to periodontal disease with the dental findings and proposed treatment.
48. explain the clinical significance of radiographic vertical and horizontal bone loss.
49. recommend proper treatment modalities to address periodontal disease and sequence them properly in a comprehensive treatment plan.
50. identify the indications for periodontal surgery.
51. determine the proper sequencing of periodontal surgery in a comprehensive treatment plan.
52. explain the risks vs. benefits of periodontal surgery to a patient.
53. describe the effect of missing teeth on the periodontium of a patient.
54. discuss indications and contraindications for removal of erupted third molars.
55. discuss indications and contraindications for removal of impacted teeth.
56. discuss criteria which would result in a hopeless prognosis for a tooth.
57. evaluate crown to root ratio relative to utilization of a tooth as a potential abutment for a prosthesis.
58. evaluate the risks vs. benefits of using a questionable tooth as an abutment for a prosthesis.
59. summarize treatment alternatives for a tooth in an abnormal intra-arch or inter-arch position.
60. evaluate all pertinent diagnostic factors substantially affecting the decision for placement of a fixed or removable prosthesis in a patient with appropriate indications.
61. select the most appropriate treatment modality for a tooth in an abnormal intra-arch or inter-arch position.
62. identify dental implant indications.
63. identify dental implant medical and dental contraindications.
64. identify the need for orthodontic consultation in relation to a patient's fixed prosthodontic needs.
65. interpret radiographs in relation to crown to root ratio, alveolar bone height, crown and root angulation, and edentulous areas.
66. justify the need for orthodontic correction of an abnormal maxillary/mandibular intra-arch and/or inter-arch relationship.
67. justify the need for surgical correction of an abnormal maxillary-mandibular ridge/inter-arch relationship.
68. summarize treatment alternatives when inter-ridge distance is inadequate for proper prosthetic restoration.
69. make informed, defensible decision relative to the recommendation of a removable prosthesis.

70. evaluate the risks vs. benefits of not replacing a missing tooth.
71. discuss maintenance of arch integrity with a patient.
72. plan the appropriate restoration for carious teeth.
73. identify teeth to be extracted.
74. list pertinent factors relating to the decision to extract a mobile tooth.
75. evaluate the effect of extraction of hopeless teeth on the overall proposed treatment.
76. determine proper sequence of extractions in a comprehensive treatment plan.
77. describe the sequellae of not replacing missing teeth.
78. collate and analyze all pertinent findings necessary to determine a protocol of preventive, therapeutic, and educational services for a patient.
79. assess a patient's ability to follow treatment recommendations.
80. avoid prejudicial analysis.
81. synthesize a treatment plan sequence which, by carefully selected treatment priorities, will preclude patient emergencies.
82. synthesize a treatment plan which, by carefully selected treatment priorities, will address a patient's need for preventive services.
83. synthesize a treatment plan in a logical sequence based on complete diagnostic findings on a patient.
84. alter treatment plans based on the aging process and other environmental factors when necessary.
85. present a properly sequenced comprehensive treatment plan to faculty.
86. write a treatment plan containing the following four phases:
 - A. Emergency care.
 - B. Urgent care.
 - C. E & E to determine restorability.
 - D. Disease control and preprosthetic surgery.
 - E. Reconstruction of form, function, and esthetics.
 - F. Maintenance protocol.
87. utilize appropriate identifying ADA codes and fees for a patient's comprehensive treatment plan.
88. list the reasons for proper sequencing in a comprehensive treatment plan.
89. synthesize a treatment plan in a logical sequence based on complete diagnostic findings for a patient.
90. justify the sequence of a treatment plan for a patient.
91. discuss the total patient care concept as it relates to the student's responsibility to patients while in school and the dentist's responsibility to patients and community while in private practice.
92. develop appropriate alternate treatment plans if necessary.
93. alter treatment plans based on a patient's handicap if indicated.
94. provide complete, current information to a patient in understandable terms concerning the diagnosis, treatment, and prognosis.
95. explain to a patient reasons why recommended procedures are considered necessary.
96. give a patient the right to refuse treatment after providing information about the consequences of such action.
97. make a reasonable response to the request of a patient for services.

98. avoid withholding information from a patient.
99. evaluate whether a tooth is of sufficient strategic value to warrant retention via endodontic/periodontal therapy for advanced restorative procedures.
100. recognize the purpose of the periodontal reevaluation by proper entry into the sequence of treatment.
101. appraise a patient's needs for consultation or referral for restorative, endodontic, oral surgery, periodontal, or orthodontic problems which are beyond the student's capacity to treat.
102. identify the potential need for special appointment planning or special precautions to prevent disease transmission, allergic reaction, or emergency care.

Competency Statements (Student Learning Outcomes) for the Pre-Doctoral Curriculum Addressed in GDOM 824-04, GDOM 833-56, GDOM 844-78

- 1.1. Provide compassionate and ethical care to a diverse population of patients
- 1.2. Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3. Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2. Evaluate and integrate the best research outcomes with clinical expertise and patient values for evidence based practice.
- 2.3. Apply information technology resources in contemporary dental practice.
- 3.1. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.2. Evaluate relevant models of oral health care management and delivery.
- 3.3. Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 3.4. Establish and maintain patient records and assure confidentiality of information.
- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.3. Perform a clinical examination of the head and neck and intraoral structures.
- 4.4. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5. Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.

- 4.7. Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9. Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10. Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11. Evaluate the prognosis of various treatment options.
- 5.1. Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2. Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2. Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3. Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4. Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5. Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6. Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7. Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8. Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9. Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10. Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14. Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15. Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.18. Recognize and manage (refer or treat) substance abuse in dental patients.
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20. Periodically assess and monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for GDOM 824-04, GDOM 833-56, GDOM 844-78

This course contributes to foundation knowledge in the attainment of CODA standards:

- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.
- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning (GDOM 833-56 and GDOM 844-78 only).
- 2-17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated
 - d. health promotion and disease prevention
 - h. replacement of teeth including fixed, removable, and dental implant prosthodontic therapies
 - o. evaluation of the outcomes of treatment, recall strategies, and prognosis
- 5-2 Patient care must be evidenced-based, integrating the best research evidence and patient values.

Outline

Date	Activity	Presenter
Jan. 7	Introduction Ethics Dr./Pt. Rights, Responsibilities	
Jan. 14	Dental Caries Periodontal Disease Preventive Items In Treatment Planning Endodontics	
Jan. 21	Dental Materials	
Jan.28	Treatment Planning At ULSD	
Feb.4	ULSD Fee Schedule Test #1 (10-11:50)—HSC Auditorium	
Feb.11	Cores Informed Consent Test #1 Review	

Feb.18	Common ULSD Exam Types Prostodontically Important Teeth Hopeless/Questionable Teeth Periodontal Crown Lengthening/Orthodontic Extrusion Open Book Fee Schedule Test (11:00-11:50)—HSC Auditorium	
Feb.25	Ferrule Effect/Biologic Width Periodontal Considerations In Treatment Planning Occlusion/TMD Issues In Treatment Planning Endodontic Codes In Treatment Planning Cracked Tooth Syndrome Orthodontic Issues In Treatment Planning	
Mar. 4	Oral Surgery/Extraction Codes Implants	
Mar. 11	Indirect Single Restorations Fixed Partial Dentures Removable Partial Dentures Complete Dentures Interim/Immediate CDs, RPDs	
Mar. 25	Treatment Planning Urgent Care Needs Test #2 (10-11:50)—HSC Auditorium	
Apr. 1	Prostodontic Esthetic Considerations Treatment Planning Maintenance Patients Treatment Planning Referral Patients From Recall Clinic Treatment Planning Emergency Patients Treatment Planning Transfer Patients Review Test #2	Dr. Harris
Apr. 8	Prostodontic Treatment Planning Treatment Planning External Referral Patients	Dr. Nation
Apr. 15	Diagnostic Casts Diagnostic Wax-Ups In Treatment Planning ULSD Consults ULSD Reviews Standard Of Care	
Apr. 22	Treatment Notes Sequencing At ULSD Treatment Planning With axiUm	

Grade Scale

92 - 100% = A

85 - 92% = B
75 - 84% = C
70 - 74% = D
<69% = F

Faculty

Co-Directors:

Joseph A. Haake, D.D.S.

Michael J. Metz, D.M.D.

Ryan M. Noble, D.M.D.

Timothy C. Daugherty, D.M.D.

Semester offered – D2, Fall and Spring Semester

Course Description

A survey of general pathology and internal medicine as it relates to dentistry with emphasis on the evaluation and management of medically complex/compromised patients requiring dental treatment. This course is designed to prepare the dentist in the essential role of doctor and specialist of the oral cavity; i.e., one who recognizes, diagnoses and treats oral disease and systemic diseases which affect the oral cavity.

Course Objectives

Upon completion of this course, the students should be able to:

1. Understand and correctly use pathology nomenclature.
2. Communicate an understanding of tissue injury and diseases processes, using appropriate vocabulary.
3. Recognize morphological and functional differences between normal and injured or diseased tissue, (including understand, from a structural, functional and biochemical perspective, the different types of pathological lesions, and provide scenarios for how they each arise).
4. Integrate pathological findings with clinical manifestations of disease, and understand of the clinical features of common and/or significant disease processes.
5. Integrate the principles and information presented in this course with that from related disciplines (including anatomy, histology, physiology and biochemistry) so as to construct a “working” body of knowledge which the student can apply, in a problem solving manner, to understanding mechanisms of systemic disease and oral disease, and their interrelationships.
6. Recognize important systemic diseases which are commonly encountered by the practicing dentist that may affect oral health, dental diagnosis and treatment.
7. Recognize oral manifestations of systemic diseases.
8. Recognize the presence of systemic disease(s) in patients that have the potential to increase the risk of dental treatment.
9. Identify and implement appropriate treatment modification protocols so as reduce/minimize the risk of complication when providing dental treatment for medically compromised or medically complex patients.
10. Identify and manage complications and adverse effects potentially associated with dental treatment procedures and drugs used in dentistry.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.

- 4.9. Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 6.1 Recognize and manage medical emergencies that may occur in dental practice.
- 6.15 Diagnose and manage patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations.
- 6.16 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.19 Anticipate, prevent, and manage complications of dental treatment

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders.
- 2-14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2-24 Graduates must be competent in assessing the treatment needs of patients with special needs.

Outline

Date	Activity	Presenter
8/12/13: 10-11 AM	Course Introduction	Dr. Firriolo
8/12/13: 11-12 AM	Course Introduction	Dr. Firriolo
8/14/13: 10-11 AM	Cell Injury and Cell Death -1	Dr. Firriolo
8/14/13: 11-12 AM	Cell Injury and Cell Death -2	Dr. Firriolo
8/16/13: 10-11 AM	Inflammation -1	Dr. Firriolo
8/16/13: 11-12 AM	Inflammation -2	Dr. Firriolo
8/19/13: 10-11 AM	Inflammation -3	Dr. Firriolo
8/19/13: 11-12 AM	Tissue Healing and Repair	Dr. Sauk
8/21/13: 10-11 AM	Overview of Genetics in Disease	Dr. Bernstein
8/21/13: 11-12 AM	Genetic Diseases -1	Dr. Darling
8/23/13: 10-11 AM	Genetic Diseases -2	Dr. Darling
8/23/13: 11-12 AM	Risk Assessment of the Medically Compromised Dental Pt.	Dr. Firriolo
8/26/13: 10-11 AM	Immunopathology and Autoimmune Diseases -1	Dr. Firriolo
8/26/13: 11-12 AM	Immunopathology and Autoimmune Diseases -2	Dr. Firriolo
8/28/13: 10-11 AM	Transplant and Rejection Immunology	Dr. Firriolo
8/28/13: 11-12 AM	DM of Patients with Autoimmune Disease -1	Dr. Firriolo
8/30/13: 10-11 AM	DM of Patients with Autoimmune Disease -2	Dr. Firriolo
8/30/13: 11-12 AM	<i>TBA or Review / Study</i>	
9/2/2013	LABOR DAY - NO LECTURE	
9/4/13: 10-11:30 AM	EXAM 1 (1.5 hours)	
9/6/13: 10-11 AM	Nutritional Disorders -1	Dr. Bernstein
9/6/13: 11-12 AM	Nutritional Disorders -2	Dr. Bernstein
9/9/13: 10-11 AM	Physical Injury	Dr. Firriolo
9/9/13: 11-12 AM	Chemical Injury	Dr. Firriolo

9/11/13: 10-11 AM	Hemodynamic Disorders -1	Dr. Shumway
9/11/13: 11-12 AM	Hemodynamic Disorders -2	Dr. Shumway
9/13/13: 10-11 AM	Neoplasia -1	Dr. Shumway
9/13/13: 11-12 AM	Neoplasia -2	Dr. Shumway
9/16/13: 10-11 AM	Neoplasia -3	Dr. Shumway
9/16/13: 11-12 AM	Neoplasia -4	Dr. Shumway
9/18/13: 10-11 AM	Neoplasia -5	Dr. Shumway
9/18/13: 11-12 AM	Neoplasia -6	Dr. Shumway
9/20/13: 10-11 AM	Disorders of Hemostasis -1	Dr. Hupp
9/20/13: 11-12 AM	Disorders of Hemostasis -2	Dr. Hupp
9/23/13: 10-11 AM	DM of Patients with Disorders of Hemostasis	Dr. Hupp
9/23/13: 11-12 AM	<i>TBA or Review / Study</i>	
9/25/13: 10-11:30 AM	EXAM 2 (1.5 hours)	
9/27/13: 10-11 AM	Vascular Pathology -1	Dr. Shumway
9/27/13: 11-12 AM	Vascular Pathology -2	Dr. Shumway
9/30/13: 10-11 AM	DM of Patients with Cerebrovascular Disease / Aneurysm	Dr. Firriolo
9/30/13: 11-12 AM	WBC / Lymph Node Disorders -1	Dr. Firriolo
10/2/13: 10-11 AM	WBC / Lymph Node Disorders -2	Dr. Firriolo
10/2/13: 11-12 AM	WBC / Lymph Node Disorders -3	Dr. Firriolo
10/4/13: 10-11 AM	DM of Patients with WBC Disorders	Dr. Firriolo
10/4/13: 11-12 AM	DM of Patients Undergoing Chemotherapy & Radiation Tx.	Dr. Firriolo
10/7/2013	FALL BREAK - NO LECTURE	
10/9/13: 10-11 AM	RBC Disorders -1	Dr. Bernstein
10/9/13: 11-12 AM	RBC Disorders -2	Dr. Bernstein
10/11/13: 10-11 AM	DM of Patients with RBC Disorders	Dr. Firriolo
10/11/13: 11-12 AM	<i>Self-Study</i>	
10/14/13: 10-11 AM	Cardiovascular Pathology -1	Dr. Firriolo
10/14/13: 11-12 AM	Cardiovascular Pathology -2	Dr. Firriolo
10/16/13: 10-11 AM	Cardiovascular Pathology -3	Dr. Firriolo
10/16/13: 11-12 AM	<i>TBA or Review / Study</i>	
10/18/13: 10-11:30 AM	EXAM 3 (1.5 hours)	
10/21/13: 10-11 AM	Overview of Dental Risk Assessment in the Patient with CVD	Dr. Firriolo
10/21/13: 11-12 AM	DM of Patients with ASHD / Angina / MI -1	Dr. Firriolo
10/23/13: 10-11 AM	DM of Patients with ASHD / Angina / MI -2	Dr. Firriolo
10/23/13: 11-12 AM	DM of Patients with CHF	Dr. Firriolo
10/25/13: 10-11 AM	DM of Patients with Hypertension	Dr. Firriolo
10/25/13: 11-12 AM	DM of Patients with Hypertension	Dr. Firriolo
10/28/13: 10-11 AM	DM of Patients with Arrhythmias	Dr. Firriolo
10/28/13: 11-12 AM	DM of Patients with Arrhythmias	Dr. Firriolo
10/30/13: 10-11 AM	DM of Patients with BE / Metastatic Infection Risk -1	Dr. Firriolo
10/30/13: 11-12 AM	DM of Patients with BE / Metastatic Infection Risk -2	Dr. Firriolo
11/1/13: 10-11 AM	Respiratory Pathology -1	Dr. Bernstein
11/1/13: 11-12 AM	Respiratory Pathology -2	Dr. Bernstein
11/4/13: 10-11 AM	Respiratory Pathology -3	Dr. Bernstein
11/4/13: 11-12 AM	Lung Cancer	Dr. Bernstein

11/6/13: 10-11 AM	DM of Patients with Respiratory Disease (Asthma, COPD)	Dr. Firriolo
11/6/13: 11-12 AM	DM of Patients with Respiratory Disease (Asthma, COPD)	Dr. Firriolo
11/8/13 10-11 AM	<i>TBA or Review / Study</i>	
11/8/13: 11-12 AM	<i>TBA or Review / Study</i>	
11/11/13: 10-11:30 AM	EXAM 4 (1.5 hours)	
11/13/13: 10-11 AM	Pathology of the Esophagus	Dr. Bernstein
11/13/13: 11-12 AM	Pathology of the Stomach	Dr. Bernstein
11/15/13: 10-11 AM	Pathology of the Small Intestine	Dr. Bernstein
11/15/13: 11-12 AM	Pathology of the Large Intestine	Dr. Bernstein
11/18/13: 10-11 AM	DM of Patient with G.I. Disease	Dr. Firriolo
11/18/13: 11-12 AM	Pathology of the Liver -1	Dr. Bernstein
11/20/13: 10-11 AM	Pathology of the Liver -2	Dr. Bernstein
11/20/13: 11-12 AM	Pathology of the Liver -3	Dr. Bernstein
11/22/13: 10-11 AM	Pathology of the Gall Bladder	Dr. Bernstein
11/22/13: 11-12 AM	Pathology of the Pancreas	Dr. Bernstein
11/25/13: 10-11 AM	Summary / Review G.I. Pathology	Dr. Bernstein
11/25/13: 11-12 AM	DM of Patients with Liver Disease - 1	Dr. Firriolo
11/27/13: 10-11 AM	<i>TBA or Review / Study</i>	
11/27/13: 11-12 AM	<i>TBA or Review / Study</i>	
11/29/2013	THANKSGIVING BREAK - NO LECTURE	
12/2/13: 10-11 AM	DM of Patients with Liver Disease - 2	Dr. Firriolo
12/2/13: 11-12 AM	DM of Patients with Liver Disease - 3	Dr. Firriolo
12/4/13: 10-11 AM	Infectious & Granulomatous Disease -1	Dr. Shumway
12/4/13: 11-12 AM	Infectious & Granulomatous Disease -2	Dr. Shumway
12/6/13: 10-11 AM	Infectious & Granulomatous Disease -3	Dr. Shumway
12/6/13: 11-12 AM	DM of Patients with Tuberculosis	Dr. Firriolo
<i>TBA (Finals Week)</i>	EXAM 5 (1.5 hours)	
1/6/14: 2-3 PM	Sexually Transmitted Diseases	Dr. Bernstein
1/9/14: 10-11 AM	Endocrine Pathology - 1	Dr. Bernstein
1/9/14: 11-12 AM	Endocrine Pathology - 2	Dr. Bernstein
1/13/14: 2-3 PM	Endocrine Pathology - 3	Dr. Bernstein
1/16/14: 10-11AM	Pathology of Diabetes - 1	Dr. Bernstein
1/16/14: 10-11 AM	Pathology of Diabetes - 2	Dr. Bernstein
1/20/2014	M.L. KING DAY - NO LECTURE	
1/23/14: 10-11 AM	Pathology of Adrenal and Parathyroid	Dr. Bernstein
1/23/14: 11-12 AM	DM of Patients with Endocrine Disorders - 1	Dr. Firriolo
1/27/14: 2-3 PM	DM of Patients with Endocrine Disorders - 2	Dr. Firriolo
1/30/14: 10-11 AM	DM of Patients with Endocrine Disorders - 3	Dr. Firriolo
1/30/14: 11-12 AM	DM of Patients with Endocrine Disorders - 4	Dr. Firriolo
2/3/14: 2-3 PM	DM of Patients with Endocrine Disorders - 5	Dr. Firriolo
2/6/14: 10-11:30 AM	EXAM 6 (1.5 hours)	
2/10/14: 2-3 PM	Renal Pathology -1	Dr. Shumway
2/13/14: 10-11 AM	Renal Pathology -2	Dr. Shumway
2/13/14: 11-12 AM	DM of Patients with Renal Disease	Dr. Firriolo
2/17/14: 2-3 PM	CNS Disease - 1	Dr. Firriolo
2/20/14: 10-11 AM	CNS Disease - 2	Dr. Firriolo

2/20/14: 11-12 PM	CNS Disease - 3	Dr. Firriolo
2/24/14: 2-3 PM	DM of Patients with Seizure Disorders	Dr. Firriolo
2/27/14: 10-11 AM	DM of Patients with Psychiatric Disorders - 1	Dr. Firriolo
2/27/14: 11-12 AM	DM of Patients with Psychiatric Disorders - 2	Dr. Firriolo
3/3/14: 2-3 PM	DM of Patients with Psychiatric Disorders - 3	Dr. Firriolo
3/6/14: 10-11 AM	DM of Patients with Psychiatric Disorders - 4	Dr. Firriolo
3/6/14: 11-12 AM	DM of Patients with Psychiatric Disorders - 5	Dr. Firriolo
3/10/14: 2-3 PM	DM of Patients with Psychiatric Disorders - 6	Dr. Firriolo
3/13/14: 10-11:30 AM	EXAM 7 (1.5 hours)	
3/17/14: 2-3 PM	SPRING BREAK - NO LECTURE	
3/20/14: 10-12 AM	SPRING BREAK - NO LECTURE	
3/24/14: 2-3 PM	HIV / AIDS - 1	Dr. Hupp
3/27/14 10-11 AM	HIV / AIDS - 2	Dr. Hupp
3/27/14 11-12 AM	DM of Patients with HIV / AIDS	Dr. Hupp
3/31/14: 2-3 PM	DM of the Pregnant Patient	Dr. Hupp
4/3/14: 10-11 AM	Womens' Health Issues in Dentistry	Dr. Hupp
4/3/14: 11-12 AM	Dermatopathology - 1	Dr. Bernstein
4/7/14: 2-3 PM	Dermatopathology - 2	Dr. Bernstein
4/10/14 10-11 AM	Male and Female Reproductive Pathology	Dr. Sauk
4/10/14: 11-12 AM	Breast Pathology	Dr. Sauk
4/14/14: 2-3 PM	Dermatopathology - 3	Dr. Bernstein
4/17/14: 10-11 AM	Bone Pathology -1	Dr. Bernstein
4/17/14: 11-12 AM	Bone Pathology -2	Dr. Bernstein
4/21/14: 2-3 PM	Joint Pathology	Dr. Bernstein
4/24/14: 10-11 AM	DM of Patients with Bone / Joint Disease	Dr. Firriolo
4/24/14: 11-12 AM	<i>TBA or Review / Study</i>	
<i>TBA (Finals Week)</i>	EXAM 8 (1.5 hours)	

Evaluation

Student evaluation will be by written (didactic) examinations. Exam questions will be multiple choice type. Exam weights for this course are as follows:

Exam 1: 12.9%; Exam 2: 12.9%; Exam 3: 12.0%; Exam 4: 13.6%; Exam 5:15.4%; Exam 6:10.2%; Exam 7: 11.1%; Exam 8: 11.9%.

Grading

The final letter grade for this course will be based on the following scale:

A+: 97.00 - 100	C+: 77.00 - 79.99
A: 94.00 - 96.99	C: 74.00 - 76.99
A-: 90.00 - 93.99	C-: 70.00 - 73.99
B+: 87.00 - 89.99	D+: 67.00 - 69.99
B: 84.00 - 86.99	D: 65.00 - 66.99
B-: 80.00 - 83.99	F: Less than 65.00

Faculty

Dr. F. John Firriolo (course director)

Dr. Mark Bernstein

Dr. Doug Darling
Dr. Wendy Hupp
Dr. John Sauk
Dr. Brian Shumway.

Semester Offered- D2 Fall Semester

Course Description

The course is a continuation of Periodontics I OHR-830-02. A focus on examinations, diagnosis, and treatment planning exists. Additionally, a consideration of the relationship of Periodontics to various clinical disciplines is presented. Periodontal treatment modalities for treating periodontal disease, rationale, indications, contraindications, objectives and techniques are presented.

Course Objectives

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

1. Develop a treatment plan for a patient with periodontitis, including all facets of charting
2. Identify the etiologies and radiographic patterns of Aggressive Periodontitis
3. Understand the role of occlusion in the progression of periodontal disease
4. List the indications and contraindications for monitoring therapy
5. Develop a non-surgical treatment plan for a pt. with chronic, aggressive or acute periodontitis
6. List the common periodontal problems found in children
7. Identify the most common periodontal disease found in children
8. List the components of initial periodontal therapy
9. Justify tooth removal
10. Discuss a philosophy for periodontal surgery
11. Plan an alternate treatment plan for a patient whose plaque control is poor
12. List the indications for a full thickness flap
13. List the contraindications for a full thickness flap
14. Prescribe a medication for a patient with anxiety
15. Locate the smile-line in a patient with periodontal disease
16. Identify the patient who needs ridge augmentation for an ovate pontic
17. Discuss the relationship between endodontic disease and periodontal disease
18. List the indications for endodontic treatment for a patient with periodontal disease
19. Diagnose "Desquamative" lesions from other periodontal entities
20. Sequence a list of treatment items to be used in treating a patient with periodontal disease
21. Describe the progression of beginning to advanced periodontitis
22. List the sequence of events in a postoperative appointment
23. Discuss the appropriate time for graft placement or frenectomy in orthodontic patients
24. Discuss the use of Chlorhexidine & oral irrigating devices
25. Discuss ultrasonics
26. Discuss techniques for overhang reduction
27. Discuss the role of antibiotics in the treatment of Periodontal Disease
28. Discuss alternate methods of removing overhangs interproximally
29. Discuss hand instrument design, sharpening and care.
30. Record and interpret data accurately
31. Diagnose periodontal diseases
32. Plan cause-related periodontal treatment
33. Propose and justify a prognosis

34. Accurately sequence treatment
35. Re-evaluate initial therapy and alter the treatment plan accordingly
36. Prescribe surgery
37. Know how and when to refer patient to a periodontist
38. Recognize the effects of tobacco use on periodontal health and guide a patient toward a smoking cessation plan Identify etiologic factors

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Written Examinations)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures. (Written examinations)
- 4.11 Evaluate the prognoses of various treatment options.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease. (Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders
- 2.14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - d. health promotion and disease prevention;
 - i. periodontal therapy;
 - k. oral mucosal and osseous disorders;

- l. hard and soft tissue surgery;
- m. dental emergencies;
- o. evaluation of the outcomes of treatment, recall strategies, and prognosis.

Outline

Date	Activity	Presenter
August 16	Inflammation and Periodontal Disease (Module 1)	Dr. Virag
August 23.	Perio Exam (MODULE 2)	Dr. Virag
August 30	Perio Diagnosis (Module 1-3)	Dr. Virag
September 6	Microbiology of Periodontal Disease (MODULE 4)	Dr. Virag
September 13	Periodontal Etiologies (MODULE 5)	Dr. Virag
September 20	Periodontal Etiologies (MODULE 5)	Dr. Virag
October 04	Acute Periodontal Conditions (MODULE 6)	Dr. Virag
October 11	MIDTERM EXAMINATION	
October 18	Periodontal Scaling/Root Planing (MODULE 7)	Dr. Virag
October 25	Occlusion and Periodontal Health (MODULE 8)	Dr. Virag
November 1	Endodontic/Periodontic Relationships (MODULE 9)	Dr. Virag
November 8	Introduction to Periodontal Surgery (MODULE 10)	Dr. Virag
November 15	Biologic Width/Crown Lengthening (MODULE 11)	Dr. Virag
	REVIEW	
December 6	FINAL EXAMINATION	

Evaluation

Midterm	40%
Attendance & Quizzes	10%
Comprehensive Final Exam	50%

Grade Scale

A = 90 - 100%
 B = 80-89%
 C = 70-79%
 F= 0-69%

Faculty

Dr. Virag

OHR 838-04 Periodontal Modular Learning

Semester Offered – D2, Spring Semester

Course Description

Periodontal Modular Learning: This is a “hands on” course in clinical periodontology.

Periodontology is the science and study of the investing and supporting tissues of the teeth and jaws. The dental specialty which limits its treatment to those tissues is Periodontics and the dental specialist performing treatment on these tissues is a Periodontist. This course will consist of seven modules which will address data collection, diagnosis, prognosis, periodontal/preventive treatment planning, plaque assessment, oral hygiene aids, instrument sharpening, calculus detection, scaling and root planning, ultrasonic instrumentation, treatment of hypersensitive teeth, non-surgical treatment methods and simple suturing techniques.

This course will also discuss the psychology of the student doctor/patient relationship.

Modules will usually begin with a review and demonstrations. Students will then perform tasks on manikins and on other “hands on” materials. To enhance the hands on nature of this course, students will also perform a full periodontal examination and scaling/prophy on each other. A quiz will be given toward the end of the session.

Course Objectives

Upon completion of this course, the students should be able to:

1. Describe the criteria for classifying pathological tooth mobility.
2. Describe the role of irregular margins and contacts and iatrogenic problems, e.g. overhanging restorations and open contacts, in periodontal disease initiation and/or propagation.
3. Recognize mucogingival problems, list their contributing factors and discuss the appropriate treatment for the conditions
4. Recognize and define an adequate width of attached gingival and differentiate between attached gingival and alveolar mucosa clinically.
5. Accurately use the periodontal probe to determine the pocket depth around each tooth and record the findings.
6. Discriminate between Class 1, 2 and 3 furcations, demonstrate technique and describe the criteria for each rating.
7. Accurately chart the findings on the patient record utilizing the correct symbols representing the condition identified.
8. Accurately identify and chart gingival recession on a patient's record form and discuss the positional relationships of gingival margin to mucogingival junction to sulcus base.
9. Describe the normal relationship of the CEJ to the crest of the alveolar bone and attached tissues.
10. Explain the importance of recording a patient's health history of any systemic diseases and any previous periodontal treatment and discuss how these factors influence treating planning.
11. Explain the importance of recording a patient's history of habits, i.e., level of hygiene, diet, bruxing, and smoking; and how the patient feels about their teeth and discuss how these factors affect prognosis and treatment success.

12. Describe the effect of a marginal ridge height discrepancy or an extruded tooth which acts as a plunger cusp forcing food onto opposing tooth areas.
13. Identify how tooth morphology, caries, or defective restorations are contributing to plaque retention, food debris or food impaction.
14. Describe the effect of missing and/or drifted teeth on the periodontium.
15. Use a Nabors furca probe (P2N) to examine flutes and root furcations of the teeth.
16. Based on the data collection from the periodontal exam, accurately determine the diagnosis in terms of area affected and severity.
17. Based on the data collection from the periodontal exam, accurately determine the prognosis for molar teeth using the Miller-McEntire index
18. Discuss the psychological aspects of conducting the periodontal exam.
19. After reviewing charting and radiographic data, determine the diagnosis and prognosis and construct an appropriate treatment plan.
20. List components of initial therapy.
21. Understand the purpose, coarse and steps of the re-evaluation appointment.
22. List components of phase treatment.
23. Understand the purpose, coarse and steps of the periodontal maintenance appointment.
24. Referral to the graduate periodontal clinic if warranted base upon diagnosis, type of periodontal disease, and prognosis.
25. List the procedures including, crown lengthening, recession and implants that would be appropriate for referral to the graduate periodontal clinic.
26. Perform a full periodontal examination to include the 14 item checklist, diagnosis, and prognosis and treatment plan on a classmate.
27. Follow infection control procedure including barriers, universal precautions and eye protection.
28. Perform a full periodontal examination to include the 14 item checklist, diagnosis, prognosis and treatment plan on a classmate.
29. Enter all data on the periodontal chart in Axium. Write a treatment note to include the diagnosis, prognosis and treatment plan.
30. Review, demonstrate and discuss toothbrushing methods and oral hygiene aids including the perio-aid, floss, end-tufted brush, rubber tip stimulator, superfloss and proxybush.
31. Understand how to present oral hygiene instructions to patients and use appropriate motivational techniques and devices.
32. Select appropriate oral hygiene aids based on periodontal disease status, dexterity of the patient and overall dentition.
33. Learn and practice sharpening scalers and curettes using the modified palm grasp.
34. Recognized and detect calculus using auditory, visual and tactile stimuli.
35. Demonstrate and practice instrument position and stroke technique for Gracey curettes and scalers.
36. Detect and record calculus
37. Scale and root plan dentoform teeth and have the thoroughness of removal evaluated by an instructor.
38. Learn how to set-up, operate and troubleshoot ultrasonic instrumentation
39. Perform ultrasonic instrumentation on a dentoform. Performance will be evaluated by an instructor.

40. Demonstrate and practice basic suturing techniques. Suturing techniques and skills to be evaluated by an instructor.
41. Perform scaling and root planning and prophylaxis on classmates.
42. Perform ½ mouth scaling and root planning on the dentoform.
43. Follow infection control procedure including barriers, universal precautions and eye protection.
44. Perform and record a plaque index.
45. Dispense oral hygiene instructions and appropriate oral hygiene aids
46. Perform scaling, root planing and prophylaxis on a classmate
47. Write a treatment note in Axium
48. Discuss effective communication skills and techniques.
49. List the indications and contraindications for the placement of local delivery agents including Atridox, Arestin and Periochip.
50. Understand the relationship of the family dentist and periodontist.
51. List the indications and advantages of LANAP
52. Practice the local delivery of Atridox into the sulcus of dentiform teeth.
53. Review junior and senior competency forms including the periodontal examination, oral hygiene instructions, scaling and root planing, tobacco and dietary counseling.
54. Attend and rotate through mini-clinics to review and practice instrument sharpening, scaling and root planing, suturing, periodontal examination Atridox and Arestin.
55. Critically evaluate the efficacy of Atridox and Arestin based on the scientific literature.

Competency Statements Supported by Periodontal Modular Learning

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients (Written Quiz and Examination of fellow students)
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease. (Written Quiz and Exam of fellow students)
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures. (Written Quiz and Exam of fellow students)
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis. (Written Quiz and Exam of fellow students)
- 5.1 Formulate and discuss with patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations. (Written Quiz and Exam of fellow students)
- 6.5 Diagnose and manage (refer or treat) patients with Periodontal disease (Written Quiz and Exam of fellow students)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care

- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
- a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - d. health promotion and disease prevention
 - i. periodontal therapy

Outline

Date	Activity	Presenter
January 8 & 15	The Periodontal Exam Dental History Form Addendum- Use of the Periodontal Probe Periodontal Diagnosis and Periodontal Prognosis Development of a Classification System for Periodontal Diseases and Conditions	
January 22 & 29	Periodontal/Prevention Treatment Planning Phase 1 Re-evaluation Phase 2 Maintenance	
February 5 & 12	Periodontal Examination Data Gathering on Classmates - Part II	
February 19 & 26	Review and Discussion of Toothbrushing Methods and Oral Hygiene Aids Instrument Sharpening Calculus Detection Methods Scaling and Root Planing Instrumentation Skills	
March 5 & 12	Review of Calculus Detection Review of Scaling and Root Planing Review of Instrument Sharpening Cavitron Review Introduction to Suturing	
April 2 & 9	Plaque index, OHI and Propy Exercise- Students to Clean Each Other	
April 16 & 23	Local Delivery of Chemotherapeutic Agents Review of Periodontal Competency Requirements Review of Periodontal Competency's – Exam, OHI, SRP&P, Dietary Counseling and Laser Assisted New Attachment Procedure (LANAP)	

Grade Scale

A= 90-100%

B= 80-90%

C=70-80%

D=60-70%

F=Below 60%

Faculty

Dr. Ricardo Vidal

Dr. Bobby Cockerman

Dr. Jennifer Fiorica

Dr. Henry Hsu

Dr. Abhishek Patel

Dr. Natalia Ovcharenko

Dr. Aaron Radmall

Semester Offered – D2 Year, Fall Semester

Course Description

This course is designed to present the terminology and basic concepts in occlusion, mandibular movement, and TMJ disorders. Emphasis is on the etiology, examination, diagnosis, and treatment of occlusal abnormalities, temporomandibular joint disturbances, and neuromuscular dysfunction. Clinical experience in these areas is included.

Course Objectives

Upon completion of this course, the students should be able to:

1. Describe the terms and fundamentals of occlusion and mandibular movement.
2. Discuss the determinants of cusp height and fossa depth.
3. Discuss the determinants of ridge and groove direction.
4. Mount diagnostic maxillary and mandibular casts using an articulator.
5. Demonstrate the use of the facebow and conduct a facebow transfer to mount maxillary casts.
6. Describe when to take occlusal records and when to mount casts in centric relation or centric occlusion.
7. Describe the criteria for and ideal occlusion; describe occlusally-related disorders of the teeth and treatment options.
8. Describe the classification and etiology of temporomandibular disorders.
9. Conduct an examination, make a diagnosis and describe treatment options for temporomandibular disorders.
10. Construct an occlusal splint therapy and know its rationale for use.
11. Describe alternatives to splint therapy and describe the treatment of acute TM discomfort.
12. Describe TMJ disk disorders and methods of treatment.
13. Describe occlusal treatments and alternative methods of treatment for TMD.
14. Describe and demonstrate a proper occlusal adjustment technique.
15. Understand TMJ radiography options.
16. Understand the differences between TMD and other headache disorders
17. Understand the characteristics of properly diagnosing facial pain and headache disorders

Competencies (Student Learning Outcomes)

Upon course completion of this course, the students should be able to:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.10 Evaluate the prognoses of various treatment options.

- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.9 Diagnose and manage patients with temporomandibular disorders.
- 6.10 Diagnose and manage patients with malocclusion in the permanent dentition.

Commission on Dental Accreditation (CODA) Standards

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2- 9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - g. communicating and managing dental laboratory procedures in support of patient care;
- 5-2 Patient care must be evidenced-based, integrating the best research evidence and patient values.

Outline

Date	Activity	Presenter
Aug 15	Lecture: Introduction of the Course & Faculty Fundamentals, Terms, Planes of Movement, Frontal Plane Exercises Lab: Fundamentals of Occlusion & Mandibular Movement Diagram Exercises of Mandibular Movement in the Coronal (Frontal) Plane	Dr. Esposito
Aug 22	Lecture: Determinants of Cusp Height and Fossa Depth Lab: Diagram Exercises of Mandibular Movement in the Sagittal (Vertical) Plane	Dr. Esposito
Aug 29	Lecture: Determinants of Ridge and Groove Direction, Review for Exam I Lab: Diagram Exercises of Mandibular Movement in the Horizontal Plane	Dr. Esposito
Sept 5	Lab: WRITTEN EXAMINATION I Clinic: Partners: Impressions, Face Bow Transfer Lab: Mount Maxillary Cast	Dr. Esposito
Sept 12	Lecture: Review Whip Mix Articulator and Cast Mounting Clinic: Partners – Obtain Occlusal Records Lab: Mount the Mandibular Cast & Adjust the	Dr. Esposito

	Articulator	
Sept 19	Lab only: Verification and Completion of Cast Mounting TURN IN MOUNTED CASTS FOR GRADE BY 2:15 PM	Dr. Esposito
Sept 26	Lecture: Quiz on DVD #1 & #2 Sim. Clinic: Demonstration: Examination of the TMD Patient Clinic: Examination of the Patient – Partners	Dr. Esposito
Oct 3	Lecture: Quiz on DVD #3 Occlusal Splint Construction Lecture Lab: Construct Splint for Partner & Begin Adjustment on Articulator	Dr. Esposito
Oct 10	Lecture: Instructions for Mounting OA #1 to be done by Oct. 17 Review for Exam II Lab: Adjust and Polish Splint on Articulator Mount Casts for Occlusal Adjustment #1	Dr. Esposito
Oct 17	TURN IN SPLINT FOR GRADE BY 12:45 PM (grading room open 7:30am) Lab: WRITTEN EXAMINATION II (Through Oct. 10 class & DVD #4)	Dr. Esposito
Oct 24	Lecture: Quiz on DVD #5 & #6 The Occlusal Adjustment Technique PICK UP PROJECTS FROM GRADING ROOM Lab: Occlusal Adjustment Demonstration & Begin Occlusal Adjustment #1	Dr. Topor
Oct 31	Lecture: Instructions for Mounting Occlusal Adjustment #2 Lab: Complete Occlusal Adjustment #1 Mount Casts for Occlusal Adjustment #2	Dr. Topor
Nov 7	Lecture: Occlusal Adjustment #2 Lab: Occlusal Adjustment Demonstration & Begin Occlusal Adjustment #2	Dr. Esposito
Nov 14	Lecture: Quiz on DVD #7 & #8 Flow Chart of Lab: Continue Occlusal Adjustment #2 Turn in project today or by 12:45pm on November 21	Dr. Esposito
Nov 21	TURN IN OCCLUSAL ADJUSTMENT #2 PROJECT FOR GRADE by 12:45 pm Lecture: Review for Exam III Case Histories Question and Answer Session & Course Evaluation	Dr. Esposito
Nov 25	Lab: WRITTEN EXAMINATION III	

Evaluation

Written Exams (3)	50%
Quizzes (4)	10%
Mounted Casts	15%
Splint construction	10%
Occlusal Adjustment #2	15%

Grading Scale

A: 93 -100%

B: 86 – 92%

C: 78 – 85%

D: 70 – 77%

F: 0 – 69%

Faculty

Dr. Carmine Esposito – Course Director

Dr. Doug Cotton

Dr. Richard Keeling

Dr. Dave Maddy

Dr. Michael Mansfield

Dr. Stephen Mattingly

Dr. Stephen Topor

Dr. Ann Windchy

Dr. Mair Zandinejad

Semester Offered – D2 Year; Fall Semester

Course Description

This 2 credit hour course will be offered in the fall semester and will introduce the subject of single unit rigid dental restorations. The theory, techniques, and dental materials involved in the indirect technique and the lost wax technique will be covered. Other types of single unit tooth colored rigid restorations such as core reinforced and pressed ceramic crowns will also be discussed. There will be analysis of the dental materials required for the production of inlays, onlays, full crowns, custom cast post and cores, and appropriate provisional restorations.

Course Objectives

1. describe the indirect technique and the lost wax technique.
2. list indications, contraindications, advantages, disadvantages and requirements of cast metal inlays, onlays, custom post and cores, and full crowns.
3. explain the process and principles of preparing, waxing, investing, casting, finishing and cementing single unit cast restorations
4. describe the physical and mechanical properties of the dental materials used in the construction of single unit metallic, and tooth colored restorations.
5. describe the principles of diagnosis, preparation, temporization, impressing, mounting, waxing, investing, casting, finishing, and delivering single unit restorations

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 2.9 Graduates must be competent in the use of critical thinking and problem solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.2 Evaluate relevant models of oral health care management and delivery.

- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 3.5 Develop a catastrophe preparedness plan for the dental practice.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7 Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10 Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.

- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.
- 6.18 Recognize and manage (refer or treat) substance abuse in dental patients.
- 6.19 Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Outline

Date	Activity	Presenter
8/15/13	Orient/Rigid vs Pliant (m)	Dr. Mattingly
8/22/13	Preparation Theory	Dr. Mattingly
8/26/13	Dental Waxes Practice Inlay Prep The Metallic Inlay	Dr. Crim Dr. Mattingly
9/9/13	The Indirect Technique Inlay Temporarie	Dr. Mattingly
9/12/13	The Lost Wax Technique	Dr. Mattingly
9/16/13	Gypsum Products 2	Dr. Crim
9/19/13	The Metallic Onlay	Dr. Mattingly
9/23/13	Elastomeric Imp Material	Dr. Crim
9/30/13	Mechanical Properties	Dr. Crim
10/3/13	The Metallic Onlay Preparation Orientation	Dr. Mattingly
10/10/13	Lecture Examination #1	
10/14/13	Tooth Colored Single U Indirect Restorations (m)	Dr. Mattingly
10/17/13	The Full Metal Crown	Dr. Mattingly
10/21/13	Metallurgy Ordered Crystals(c	Dr. Crim
10/24/13	Metallurgy Ordered Crystals Full Metal Prep Open Flame Soldering	Dr. Mattingly Dr. Crim
10/28/13	Endodontic Therapy / Post & Core Post & Core Temp Clinical Post & Core	Dr. Topor
10/31/13	Single Unit Tooth Colored Restorations	Dr. Harris Dr. Crim
11/4/13	Metallurgy Disordered Crystals	Dr. Crim
11/7/13	Soft Tissue Management	Dr. Mattingly
11/11/13	Gold Alloys Electrosurgery	Dr. Crim Dr. Mattingly
11/14/13	Custom Cast Metal Post & Core	Dr. Mattingly
11/18/13	Alumina Core Single Unit Prep	Dr. Mattingly
11/21/13	127 Hydrocolloid Imp. Material	Dr. Crim

11/25/13	Proficiency Exam	
12/2/13	Cements I Cements II	Dr. Crim
12/5/12	Lecture Examination II	

Evaluation

The Lecture Course Grade will be determined by the performance on two objective examinations. The examinations are weighted.

Midterm Examinations 45 Points

Final Examination 55 Points

Grade Scale

A = 93 to 100 points

B = 86 to 92 points

C = 78 to 85 points

D = 70 to 77 points

F = 0 to 69 points

Faculty

Dr. Stephen Mattingly (course director)

Dr. Robert Harris

Dr. Gary Crim

Dr. Stephen Topor

Semester Offered – D2 Year; Fall Semester

Course Description

This 3 credit hour course will be offered in the fall semester and will provide the opportunity for hands-on simulations of dental therapies involved in the creation and delivery of several types of single unit rigid dental restorations. Clinical and laboratory activities are taught.

Course Objectives

1. gain experience with the operations of a fully functional dental unit including optimal ergonomic principles, use of infection control barriers, and efficiency.
2. prepare synthetic cutting teeth for various cast restorations while emphasizing tooth conservation, pulpal health, adequate retention, and good aesthetics. The focus is on cast metal inlays, onlays, custom post and cores, and full crowns.
3. fabricate provisional restorations which possess retention, marginal integrity, appropriate contours and occlusion.
4. construct a cast restoration utilizing the lost wax technique and the indirect method of fabrication.
5. demonstrate competence in the preparation, temporization, impressing, mounting, waxing, investing, casting, finishing, and delivering of single unit cast restorations.
6. demonstrate the use of critical thinking regarding all aspects of indirect restorations.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 2.9 Graduates must be competent in the use of critical thinking and problem solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.2 Evaluate relevant models of oral health care management and delivery.
- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.

- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 3.5 Develop a catastrophe preparedness plan for the dental practice.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7 Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10 Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.

- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.
- 6.18 Recognize and manage (refer or treat) substance abuse in dental patients.
- 6.19 Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Outline

Date	Activity	Presenter
8/15/13	Orient/Rigid vs Pliant (m)	Dr. Mattingly
8/22/13	Preparation Theory	Dr. Mattingly
8/26/13	Dental Waxes Practice Inlay Prep The Metallic Inlay	Dr. Crim Dr. Mattingly
9/9/13	The Indirect Technique Inlay Temporaries	Dr. Mattingly
9/12/13	The Lost Wax Technique	Dr. Mattingly
9/16/13	Gypsum Products 2	Dr. Crim
9/19/13	The Metallic Onlay	Dr. Mattingly
9/23/13	Elastomeric Imp Material	Dr. Crim
9/30/13	Mechanical Properties	Dr. Crim
10/3/13	The Metallic Onlay Preparation Orientation	Dr. Mattingly
10/10/13	Lecture Examination #1	
10/14/13	Tooth Colored Single U Indirect Restorations (m)	Dr. Mattingly
10/17/13	The Full Metal Crown	Dr. Mattingly
10/21/13	Metallurgy Ordered Crystals(c	Dr. Crim
10/24/13	Metallurgy Ordered Crystals Full Metal Prep Open Flame Soldering	Dr. Mattingly Dr. Crim
10/28/13	Endodontic Therapy / Post & Core Post & Core Temp Clinical Post & Core	Dr. Topor
10/31/13	Single Unit Tooth Colored Restorations	Dr. Harris Dr. Crim
11/4/13	Metallurgy Disordered Crystals	Dr. Crim
11/7/13	Soft Tissue Management	Dr. Mattingly

11/11/13	Gold Alloys Electrosurgery	Dr. Crim Dr. Mattingly
11/14/13	Custom Cast Metal Post & Core	Dr. Mattingly
11/18/13	Alumina Core Single Unit Prep	Dr. Mattingly
11/21/13	127 Hydrocolloid Imp. Material	Dr. Crim
11/25/13	Proficiency Exam	
12/2/13	Cements I Cements II	Dr. Crim
12/5/12	Lecture Examination II	

Evaluation

Project #1 Inlay 40 points

Project #2 Post & Core Pattern / Temporary 40 points

Quiz on the Manual 1 point

Full Crown Preparation 3 points

Gingival Retraction 3 points

Aluminum Shell Crown 3 points

Proficiency Examination: Preparation for Rigid Restoration 10 points

Grading Scale

A+ 100%

A 96.5%

A- 94 %

B+ 91 %

B 89%

B- 87%

C+ 84%

C 81.5%

C- 78 %

D 73.5%

F 0% - 50%

F 0% if project not turned in

This Laboratory Course will use the Departmental Grade Table for final letter grades.

A 93 to 100 points

B 86 to 92 points

C 78 to 85 points

D 70 to 77 points

F 0 to 69 points

Since decimals of .5 and above will be rounded up to the whole number, a more precise version of this table is this...

A 92.5 to 100 points

B 85.5 to 92.4 points

C 77.5 to 85.4 points

D 69.5 to 77.4 points
F 0 to 69.4 points

Faculty

Dr. Stephen Mattingly (course director)

Dr. Robert Harris

Dr. Mike Mansfield

Dr. Stephen Topor

Dr. Doug Cotton

Dr. Wayne Lay

Dr. Greice Oliveira

Semester Offered - D2 Fall Semester

Course Description

This initial lecture series includes instruction in terminology, basic principles of removable partial denture design, diagnostic cast analysis, surveying, nomenclature, framework construction, construction of custom trays, construction of record bases and occlusion rims, and mouth preparation.

Course Information

This is the initial didactic course in removable partial prosthodontics for dental students and a multi-media approach is used. There are 48 lectures on Youtube for review. The general assembly sessions are illustrated by the use of PowerPoint presentations, blackboard illustrations, video tapes, and internet generated illustrations. In addition to the lectures and handouts, the students are given reading assignments in the textbook. Homework is assigned and quizzes are given on the homework assignments.

The PowerPoint lectures are an effective method for giving information and explaining concepts to large groups. The Youtube videos are a good way for the student to prepare for the class on his own time and to review for tests. The videos are effective for the demonstration of principles and techniques that require movement. Handouts and reading assignments are provided.

The School of Dentistry has adopted **The Code of Professional Responsibility** and The Professional Decorum Policy, which will be strictly enforced in the course. All students participating in this course should familiarize themselves with the content and intent of these documents in order to fully conform with stated requirements.

Course Objectives

Upon completion of this course, the students should be able to:

1. Be given an illustration of a removable partial denture, a metal frame of a removable partial denture, or a removable partial denture and be able to recognize and name each component part.
2. Be able to give or recognize a definition of prosthodontic terminology and Select from multiple choices the definitions of these and other prosthodontic terms.
3. Recognize and select from illustrations or descriptions, various types of direct retainers (cast circumferential, bar type, wrought wire).
4. Recognize and identify the four Kennedy Classifications and modifications to the basic classifications.
5. Comprehend the use of a dental surveyor and principles of partial denture design related to the Class I, II, III, IV partially edentulous arches.
6. Comprehend the principles of mouth preparation related to identification and removal of tooth interferences, reduction of unfavorable tooth contours and guiding planes.
7. Understand the principles of mouth preparations related to rest seat preparation.
8. Understand the principles of wax relief and blockout as related to construction of the removable partial denture framework.

9. Comprehend the principles of framework wax pattern preparation, the casting of the RPD framework and final polishing of the framework.
10. Understand the physical, chemical and handling characteristics of polymer materials and wrought metals used in the construction of the RPD framework.
11. Comprehend procedures for construction of record bases and occlusion rims, recording of jaw registration records, and mounting of the diagnostic casts for treatment planning.
12. Comprehend fabrication of a custom impression tray for alginate, polysulfide, polyvinyl siloxane, or poly ether impression materials.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Patient Based cases are used)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants. (Seminars using real patient models)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology. Course uses actual patient material (unlabeled) to learn.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - h. replacement of teeth including fixed, removable and dental implants.

Outline

Date	Activity	Presenter
Aug 12	Course Introduction; Terminology, Kennedy Classification, Equilibrate Dentoform Diagnostic Impression Max., Rotate through exhibits of RPD Term.	Dr. Windchy
Aug 19	Major and Minor Connectors, Clasp Assemblies, Diagnostic Impression Mand, Rotate through exhibits Students will grade colleague's project 1	Dr. Windchy
Aug 26	Principles of Surveying Kennedy Class IV S & D Principles. Seminal: Broadcast and student interaction .Analyze Cast Max Ken IV, Survey the Cast, Draw Design on Tentative Design Sheet, Draw Design on Cast Students Grade Colleague Project 2	Dr. Windchy
Sept. 2	Survey and Design Ken Class III Lecture Seminar: S & D Mand Ken Cls IV & Ken Cls III Mx	Dr. Windchy
Sept 9	Polymers Lecture Record Bases and ORims Lecture Construction of 1 Record Base and Occlusion Rim	Dr. Crim Dr Windchy

Sept 16	Seminar: S&D Ken Cls III Mand Exam 1: S&D a Ken Cls IV Cast, Student Grade #3 Work on 2nd Record Base and Occlusion Rim	Dr. Windchy
Sept. 23	Midterm Finish Record Base and Occlusion Rim	Dr. Windchy
Sept 30	Exam 2: S & D Kennedy Class III Practical Mounting the Case for Diagnosis Lecture Start Mounting the Case, Student Grades Project 4	Dr. Windchy
Oct 06	Fall Break	
Oct 14	Survey and Design Ken Class II Lecture Survey and Design Max and Mand Ken Class II csts	Dr. Windchy
Oct 21	Survey and Design Ken Class I Lecture Seminar: S & D Max and Mand Ken Class I Casts Finish Mounting Casts, Students Grade Proj. 5	Dr. Windchy
Oct 28	Exam #3 S & D Ken Cls II Cast Lecture Construction of Custom Trays Create 1 Custom Tray	Dr. Windchy
Nov. 04	Rest Preparation Lecture Students Grade Proj 6 Prepare Axial Contours on Dentoform	Dr. Windchy
Nov 11	Lecture Blockout and Relief & Framework Construct. Rotate through Exhibits on Frame Construction Exam #4: S & D Kennedy Class I Cast Practice rest preps	Dr. Windchy
Nov 18	Mouth Preparation Exercise Graded Finish Custom Tray and turn it in Student's grade #7	Dr. Windchy
Nov 25	Wrought Metals Lecture Master Impressions Make Master Impressions of Dentoforms with Rests	Dr. Crim Dr. Windchy
Dec 2	Exam 5 Practical Exam on Mouth Preparation Exam 6 S & D a tooth supported RPD (Ken III or IV) Graded for Competency Surey and Design the Master Casts from impressions	Dr. Windchy
Dec. 9	Final Exam Exam 7 - S and D an extension base Cast (Ken I or II) Write a Prescription for our Frameworks to be made	Dr. Windchy & Faculty Faculty Dr. Windchy

Evaluation

Midterm	40%
Final Exam	40 %
Quizzes	10%
Homework	10 %

Grade Scale

A = 90-100
B = 80-89
C = 70-79
F = Below 70

Faculty

Dr. Ann Windchy
Dr. David Maddy
Dr. James Marcum

Dr. John Chou
Dr. Bruce Stewart
Dr. Mike Mansfield
Dr. Nick Kaleel
Dr. Richard Keeling
Dr. Marcelo Durski
Dr. Madeline Hicks
Dr. Jyme Charette

OHR 864-03 Removable Partial Dentures LAB

1.5 Credit Hours

Semester Offered – D2 Year; Fall

Course Description

This is the initial Laboratory Course that closely follows the lecture course. It contains projects and experiences that prepare the student for his clinical experience in Removable Partial Dentures. Projects prepare the student to work up a patient to treatment planning of the partial denture. The student learns to survey a cast and prepare a design for the removable partial denture. He learns this with actual patient casts and must make critical thinking decisions on the design based on information about the patient. He develops the skill of alteration of the tooth for mouth preparations using a Dentoform. The student self-evaluates his work and then another student grades his project using Grade sheets designed to evaluate the various requirements of the project.

This is the initial didactic course in removable partial prosthodontics for dental students and a multi-media approach is used. The general assembly sessions are illustrated by the use of PowerPoint presentations, blackboard illustrations, videotapes, and Internet generated illustrations. In addition to the lectures and handouts, the students are given reading assignments in the textbook. Homework is assigned and quizzes are given on the homework assignments.

The School of Dentistry has adopted **The Code of Professional Responsibility** and The Professional Decorum Policy, which will be strictly enforced in the course. All students participating in this course should familiarize themselves with the content and intent of these documents in order to fully conform to stated requirements.

Course Objectives

Upon completion of this course, the students should be able to:

13. Be given an illustration of a removable partial denture, a metal frame of a removable partial denture, or a removable partial denture and be able to recognize and name each component part.
14. Recognize and select from illustrations or descriptions, various types of direct retainers (cast circumferential, bar type, wrought wire).
15. Recognize and identify the four Kennedy Classifications and modifications to the basic classifications.
16. Be given a maxillary and/or mandibular Kennedy Class I, II, III, IV partially edentulous cast, and with the aid of a dental surveyor, be able to survey and design a removable partial denture for that cast.
17. Comprehend the principles of mouth preparation related to identification and removal of tooth interferences, reduction of unfavorable tooth contours and guiding planes and apply them to the provided dentoform.
18. Understand the principles of mouth preparations related to rest seat preparation and apply those principles to rest seat preparation on the dentoform.
19. Understand the principles of wax relief and blockout as related to construction of the removable partial denture framework.
20. Comprehend the principles of framework wax pattern preparation and the construction of the RPD framework.

21. Understand the physical, chemical and handling characteristics of polymer material and wrought metals used in the construction of the RPD.
22. Be able to construct a custom tray for a removable partial denture impression made with alginate, polysulfide, irreversible hydrocolloid, polyvinyl siloxane or polyether.
23. Construct record bases and occlusion rims and use them to record a jaw registration record on a simulated patient.
24. Be able to mount diagnostic or master casts using the jaw registration record as would be done for diagnosis prior to treatment planning or for construction of a framework opposing natural dentition.
25. Be given an illustration of a removable partial denture, a metal frame of a removable partial denture, or a removable partial denture and be able to recognize and name each component part.
26. Recognize and select from illustrations or descriptions, various types of direct retainers (cast circumferential, bar type, wrought wire).
27. Recognize and identify the four Kennedy Classifications and modifications to the basic classifications.
28. Be given a maxillary and/or mandibular Kennedy Class I, II, III, IV partially edentulous cast, and with the aid of a dental surveyor, be able to survey and design a removable partial denture for that cast.
29. Comprehend the principles of mouth preparation related to identification and removal of tooth interferences, reduction of unfavorable tooth contours and guiding planes and apply them to the provided dentoform.
30. Understand the principles of mouth preparations related to rest seat preparation and apply those principles to rest seat preparation on the dentoform.
31. Understand the principles of wax relief and blockout as related to construction of the removable partial denture framework.
32. Comprehend the principles of framework wax pattern preparation and the construction of the RPD framework.
33. Understand the physical, chemical and handling characteristics of polymer material and wrought metals used in the construction of the RPD.
34. Be able to construct a custom tray for a removable partial denture impression made with alginate, polysulfide, irreversible hydrocolloid, polyvinyl siloxane or polyether.
35. Construct record bases and occlusion rims and use them to record a jaw registration record on a simulated patient.
36. Be able to mount diagnostic or master casts using the jaw registration record as would be done for diagnosis prior to treatment planning or for construction of a framework opposing natural dentition.
37. Be able to make an impression of a simulated patient using the custom impression trays constructed in the class. Two different materials will be used.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Patient Based cases are used)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.

- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants. (Seminars using real patient models)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
- f. restoration of teeth

Outline

Date	Activity	Presenter
Aug 13	Course Introduction; Terminology, Kennedy Classification, Equilibrate Dentoform Diagnostic Impression Max. Rotate through exhibits of RPD Term.	Dr. Windchy
Aug 20	Major and Minor Connectors, Clasp Assemblies, Diagnostic Impression Mand, Rotate through exhibits Students will grade colleague's project 1	Dr. Windchy
Aug 27	Principles of Surveying Kennedy Class IV S & D Principles. Seminal: Broadcast and student interaction. Analyze Cast Max Ken IV, Survey the Cast, Draw Design on Tentative Design Sheet, Draw Design on Cast Students Grade Colleague Project 2	Dr. Windchy
Sept. 03	Survey and Design Ken Class III Lecture Seminar: S & D Mand Ken Class IV & Ken Class III Mix	Dr. Windchy
Sept 10	Polymers Lecture Record Bases and ORims Lecture Construction of 1 Record Base and Occlusion Rim	Dr. Crim Dr Windchy
Sept 17	Seminar: S&D Ken Cls III Mand Exam 1: S&D a Ken Cls IV Cast, Student Grade #3 Work on 2nd Record Base and Occlusion Rim	Dr. Windchy
Sept. 24	Midterm Finish Record Base and Occlusion Rim	Dr. Windchy
Oct. 01	Exam 2: S & D Kennedy Class III Practical Mounting the Case for Diagnosis Lecture Start Mounting the Case, Student Grades Project 4	Dr. Windchy
Oct 08	Fall Break	
Oct 15	Survey and Design Ken Class II Lecture Survey and Design Max and Mand Ken Class II csts	Dr. Windchy
Oct 22	Survey and Design Ken Class I Lecture Seminar: S & D Max and Mand Ken Class I Casts Finish Mounting Casts, Students Grade Proj. 5	Dr. Windchy
Oct 29	Exam #3 S & D Ken Cls II Cast Lecture Construction of Custom Trays Create 1 Custom Tray	Dr. Windchy
Nov. 05	Rest Preparation Lecture Students Grade Proj 6	Dr. Windchy

	Prepare Axial Contours on Dentoform	
Nov 12	Lecture Blockout and Relief & Framework Construct. Rotate through Exhibits on Frame Construction Exam #4: S & D Kennedy Class I Cast Practice rest preps	Dr. Windchy
Nov 19	Mouth Preparation Exercise Graded Finish Custom Tray and turn it in Student's grade #7	Dr. Windchy
Nov 26	Wrought Metals Lecture Master Impressions Make Master Impressions of Dentoforms with Rests	Dr. Crim Dr. Windchy
Dec 3	Exam 5 Practical Exam on Mouth Preparation Exam 6 S & D a tooth supported RPD (Ken III or IV) Graded for Competency Survey and Design the Master Casts from impressions	Dr. Windchy
Dec. 10	Final Exam Exam 7 - S and D an extension base Cast (Ken I or II) Write a Prescription for our Frameworks to be made	Dr. Windchy & Faculty Faculty Dr. Windchy
Aug 13	Course Introduction; Terminology, Kennedy Classification, Equilibrate Dentoform Diagnostic Impression Max. Rotate through exhibits of RPD Term.	Dr. Windchy
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Sept. 03	Survey and Design Ken Class III Lecture Seminar: S & D Mand Ken Class IV & Ken Class III Mix	Dr. Windchy
Sept 10	Polymers Lecture Record Bases and ORims Lecture Construction of 1 Record Base and Occlusion Rim	Dr. Crim Dr Windchy
Sept 17	Seminar: S&D Ken Cls III Mand Exam 1: S&D a Ken Cls IV Cast, Student Grade #3 Work on 2nd Record Base and Occlusion Rim	Dr. Windchy
Sept. 24	Midterm Finish Record Base and Occlusion Rim	Dr. Windchy
Oct. 01	Exam 2: S & D Kennedy Class III Practical Mounting the Case for Diagnosis Lecture Start Mounting the Case, Student Grades Project 4	Dr. Windchy
Oct 08	Fall Break	
Oct 15	Survey and Design Ken Class II Lecture Survey and Design Max and Mand Ken Class II csts	Dr. Windchy
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Oct 29	Exam #3 S & D Ken Cls II Cast Lecture Construction of Custom Trays Create 1 Custom Tray	Dr. Windchy
Nov. 05	Rest Preparation Lecture Students Grade Proj 6 Prepare Axial Contours on Dentoform	Dr. Windchy
Nov 12	Lecture Blockout and Relief & Framework Construct.	Dr. Windchy

	Rotate through Exhibits on Frame Construction Exam #4: S & D Kennedy Class I Cast Practice rest preps	
Nov 19	Mouth Preparation Exercise Graded Finish Custom Tray and turn it in Student's grade #7	Dr. Windchy
Nov 26	Wrought Metals Lecture Master Impressions Make Master Impressions of Dentoforms with Rests	Dr. Crim Dr. Windchy
Dec 3	Exam 5 Practical Exam on Mouth Preparation Exam 6 S & D a tooth supported RPD (Ken III or IV) Graded for Competency Survey and Design the Master Casts from impressions	Dr. Windchy
Dec. 10	Final Exam Exam 7 - S and D an extension base Cast (Ken I or II) Write a Prescription for our Frameworks to be made	Dr. Windchy & Faculty Faculty Dr. Windchy
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Sept. 03	Survey and Design Ken Class III Lecture Seminar: S & D Mand Ken Class IV & Ken Class III Mix	Dr. Windchy
Sept 10	Polymers Lecture Record Bases and ORims Lecture Construction of 1 Record Base and Occlusion Rim	Dr. Crim Dr Windchy
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Oct. 01	Exam 2: S & D Kennedy Class III Practical Mounting the Case for Diagnosis Lecture Start Mounting the Case, Student Grades Project 4	Dr. Windchy
Oct 08	Fall Break	
Oct 15	Survey and Design Ken Class II Lecture Survey and Design Max and Mand Ken Class II csts	Dr. Windchy
Oct 22	Survey and Design Ken Class I Lecture Seminar: S & D Max and Mand Ken Class I Casts Finish Mounting Casts, Students Grade Proj. 5	Dr. Windchy
Oct 29	Exam #3 S & D Ken Cls II Cast Lecture Construction of Custom Trays Create 1 Custom Tray	Dr. Windchy
Nov. 05	Rest Preparation Lecture Students Grade Proj 6 Prepare Axial Contours on Dentoform	Dr. Windchy
Nov 12	Lecture Blockout and Relief & Framework Construct. Rotate through Exhibits on Frame Construction Exam #4: S & D Kennedy Class I Cast	Dr. Windchy

	Practice rest preps	
Nov 19	Mouth Preparation Exercise Graded Finish Custom Tray and turn it in Student's grade #7	Dr. Windchy
Nov 26	Wrought Metals Lecture Master Impressions Make Master Impressions of Dentoforms with Rests	Dr. Crim Dr. Windchy
Dec 3	Exam 5 Practical Exam on Mouth Preparation Exam 6 S & D a tooth supported RPD (Ken III or IV) Graded for Competency Survey and Design the Master Casts from impressions	Dr. Windchy
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Oct 29	Exam #3 S & D Ken Cls II Cast Lecture Construction of Custom Trays Create 1 Custom Tray	Dr. Windchy
Nov. 05	Rest Preparation Lecture Students Grade Proj 6 Prepare Axial Contours on Dentoform	Dr. Windchy
Nov 12	Lecture Blockout and Relief & Framework Construct. Rotate through Exhibits on Frame Construction Exam #4: S & D Kennedy Class I Cast Practice rest preps	Dr. Windchy

Nov 19	Mouth Preparation Exercise Graded Finish Custom Tray and turn it in Student's grade #7	Dr. Windchy
Nov 26	Wrought Metals Lecture Master Impressions Make Master Impressions of Dentoforms with Rests	Dr. Crim Dr. Windchy
Dec 3	Exam 5 Practical Exam on Mouth Preparation Exam 6 S & D a tooth supported RPD (Ken III or IV) Graded for Competency Survey and Design the Master Casts from impressions	Dr. Windchy
Dec. 10	Final Exam Exam 7 - S and D an extension base Cast (Ken I or II) Write a Prescription for our Frameworks to be made	Dr. Windchy & Faculty Faculty Dr. Windchy
Aug 13	Course Introduction; Terminology, Kennedy Classification, Equilibrate Dentoform Diagnostic Impression Max. Rotate through exhibits of RPD Term.	Dr. Windchy

Evaluation

Lab - 7 written examinations will be given during the course.

Grade Scale

A = 90-100

B = 80 -89.99

C = 70 - 79.99

F = Below 70

Faculty

Dr. David Maddy

Dr. James Marcum

Dr. Mike Mansfield

Dr. Richard Keeling

Dr. Steve Mattingly

Dr. Jim Kelly

Dr. Eiad Elathamna

Dr. Ann Windchy

Semester Offered – D2 Year; Spring Semester

Course Description

This sophomore level didactic course introduces the DMD candidate to the discipline of Fixed Prosthodontics. The student will learn how this discipline relates to the specialty of Prosthodontics Including philosophies, governance, and information sources. Principles of diagnosis and treatment planning of tooth / tissue replacement with traditional fixed partial dentures will be taught. Clinically oriented descriptions of fixed partial denture preparation, impressions, mounting, fabrication , and delivery will take place. The student will also be introduced to the techniques of dental CAD/CAM. Finally, a rational basis for patient referral by the general practitioner to the Prosthodontist will be discussed.

Course Objectives

Upon completion of this course, the students should be able to:

1. list the range of therapies common to the discipline of Fixed Prosthodontics and describe how the discipline relates to the specialty of Prosthodontics.
2. list the philosophy of the specialty of Prosthodontics, and describe its governance structure within organized dentistry.
3. list several print and electronic information sources for current information in this field.
4. explain the clinical and laboratory process of diagnosing, treatment planning, preparing, temporizing, mounting, fabricating, investing, casting, finishing, delivering, and removing fixed partial dentures.
5. list the indications and contraindications for porcelain fused to metal , core reinforced ceramic, and all metal fixed partial dentures .
6. describe the physical and mechanical properties and proper handling of the dental materials used in the construction of fixed partial dentures.
7. describe the indications, contraindications, and techniques of dental CAD/CAM.
8. describe the dentist / laboratory relationship and the prudent methods of optimal communication between the two.
9. become familiar with the Glossary of Prosthodontic Terms
10. describe a rational approach for deciding when the general practitioner should refer a patient to a Prosthodontist.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.

- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 2.9 Graduates must be competent in the use of critical thinking and problem solving, Including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.2 Evaluate relevant models of oral health care management and delivery.
- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 3.5 Develop a catastrophe preparedness plan for the dental practice.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.

- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7 Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10 Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.
- 6.18 Recognize and manage (refer or treat) substance abuse in dental patients.
- 6.19 Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Outline

Date	Activity	Presenter
1/6/14	Orientation / Prosthodontics the Specialty	Dr. Mattingly
1/9/14	Treatment Planning I / Tx Planning Exercise Expert Panel Tx Plan I	Dr. Mattingly
1/13/14	10 FPD the Discipline / Tx Planning II	Dr. Mattingly
1/16/14	Omnivac™ Matrices / Full Arch Elastomeric Impressions	Dr. Mattingly
1/23/14	Labs - Omnivac™ Matrices & <u>SimClinic Rotations</u>	Dr. Mattingly
1/27/14	Pontic Theory / Working Casts Parts 1, 2, 3	Dr. Mattingly
1/30/14	Dental Porcelains	Dr. Crim
2/3/14	Margin Design & Placement	Dr. Mattingly

2/6/14	Periodontics & Fixed Prosthodontics	Dr. Mattingly
2/10/14	Anterior Fixed Partial Denture Video	Dr. Mattingly
2/13/14	Ceramic Metals	Dr. Crim
2/17/14	Color Science	Dr. Mattingly
2/20/14	<u>First Lecture Examination</u>	
2/24/14	Try-In & Adjustment / Clinical Cementation / Luting / Removal	Dr. Mattingly Dr. Bohn
2/27/14	Non Rigid Connectors / Orientation Posterior FPD	Dr. Mattingly
3/3/14	Real Preps Posterior FPD	Dr. Mattingly
3/6/14	Orientation Post Temp FPD Tooth Replacement	Dr. Mattingly Dr. Sasek
3/10/14	Anterior Preparations	Dr. Topor
3/13/14	Articulators	Dr. Mattingly
3/24/14	PreProsthetic Orthodontics	Dr. Mattingly
3/27/14	Anterior Temporary FPD Orientation	Dr. Mattingly
3/31/14	Custom Triad™ Tray	Dr. Mattingly
4/3/14	Mx & Mand Impressions	Dr. Mattingly
4/7/14	CAD/CAM	Dr. Mattingly
4/10/14	Fixed Prosthodontics & Rx Writing	Dr. Topor
4/14/14	Fixed Prosthodontics & Jurisprudence	Dr. Mattingly
4/17/14	Clinical “Fixed” Orientation	Dr. Mattingly
4/21/14	Reduction Matrices / Proficiency Orientation	Dr. Mattingly
4/24/14	Proficiency Exam	
4/28/14	<u>Final Lecture Examination</u>	

Evaluation

The evaluation instrument will consist of 2 objective examinations given on the dates noted in the schedule. Point values for the exams will be...

EXAM #1 = 45 points

EXAM #2 = 55 points.

Grade Scale

93 – 100 = A

86 – 92 = B

78 – 85 = C

70 – 77 = D

0 – 69 = F

Faculty

Dr. Stephen Mattingly (course director)

Dr. Gary Crim
Dr. Bohn
Dr. Stephen Topor
Dr. Mike Mansfield
Dr. Maria Sasek

Semester Offered – D2 Year; Spring Semester

Course Description

This sophomore level simulation and laboratory course provides the opportunity for hands-on simulations of dental therapies involved in the creation and delivery of anterior and posterior fixed partial dentures. Students will utilize a case based instruction technique in order to diagnose and treatment plan two imaginary patients. Clinical and laboratory techniques involved in the diagnosis, treatment planning, preparation, temporization, impressing, mounting, fabrication and delivery of anterior and posterior fixed partial dentures are taught. There are also exercises in restoration removal and laboratory prescription writing.

Course Objectives

Upon completion of this course, the students should be able to:

1. gain experience with the operations of a fully functional dental unit including optimal ergonomic principles and proper use of infection control barriers.
2. prepare synthetic cutting teeth for anterior and posterior fixed partial dentures while emphasizing tooth conservation, pulpal health, adequate retention, and good aesthetics. The focus is on preparations for porcelain fused to metal and all metal fixed partial dentures.
3. fabricate provisional restorations which possess retention, margin integrity, appropriate contours and occlusion.
4. construct a cast restoration utilizing the lost wax technique and the indirect method of fabrication.
5. diagnose and write an appropriate treatment plan for two patients with fixed prosthodontic needs.
6. select and utilize appropriate articulators for laboratory procedures for fixed prosthodontic patients.
7. list the methods for removal of a permanently cemented restoration without injury to the patient.
8. demonstrate competence in preparation and temporization for anterior and fixed partial dentures.
9. demonstrate competence in managing a crown and bridge preparation appointment via proficiency examination.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.

- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 2.9 Graduates must be competent in the use of critical thinking and problem solving, Including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.2 Evaluate relevant models of oral health care management and delivery.
- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 3.5 Develop a catastrophe preparedness plan for the dental practice.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
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- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
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- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.

- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
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- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
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- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.
- 6.18 Recognize and manage (refer or treat) substance abuse in dental patients.
- 6.19 Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Outline

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1/23/14	Labs - Omnivac™ Matrices & <u>SimClinic Rotations</u>	Dr. Mattingly
1/27/14	Pontic Theory / Working Casts Parts 1, 2, 3	Dr. Mattingly
1/30/14	Dental Porcelains	Dr. Crim
2/3/14	Margin Design & Placement	Dr. Mattingly
2/6/14	Periodontics & Fixed Prosthodontics	Dr. Mattingly

2/10/14	Anterior Fixed Partial Denture Video	Dr. Mattingly
2/13/14	Ceramic Metals	Dr. Crim
2/17/14	Color Science	Dr. Mattingly
2/20/14	<u>First Lecture Examination</u>	
2/24/14	Try-In & Adjustment / Clinical Cementation / Luting / Removal	Dr. Mattingly Dr. Bohn
2/27/14	Non Rigid Connectors / Orientation Posterior FPD	Dr. Mattingly
3/3/14	Real Preps Posterior FPD	Dr. Mattingly
3/6/14	Orientation Post Temp FPD Tooth Replacement	Dr. Mattingly Dr. Sasek
3/10/14	Anterior Preparations	Dr. Topor
3/13/14	Articulators	Dr. Mattingly
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4/3/14	Mx & Mand Impressions	Dr. Mattingly
4/7/14	CAD/CAM	Dr. Mattingly
4/10/14	Fixed Prosthodontics & Rx Writing	Dr. Topor
4/14/14	Fixed Prosthodontics & Jurisprudence	Dr. Mattingly
4/17/14	Clinical “Fixed” Orientation	Dr. Mattingly
4/21/14	Reduction Matrices / Proficiency Orientation	Dr. Mattingly
4/24/14	Proficiency Exam	
4/28/14	<u>Final Lecture Examination</u>	

Evaluation

Project # 1 = 30 points

Preparations for Mrs. Stevens #'s 19,20

Casting # 19

Working Casts / Mounting

Project # 2 = 30 points

Preparations for Ms. Perdu 29 X 31, 6 X 8

Temporaries for Ms. Perdu 29 X 31, 6 X 8

Working Casts & Mounting

Pass/Fail Learning Experiences

Treatment Plan for Patient # 1 = 5 points

Treatment Plan for Patient #2 = 5 points

Crown & Bridge Removal = 5 points

Laboratory Prescription = 5 points

Proficiency Examination = 20 points

Grading Scale

93 – 100 = A

86 – 92 = B

78 – 85 = C

70 – 77 = D

0 - 69 = F

Faculty

Dr. Stephen Mattingly (course director)

Dr. Bohn

Dr. Stephen Topor

Dr. Mike Mansfield

Dr. David Maddy

Dr. James Marcum

Dr. Nicholas Kaleel

Dr. Daniel Fadel

Semester Offered – D2 Year; Spring semester

Course Description

The course provides instruction regarding complete denture prosthodontic procedures and is designed to inform the student of the concepts and the “how to” of procedures as related to the fabrication of the complete dentures. Concepts of complete dentures are reviewed and applied to the fabrication of complete dentures on patients in the clinics.

Course Objectives

Upon completion of this course, the students should be able to:

1. Identify anatomical landmarks relating to complete denture construction
2. Correlate the anatomy with procedures used in making dentures
3. Understand how to perform an examination and patient evaluation of a completely edentulous patient
4. Understand how to make diagnostic impressions and primary casts
5. Understand how to construct custom trays
6. Learn how to trim custom trays, bordermold the tray and make master impressions
7. Learn how to construct baseplates and occlusion rims on master casts
8. Learn how to establish proper contour of the maxillary and mandibular occlusion rims
9. Understand how to establish a proper vertical dimension of occlusion
10. Understand how to articulate master casts on an articulator in the proper relationship
11. Understand how to arrange the upper & lower anterior teeth for good esthetics and proper incisal guidance. Examine the principles of esthetics related to all dentition.
12. Learn how to arrange the flat plane posterior teeth in proper occlusion
13. Learn how to arrange posterior teeth in lingualized occlusion
14. Festooning of dentures (wax pattern) will be discussed

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Written examinations)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics. (Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
- f. restoration of teeth

Outline

Date	Activity	Presenter
01/10/14	Introduction, Patient Records, Examination, Primary Impressions Record examination sheet, make Max. and Mand. primary Impressions Complete diag. Impressions & Grading by Faculty on CD Step Card	
01/17/14	Custom Tray Fabrication for Complete Dentures Construct Custom Trays for Complete Dentures Get Diagnostic Casts checked by Faculty on CD Step Card	
01/24/14	Trim Max. Tray, Bordermold Max. Tray, Record Max. Master Impression Mx. custom tray, Trim tray, bordermold Max. tray, Max. master Impression, Get Steps Checked by Faculty	
01/31/14	Trim Mand. Tray, Bordermold Mand. Custom Tray, Make Mand. Master Impression, Md. custom tray, trim tray, bordermold max. tray, max. master impression Get Steps Checked by Faculty	
02/07/14	Finish Master Impressions – Get Steps Checked by Faculty	
02/14/14	Introduction, Patient Records, Examination, Primary Impressions Record examination sheet, make Max. and Mand. primary Impressions Complete diag. Impressions & Grading by Faculty on CD Step Card	
02/21/14	Custom Tray Fabrication for Complete Dentures Construct Custom Trays for Complete Dentures Get Diagnostic Casts checked by Faculty on CD Step Card	
02/28/14	Trim Max. Tray, Bordermold Max. Tray, Record Max. Master Impression Mx. custom tray, Trim tray, bordermold Max. tray, Max. master Impression, Get Steps Checked by Faculty	
03/07/14	Trim Mand. Tray, Bordermold Mand. Custom Tray, Make Mand.	

	Master Impression, Md. custom tray, trim tray, bordermold max. tray, max. master impression Get Steps Checked by Faculty	
03/14/14	Finish Master Impressions – Get Steps Checked by Faculty	
03/28/14	Introduction, Patient Records, Examination, Primary Impressions Record examination sheet, make Max. and Mand. primary Impressions Complete diag. Impressions & Grading by Faculty on CD Step Card	
04/04/14	Custom Tray Fabrication for Complete Dentures Construct Custom Trays for Complete Dentures Get Diagnostic Casts checked by Faculty on CD Step Card	
04/18/13	Trim Max. Tray, Bordermold Max. Tray, Record Max. Master Impression Mx. custom tray, Trim tray, bordermold Max. tray, Max. master Impression, Get Steps Checked by Faculty	
01/10/14	Trim Mand. Tray, Bordermold Mand. Custom Tray, Make Mand. Master Impression, Md. custom tray, trim tray, bordermold max. tray, max. master impression Get Steps Checked by Faculty	
01/17/14	Finish Master Impressions – Get Steps Checked by Faculty	
01/24/14	Introduction, Patient Records, Examination, Primary Impressions Record examination sheet, make Max. and Mand. primary Impressions Complete diag. Impressions & Grading by Faculty on CD Step Card	
01/31/14	Custom Tray Fabrication for Complete Dentures Construct Custom Trays for Complete Dentures Get Diagnostic Casts checked by Faculty on CD Step Card	
02/07/14	Introduction, Patient Records, Examination, Primary Impressions Record examination sheet, make Max. and Mand. primary Impressions Complete diag. Impressions & Grading by Faculty on CD Step Card	

02/14/14	Custom Tray Fabrication for Complete Dentures Construct Custom Trays for Complete Dentures Get Diagnostic Casts checked by Faculty on CD Step Card	
02/21/14	Trim Max. Tray, Bordermold Max. Tray, Record Max. Master Impression Mx. custom tray, Trim tray, bordermold Max. tray, Max. master Impression, Get Steps Checked by Faculty	
02/28/14	Trim Mand. Tray, Bordermold Mand. Custom Tray, Make Mand. Master Impression, Md. custom tray, trim tray, bordermold max. tray, max. master impression Get Steps Checked by Faculty	
03/07/14	Finish Master Impressions – Get Steps Checked by Faculty	
03/14/14	Introduction, Patient Records, Examination, Primary Impressions Record examination sheet, make Max. and Mand. primary Impressions Complete diag. Impressions & Grading by Faculty on CD Step Card	

Evaluation

Lecture – A written examination will be given during the course

Lab – A completed project will be completed and evaluated during the course

Grade Scale

A: 91 – 100%

B: 81 – 90%

C: 71 – 80%

D: 61 – 70%

F: 0 – 69%

Faculty

Dr. Tamer Abdel-Azim (Course Director)

Dr. Robert Bohn

Dr. Mike Mansfield

Dr. Doug Cotton

Dr. Lawrence Gettleman

Dr. Madeline Hicks

Dr. Mark Flesch

Dr. Nicholas Kaleel

Dr. Allen Linehan

Dr. James Woodward

OHR 869-04 Removable Partial Dentures II

1.5 Credit Hours

Semester Offered – D2 Year; Spring

Course Description

This initial lecture series includes instruction in terminology, basic principles of removable partial denture design, diagnostic cast analysis, surveying, nomenclature, framework construction, and construction of custom trays, construction of record bases and occlusion rims, and mouth preparation.

This is the initial didactic course in removable partial prosthodontics for dental students and a multi-media approach is used.. The general assembly sessions are illustrated by the use of PowerPoint presentations, blackboard illustrations, video tapes, and internet generated illustrations. In addition to the lectures and handouts, the students are given reading assignments in the textbook. Homework is assigned and quizzes are given on the homework assignments.

The PowerPoint lectures are an effective method for giving information and explaining concepts to large groups. The videos are effective for the demonstration of principles and techniques that require movement. Handouts and reading assignments are provided.

The School of Dentistry has adopted **The Code of Professional Responsibility** and The Professional Decorum Policy, which will be strictly enforced in the course. All students participating in this course should familiarize themselves with the content and intent of these documents in order to fully conform to stated requirements.

Course Objectives

Upon completion of this course, the students should be able to:

38. Be given an illustration of a removable partial denture, a metal frame of a removable partial denture, or a removable partial denture and be able to recognize and name each component part.
39. Be able to give or recognize a definition of prosthodontic terminology and Select from multiple choices the definitions of these and other prosthodontic terms.
40. Recognize and select from illustrations or descriptions, various types of direct retainers (cast circumferential, bar type, wrought wire).
41. Recognize and identify the four Kennedy Classifications and modifications to the basic classifications.
42. Comprehend the use of a dental surveyor and principles of partial denture design related to the Class I, II, III, IV partially edentulous arches.
43. Comprehend the principles of mouth preparation related to identification and removal of tooth interferences, reduction of unfavorable tooth contours and guiding planes.
44. Understand the principles of mouth preparations related to rest seat preparation.
45. Understand the principles of wax relief and blockout as related to construction of the removable partial denture framework.
46. Comprehend the principles of framework wax pattern preparation, the casting of the RPD framework and final polishing of the framework.
47. Understand the physical, chemical and handling characteristics of polymer materials and wrought metals used in the construction of the RPD framework.

48. Comprehend procedures for construction of record bases and occlusion rims, recording of jaw registration records, and mounting of the diagnostic casts for treatment planning.
49. Comprehend fabrication of a custom impression tray for alginate, polysulfide, polyvinyl siloxane, or poly ether impression materials.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Patient Based cases are used)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants. (Seminars using real patient models)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Outline

Date	Activity	Presenter
Jan. 07	Prescription & Analysis of Master Casts & Rests	Dr. linehan
Jan 14	Diagnosis and Mouth Preparations for RPD	Dr. Linehan
Jan 28	Interim Removable Partial Dentures & Essix	Dr. Linehan
Jan 31	Survey Crowns for RPD's	Dr. Lin
Feb 07	RPD Repairs	Dr Linehan
Feb 14	Relines and Soft Liners for RPD	Dr. Linehan
Feb 21	Midterm	Dr. Linehan
Feb 28	Altered Cast Procedure	Dr. Linehan
Mar 07	Spring Break	
Mar 14	Tooth Selection and Tooth Setting and Occlusion	Dr. Linehan
Mar 21	Attachments for RPD's	Dr. Lin
Mar 28	Rotational Path RPD's Swing Lock, Esthetic partials	Dr. Linehan
Apr. 04	CAD CAM RPD Design	Dr. Azim
Apr 11	Overlay Removable Partial Dentures	Dr. Linehan
Apr. 18	Implant Retained Removable Partial Dentures	Dr. Harris
Apr. 25	Final Exam	Dr. Linehan

Evaluation

Lab - Midterm and Final Exam

Grade Scale

A = 90-100

B = 80 -89.99

C = 70 - 79.99

F = Below 70

Faculty

Dr. Allan Linehan

Dr. Weishao Lin

Dr. Bryan Harris

Dr. Tamer Azim

OHR 870-04 Introduction to Implant Dentistry

Credit: 1

Semester Offered: Spring D2

Course Description

This course introduces the dental student to current concepts in the surgical and restorative aspects of implant dentistry. The student will become familiar with various aspects of the discipline, including a basic history of implants in dentistry, implant and restoration types, components and terminology, diagnosis and treatment planning.

Course Objectives

The course is designed to introduce the student to dental implant-based treatment concepts. These concepts will be part of a comprehensive approach to treatment, and will prepare students to evaluate patients with missing teeth, and provide broad treatment options. Students will be encouraged to think holistically, and differentiate between treatment procedures that can be successfully managed by general practitioners of varying experience and skills, and those requiring a specialist.

The course introduces the student to dental implant specific concepts that will encourage the student to successfully treatment plan, restore, and maintain dental implant patients at ULSD and in private practice. Students will understand objective assessment of patient treatment difficulty, and will be encouraged to manage patients appropriate for their level of skill, education and experience.

The course encompasses a broad spectrum of diagnostic and technical knowledge that will prepare the student for more advanced training and experience in implant dentistry.

Course Objectives

Upon completion of this course, the students should be able to:

1. Comprehensively evaluate patients, and present implant treatment options where appropriate.
2. Understand objective patient assessment and recognize factors that influence treatment difficulty and the likelihood of a compromised outcome.
3. Identify and provide a treatment plan for patients with straightforward treatment needs, including both edentulous and partially edentulous arches.
4. Identify and describe commonly utilized dental implants and restorative components.
5. Discuss and understand implant-based prosthetic options for completely and partially edentulous patients.
6. Understand and perform techniques for making final impressions and fabricating provisional prostheses for straightforward implant-based indications.
7. Understand and perform clinical and laboratory procedures associated with the definitive restoration of implants in straightforward indications.
8. Understand and observe surgical procedures associated with implants in straightforward indications.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
(Written examinations)

- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics. (Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Outline

Date	Activity	Presenter
1/14/14	Introduction and Implant Evolution	Morton
1/21/14	Physical Diagnosis and Patient Candidacy	Kushner
1/28/14	Introduction to Templates	Morton
2/4/14	Radiologic Assessment Options	Scarfe
2/11/14	Template Hands On Seminar 1	Morton
2/18/14	Template Hands On Seminar 2	Azim
2/25/14	Diagnosis and Planning for Edentulous Patients	Morton
3/4/14	Implant Overdentures with Locator	Azim
3/11/14	Locator Hands On Seminar 1	Morton
3/25/14	Locator Hands On Seminar 2	Azim
4/1/14	Straight Forward Planning Non Esthetic	Azim
4/8/14	Solid Abut and synOcta Options (Straight Forward)	Azim
4/15/14	Straight Forward Hands On Seminar 1	Morton
4/22/14	Straight Forward Hands On Seminar 2	Azim

Evaluation

Students will be evaluated by means of a one-hour multiple-choice exam (50%), attendance and laboratory scores (50%).

Grade Scale

Pass/Fail

Faculty

Dr. Tamer Abdel-Azim (Course Director)

Dr. Dean Morton

Dr. George Kushner

Dr. William Scarfe

Semester Offered – D2 Year; Fall, First Semester

Course Description

This lecture course presents a brief introduction to the Pediatric Dentistry Clinic designed to give the basic knowledge and clinical skills necessary for management of the simplest and most basic pediatric patient needs. This will include an introduction to the Pediatric Dentistry Clinic and its forms, procedure, treatment planning and case presentation pertinent to dentistry for children, pediatric oral radiology, operative dentistry, preventive techniques and theories, pulp therapy and an overview of what to expect encountering the personality of the child patient.

Course Objectives

Upon completion of this course, the students should be able to:

1. Describe the cognitive and emotional changes taking place from birth through adolescence
2. Describe the social changes taking place from birth through adolescence
3. Describe the epidemiology and mechanisms of dental disease as it affects children from birth through adolescence
4. Describe the objectives of the infant and toddler examinations
5. Describe the steps of the infant examination
6. Describe the emergency examination
7. Describe the role of the dental personnel in introducing the child to dentistry
8. Describe the role of the parent in introducing the child to dentistry
9. Describe proper methods for separating a reluctant child from his/her parent
10. Describe the need for honesty in dealing with the child patient
11. Describe the purpose of a systematic approach to the examination and the components of the physical assessment of a child patient
12. Describe the purpose for the medical and dental history questions appropriate for children
13. Identify normal and abnormal in the child's mouth
14. Describe the rationale and method for entering progress notes in the pediatric dental record
15. Identify factors that affect treatment decisions
16. Describe the rationale for sequencing treatments
17. Describe a general systemic approach to treatment planning

Competency Statements (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians at large.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations
- 4.2 Identify a patient data adequate to provide dental treatment
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extra oral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.

- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventative strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related peri-radicular pathology.
- 6.8 Diagnosis and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.

Commission on Dental Accreditation (CODA) for Pediatric Dentistry I

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology. (Written exam)
- 2-15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health. (Written exam)
- 2-22 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life. (Written exam)
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;

- b. screening and risk assessment for head and neck cancer;
- c. recognizing the complexity of patient treatment and identifying when referral is indicated;
- d. health promotion and disease prevention
- f. restoration of teeth;
- j. pulpal therapy;
- k. oral mucosal and osseous disorders (All 2-23 tested by written exam)

Outline

Date	Activity	Presenter
August 14	Course Introduction	Dr. Atarodi/ Dr. Payne
August 21	Examination & Diagnosis	Dr. Atarodi/ Dr. Payne
August 28	Prevention	Dr. Payne
September 4	Prevention	Dr. Payne
September 11	Anticipatory Guidance / Infant Oral Exam	Dr. Payne
September 18	Pediatric Oral Radiology	Dr. Payne
September 25	Pediatric Oral Radiographic Interpretation	Dr. Atarodi
October 2	Pediatric Oral Radiographic Interpretation	Dr. Atarodi
October 9	Restorative Dentistry	Dr. Atarodi
October 16	Restorative Dentistry	Dr. Atarodi
October 23	M I D T E R M	Dr. Atarodi/ Dr. Payne
October 30	Pediatric Pulp Therapy I	Dr. Atarodi
November 6	Pulp Therapy II	Dr. Atarodi
November 13	Pulp III	Dr. Atarodi
November 20	Sample Cases / Treatment Planning	Dr. Atarodi
November 27	Thanksgiving	
December 4	FINAL	Dr. Atarodi/ Dr. Payne
December 11	Finals Week	

Evaluation

Students will be evaluated on a midterm and a final examination.

Midterm 40%

Final 60%

Grade Scale

A 90 to 100

B 80 to 89

C 70 to 79

F 0 to 69

Faculty

Dr. Merila Atarodi (Course Directors)

Dr. Sandra Payne

Semester Offered – D2 Year; Spring Semester

Course Description

This is a 3 credit hour course covering basic orthodontic and pediatric dentistry principles and techniques. With this information you should be better able to diagnose problems and make appropriate treatment decisions and recommendations to patients. Some basic treatment techniques are taught so that you will be prepared, with supervision, to treat the less complicated problems that may be confronted in the clinic.

The class periods will usually be divided into a lecture section followed by a laboratory period. The lecture will cover essential principles in orthodontics and pediatric dentistry, and also the theory and technique of the exercise to be covered in the laboratory period.

Course Objectives

Upon completion of this course, the students should be able to:

1. Evaluate a patient (faces, smiles and teeth) and identify orthodontic problems
2. Classify orthodontic problems in systematic way (Proffit-Ackerman Classification of Malocclusion)
3. Explain the reason for taking standard records used in orthodontic treatment
4. Explain which additional records might be useful when confronted with unique orthodontic problems
5. Identify different facial skeletal patterns and dental compensations
6. Determine the dental age based on panoramic radiographs
7. Recommend orthodontic evaluation & treatment at the appropriate time based on skeletal/dental development
8. Explain why treatment should likely be done at that time
9. Identify the components and relationships of the craniofacial skeleton on a cephalometric radiograph
10. Evaluate changes on cephalometric superimpositions
11. Explain to patients the forces needed for tooth movement (magnitude, duration, threshold, etc)
12. Explain the possible risks associated with orthodontic treatment
13. Explain why teeth move the way they do when orthodontic force is applied (translation / rotation)
14. Explain the how wires and brackets cause forces, moments and couples
15. Explain the parts and functions of fixed and removable appliances
16. Explain why certain wires are used for difference circumstances (material, shape, etc)
17. Explain the timing associated with maxillary expansion
18. Explain the maturation of the midpalatal suture and implications for treatment timing
19. Explain why orthodontic evaluation should often take place before loss of primary 2nd molars
20. Make a general prediction about relative spacing or crowding in the future
21. Explain equilibrium and its impact on retention
22. Answer questions about the need for retainers and risk factors associated with relapse

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 6.6 preparing primary molars for amalgam
- 6.7 adapting a steel crown to a primary molar
- 6.8 diagnosing and managing patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 diagnosing and managing patients requiring orthodontic treatment or space maintenance.
- 6.13 managing space maintenance in all dentitions

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2- 9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - n. malocclusion and space management

Outline

Date	Activity	Presenter
8 January	Orthodontic Clinical Examination Analysis of Orthodontic Records 10-12 Lab (Group A): Clinical Examination	Dr. Eric Bednar/Lab with Dr. Bednar and orthodontic residents
15 January	Principles of Growth and Development Orthodontic Treatment Planning Clinical Examination	
22 January	Cephalometrics and Cephalometric Analysis Basic Biomechanical Principles: Biology Cephalometric Tracing	
29 January	Basic Biomechanical Principles: Mechanics Principles of Removable / Fixed Appliances Cephalometric Tracing	
5 February	Transverse Development Quad Helix Fabrication	
12 February	Space Maintenance Quad Helix Fabrication	
19 February	Orthodontic Patient Exam (Competency Prep Quad Helix Fabrication	
26 February	Orthodontic Retention Hawley Fabrication	

5 March	Orthodontic Patient Exam (Competency Prep) Hawley Fabrication	
12 March	Orthodontic Patient Exam (Competency Prep) Hawley Fabrication	
19 March	Spring Break	

Evaluation

This class consists of a lecture portion and a lab portion – each of the portions will have graded work which will determine a final grade for the class. Lecture quizzes will be given at various times during most of the lecture sessions, and will be turned in immediately following the quiz. Lecture quizzes (approximately 10) will make up 30% of the overall grade for the class. There are no make-up quizzes, and if a student missed quizzes due to an excused absence, the overall quiz grade will be an average of the other lecture quiz grades.

Lab exercises (7 projects) will account for the other 70% of the grade. It is the responsibility of the student to see that each of the laboratory projects is handed in on schedule. These projects are due as listed in the schedule. At the end of each project you will find an evaluation form to show you how the project will be graded. This form will be handed in with your project. Projects handed in "AFTER" the due dates are reduced "ONE" grade level. Any student experiencing difficulty with the course should contact the course director as soon as possible so that additional help can be arranged.

Grade Scale

A	90 to 100
B	80 to 89
C	70 to 79
F	0 to 69

Faculty

Dr. Eric Bednar & Dr. Liliana Rozo (Course Directors)

1st Year Orthodontic Residents

Semester Offered – D2 Year, Summer Semester

Course Description

A laboratory activity culminating in a simulated clinical experience in radiographic technique. Technical proficiency in basic radiography is developed working on manikins. This laboratory/clinic must be completed prior to enrollment in the sophomore course in clinical oral radiology.

Course Objectives

Upon completion of this course, the students should be able to:

1. Understand and have familiarity with the MiPACS image management system.
2. Complete a series of exercises designed to provide initial experience in digital intraoral radiography using both paralleling and bisecting angle technique.
3. Perform two Full Mouth Radiographic Surveys of a manikin. One will be obtained using the bisecting angle technique and the other using the Rinn Paralleling instruments. The student will correctly arrange the images in a digital template.
4. Perform images including vertical bitewing and occlusal projections. The student will correctly arrange the images in a digital template.
5. Retrieve their FMS images in the radiology reading room and use the available image enhancement features to optimize display image quality. The digital copy (designated “D”) will then be saved.
6. Perform a Full Mouth Radiographic Survey of a manikin unaided and within the allocated time.
7. Critique the quality of the radiographs using established and defined criteria and describe a remedy for improper exposure, projection and processing techniques used in all radiographs.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 3.1. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 4.4. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2-17 Graduates must be competent in applying legal and regulatory concepts related to the

- provision and/or support of oral health care services.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including: a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent

Outline

Date	Title	Presenter
May 12	Orientation	Dr. Scarfe
May 13	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 14	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 15	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 16	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 19	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 20	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 21	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 22	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 23	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 26	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 27	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 28	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 29	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
May 30	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 2	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 3	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 4	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 5	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 6	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 9	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 10	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 11	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 12	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 13	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 16	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 17	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 18	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 19	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 20	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 23	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 24	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 25	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 26	Pre-clinical Technique Exercises	Ms. Grammer, ARRTs
June 27	Final Examination	Dr. Scarfe

Grading

- 92 - 100% = A
- 85 - 92% = B
- 75 - 84% = C

70 - 74% = D
<69% = F

Faculty

Dr. William Scarfe (course director)

Ms. Susan Grammer

Ms. Latasha Brown, ARRT,

Ms. Faith Yount, ARRT

Ms. Lucinda Perry, ARRT

Semester Offered – Fall & Spring Semester, D2 Year

Course Description

This course develops clinical competency in various radiologic technical skills through supervised clinical practice in managing patients with varied oral and dental conditions. The student develops principles of radiologic interpretation through interpretation of full mouth, panoramic and other necessary radiographs to assist in diagnosis and treatment planning.

Course Objectives

Upon completion of this course, the students should be able to:

1. Evaluate risks and benefits of a radiographic procedure and prescribe an appropriate radiographic examination individually suited for each patient.
2. Demonstrate proficiency in performing intraoral (film-based and direct digital), occlusal and panoramic radiographs.
3. Continually evaluate the diagnostic quality of intraoral and panoramic radiographs and apply imaging principles to correct errors.
4. Correctly create a software database (direct digital).
5. Understand the rationale and techniques involved in cephalometric radiography for cephalometric analysis, hand-wrist radiography in biologic age determination and correct angle tomography in the imaging of the temporomandibular joint.
6. Prescribe advanced imaging examinations as indicated for specific patients.
7. Identify normal anatomic landmarks, cephalometric points and planes on lateral cephalometric radiographs.
8. Utilize and monitor effective radiographic infection control measures.
9. Apply the principles of radiation biology consistent with current radiation safety standards for patients and dental personnel.
10. Interpret and record dental and maxillofacial pathoses from full mouth intraoral and panoramic radiographic examinations; correlate these findings with clinical examination and the patient's medical/dental history.
11. Develop the communication skills necessary to effectively inform the patient of radiographic findings and provisional diagnoses.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1. Provide compassionate and ethical care to a diverse population of patients.
- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.3. Apply information technology resources in contemporary dental practice.
- 3.1. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.4. Establish and maintain patient records and assure confidentiality of information.

- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.4. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.6. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7. Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.5. Diagnose and manage patients with periodontal disease.
- 6.6. Diagnose and manage patients with pulpal disease and related periradicular pathology.
- 6.7. Diagnose and manage patients with temporomandibular disorders.
- 6.11. Diagnose and manage patients requiring oral surgical procedures..

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-14 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders.
- 2-16 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2-17 Graduates must be competent in managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment.
- 2-20 Graduates must be competent in applying ethical, legal and regulatory concepts to the provision and/or support of oral health care services.
- 2-21 Graduates must be competent in the application of the principles of ethical reasoning and professional responsibility as they pertain to patient care and practice management.
- 2-23 Graduates must be competent in the use of critical thinking and problem solving related to the comprehensive care of patients.
- 2-24 Graduates must be competent in the use of information technology resources in contemporary dental practice.
- 2-25 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, for the child, adolescent, adult, and geriatric patient, including:
 - a. patient assessment and diagnosis;

Outline

Date	Title	Presenter
Aug 11	Orientation to Clinical Oral Radiology	Dr. Scarfe
Aug 13	LECT 2: Principles of Radiologic Interpretation I	Dr. Scarfe
Aug 19	Computer Assisted Learning: Introduction to	Dr. Scarfe

	Charting Radiologic Findings	
Aug 20	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Aug 25	LECT 3: Principles of Radiologic Interpretation II	Dr. Scarfe
Aug 26	Anatomy Seminar / Oral Radiology Clinic	
Aug 27	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Aug 29	LECT 4: Panoramic Correlative Anatomy – Pt. 1 Computer Assisted Learning: Introduction to Charting Periodontal Conditions	Dr. Scarfe
Sept 2	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 3	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 8	LECT 5: Panoramic Correlative Anatomy – Pt. 2	
Sept 9	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 10	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 15	LECT 6: Introduction to MiPACS: Introduction to Cases A / B	
Sept 16	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 17	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 19	Computer Assisted Learning: Introduction to Charting Dental Caries	Dr. Scarfe
Sept 22	LECT 7: Introduction to MiPACS: Principles of Image Enhancement	Dr. Scarfe
Sept 23	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 25	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Sept 29	Review Case A: Computer Assisted Learning	
Sept 30	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 1	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 9	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 13	Review Case B: Computer Assisted Learning	Dr. Scarfe
Oct 14	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 15	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 20	LECT 8: Cephalometric Analysis	
Oct 21	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 22	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 27	LECT 9: Hand Wrist Analysis	Dr. Scarfe
Oct 28	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Oct 29	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Nov 3	LECT 10: Imaging of Soft Tissue Calcifications	Dr. Scarfe
Nov 10	LECT 11: Common Conditions on Panoramic Images	Dr. Scarfe
Nov 11	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Nov 12	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Nov 17	LECT 11: Introduction to Radiology Patient 1 and 2	Dr. Scarfe
Nov 18	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Nov 19	Written Exam	Dr. Scarfe
Nov 24	LECT 12: Review of Radiology Patient 1	Dr. Scarfe
Nov 25	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Dec 2	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Dec 3	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
2015		
Jan 6	Introduction to RILES and Quizzes	Dr. Scarfe
	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Jan 7	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Jan 13	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer

Jan 14	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Jan 20	Review of Radiology Patient 1	Dr. Scarfe
	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Jan 21	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Jan 27	Review of Radiology Patient 2	
	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Jan 28	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Feb 3	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Feb 4	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Feb 10	Review of Radiology Patient 3	Dr. Scarfe
	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Feb 11	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Feb 18	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Feb 24	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Feb 25	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Mar 3	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Mar 4	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Mar 10	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Mar 11	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Mar 24	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Mar 25	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Mar 31	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Apr 1	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Apr 7	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Apr 8	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Apr 14	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Apr 15	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Apr 21	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer
Apr 22	Anatomy Seminar / Oral Radiology Clinic	Ms. Grammer

Grading

90 - 100% = A

80 - 89.99% = B

75 – 79.99% = C

70 – 74.00% = D

<70% = F

Faculty

Dr. William Scarfe (course director)

Ms. Susan Grammer

Ms. Latasha Brown, ARRT

Ms. Faith Yount, ARRT

Ms. Lucinda Perry, ARRT

GDOM 815-05 Auxiliary Retention for Direct Cusp Replacement

Credits: 1.0

Semester Offered – D3, Summer/ Fall Semester

Course Description

Consist of a lecture and laboratory series that is designed to introduce the upcoming D3 dental students to the theory and techniques used in advanced direct restorative dentistry. The study of the physical properties, manipulation, and chemistry of the dental materials utilized is included. Emphasis is placed on preservation of tooth structure from further destruction by dental disease while utilizing advanced retentive techniques for large direct restorations. Technical skills and advanced retentive methods used in the placement of composite resin and amalgam restorations are developed. Course teaches techniques to include pins, slots and multi-cusp replacement for both anterior and posterior applications. Designed to augment the base knowledge obtained from pre-clinical operative dentistry course and represent the majority of direct operative procedures that will be encountered following the removal of advanced carious lesions.

Course Objectives

Upon completion of this course, the students should be able to:

1. Provide students with the knowledge for clinical applications of various direct restorative materials (amalgam, composite and glass ionomer).
2. Provide students with the knowledge for clinical applications of various auxiliary retention methods performing cusp replacement (pins, slots, pots and grooves).
3. Provide students with the knowledge for clinical applications of preparation designs for resistance and convenience forms on large cusp replacement direct restorations (protection of the restorative materials and remaining tooth structure).
4. Provide students with the knowledge for clinical applications of various medicaments to provide pulpal protection (CAOH, IRM and glass ionomer).
5. Provide students with the knowledge for clinical applications of full cuspal coverage direct restorations following endodontic therapy.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively with peers, other professionals, staff, patients and guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 3.1 Comply with federal, state and local regulations as related to infection control, radiation and environmental safety measures on all clinical procedures
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.
- 2-2 If students do not meet the didactic, behavioral and/or clinical criteria as published and distributed, individual evaluations must be performed that lead to an appropriate decision in accordance with institutional due process policies.
- 2-6 Biomedical, behavioral and clinical science instruction must be integrated and of sufficient depth, scope, timeliness, quality and emphasis to ensure achievement of the curriculum's defined competencies.
- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - d. health promotion and disease prevention

Outline

Lecture Series:

June 16th, 2014: 9am-12pm

- Clinical Application of Dental Amalgam
- Clinical Applications of Resin Composite
- Clinical Applications of Glass Ionomer
- Auxiliary Retention Methods for Direct Cusp Replacement
- Clinical Applications for Pulpal Protection

Laboratory Series: (three groups of 40)

- June 16th, 2014: 1-4pm
- June 17th, 2014: 9am-12pm and 1-4pm
- June 18th, 2014: 9am-12pm and 1-4pm
- June 19th, 2014: 9am-12pm and 1-4pm
- June 20th, 2014: 9am-12pm

Grading

Pass/Fail

- Passing will require successful completion of all assigned laboratory exercises while maintaining professional communication with covering faculty. Additionally, a short review

- of the literature on large direct restorations must be completed.
- Failure will result from not completing all assigned laboratory exercises and not maintaining professional communication with covering faculty. Additionally, failure to complete the short review of the literature on large direct restorations.

Faculty

Dr. Michael Metz (course director)

Course Faculty as Assigned

Semester offered - D3, Fall Semester

Course Description

This course will present topics in dental clinical pharmacology and oral medicine with specific emphasis on antibiotics, analgesics, local anesthetics, anxiolytic, antifungal and antiviral drugs, as well as the pharmacologic management of medically related disorders and conditions affecting the oral and maxillofacial region.

Course Objectives

Upon completion of this course, the students should be able to:

11. Be familiar with the scope and causes of the rise in microbial resistance to antibiotics.
12. Understand the measures that are needed to help slow the spread and progression microbial resistance to antibiotics.
13. Recognize the indications for, and be able to appropriately prescribe, antibiotics for the treatment of orofacial infections.
14. Recognize the indications for, and be able to appropriately prescribe, antibiotics for the prevention of postoperative infections secondary to dental treatment in various patient populations including those with decreased/compromised immune function.
15. To appropriately prescribe any antibiotics currently recommended for the prevention of bacterial endocarditis, late prosthetic joint infection and other metastatic infections that may be associated with bacteremias resulting from invasive dental treatment.
16. Appropriately select and prescribe the most appropriate and effective analgesics to use in the management of acute dental pain.
17. Understand analgesic considerations for various patient populations including medically compromised patients and those taking concurrent medications with the potential for adverse interactions.
18. Understand and describe the clinical use of analgesic drug combinations for relief of dental pain.
19. Understand the concepts of dependence and tolerance in the context of narcotic analgesics.
20. Discuss the use of additional drugs used to control the adverse effects of analgesics, (e.g., antiemetics, etc.)
21. Understand the pharmacology of local anesthetics including the mechanism of action and nerve, physiology as it pertains to pain conduction.
22. Appropriately select and safely use local anesthetics for dental treatment in various patient populations, including understanding restrictions and recommendations regarding the use of vasoconstrictors in patients with specific medical complications and potential interactions with other medications.
23. Understand the pharmacology, indications, contraindications, and use of nitrous oxide sedation during dental treatment.
24. Understand the pharmacology, indications, contraindications, possible drug interactions, and appropriate use of the following oral medications commonly used in the management of anxiety associated with dental treatment.
25. Discuss the etiology, clinical presentation, diagnosis of oral fungal infections (e.g., candidiasis) and their treatment using topical and systemic antifungal drugs.

26. Discuss the etiology, clinical presentation, diagnosis of primary and recurrent herpes simplex and its treatment using topical and systemic antiviral drugs.
27. Discuss the etiology, clinical presentation, diagnosis and the use of topical and systemic steroids in the treatment of the aphthous stomatitis / ulcerations.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 4.5. Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.9. Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 6.10. Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.15. Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-23. At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - e. anesthesia, and pain and anxiety control;
 - k. oral mucosal and osseous disorders;
 - m. dental emergencies.

Outline

Date	Topic	Presenter
8/13/13	Course Introduction & Clinical Diagnosis Course Protocols	Firriolo
	Dental Emergency Clinic Procedures and Diagnosis of Odontogenic Pain	Firriolo
8/20/13	Principles and Practice of Prescription Writing - I	Firriolo
	Principles and Practice of Prescription Writing - II	Firriolo
8/27/13	Principles and Practice of Prescription Writing - III	Firriolo
	Current Issues in Antimicrobial Resistance - I	Firriolo
9/3/13	Current Issues in Antimicrobial Resistance - II	Firriolo
	Antibiotic Therapy in Dental Practice - I	Firriolo
9/10/13	Antibiotic Therapy in Dental Practice - II	Firriolo
	Antibiotic Therapy in Dental Practice - III	Firriolo

9/17/13	Antibiotic Therapy in Dental Practice - IV	Firriolo
	Antibiotics for the Prevention of Metastatic Infections - I (<i>covered on Exam #2</i>)	Firriolo
10/1/13	Antibiotics for the Prevention of Metastatic Infections - II	Firriolo
	Analgesic Therapy for Dental Pain - I	Firriolo
10/15/13	Analgesic Therapy for Dental Pain - II	Firriolo
	Analgesic Therapy for Dental Pain - III	Firriolo
10/22/13	Analgesic Therapy for Dental Pain - IV	Firriolo
	Local Anesthetics and Vasoconstrictors - II	Firriolo
10/29/13	Local Anesthetics and Vasoconstrictors - III	Firriolo
	Local Anesthetics and Vasoconstrictors - III	Firriolo
11/12/15	Nitrous Oxide Inhalation Sedation - I	Firriolo
	Nitrous Oxide Inhalation Sedation - II	Firriolo
11/19/15	Anxiolytic Drugs in Dental Practice - I	Firriolo
	Anxiolytic Drugs in Dental Practice - II	Firriolo
11/26/15	Treatment of Oral Viral Disease	Firriolo
	Treatment of Oral Fungal Disease	Firriolo
12/2/16	Immunomodulatory Drugs in the Treatment of Oral Mucosal Disease	Firriolo
	Management of Xerostomia & Taste Disorders	Hupp

Grading

A = 90.00 - 100

B = 80.00 - 89.99

C = 70.00 - 79.99

F = less than 69.99

Faculty

Dr. F. John Firriolo (course director)

Dr. Wendy Hupp.

Semester Offered – D3, Fall Semester

Course Description

Lecture series designed to review basic operative procedures and update the student on changes that have occurred since the pre-clinical course. New materials and treatment options that are being introduced into the field will also be discussed.

Course Objectives

Upon completion of this course, the students should be able to:

1. describe the characteristics of typical preparations in operative dentistry
2. understand the application of critical thinking in evidence-based dentistry
3. describe the methods of caries detection and the treatment of carious lesions.
4. compare the traditional and bacterial theories of tooth sensitivity.
5. discuss the use of bases and liners in modern operative dentistry.
6. understand the differences between current adhesive agents and their clinical application.
7. describe the currently available composite resin systems and their clinical applications.
8. understand the advantages, disadvantages, and use of glass ionomer resins.
9. discuss the advantages, disadvantages, and indications for posterior composite resin restorations.
10. describe the placement of posterior composite resin restorations.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f.. restoration of teeth

Outline

Date	Title	Lecturer
Aug 14	Operative Dentistry policies, grading, etc.	Dr. Crim
Aug 21	Preparation Review	Dr. Crim
Aug 28	Evidenced-based Practice	Dr. Crim
Sept 4	Dilemmas in Caries Diagnosis/Treatment	Dr. Crim
Sept 11	Current Concepts in Bases and Liners	Dr. Crim
Sept 18	Bonding Agents, Composite Resins	Dr. Crim
Sept 25	Glass Ionomer Resins	Dr. Crim
Oct 2	Direct Class II Composite Resin Restorations Due date for your Competency Statements	Dr. Crim

Grading

92 - 100% = A

85 - 92% = B

75 - 84% = C

70 - 74% = D

<69% = F

Course Faculty

Dr. Gary Crim (course director)

GDOM 832-06 Introduction to Practice Management

Credits: 1.0

Semester Offered – D3, Spring Semester

Course Description

This course presents basic business management concepts as applied to a dental practice. The content is tailored to prepare the student for his/her extramural rotation in which practice management is a component.

Course Objectives

Upon completion of this course, the students should be able to:

1. describe the basic types of financial statements used in dental practices and how they are used.
2. discuss the elements of a credit and collection policy, and how they affect office profitability.
3. discuss the types of marketing and their use in a dental practice.
5. discuss the elements of loans and the common types of loans found in a dental practice.
6. understand how to use financial ratios to analyze the dental practice.
7. describe common economic principles that affect the dental practice..
8. describe factors that contribute to office operational efficiency.
9. discuss the major factors that affect staffing the dental office.
10. describe elements of employee motivation in the dental office.
11. discuss the various forms of business that a dental practice may take.

Competencies Statements (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standard:

- 2-18 Graduates must be competent in applying the basic principles and philosophies of practice management, models of oral health care delivery, and how to function successfully as the leader of the oral health care team.

Outline

Date	Activity	Presenter
Jan 9	Course Introduction	Dr. Willis / Kaleel
Jan 16	Intro to the Simulation, Decisions Quarter #1	Dr. Kaleel
Jan 23	Case #1 Financial Statements	Dr. Kaleel
Jan 30	Case #2 Office Financial Policies	Dr. Kaleel
Feb 6	Case #3 Fee Policy	Dr. Kaleel
Feb 13	Case #4 Marketing	Dr. Kaleel

Feb 20	Case #5 Debt Management	Dr. Kaleel
Feb 27	Case #6 Office Financial Analysis	Dr. Kaleel
Mar 6	Case #7 The Economy	Dr. Kaleel
Mar 13	Exam #1	Dr. Willis / Kaleel
Mar 20	<i>Spring Break - No Class</i>	Dr. Kaleel
Mar 27	Case #8 Office Operations	Dr. Kaleel
Apr 3	Case #9 Staff Compensation	Dr. Kaleel
Apr 10	Case #10 Staff Motivation	Dr. Kaleel
Apr 17	Case #11 Business Entities	Dr. Willis
Apr 24	Exam #2	Dr. Willis / Kaleel
May 1	Exam #2 if schedule requires	

Evaluation

The course will be online, except for the two exams, which will be taken in the classroom.

Grading

A = 90 - 100.0 %
 B = 80.00 - 89.99 %
 C = 70.00 - 79.99 %
 D = 65.00 - 69.99 %
 F = below 65%

Faculty

Dr. David Willis (course director)
 Dr. Nick Kaleel

Semester Offered – D3, Fall, Spring Semester

Course Description

The treatment planning curriculum is designed to teach the student the interrelationship of all of the clinical disciplines in dentistry. We attempt to have the student recognize the proper and necessary diagnostic and treatment steps to recommend and implement for an individual patient, within the context of a Comprehensive Care Philosophy. This is the initial clinical treatment planning experience for the student.

Course Objectives

The following objectives serve for the entire three year curriculum in treatment planning. The student should be able to:

1. recognize the rights and responsibilities of the dentist.
2. recognize the rights and responsibilities of the student dentist as a developing professional.
3. recognize the rights and responsibilities of the patient.
4. effectively use the axiUm clinical computer software.
5. interpret and evaluate the following as each relates to the treatment plan of a patient:
 - A. Medical History.
 - B. Family History.
 - C. Social History.
 - D. Dental History.
 - E. Chief Complaint/Concern.
6. distinguish between normal and abnormal findings contained in a medical history and be able to relate these findings to systemic and dental disease processes.
7. correlate the medical history with clinical signs and symptoms.
8. determine whether conditions found in a medical history or clinical observations and vital signs necessitate further evaluation by a physician and/or medical consultations and follow-up.
9. correlate the dental history with clinical signs and symptoms of dental disease.
10. consult with a patient's previous dentist if the history warrants further investigation.
11. explain why knowledge of general state of physical and mental health, social and cultural background, patient attitude about health and health care, teeth, and supporting structures of patient is important to the synthesis of a treatment plan.
12. identify a patient's knowledge and appreciation of dentistry.
13. determine the effect of a patient's past dental experience on a treatment plan.
14. determine when psychological or psychiatric consultation is necessary to insure successful dental treatment.
15. discuss the significance of the patient's medications as they relate to the patient's illness, the choice of anesthesia, the overall treatment plan, and determine if treatment modifications are necessary.
16. predict the possible significance of any finding in dental or medical history to the total care of a patient.

17. state precautions/modifications necessary when treating patients with any of the following medical conditions:
 - A. Allergies.
 - B. Anticoagulant Therapy.
 - C. Asthma/COPD.
 - D. Bisphosphonates Use.
 - E. Cardiovascular Disease.
 - F. Cerebrovascular Disease.
 - G. Cirrhosis.
 - H. Diabetes.
 - I. Hepatitis.
 - J. HIV/AIDS.
 - K. Hypertension.
 - L. Infective Endocarditis.
 - M. Pregnancy.
 - N. Prosthetic Joints.
 - O. Psychiatric/Cognitive Disorders.
 - P. Renal Disease.
 - Q. Seizure Disorder/Epilepsy.
 - R. Tuberculosis.
18. identify undiagnosed systemic diseases based on observed signs and patient symptoms.
19. describe current AHA recommendations for prevention of subacute bacterial endocarditis.
20. recommend to treatment planning faculty the appropriate medications required for the treatment of a patient.
21. indicate appropriate drugs which might substitute for penicillin when prophylactic antibiotic coverage is indicated.
22. state what medical and dental complications may develop in an uncontrolled diabetic.
23. evaluate the results of heat, cold, percussion, and electric pulp tests in relation to a sequential comprehensive treatment plan.
24. identify the need for endodontic treatment/retreatment and endodontic surgery.
25. evaluate a patient's ability to perform oral hygiene procedures in relation to the proposed comprehensive treatment plan.
26. evaluate a patient's diet in relation to proposed comprehensive treatment plan.
27. evaluate the effect of oral habits on the proposed comprehensive treatment plan.
28. list the possible dental implications of xerostomia.
29. evaluate the indication for fluoride and sealants as related to a proposed comprehensive treatment plan.
30. correlate dental radiographic findings with clinical dental findings.
31. detect clinical dental caries.
32. identify radiographically incipient carious lesions and recommend appropriate therapeutic measures.
33. identify the classification and surfaces of a required restoration.
34. recognize the diagnostic value of therapeutic services.
35. recognize and interpret roentgenologic signs of traumatic occlusion.
36. recognize and interpret roentgenologic signs tooth pathology.

37. identify when the use of mounted casts is indicated for diagnostic purposes.
38. demonstrate ability to obtain an accurate facebow transfer.
39. determine when diagnostic casts must be mounted in MICP vs. RJP.
40. understand the importance of properly mounted diagnostic casts.
41. identify the significant findings from the collected data which may contribute to the diagnosis and plan of treatment.
42. identify the Angle's orthodontic classification of a patient.
43. diagnosis need and determine proper sequencing of orthodontic treatment in a comprehensive treatment plan.
44. identify indications for orthognathic surgery.
45. recognize a patient's need for specialty consultations within and outside of the comprehensive care clinic and demonstrate the ability to clearly communicate the issues with the appropriate specialist.
46. demonstrate the ability to properly diagnose periodontal disease.
47. correlate the relationship of all local etiologic factors contributing to periodontal disease with the dental findings and proposed treatment.
48. explain the clinical significance of radiographic vertical and horizontal bone loss.
49. recommend proper treatment modalities to address periodontal disease and sequence them properly in a comprehensive treatment plan.
50. identify the indications for periodontal surgery.
51. determine the proper sequencing of periodontal surgery in a comprehensive treatment plan.
52. explain the risks vs. benefits of periodontal surgery to a patient.
53. describe the effect of missing teeth on the periodontium of a patient.
54. discuss indications and contraindications for removal of erupted third molars.
55. discuss indications and contraindications for removal of impacted teeth.
56. discuss criteria which would result in a hopeless prognosis for a tooth.
57. evaluate crown to root ratio relative to utilization of a tooth as a potential abutment for a prosthesis.
58. evaluate the risks vs. benefits of using a questionable tooth as an abutment for a prosthesis.
59. summarize treatment alternatives for a tooth in an abnormal intra-arch or inter-arch position.
60. evaluate all pertinent diagnostic factors substantially affecting the decision for placement of a fixed or removable prosthesis in a patient with appropriate indications.
61. select the most appropriate treatment modality for a tooth in an abnormal intra-arch or inter-arch position.
62. identify dental implant indications.
63. identify dental implant medical and dental contraindications.
64. identify the need for orthodontic consultation in relation to a patient's fixed prosthodontic needs.
65. interpret radiographs in relation to crown to root ratio, alveolar bone height, crown and root angulation, and edentulous areas.
66. justify the need for orthodontic correction of an abnormal maxillary/mandibular intra-arch and/or inter-arch relationship.

67. justify the need for surgical correction of an abnormal maxillary-mandibular ridge/inter-arch relationship.
68. summarize treatment alternatives when inter-ridge distance is inadequate for proper prosthetic restoration.
69. make informed, defensible decision relative to the recommendation of a removable prosthesis.
70. evaluate the risks vs. benefits of not replacing a missing tooth.
71. discuss maintenance of arch integrity with a patient.
72. plan the appropriate restoration for carious teeth.
73. identify teeth to be extracted.
74. list pertinent factors relating to the decision to extract a mobile tooth.
75. evaluate the effect of extraction of hopeless teeth on the overall proposed treatment.
76. determine proper sequence of extractions in a comprehensive treatment plan.
77. describe the sequelae of not replacing missing teeth.
78. collate and analyze all pertinent findings necessary to determine a protocol of preventive, therapeutic, and educational services for a patient.
79. assess a patient's ability to follow treatment recommendations.
80. avoid prejudicial analysis.
81. synthesize a treatment plan sequence which, by carefully selected treatment priorities, will preclude patient emergencies.
82. synthesize a treatment plan which, by carefully selected treatment priorities, will address a patient's need for preventive services.
83. synthesize a treatment plan in a logical sequence based on complete diagnostic findings on a patient.
84. alter treatment plans based on the aging process and other environmental factors when necessary.
85. present a properly sequenced comprehensive treatment plan to faculty.
86. write a treatment plan containing the following four phases:
 - A. Emergency care.
 - B. Urgent care.
 - C. E & E to determine restorability.
 - D. Disease control and preprosthetic surgery.
 - E. Reconstruction of form, function, and esthetics.
 - F. Maintenance protocol.
87. utilize appropriate identifying ADA codes and fees for a patient's comprehensive treatment plan.
88. list the reasons for proper sequencing in a comprehensive treatment plan.
89. synthesize a treatment plan in a logical sequence based on complete diagnostic findings for a patient.
90. justify the sequence of a treatment plan for a patient.
91. discuss the total patient care concept as it relates to the student's responsibility to patients while in school and the dentist's responsibility to patients and community while in private practice.
92. develop appropriate alternate treatment plans if necessary.
93. alter treatment plans based on a patient's handicap if indicated.

94. provide complete, current information to a patient in understandable terms concerning the diagnosis, treatment, and prognosis.
95. explain to a patient reasons why recommended procedures are considered necessary.
96. give a patient the right to refuse treatment after providing information about the consequences of such action.
97. make a reasonable response to the request of a patient for services.
98. avoid withholding information from a patient.
99. evaluate whether a tooth is of sufficient strategic value to warrant retention via endodontic/periodontal therapy for advanced restorative procedures.
100. recognize the purpose of the periodontal reevaluation by proper entry into the sequence of treatment.
101. appraise a patient's needs for consultation or referral for restorative, endodontic, oral surgery, periodontal, or orthodontic problems which are beyond the student's capacity to treat.
102. identify the potential need for special appointment planning or special precautions to prevent disease transmission, allergic reaction, or emergency care.

Competency Statements (Student Learning Outcomes) for the Pre-Doctoral Curriculum addressed in GDOM 824, GDOM 833, GDOM 844

This course contributes to foundational knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate the best research outcomes with clinical expertise and patient values for evidence based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.2 Evaluate relevant models of oral health care management and delivery.
- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.

- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognosis of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers
- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7 Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10 Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide

- dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.18 Recognize and manage (refer or treat) substance abuse in dental patients.
 - 6.19 Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
 - 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for GDOM 824, GDOM 833, GDOM 844

This course contributes to foundation knowledge in the attainment of CODA standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2.10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning (GDOM 833-56 and GDOM 844-78 only).
- 2.17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2.20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated
 - d. health promotion and disease prevention
 - h. replacement of teeth including fixed, removable, and dental implant prosthodontic therapies
 - o. evaluation of the outcomes of treatment, recall strategies, and prognosis
- 5.2 Patient care must be evidenced-based, integrating the best research evidence and patient values.

Evaluation

All treatment planning competency evaluations will graded on a pass/fail basis. Remediation for failed competency examinations will be determined on an individual basis at the discretion of the course director. It is the student's responsibility to insure that all passed competency evaluation forms are recorded accurately in the departmental office.

Grade Scale

- A: 4 passed clinical competency cases.
- B: 3 passed clinical competency cases.
- C: 2 passed clinical competency cases.
- D: 1 passed clinical competency case.
- F: 0 passed clinical competency cases.

Faculty

Dr. Joseph Haake (Course Director)

Junior Group Managers

Dr. Michael Metz

Dr. Ryan Noble

Dr. Timothy Daugherty

Semester Offered – D3, Fall/ Spring Semester

Course Description

Clinical Operative Dentistry I is a clinical course composed of various direct operative restorative procedures on patients of record. Essential skills presented and practiced in pre-clinical operative dentistry technique course are utilized and expanded in clinical applications. As students' progress in the clinical environment, more advanced direct restorative techniques are introduced and mastered. Clinical Operative Dentistry I employs a competency education curriculum placing value on the students' knowledge of operative dentistry, dental materials, evidence-based literature, critical thinking, treatment rational and skill proficiency. Competency education is effective in teaching and accessing student progression as it is based demonstration of a pre-defined level of competence.

Course Objectives

Upon completion of this course, the students should be able to:

1. Provide students with the opportunity to perform clinically the techniques presented and mastered in their pre-clinical operative course
2. Provide students with clinical applications of adhesive dentistry as related to direct polymeric resin composite and glass ionomer restorations
3. Provide students with clinical applications of dental amalgam alloy from simple to advanced direct restorations
4. Provide students with clinical treatment planning strategies on patients with ideal operative needs to patients suffering from rampant caries, medical compromise, root caries and financial limitations
5. Provide the student with the treatment planning knowledge to accurately present and obtain consent for appropriate care of their patients while restoring form and function
6. Provide the student with the concepts of inter-disciplinary consultations and appropriate referrals to trained specialists
7. Provide the student with encouragement in obtaining and continuing competency examinations via daily constructive feed-back on Essential Clinical Experiences and D3 clinical competency examinations.
8. Provide the student with basic direct restorative dental materials knowledge and clinical applications of those specific materials
9. Provide the clinical knowledge and recall of dental anatomy to restore form and function via direct restorations in harmonious occlusion to promote continued TMJ health
10. Provide the clinical knowledge to construct a stable foundation core restoration for severally compromised teeth with the use of auxiliary retention (slots, pins, grooves, etc.)
11. Provide the student with the diagnostic ability to determine pre-operative pulpal status in emergency pain patients for appropriate triage or treatment (indirect pulp cap, direct pulp cap, sedative fill, root canal therapy, etc.)
12. Provide the student with the knowledge to honor the patients' rights of personal autonomy, no maleficence, beneficence, justice and veracity.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients
- 1.2 Communicate effectively with peers, other professionals, staff, patients and guardians and the public at large.
- 3.1 Comply with federal, state and local regulations as related to infection control, radiation and environmental safety measures on all clinical procedures
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.19 Anticipate, prevent and manage complications of dental treatment.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.
- 2-2 If students do not meet the didactic, behavioral and/or clinical criteria as published and distributed, individual evaluations must be performed that lead to an appropriate decision in accordance with institutional due process policies.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-25 Dental education programs must make available opportunities and encourage students to engage in service learning experiences and/or community-based learning experiences.
- 5-2 Patient care must be evidenced-based, integrating the best research evidence and patient values.

Outline

Students to schedule in operative block for operative competency examinations. Competency eligibility is as follows:

Competency Eligibility- The recommended minimal Essential Clinical Experiences performed on patients of record prior to achieving competency eligibility are as follows:

- The following Amalgam Essential Clinical Experiences must be completed at an acceptable level on a graded daily operative evaluation sheet prior to becoming eligible for any competency examination;
 - 1 (one) class I amalgam restoration

- 2 (two) class II amalgam restorations
- 1 (one) class V amalgam restoration
- The following Composite/Glass Ionomer Essential Clinical Experiences must be completed at an acceptable level on a graded daily operative evaluation sheet prior to becoming eligible for any competency examination;
 - 1 (one) class I composite restoration
 - 1 (one) class II composite restorations
 - 1 (one) class III or IV composite restoration
 - 1 (one) class V composite or glass ionomer restoration

Achieving the 8 (eight) minimal Essential Clinical Experiences on patients DOES NOT automatically allow an attempt at an operative competency examination. The Course Director reserves the right to consult with Group Managers prior to competency eligibility. Additional work in deficient areas of operative dentistry may be required before eligibility status is awarded.

Competency Examination: Each student must complete 2 (*two*) competency examinations on permanent vital teeth on patients of record before the end of the spring semester.

1. 1 (one) direct posterior Class II preparation/restoration
 - a. Must have at least one virgin proximal lesion or evidence of significant clinical caries
 - b. Restored with amalgam or composite
2. 1 (one) direct anterior Class III or IV preparation/restoration
 - a. Must have at least one virgin proximal lesion or evidence of significant clinical caries
 - b. Restored with composite

Each student may attempt a class I competency examination for the clinical experience and in addition to the two aforementioned requirements. This is strongly encouraged and the grades will only count if it helps to raise your overall clinical operative dentistry I grade. If the attempt is unsuccessful, you will be required to achieve a passing grade and it will count in your overall grade regardless of the outcome.

- 1 (one) direct posterior Class I (occlusal) preparation/restoration
 - Virgin lesion with significant caries to the DEJ
 - Restored with amalgam or composite

Grading

The final course grade for Clinical Operative Dentistry I will be determined by clinical performances on the two required competency examinations only (class II and III). The final grade will be the average of the attempted competency examination grades. Each student will be allowed **ONE** competency failure that will NOT be used in the calculation of the final course grade. However, another passing score on the same competency indication must replace it prior to the end of the spring semester. If you choose to do the class I and fail it, that will be your one replacement. There must be a total of at least two (class II and III) D3 competency examination grades to be averaged for course grade. However, there may be an average of three grades if the

class I competency examination is attempted. Each failure will be recorded as a 0 (zero) in the final course grade and if the student does not attempt their replacement of the one failed competency then a 0 (zero) will be recorded as one of the three grades.

The evaluation of the competency examination preparation skill, restoration skill and overall performance will be based on the following grading scale:

3= Superior; satisfies all criteria

2= Acceptable; could be improved with minor deficient area improvement

1= Marginal; needs major improvement in deficient areas

0= Unacceptable; unsatisfactory and serious remediation is required

The examiners of the competency examination reserve the right to score in (.1) increments. The following conversion of averaged points to a course letter grade will be employed by the Course Director as graded by the two examiners:

2.50 – 3.00 = A

2.00 – 2.49 = B

1.50 – 1.99 = C

< 1.50 = F

Faculty

Dr. Michael Metz (course director)

GDOM 840-56 Clinical Patient Management I

Credits: 4

Semester Offered – D3, Fall and Spring Semesters

Course Description

The course will consist of the aspects of a student's skills, behavior and knowledge that are separate from clinical technical skills. Those elements include clinical utilization, patient management, professionalism, case presentation, personal interaction, self-assessment and case presentation activities.

Clinical Patient Management I & II are each four (4) hour courses graded at the end of the D3 and D4 Spring semesters, respectively. The purpose of both courses is to provide a means of evaluation for the more subjective/behavioral elements of dentistry and to focus upon critical thinking and integration of the disciplines in clinical dentistry. This approach complements Competency Based Education (CBE) in that it recognizes and values the multifaceted nature of dentistry. We recognize that the educational experience in dentistry encompasses more than mastering a set of hand skills and techniques; it also involves mastering behavioral skill sets as well. In reaching our goal of graduating competent general dentists, we recognize the fact that graduates must develop an appreciation for and competence in many diverse skill sets. Both courses encompass every ULSD competency statement.

All 3rd year students are required to attend a clinical orientation and pass an Orientation Exam prior to entering the clinic. During the weekly treatment planning session for each comprehensive care group, a critical thinking case will be presented and graded on a pass/fail scale. Students will be presented with a variety of cases. Students will be expected to discuss each case and complete assignments related to each case. Students are required to complete each case. No cases will be permitted to be made up at any time, and a failing grade ("F") will be given for each missed case. For D3 students a summative, case-based exam will be given during the spring semester.

Students will meet with their group managers for an evaluation prior to the end of the Fall and Spring semesters. The Group Manager Evaluation form along with all available data will be used for providing information to the student on his/her progress. Other faculty assigned to the groups will also complete an evaluation for each student. Students will be required to complete a self-assessment using the appropriate form. Failure to complete the form will negatively impact student grades. Students will also complete a professional development plan to be presented and discussed with their group manager at the Fall and Spring semester evaluation meetings.

Course Objectives

1. Provide an environment that facilitates the development of clinical judgment and problem solving skills.
2. Provide an environment that facilitates the development of excellent communication skills.
3. Provide opportunity for growth in professional development (e.g., ethics, practice management).
4. Foster an appreciation for patient-centered care.
5. Graduate socially responsible, professional, and competent general dentists.
6. Provide opportunities for the treatment of patients with special needs.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1. Provide compassionate and ethical care to a diverse population of patients.
- 1.2. Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3. Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2. Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3. Apply information technology resources in contemporary dental practice.
- 3.1. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.4. Establish and maintain patient records and assure confidentiality of information.
- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.3. Perform a clinical examination of the head and neck and intraoral structures.
- 4.4. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5. Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7. Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9. Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10. Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11. Evaluate the prognoses of various treatment options.
- 5.1. Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2. Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.

- 6.2. Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3. Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4. Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5. Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6. Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7. Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8. Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9. Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10. Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14. Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15. Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.16. Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.
- 6.17. Recognize and manage (refer or treat) patient abuse and/or neglect.
- 6.18. Recognize and manage (refer or treat) substance abuse in dental patients.
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20. Periodically assess and monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2-16 Graduates must be competent in managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment.

- 2-17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2-19 Graduates must be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

Outline

Date	Activity	Presenter
Aug 16	During the weekly treatment planning session for each comprehensive care group, a critical thinking case will be presented and graded on a pass/fail scale. Students will be presented with a variety of cases. Students will be expected to discuss each case and complete assignments related to each case.	Dr. O'Malley Dr. Stratton Dr. Gardner Dr. Sasek Dr. Utley Dr. Paris
Aug 23		
Aug 30		
Sept 6		
Sept 13		
Sept 20		
Oct 4		
Oct 11		
Oct 18		
Oct 25		
Nov 1		
Nov 8		
Nov 15		
Nov 22		
Dec 9-13	By appointment, each student to meet with Group Manager to review progress. Students will complete a professional development plan to be presented and discussed with their group manager at the Fall and Spring semester evaluation meetings.	Assigned Group Manager
Jan 10	Each D3 student will present a treatment planning case and an article pertaining to an EBD case. Completion of cases and summative, case-based exam.	Dr. O'Malley Dr. Stratton Dr. Gardner Dr. Sasek Dr. Utley Dr. Paris
Jan 17		
Jan 24		
Jan 30		
Feb 21		
Feb 28		
Mar 7		
Mar 14		
Apr 4		
Apr 18		
Apr 25		
May 5-9	By appointment, each student to meet with Group Manager to review progress towards D4 comprehensive care clinic. Students will complete a professional development plan to be presented and discussed with their group manager at the Fall and Spring semester evaluation meetings.	Assigned Group Manager

Evaluation

45 % Faculty and Staff Evaluation

30% Group Manager (10% Fall and 20% Spring)

10 % Infection Control (Fall and Spring)

5% Staff (Spring only)

15% Clinical progress*

Relative Value per procedure

3 - 200 points or greater

2 - 160-199.9 points – 2

1 - 120-159.9 points – 1

0 - 119.9 points or less – 0

Grade Scale

A Grade - 3 to 2.5

B Grade - 2.49 to 2

C Grade - 1.99 to 1.50

D Grade – Below 1.50

Faculty

Dr. Theresa G. Mayfield

Dr. O'Malley

Dr. Stratton

Dr. Gardner

Dr. Sasek

Dr. Utley

Dr. Paris

Dr. Ljaljevic

Dr. Baughman

Dr. Hassell

Dr. Harris Weber

Dr. Boyd

Dr. Sanders

Dr. O'Malley

Semester offered – D3 Fall & Spring Semester, D4 Fall & Spring Semester

Course Description

This clinical course is designed to assist the student in becoming knowledgeable in Oral Diagnosis/Oral Medicine. Clinical Diagnosis in the Oral Diagnosis/Oral Medicine curriculum entails a four-semester ongoing clinical experience in principles of diagnosis, medicine and emergency care (immediate or urgent care) that is graded at the end of the second (Spring) semester of the D4 year. The experience comes basically in patient admission, consultations, and emergency/immediate care.

Course Objectives

Upon completion of this course, the students should be able to:

1. Diagnose and manage (refer or treat) dental pain and emergencies, including the diagnosis and management of pulpal disease and related periradicular pathology; orofacial /periodontal infections; and traumatic injuries to the tooth or pulp.
2. Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
3. Recognize and appropriately manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines.
4. Identify and implement appropriate treatment modification protocols so as reduce/minimize the risk of complication when providing dental treatment for medically compromised or medically complex patients.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.3. Perform a clinical examination of the head and neck and intraoral structures.
- 4.4. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5. Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9. Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10. Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11. Evaluate the prognoses of various treatment options.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.

- 6.6. Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.10. Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.15. Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2- 9. Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10. Graduates must demonstrate the ability to self-assess, including the development of professional competencies.
- 2-14. Graduates must be competent in the application knowledge in the delivery of patient care.
- 2-23. At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, ... prognosis;
 - b. screening and risk assessment for head and neck cancer;
 - k. oral mucosal and osseous disorders;
 - m. dental emergencies.
- 2-24. Graduates must be competent in assessing the treatment needs of patients with special needs.

Outline

8/13/13: Course Introduction & Clinical Diagnosis Course Protocols (1 hour), Dr. Firriolo.

Grading

The final letter grade for the course will be based on the following scale:

A = 90 - 100; B = 80 - 89.99; C = 70 - 79.99; F = less than 69.99.

Faculty

Dr. F. John Firriolo (course director)

Dr. Wendy Hupp

Ms. Dedra Hayden.

Semester Offered – D3, Spring Semester

Course Description

The aim of this course is to help prepare the student for practice by presenting both ethical issues that occur frequently in dentistry, and a set of bioethical principles commonly used in U.S. healthcare that provide a framework for analysis of the ethical complexities of patient care. Reasoning through these ethical issues creates familiarity with the principles, which are also endorsed by the ADA and the American College of Dentists, and provides students with guidance for dealing successfully with patients, peers, and society. Another goal of this course is to increase student awareness of the concepts of professionalism and social responsibility, and to assist the student with learning skills for providing care for a diverse population of patients.

Course Objectives

Upon completion of this course, the students should be able to:

1. Analyze and systematically approach ethical issues of dental practice using the concepts of patient autonomy, veracity, beneficence, no maleficence, and justice.
2. Differentiate between bad outcomes and bad work.
3. Discuss possibilities for resolving an ethical dilemma related to third party interaction.
4. Recognize how another person's point of view which may be different from the practitioner's own may affect treatment decisions.
5. Identify and define one's own values as a healthcare provider.
6. Successfully relate to a diverse patient population by recognizing the interpersonal and communication skills necessary to function successfully in a multicultural work environment.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients
Utilize bioethical principles to analyze ethical dilemmas

Commission on Dental Accreditation (CODA)

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 6.14 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.

Outline

Date	Title	Presenter
January 7, 2014	Course Overview	Dr. Harris
January 14, 2014	Unpacking the Bioethics Toolkit	Dr. Harris
January 21, 2014	Group Assignment #1	Course Faculty
January 28, 2014	Bioethics in Healthcare-a broader view	Dr. Stephen Hanson
February 4, 2014	Group Assignment #2	Course Faculty
February 11, 2014	Bad Outcomes / Bad Work	Dr. Cotton
February 18, 2014	Guest Lecturer Investigator, Ky. Board of Dentistry	Dr. Marquita Poynter
February 25, 2014	Guest Lecturer The Interface of Bioethics and Professionalism-a medical perspective	Dr. David Doukas
March 4, 2014	Group Assignment #3	Course Faculty
March 11, 2014	Case review Cultural Competency Self-Assessment	Course Faculty
March 18, 2014	Spring Break	
March 25, 2014	Group Assignment #4	Course Faculty
April 1, 2014	Guest Lecturer Avoiding Malpractice Litigation: What Dental Practitioners Need to Know	Greg King, JD
April 8, 2014	Group Assignment #5	Course Faculty
April 15, 2014	Addressing Socio-economic Diversity in Dental Practice Justice Principles	Dr. Babbage
April 22, 2014	Cultural Awareness Factors in Dental Practice	Dr. Babbage
April 29, 2014	Paper due	

Evaluation

The course will be online, except for the exams, which will be taken in the classroom.

Grade Scale

A = 270-300 points

B = 240-269 points

C = 210-239 points
D = 180-209 points
F = < 179 points

Faculty

Dr. Valerie Harris
Dr. Doug Cotton
Dr. Sherry Babbage
Dr. Kurt Hassell
Dr. Rich Keeling
Dr. Barbara Stratton

GDOM 876-05 Principles of Aesthetic Dentistry

Semester Offered (Semester, Level): Fall, D3

Course Description

This course will emphasize the clinical practice of comprehensive oral esthetic dentistry through a series of lecture sessions and reading assignments. During the course the student will learn the principles of esthetic diagnosis, photography, treatment planning, dental materials, ceramic restorations and procedures for anterior and posterior direct composite resin placement. The course will take a comprehensive care approach that is multi-disciplinary focused and emphasize the need for a team approach with other specialties for comprehensive patient care.

Course Objectives

Upon completion of this course, the students should be able to:

1. Analyze and systematically approach smile design through a multidisciplinary approach.
2. Analyze photography as a diagnostic tool
3. Ethics as it pertains to esthetic principles
4. Basic concepts of occlusion principles

Competency Statement Student Learning Outcomes

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients
- 4.2 Obtain patient data adequate to provide dental treatment
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Outline

Date	Activity	Presenter
August 18 th	Introduction to Esthetics Introduction to Vital/Non-vital Whitening Review Laboratory Procedures	Dr. Collins Dr. Eldairi
August 25 th	Clinical applications of Esthetic Direct Restorations for Anterior Teeth	Dr. Collins

Sept. 1st	Clinical application of Indirect Restorations for Posterior Teeth Review Laboratory Procedures	Dr. Oliveira Dr. Collins
Sept. 15th	Clinical applications of Esthetic Dental Materials	Dr. Metz
Sept. 22nd	Restorations of Endo Treated Teeth	Dr. Collins
Oct. 6th	Diagnostic Wax-up Purpose & Procedure Review Lab Procedure	Dr. Harris Dr. Collins
October 20 th	Diagnostic Wax-up Project (TURN IN PROJECT)	Dr. Oliveira
October 27 nd	Smile Design Review Laboratory Procedures	Dr. Collins
Nov. 3rd	Peg Lateral Restorations (Quiz 3, Smile Design Analysis) The Periodontal/Restorative Interface	Dr. Harris Dr. Hill
Nov. 10 th	Peg Lateral Restorations Photography	Dr. Eldairi
Nov. 17 th	Preparation & Design in the Esthetic Zone Review Laboratory Procedures	Dr. Lin Dr. Collins
Nov. 24 th	Occlusion	Dr. Johnson
Dec. 1st	Esthetic Case Maintenance and Care	Dr. Sasek
December 8th	FINAL EXAM	

Evaluation

2 written examinations will be given during the semester. The midterm written examination will be comprised of 40 multiple choice/true false questions from the first 5 lectures presented. The final examination will be comprised of 60 multiple choice/true false questions from the last 7 lectures. The final examination is not comprehensive. Both examinations are a closed book/notes examination. Academic dishonesty will result in an F grade. Cell phones must be turned off during classes/laboratory. Laptops during the class must only be used for the course (e.g. note taking)

4 scheduled quizzes will be given during the semester. The quizzes will be comprised of fabrication of Whitening trays, case evaluation, multiple/choice fill in the blank, and problem lists. The maximum number of points is 25 with a total of 100 points for the 4 quizzes given during the semester.

5 laboratory projects will be completed over the semester. The evaluation is based on the written *Performance Criteria* as provided in the manual. This is accomplished using a 3-2-1-0 Grading System. In this method each laboratory project is divided into 2 major categories. Each category

is graded on a scale of 3 to 0. The 2 categories are added for a cumulative grade for that laboratory project. The maximum grade is 3/100%. The laboratory project is graded by 2 faculty and the individual grades are averaged. Corresponding numerical grades are given below. The numerical grade is converted to points achieved in relation to the points assigned for that particular laboratory project. Your grade may be determined at any time by dividing the total number of points that you have earned by the number of categories to be graded in the project. The laboratory projects will be evaluated according to the grade sheets found in this course manual.

Grading Scale

Conversion from 3-2-1-0 to Points

3	100%	
2.9	98%	
2.8	96%	90-100 = A
2.7	94%	
2.6	92%	
2.5	90%	
2.4	88%	
2.3	86%	80-89 = B
2.2	84%	
2.1	82%	
2.0	80%	
1.9	78%	
1.8	76%	70-79 = C
1.7	74%	
1.6	72%	
1.5	70%	
1.4	68%	69-65 = D*
1.3	66%	
1.2	64%	
1.1	62%	Below 64 = F
1.0	60%	
0.9	58%	

A –	1,000-900
B -	899-800
C -	799-700
D -	699-650
F -	649 and lower

Faculty

Dr. Robert Bohn

Dr. Alia Eldairi
Dr. Bryan Harris
Dr. Margaret Hill
Dr. Shannon Johnson
Dr. Dave Maddy
Dr. Michael Metz
Dr. Gustavo Oliveira
Dr. Greice Oliveira
Dr. Megan O'Malley
Dr. Marija Sasek
Dr. Barbara Stratton
Dr. Weishao Lin

Semester Offered – D3 Year; Summer

Course Description

Endodontics is the branch of dentistry concerned with the morphology, physiology, and pathology of the human dental pulp and periradicular tissues. Its study and practice encompass the basic clinical sciences including biology of the normal pulp; the etiology, diagnosis, prevention and treatment of diseases and injuries of the pulp; and associated periradicular conditions. The aim of root canal therapy is to remove the diseased pulp tissue and relieve the patient's pain.

This D2 preclinical Endodontics course is designed for the second year students and has different learning goals that include lectures on the biological and clinical aspects of Endodontics plus laboratory exercises focused on Critical thinking also known as "higher-order thinking."

Our goal as dental educators is to aid students in advancing from knowledge of concepts to clinical application, analysis, synthesis, and evaluation. We can do this by providing these preclinical endodontics experiences for the application of critical thinking within different dental courses and by promoting culminating experiences that will further allow the dental students to use and refine their skills in problem solving.

The biologic lectures include discussions of pulp anatomy, endodontic diagnosis and treatment procedures, dental biomaterials, selection of patients, digital radiology and local anesthetics in endodontics. Clinical lectures are devoted to procedures used in preparing and obturating root canals, discussions of the materials, restoration of Endodontically treated teeth, and clinic orientation prior to treat the first endodontic patient. Each learning goal should have a series of clinical steps or actions that the student will take to move towards the goal. Actions should be actual behaviors.

Competencies are the essential knowledge, skills, values, and attitudes necessary for the safe practice of dentistry. Taken together, they provide the building blocks for the dental curriculum. Competency includes knowledge, experience, critical thinking, problem-solving, professionalism, diagnostic and technical skills, and self-assessment. It is practice that is evidence-based, patient-centered, ethically and compassionately delivered, and respectful of all individuals in a humanistic culture. In this Endodontic I course the competencies lab exams are examples of an action. Each action should be associated with one or more resources and with evidence based literature.

During laboratory exercises, students access, instrument, and obturate root canals on pre-fabricated and extracted human teeth. In this course, the D2 students will be learning about each of the phases listed above. D3 Students may begin to treat patients in the endodontic clinic (OHR-818-56- JR CLIN ENDODONTICS) after successful completion of this preclinical course and the endodontic preclinical competency exams; which is the learning goal and the appropriate action.

Course Objectives

Upon completion of this course, the students should be able to:

1. Be familiar with the purposes of endodontic therapy.
2. Be familiar with the techniques involved in pulp removal, intracanal instrumentation,

- irrigation and obturation of the canal, and endodontic radiology.
3. Be familiar with the instruments and materials needed to perform endodontic therapy.
 4. Discuss the effects of various drugs and medications employed in endodontic therapy.
 5. Discuss the factors responsible for periapical inflammation and repair.
 6. Discuss the interrelationship of endodontics to restorative dentistry.
 7. Be familiar with pulpal anatomy and physiology, pathology of the pulp and periapical tissues, and the microbiology of the pulp.
 8. Be prepared to perform endodontic therapy on patients and build his/her skills and confidence so that he/she can provide a high level of patient care.
 9. Be familiarized with the digital learning landscape concept that brings together the strengths of Electronic Portfolio and Social Networking. Lectures, manuals, guidelines as PDF files are available online on the Blackboard course library.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Students will learn how to apply critical thinking and problem solving skills in the comprehensive care of patients. (Written examinations)
- 2.2 Students will learn how to evaluate and integrate best evidence research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 2.3 Apply information technology resources in contemporary dental practice.
- 6.3 Root Canal Treatment returns the tooth function to proper function and esthetics. (Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates students must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates students must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including: f: Restoration of teeth

Outline

Date	Activity	Lecturer
May 19	<ul style="list-style-type: none"> • Introduction to “Root Camp” What is Endodontics? Root canal Internal anatomy preparation & mounting • Tooth isolation, anterior teeth anatomy, anterior access 	Dr. Ricardo Caicedo
May 20	<ul style="list-style-type: none"> • Internal anatomy & access of canine and 	

	<ul style="list-style-type: none"> premolars Working length determination Irrigation & Instrumentation: Hand instrumentation Cleaning & Shaping Rotary Method Instrumentation Irrigant solutions 	Dr. Ricardo Caicedo
May 21	<ul style="list-style-type: none"> Review of Access Errors and Canal Cleaning and Shaping Instrumentation of curved canals. Obturation of Canals Using Lateral Condensation 	Dr. Ricardo Caicedo Dr. Stephen J Clark
May 22	<ul style="list-style-type: none"> Common Errors in Obturation and Lab Review Procedural accidents 	Dr. Joseph M. Morelli Dr. Ricardo Caicedo
May 23	<ul style="list-style-type: none"> Mandibular and Maxillary Molar Access, working length and rotary-instrumentation Review of Molar Access and Canal Instrumentation 	Dr. Ricardo Caicedo Dr. Stephen J Clark
May 27	<ul style="list-style-type: none"> Endodontic Diagnosis Restoration of the Endodontically Treated Tooth 	Dr. Stephen J Clark Dr. Ricardo Caicedo
May 28	<ul style="list-style-type: none"> Local Anesthesia in Endodontics Emergency Treatment in Endodontics 	Dr. Stephen J Clark Dr. Joseph Morelli
May 29	<ul style="list-style-type: none"> Molar Competency Exam typodont mounted Part I Real-T Endo tooth (Plastic) Molar Competency Exam typodont mounted Part II Real-T Endo tooth (Plastic) 	Dr. Ricardo Caicedo Faculty Endodontic Residents
May 30	<ul style="list-style-type: none"> Final Written Exam 8:00 - 9:30 AM Simulation Lab Makeup Final Competency 	Dr. Ricardo Caicedo Endodontic Residents

Evaluation

Laboratory: 4 Daily Projects 20%, 2 Anterior and Posterior Competency 40%.

Didactic: 2 Quizzes 10%, 1 Final Exam 30%,

The format for the final exam may be multiple choice, true/false, fill in the blank, or essay-type questions.

Remediation: Failure to receive a grade of C or better will require remediation or repeat of this course (didactic and laboratory).

Grade Scale

A: 92-100 %

B: 82-91.99 %

C: 72- 81.99 %

Faculty

Dr. Ricardo Caicedo (Course Director)

Dr. Stephen J Clark

Dr. Joseph M. Morelli

Dr. Stephen J Clark
Dr. Peter Fotos
Dr. Scott Shuler
Dr. Mike Childers
Dr. Jonathan Vlahos
Dr. Anthony Leung
Dr. Royce Lyn Gray
Endodontic Post-Graduate Residents (6)

Semester Offered – D3 Year , First (Fall) and Second (Spring) Semester

Course Description

This didactic course consists of a series of lectures that will focus in depth on clinical aspects of diagnosis and treatment in endodontics. This course is designed to be a continuation of Endodontics I and will build upon the knowledge obtained in that course. It will present in detail: endodontic diagnosis, endodontic flare-ups and infection, cracked tooth syndrome, endodontic-periodontic relationships, per-apical surgery, re-treatment, treatment of incompletely developed permanent teeth, trauma, and resorptive defects.

Course Objectives

Upon completion of this course, the students should be able to:

1. Review diagnosis, access, instrumentation, and obturation in endodontic therapy, pointing out common mistakes that are seen in the clinic and methods to prevent or correct these mistakes.
2. Discuss infections and flare-ups that can occur during and after endodontic therapy and their prevention/treatment.
3. Discuss Cracked Tooth Syndrome, including diagnosis, treatment, and possible sequelae.
4. Discuss the relationship between endodontics and periodontics, including diagnosis and treatment of lesions that are of endodontic, periodontal, and combined origin.
5. Describe the indications for endodontic re-treatment and periapical surgery so that the student doctor can competently manage failing endodontic therapy and know when to refer the patient to a specialist. This includes an introduction to surgical techniques and procedures.
6. Discuss endodontics for the child patient, including the sequence of root closure and the role of Calcium Hydroxide therapy in treating the young permanent tooth.
7. Describe the diagnosis, management, and treatment of dento-alveolar trauma.
8. Discuss management of the different types of resorption of teeth and the implications of resorption in endodontics.
9. Review the differential diagnosis of orofacial pain.

Competency Statements (Student Learning Objectives)

This course contributes to foundation knowledge in the development of student competencies:

- 4.4 Assess the need for, apply radiographic selection criteria, and perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that requires monitoring or management.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.

- 6.1 Manage (refer or treat)dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.

Outline

Date	Activity	Presenter
Oct. 9	Introduction, Diagnosis, Questions	Dr. Morelli
Oct. 16	Endodontic Emergencies / Endodontic Pharmacology Review	Dr. Morelli
Oct. 23	Cracked Tooth Syndrome	Dr. Bindu Soni
Oct. 30	Pulp Biology and Histology	Dr. Clark
Nov. 6	Periapical Path I	Dr. Morelli
Nov 13	Apexogenesis and Apexification, Reenerative Endodontics	Dr. Clark
Nov. 20	Pulp And Periapical Path II, Cyst and Granuloma	Dr. Morelli
Nov 27	Review (Thanksgiving Break)	Dr. Morelli
Dec. 4	Resorption of Permanent Teeth	Dr. Clark
Dec.11	Mid-Term Exam	
Jan. 8	Endodontic Surgery Caicedo	Dr. Caicedo
Jan. 15	Alternate Instrumentation and Obturation Techniques	Dr Brian Saughnessy
Jan. 22	Trauma I, Crown Root Fractures	Dr. Clark
Jan 29	Trauma II, Luxation and Avulsion	Dr. Clark
Feb 5	Retreatment in Endodontics vs Surgery	Dr. Caicedo
Feb 12	Pain of Non-Odontogenic Origin	Dr. Morelli
Feb. 19	Final Exam	

Evaluation

All competencies are assessed via mid-term and final written examination.

Grade scale

92-100	A
82-91.99	B
70-81.99	C
< 70	F

Faculty

Dr. Joseph Morelli

Dr. Stephen Clark

Dr. Ricardo Caicedo

Dr. Bindu Soni

Dr. Brian Shaughnessy

OHR 818-56 Junior Clinical Endodontics

Credit: 1.0

Semester Offered – Fall and Spring, D3 Year

Course Description

Junior Clinical Endodontics is a third year course in the predoctoral endodontic curriculum. This course will provide clinical experience in both diagnosis and treatment of diseases of the pulp and periapical region. It will emphasize clinical application of principles taught in the second year endodontic technique course and in the third year didactic endodontic course.

Course Objectives

Upon completion of this course, the students should be able to:

1. give the student dentist the experience of providing patient education by correcting misinformation about endodontic procedures, presenting current relevant information with regard to the risks and benefits of the proposed endodontic treatment, and providing information with regard to possible treatment alternatives.
2. provide the student dentist the endodontic experience of diagnosing, treatment planning, and treating both uncomplicated and more complicated anterior and posterior teeth encountered in the general practice of dentistry.
3. provide the student dentist the experience of evaluating the results of endodontic cases encountered in the general practice of dentistry. This experience includes the opportunity of managing patients in which endodontic treatment is failing and referral to an endodontic specialist or endodontic resident for treatment and/or periapical surgery.
4. provide the student dentist the experience of treating endodontic infections with antimicrobial therapy and, if needed, incision and drainage.
5. Provide the student dentist with increased knowledge of the complexity of some endodontic cases and provide the experience of referring these complex cases to an endodontic specialist or resident for treatment.
6. provide the student dentist with the experience of infection control practices in endodontics.
7. provide the student dentist with basic knowledge of integration of endodontic therapy with periodontal, restorative, and prosthodontic treatment plans.

Competencies (Student Learning Outcomes)

Upon course completion of this course, the students should be able to:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 4.1 Identify a patient=s chief complaint, general needs, past dental history, and treatment expectations.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures..
- 6.6 Diagnose and manage patients with pulpal disease and related Periradicular pathology.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in The treatment of patients with dental disease.

Evaluation

The grade earned on the competency exam coupled with the daily clinic evaluations will determine the final course grade.

The competency exam is administered as an opportunity for the student to demonstrate to the faculty that he/she possesses the clinical skills required to perform independent endodontic treatment and will be graded accordingly. All competency exams will take place in the endodontic clinic.

If the student fails the competency exam, he/she may retake the exam. The final competency grade may be lowered one grade in consideration of the first competency exam. The endodontic faculty will try to communicate to the student their impression as to the student's readiness to take the competency exam.

Grading Scale

- A: The student dentist performed at a Superior level during treatment, meeting all criteria of good endodontic care, and showed exceptional competence when treating patients on a more independent level
- B: The student dentist performed at an Acceptable level, meeting most criteria of good endodontic care, and was considered competent to perform on a more independent level.
- C: The student dentist performed at a marginal level and had some criteria of endodontic care which were marginally accomplished.
- F: The student dentist performed at an unacceptable level. If the student fails to pass the competency exam, he/she may re-take the exam on another tooth. Both competency exams will be averaged for a final Competency grade. The goal of this course will be to make the student dentist competent to perform endodontic therapy.
- I: The course was not completed on schedule because of extenuating circumstances, and there is a reasonable possibility that a passing grade will be earned upon completion of the course. The course director will have the final decision as to whether the extenuating circumstances warrant an incomplete grade.

Faculty

Dr. Joseph Morelli

Semester Offered – D3 Year; Fall Semester

Course Description

The course is a continuation of D2 Periodontics II. A focus on diagnosis, and treatment planning exists. Additionally, indications, contraindications and rationale for periodontal surgery, different surgical treatment techniques, surgical complications, periodontal plastic surgery and implant therapy will be considered.

Course Objectives

A Fall Semester Third year pre-doctoral student should be able to:

1. Develop a treatment plan for a patient with periodontitis, including all facets of charting.
2. Know how and when to refer patient to a periodontist.
3. Understand the role periodontal re-evaluation.
4. Discuss a philosophy for periodontal surgery
5. Understand the rationale for periodontal surgery and prescribe surgery
6. Identify the indications and contraindications for periodontal surgery.
7. Understand the role periodontal surgery with its advantages and disadvantages.
8. List the indications and contraindications for gingivectomy and/or flap procedures.
9. List the indications and contraindications for resective periodontal surgery.
10. List the indications and contraindications for crown lengthening.
11. Understand the concept of biological width and its importance.
12. List the indications and contraindications for GTR.
13. List the indications and contraindications for furcation management.
14. Justify tooth removal
15. Understand diagnosis and etiology of gingival recession.
16. Locate the smile-line in a patient with periodontal disease.
17. List the indications and contraindications for periodontal plastic surgery.
18. Identify the patient who needs ridge augmentation or site preparation for delayed implant placement.
19. List different osseous grafts.
20. Understand the differences between teeth and implants. Describe the progression of beginning to advanced periodontitis
21. List the sequence of events in a postoperative appointment
22. Recognize the effects of tobacco use on periodontal health, periodontal surgery and implant therapy.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
(Written examinations)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.10 Graduates must demonstrate the ability to self assess, including the development professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2.13 In-depth information on abnormal biological conditions **must** be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders
- 2.14 Graduates **must** be competent in the application of biomedical science knowledge in the delivery of patient care
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - b. screening and risk assessment for head and neck cancer;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - d. health promotion and disease prevention;
 - e. anesthesia, and pain and anxiety control;
 - f. restoration of teeth;
 - g. communicating and managing dental laboratory procedures in support of patient care;
 - h. replacement of teeth including fixed, removable and dental implant prosthodontic therapies;
 - i. periodontal therapy;
 - j. pulpal therapy;
 - k. oral mucosal and osseous disorders;
 - l. hard and soft tissue surgery;
 - m. dental emergencies;
 - n. malocclusion and space management; and
 - o. evaluation of the outcomes of treatment, recall strategies, and prognosis.

Outline

Date	Activity	Presenter
August 14	Course Introduction	Dr. Vidal Dr. Virag
August 21	Oral & Periodontal Anatomy Periodontal re-evaluation Rational for Periodontal Surgery	Dr. Vidal
August 28	Resective Osseous Surgery	Dr. Arbab
September 4	Periodontal Flap Procedures Gingivectomy & Gingivoplasty	Dr. Vidal
Septemebr 11	Distal Wedge Procedures	Dr. Vidal
September 18	Introduction to Dental Implants	Dr. Arbab
September 25	Furcation Management	Dr. Vidal
October 2	Crown Lengthening	Dr. Vidal
Ocotber 9	Guided Tissue Regeneration Introduction to bone grafting Procedures	Dr. Katwal
October 16	Study Period	
Ocotber 23	Gingival Width Gingival Recession	Dr. Vidal
Ocotber 30	Periodontal Plastic Surgery	Dr. Vidal
November 6	Implant Site Development Ridge Preservation Techniques Ridge Augmentation Techniques	Dr. Vidal
November 13	Dental implants Diagnosis Treatment Planning related to Dental Implants	Dr. Vidal
November 20	Dental Implants in the Esthetic Region	Dr. Ntounis
November 27	THANKSGIVING BREAK	
Decemebr 4	Review Topics & Questions	DRr. Vidal
December 11	Fina; Exam	Dr. Vidal

Evaluation

Lecture - 4 written examinations will be given during the course.

Grade Scale

A: 90 - 100%

B: 80 - 89%

C: 70 - 79%

F: 0 - 69%

Faculty

Dr. Ricardo Vidal (Course Director)

Dr. John Virag

Dr. Thanos Ntounis

Dr. Dishka Katwal

Dr. Hassain Arbab

OHR-852-58 Clinical Periodontics

Credit: 3.0

OHR-855-58 Clinical Preventive Dentistry

Credit: 3.0

Semesters Offered: D3 Summer, Fall, Spring, and D4 Summer, Fall, Spring

Course Descriptions

These courses are designed to provide opportunities for students to continue mastery of basic skills in periodontics and preventive dentistry that they have learned in their preclinical experiences, and to ultimately demonstrate competency in these areas. To prove their competency, the clinical performance of the students is evaluated with specific criteria designed to insure that the student is performing at an acceptable level for independent practice of dentistry, and to complete regional board examinations. The competency examinations are designed for the student and the faculty to be able to objectively assess specific strengths and weaknesses in clinical performance, to provide information about remediation, if needed, and to insure documentation of this information for formal evaluation.

Course Objectives

Upon completion of this course, the students should be able to:

1. Provide students with clinical patient experiences to perform preventive and periodontal techniques that were presented in the preclinical courses.
2. Evaluate preventive and periodontal conditions in a comprehensive periodontal evaluation.
3. Determine periodontal diagnosis and prognosis.
4. Create a preventive/periodontal treatment plan to be incorporated into the comprehensive treatment plan developed for the patient.
5. Emphasize concepts of consultations and referrals with other disciplines.
6. Perform preventive procedures including oral hygiene instruction, tobacco counseling, and dietary counseling.
7. Perform periodontal procedures including comprehensive periodontal evaluation, and scaling and root planing.
8. Determine the outcome of preventive and periodontal procedures via periodontal reevaluation.
9. Determine the appropriate recall/periodontal maintenance interval for the patient.
10. Deliver preventive and periodontal treatment in a comfortable and efficient manner, using appropriate pain control and effective patient management.
11. Maintain appropriate infection control throughout procedures.
12. Encourage attainment of competence through performance of essential clinical experiences, working toward competency.
13. Prove attainment of competency by successful completion of competency evaluations.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.

- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.5 Diagnose and manage patients with periodontal disease.

Commission on Dental Accreditation (CODA)

These courses contribute to foundation knowledge in the attainment of CODA Standards:

- 2- 9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-11 Biomedical science instruction in dental education must ensure an in-depth understanding of basic biological principals, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems.
- 2-12 The biomedical knowledge base must emphasize the oro-facial complex as an important anatomical area existing in a complex biological interrelationship with the entire body.
- 2-13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders. DEP Standards -24-
- 2-14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2-16 Graduates must be competent in managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment.
- 2-22 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;

- c. recognizing the complexity of patient treatment and identifying when referral is indicated;
- d. health promotion and disease prevention;
- e. anesthesia, and pain and anxiety control;
- i. periodontal therapy;
- k. oral mucosal and osseous disorders;
- l. hard and soft tissue surgery;
- m. dental emergencies;
- o. evaluation of the outcomes of treatment, recall strategies, and prognosis.

Evaluation

Essential Clinical Experiences (ESE and Competencies)

Prior to attempting a competency evaluation, the student should complete minimum clinical experiences of: (formative clinical experiences)

- 3 - Preventive Counselings (OHI, dietary, or tobacco counseling)
- 4 - Comprehensive Periodontal Examinations
- 5 - Quadrants Scaling and Root Planing
- 1- Periodontal Revaluation
- 1- Periodontal Surgery Rotation as appointed

Competencies that **SHOULD** be completed by the end of the Junior year

- 2 - Preventive Counselings (OHI, dietary, or tobacco counseling)
- 2 - Comprehensive Periodontal Examinations
- 2 - Quadrants Scaling and Root Planing
- 1- Periodontal Revaluation

Competencies (Summative clinical experiences) that **MUST** be completed by the end of the Senior year

- 5 - Preventive Counselings (OHI, dietary, or tobacco counseling)
 - 4 - Comprehensive Periodontal Examinations
 - 5 - Quadrants Scaling and Root Planing
 - 2 - Periodontal Revaluations
 - 2 - Phase II Completed Periodontitis Cases (evaluated by case Report form)
- Essential Clinical Experiences (includes ESE and competencies)

- 08 – Comprehensive Periodontal Examinations
 - 10 – Quadrants Scaling and Root Planing
 - 03 – Periodontal Reevaluations
 - 01 – Surgical Assist Rotation
 - 08 – Preventive Counseling's (OHI, dietary, or tobacco counseling)
- The essential clinical experiences are inclusive of the prerequisites and competency procedures (not in addition to) and should be completed prior to graduation.

Competency Evaluation Procedures

Evaluation of competency procedures is based on a 0-3 point scale. These criteria are applied giving consideration for the student's level of development.

POINT VALUE	CRITERIA	DESCRIPTION
3	Well prepared for procedure, no instructor intervention required, demonstrated higher skill levels than expected, self evaluation is accurate, all clinical protocols followed at a higher skill level than expected, patient management performed at a higher skill level than expected, all paperwork and/or computer entries completed correctly.	Superior: Satisfies all criteria
2	Properly prepared for procedure, minimal instructor intervention, demonstrated expected skill levels, self evaluation is accurate, all clinical protocols followed at expected skill levels, patient management performed at expected skill levels, all paperwork and/or computer entries completed with minimal corrections.	Acceptable: Could be improved with minor changes
1	Minimally prepared for procedure, significant instructor intervention, demonstrated lower skill levels than expected, self evaluation minimally or not accurate, all clinical protocols followed at lower than expected skill levels, patient management performed at lower than expected skill levels, all paperwork and /or computer entries completed with corrections.	Marginal: Needs major improvement
0	Unprepared for procedure, significant instructor intervention requested and/or lack of recognition of need for instructor intervention, demonstrated low skill levels resulting in major instructor intervention and/or completion of procedure by the instructor, self evaluation not accurate, clinical protocols followed at low skill levels, Patient management performed at low skill levels, all paperwork and/or computer entries completed with major corrections.	Unacceptable: Weak/unsatisfactory/not correctable within tolerable limits

Grading Scale

3.00-2.50 = A

2.49-2.00 = B

1.99-1.50 = C

<1.50 = F

Faculty

Dr. John Virag

Semester Offered – D3 Year continued to D4 year; Spring of D3 year (enrollment) to end of D4 year.

Course Description

This course is designed to enrich didactic and clinical background of a limited number of dental students geared towards a career in Periodontics, to provide clinical hands-on exposure on fundamental periodontal surgery procedure and allow them to utilize their experience during the application process for advanced studies in Periodontology.

Selection Process

Six D3 dental students are admitted in the course. The students need to have good grades in didactic periodontal courses and a good number of clinical periodontal procedures (at least 5 comprehensive periodontal exams as well as 1 successfully completed competency). A meeting with the periodontics faculty members involved in teaching dental students is sought before final selection. A genuine interest in pursuing a career in Periodontics is weighted heavily.

Course Objectives

Upon completion of this course, the students should be able to:

1. Understand and describe periodontal case management.
2. Identify potential medical conditions and pathologies that interfere with periodontal treatment.
3. Seek appropriate medical consultation.
4. List the principles of surgical periodontal treatment.
5. Understand and describe the rationale for surgical periodontal treatment.
6. Describe the indications for and the procedure of functional crown lengthening.
7. Describe the indications for and the procedure of periodontal flap surgery for access.
8. Describe pre-surgical set-up of operating room.
9. Identify rotary and hand periodontal surgical instruments.
10. List surgical steps of functional crown lengthening in a pre-surgical write-up.
11. List surgical steps of apically positioned flap in a pre-surgical write-up.
12. Classify different suture materials and list indications for each.
13. Identify different healing stages post-surgically.
14. Identify signs/symptoms of inflammation.
15. List success criteria for procedure outcomes.
16. Perform periodontal flap procedure under supervision.
17. Present surgical cases in a case conference set-up.
18. Self Assess performance in clinical and didactical sessions.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

1. Professionalism, Ethics, and the Law
 - 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
2. Information Management and Critical Thinking
 - 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
 - 2.2. Apply information technology resources in contemporary dental practice.
3. Practice Management
 - 3.1. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
 - 3.4. Establish and maintain patient records and assure confidentiality of information.
4. Patient Assessment
 - 4.2. Obtain patient data adequate to provide dental treatment.
 - 4.3. Perform a clinical examination of the head and neck and intraoral structures.
 - 4.5. Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
 - 4.6. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
 - 4.7. Recognize predisposing and etiologic factors that require intervention to prevent disease.
 - 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
 - 4.11. Evaluate the prognoses of various treatment options.
5. Treatment Planning
 - 5.1. Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
 - 5.2. Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
 - 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
6. Patient Care: Managing the oral health care of the infant, child, adolescent, and adult, as well as the unique needs of women, geriatric, and special needs patients.
 - 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology. Throughout the curriculum, the educational program uses teaching and learning methods that support the development of critical thinking and problem solving skills.
- 2-10. Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.

6-3. Dental education programs must provide opportunities, encourage, and support student participation in research and other scholarly activities mentored by faculty.

Outline

Date	Activity	Presenter
Thursday 6th Feb 12.00-1.00 pm	Periodontal case management	Dr. Ntounis
Thursday 13th Feb 12.00-1.00 pm	Rationale for surgical periodontal treatment	Dr. Ntounis
Thursday 20th Feb 12.00-1.00 pm	Functional crown lengthening	Dr. Ntounis
Thursday 27th Feb 12.00-1.00 pm	Periodontal flap surgery	Dr. Ntounis
To be determined	Root coverage procedures	Dr. Greenwell
To be determined	Furcation management	Dr. Ntounis
To be determined	Applying for residency and the American Academy of Periodontology and Board certification	Dr. Greenwell
To be determined	Case conference-Short case presentations. Assessment of the course	Dr. Ntounis Dr. Vidal

Evaluation

There is no final exam on this course. The course is Pass or Fail exam.

Successful completion of the course is based on daily performance on didactic and clinical sessions.	Self Assessment Grade	Faculty Grade
Attendance and Participation		
Completion of clinical exercises (Crown lengthening and APF surgeries)		
Pre-surgical case presentation and write-up (Format of document is provided).		
Case presentation.		

2. Case Presentation.

For the case presentation the following items will be graded.	Faculty Grade	Self Assessment Grade
Medical and Dental Hx		

Periodontal Diagnosis and recognition of Risk factors and Etiologic factors		
Prognosis		
Treatment plan		
Treatment		
Treatment outcome		
Maintenance schedule		
Quality of presentation and clinical pictures		

Grade Scale

1: Needs development

2: Acceptable

3: Excellent.

Faculty

Dr. Dr. Ntounis

Dr. Greenwell

Dr. Vidal

OHR 881-05 Implant Dentistry

Credit: 1

Semester Offered: Fall D3

Course Description

This course introduces the dental student to current concepts in the surgical and restorative aspects of implant dentistry. The student will become familiar with various aspects of the discipline, including a basic history of implants in dentistry, implant and restoration types, components and terminology, diagnosis and treatment planning, surgical placement and adjunctive surgeries, restoration, maintenance, and complications of dental implant therapy.

Course Objectives

Upon completion of this course, the students should be able to:

1. Comprehensively evaluate patients, and present implant treatment options where appropriate.
2. Understand objective patient assessment and recognize factors that influence treatment difficulty and the likelihood of a compromised outcome.
3. Identify and provide a treatment plan for patients with straightforward treatment needs, including both edentulous and partially edentulous arches.
4. Identify and describe commonly utilized dental implants and restorative components.
5. Discuss and understand implant-based prosthetic options for completely and partially edentulous patients.
6. Understand and perform techniques for making final impressions and fabricating provisional prostheses for straightforward implant-based indications.
7. Understand and perform clinical and laboratory procedures associated with the definitive restoration of implants in straightforward indications.
8. Understand and observe surgical procedures associated with implants in straightforward indications.
9. Maintain dental implants through appropriate patient instruction and regimented recall examinations.
10. To identify failing dental implants and determine needed therapy.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope

of general dentistry, as defined by the school, including:
f. restoration of teeth

Outline

Date	Activity	Presenter
8/13	Esthetic Risk Assessment and Planning	Dr. Azim
8/20	Provisional Restorations in the Esthetic Zone	Dr. Azim
9/3	Tissue Level Single Tooth Options Esthetic Zone	Dr. Morton
9/10	Bone Level Single Tooth Options Esthetic Zone	Dr. Azim
9/17	Bone Level Hands on Seminar (Group 1)	Dr. Azim
9/24	Bone Level Hands on Seminar (Group 2)	Dr. Morton/Azim
10/1	Hard Tissue Augmentation Options	Alpert
10/8	No Class - Fall Break	
10/15	Soft Tissue Augmentation Options	Greenwell
10/22	Digital Options Single Tooth and Non-Esthetic	Dr. Azim
10/29	Digital Options Esthetic Zone	Morton
11/5	No Lecture - Election Day	
11/12	Course Review & Questions	Dr. Azim
11/19	Implant Placement Hands On Seminar (1-5) 146	Morton
11/26	Final Examination	Dr. Azim

Evaluation

Students will be evaluated by means of a one-hour multiple-choice exam (50%), and quiz grades (if given), attendance and laboratory scores (50%).

Grade Scale

Pass/Fail

Faculty

Dr. Dean Morton (Course Director)
Dr. Tamer Abdel-Azim
Dr. Henry Greenwell
Dr. Brian Alpert

OHR 885 Clinical Complete Denture I Lecture

Credit: 2

Semester Offered – D3 Year; Fall semester

Course Description

The course provides instruction regarding complete denture prosthodontic procedures and is designed to inform the student of the concepts and the “how to” of procedures as related to the fabrication of the complete dentures in a clinical setting. Concepts of complete dentures are reviewed and applied to the fabrication of complete dentures on patients in the clinics.

Course Objectives

Upon completion of this course, the students should be able to:

1. Identify anatomical landmarks relating to complete denture construction
2. Correlate the anatomy with procedures used in making dentures
3. Understand how to perform an examination and patient evaluation of a completely edentulous patient
4. Understand how to make diagnostic impressions and primary casts
5. Understand how to construct custom trays
6. Learn how to trim custom trays, bordermold the tray and make master impressions
7. Learn how to construct baseplates and occlusion rims on master casts
8. Learn how to establish proper contour of the maxillary and mandibular occlusion rims
9. Understand how to establish a proper vertical dimension of occlusion
10. Understand how to articulate master casts on an articulator in the proper relationship
11. Understand how to arrange the upper & lower anterior teeth for good esthetics and a proper incisal guidance. Examine the principles of esthetics related to all dentition.
12. Learn how to arrange the flat plane posterior teeth in proper occlusion
13. Learn how to arrange posterior teeth in lingualized occlusion
14. Learn denture repair technique(s)
12. Festooning of dentures (wax pattern) will be discussed
15. Processing of the dentures will be shown.
16. Protocol for Adjustments will be discussed.
17. CAD-CAM dentures will be introduced

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate

- scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
- f. restoration of teeth

Outline

Date	Activity	Presenter
Mon. 8-13	Patient Evaluation and Clinic Protocol	Dr. Azim
Wed. 8-15	Examination & Treatment Planning (1)	Dr. Windchy
Mon. 8-20	Treatment Planning (2) [ADA Codes]	Dr. Azim
Wed. 8-22	Pre-prosthetic surgery & interim CDs	Dr. Harris
Mon. 8-27	Maxillary and mandibular anatomy & primary impressions	Dr. Boyd
Wed. 8-29	Primary casts	Dr. Boyd
Wed. 9-5	Custom tray construction	Dr. Boyd
Mon. 9-10	Custom tray adjustments & border molding	Dr. Boyd
Wed. 9-12	Maxillary master impression	Dr. Boyd
Mon. 9-17	Mandibular master impression	Dr. Boyd
Wed. 9-19	Master casts	Dr. Windchy
Wed. 8-29	Record Bases & Occlusion rims 1	Dr. Boyd
Wed. 9-5	Record Bases & Occlusion rims 2	Dr. Boyd
Mon. 9-10	MID TERM EXAMINATION	
Wed. 9-12	CJR Records	Dr. Boyd
Mon. 9-17	Facebow record	Dr. Mansfield
Wed. 9-19	Articulators	Dr. Mansfield
Mon. 9-24	Patient Evaluation and Clinic Protocol	Dr. Windchy
Wed. 9-26	Examination & Treatment Planning (1)	Dr. Windchy
Mon. 10-1	Treatment Planning (2) [ADA Codes]	Dr. Windchy
Wed. 10-3	Pre-prosthetic surgery & interim CDs	Dr. Windchy
Wed. 10-10	Maxillary and mandibular anatomy & primary	Dr. Windchy

	impressions	
Wed. 10-15	Primary casts	Dr. Windchy
Wed. 10-17	Articulation & teeth selection	Dr. Windchy
Mon. 10-22	Lab work authorization	Dr. Windchy
Wed. 10-24	Occlusal concepts	Dr. Windchy
Mon. 10-29	Processing	Guest Lecturer
Wed. 10-31	Delivery	Dr. Windchy
Mon. 11-5	Relines	Dr. Azim
Wed. 11-7	Repairs	Dr. Windchy
Mon. 11-12	Tissue conditioning	Dr. Azim
Wed. 11-14	Complaints & concerns I	Dr. Harris
Mon. 11-19	CAD-CAM CDs	Dr. Boyd
Mon. 11-26	Complaints & concerns II	Dr. Boyd
Wed. 11-28	FINAL EXAM	

Evaluation

Lecture – Written examinations will be given during the course

Grade Scale

A: 91 – 100%

B: 81 – 90%

C: 71 – 80%

D: 61 – 70%

F: 0 – 69%

Faculty

Dr. Tamer Abdel-Azim (Course Director)

Dr. Mike Mansfield

Dr. Ann Windchy

Dr. Paul Boyd

Semester Offered – D3/D4 Year; Fall and Spring semesters

Course Description

The course provides clinical instruction regarding complete denture prosthodontic procedures and is designed to inform the student of the concepts and the “how to” of procedures as related to the fabrication of the complete dentures in a clinical setting. Concepts of complete dentures are reviewed and applied to the fabrication of complete dentures on patients in the clinics.

Course Objectives

Upon completion of this course, the students should be able to:

1. Identify anatomical landmarks relating to complete denture construction
2. Correlate the anatomy with procedures used in making dentures
3. Understand how to perform an examination and patient evaluation of a completely edentulous patient
4. Understand how to make diagnostic impressions and primary casts
5. Understand how to construct custom trays
6. Learn how to trim custom trays, border mold the tray and make master impressions
7. Learn how to construct baseplates and occlusion rims on master casts
8. Learn how to establish proper contour of the maxillary and mandibular occlusion rims
9. Understand how to establish a proper vertical dimension of occlusion
10. Understand how to articulate master casts on an articulator in the proper relationship
11. Understand how to arrange the upper & lower anterior teeth for good esthetics and a proper incisal guidance. Examine the principles of esthetics related to all dentition.
12. Learn how to arrange the flat plane posterior teeth in proper occlusion
13. Learn how to arrange posterior teeth in lingualized occlusion
14. Processing of the dentures will be shown.
15. Protocol for Adjustments will be shown.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Written examinations)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics. (Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.

- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Evaluation

Clinical – Each individual step in complete denture fabrication (including the lab portion) is evaluated by the student and faculty and a final grade is given upon completion of follow-up visits

Grade Scale

A: 91 – 100%

B: 81 – 90%

C: 71 – 80%

D: 61 – 70% F: 0 – 69%

Faculty

Dr. Tamer Abdel-Azim (Course Director)

Dr. Robert Bohn

Dr. Allan Linehan

Dr. James Woodward

Dr. Allan Linehan

Dr. Lawrence Gettleman

Dr. Donald Karem

Dr. Jack Morr

Semester Offered – D3, All year (Apply to the Spring, Summer, Fall Semesters)

Course Description

Experiences in Clinical Fixed Prosthodontics during the junior and senior year enable the student to apply the knowledge and skills learned in the preclinical fixed prosthodontics courses to patient care. These experiences will be obtained in either the General Dentistry and Oral Medicine (GDOM) or Oral Health and Rehabilitation (OHR) student clinics, and may encompass all Fixed Prosthodontic options. Such options include esthetic and non-esthetic single crowns and fixed dental prosthesis fabricated from a variety of materials and using a variety of methods.

All procedures will be completed with a patient-centered and ethical approach to treatment planning and delivery, with emphasis on timely treatment and sequencing, optimum function, and esthetics. As the student demonstrates improved skills and documents competency in performance of Fixed Prosthodontic procedures, more complicated treatments may be undertaken, inclusive of more advanced concepts and clinical options. For the most part, demonstration of competency will be undertaken in the GDOM clinics. More challenging patient treatments will, for the most part, be undertaken in OHR as identified below. Each student will be encouraged to critique his/her own work, as well as work fabricated by Dental Laboratories, with increasing importance placed on appropriate decision making.

For the most part documentation of clinical progression, and satisfaction of clinical competence will be undertaken in GDOM. The OHR, Division of Prosthodontics, is designed to facilitate inter-disciplinary planning and treatment of patients with advanced and complex needs. These procedures are intended to be completed by students who have documented competence in Fixed Prosthodontic procedures in the GDOM clinics. Ultimately patients considered appropriate for the OHR clinics (with specific, objectively identified pretreatment characteristics) will be identified through screening in addition to GDOM.

Course Objectives

Upon completion of this course, the students should be able to:

1. Demonstrate an understanding of appropriate treatment planning and sequencing.
2. Demonstrate an understanding of healthy occlusion and recognition of compromised occlusal conditions.
3. Demonstrate knowledge regarding dental material options and appropriate use of dental materials as applied to fixed prosthodontics.
4. Demonstrate understanding of patient general health and dental histories, and the appropriate indications for and provision of local anesthesia.
5. Understand the principles of tooth preparation, to provide for mechanical and esthetic predictability while conserving tooth structure and promoting health of the pulp.
6. Understand tooth preparation with regard to adequate reduction, retention and resistance form, and applied dental materials (space required for a strong and esthetic restoration).
7. Fabricate provisional restorations with adequate retention, marginal integrity, axial contours, pontic form, occlusion, surface polish, strength and longevity.

8. Fabricate customized impression trays where appropriate, manipulate impression materials, fabricate working casts, and articulate casts required to fabricate successful restorations. These procedures will include both analog and digital alternatives.
9. Wax, invest, cast and polish crowns with margins of good quality. This includes an applied understanding of tooth form as it relates to occlusion and as to the form of the axial surfaces, proximal contacts and embrasures; therefore, the health of the supporting periodontal tissues. Where appropriate, develop the knowledge required to discuss these prosthesis characteristics with the dental laboratory in a meaningful way.
10. Illustrate an understanding of pontic form during fabrication of fixed dental prostheses and provisional restorations.
11. Understand the phases of fixed prosthesis fabrication that are the responsibility of the dentist and those that may be delegated to laboratory and staff personnel.
12. Demonstrate a basic understanding of the Sciences of Color and shade selection as applied to ceramic, composite and acrylic resin restorations.
13. Write complete and legal laboratory work authorizations.
14. Critically evaluate the quality of work distributed to and returned from commercial dental laboratories.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardian and the public at large.
- 1.3 Recognize the role of life-long learning and self-assessment in maintaining competency
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice
- 6.3 Restore missing or defective tooth structure to proper form, function and esthetics.
- 6.4 Diagnose and manage patients with uncomplicated partial or complete edentulous areas including the use of implants.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including: restoration of teeth

Outline

Office of Clinical Affairs determines each student's individual clinical schedule. It may differ from student to student.

Grading

91 - 100% = A

81 - 90% = B

71 - 80% = C

<70% = F

Faculty

Dr. Wei-Shao Lin (course director)

All the full-time and part-time clinical faculty covering DMD clinic.

OHR-889-07 Advanced Concepts in Dentistry I

Credit: 1 (1 hr/week)

Semester Offered – D3 Year; Spring Semester,**Course Description**

The course is comprised of a series of lectures designed to complement the clinical experiences a student acquires during the Junior and Senior years. The most current concepts in prosthetic dentistry are reviewed. The lectures and discussion periods prepare students for the clinical application of these ideas and concepts. In addition, information on new techniques and dental materials are presented to prepare the student for clinical practice. The format of the class will be lectures and slide presentations.

Course Objectives

Upon completion of this course, the students should be able to:

1. To present advanced topics in prosthodontics and restorative dentistry through an evidence-based approach.
2. Review fundamental concepts in restorative and prosthetic dentistry and illustrate the progression toward more advanced techniques.
3. To introduce and discuss some of the newer discoveries, procedures and materials in restorative and reconstructive dentistry.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Written examinations)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Outline

Date	Topic	Presenter
January 8	Overview of Course The Examination Process- Patient/Doctor Interaction	Dr Zandi/ Dr. Esposito
January 15	The Doctor – Part I: Developing Patient/Doctor Interpersonal Skills	Dr. Esposito
January 22	The Doctor – Part II: Interpersonal Skills and Personal Priorities	Dr. Esposito
	Anterior Esthetics and Smile Design	Dr. Morton/Zandi

January 29		
February 5	Evolution of all ceramic systems: The materials we need to know.	Dr. Zandi
February 12	All-ceramic systems: Preparation, design and material selection. All ceramic FPD.	Dr. Lin
February 19	Provisional Restorations	Dr.Azim
February 26	Porcelain Veneer Restorations	Dr.Morton/Zandi
March 5	Luting Agents in Fixed Prosthodontics	Dr. Elathamna
March 12	Cementation of aesthetic dental restorations	Dr.Zandi
March 19	No Class- Spring Break	
March 26	Maintenance of FDP: management / porcelain repair system.	Dr.Metz
April 2	Advanced dental implant treatment I: Indications, planning, Abutment selection	Dr. Zandi
April 9	Advanced dental implant treatment II: Prosthesis design , Restorative material selection	Dr. Zandi
April 16	Lasers in Dentistry	Dr. McCall
April 23	FINAL EXAMINATION	Dr.Zandi

Evaluation

Advanced Concepts I in Dentistry is the first of two courses given during the Spring semester of the Junior and Senior years. Each Student will receive a separate grade for the course. There is one final examination given at the end of the course. Students will be evaluated by means of a one-hour multiple-choice exam and attendance. Exam questions may be obtained from the lecture material, lecture notes and/or required reading. Grades are determined according to the following scale:

Grade Scale

A = 93 - 100

B = 86 - 92

C = 78 - 85

D = 70 - 77

F = 69 – 0

Faculty

Dr.Amirali Zandinejad (Course Director)

Dr.Dean Morton

Dr. Wei-Shao Lin

Dr.Tamer Abdel-Azim

Dr. Michael Metz

Dr. Carmine Esposito

Dr. Douglas McCall

Dr. Elathamna

OPSC 805-06 Principles of Orthodontics II

Credits 1.0

Semester Offered – D3 Year, Fall and Spring

Course Description

Principles of Orthodontics II is one of the orthodontic didactic courses within the dental curriculum of the University of Louisville School of Dentistry. This course is a continuation of the Principles of Orthodontics I course given in the D2 year. An outline of subjects to be covered is in the manual. The subjects are listed on the basis of the dates and times that the lectures will be given. The course consists of a total of 15 classroom sessions for a total of 13 hours lecture time, which is given in the spring semester of the junior year.

Course Objectives

Upon completion of this course, the students should be able to:

1. Be able to develop suitable treatment plans for the patients they treat, integrating the orthodontic phase into the general treatment plan;
2. be able to interact and communicate with orthodontists;
3. be able to treat uncomplicated tooth malpositions; and
4. acquire the information to form a judgment as to when to refer patients with more severe problems to the specialist.

Competency Statements (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.

- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.

Outline

Date	Activity	Presenter
1/6/2014	Introduction; History of Ortho; Epidemiology of Malocclusion	
1/13/2014	E Orthodontic Classification	Kayla Gies, DMD
1/27/2014	Histology of Tooth Movement	Jordan Hillam, DDS
2/3/2014	Review of Diagnosis and Treatment Planning	Kameron Kuhni, DMD
2/10/2014	Treatment of Early Problems	Meghan O'Connell, DDS
2/17/2014	Problems in The Mixed Dentition	Kaleem Razi, DMD
2/24/2014	Treatment Principles of Space Problems in the Sagittal Plane(Growth Modification	Chris Shannon, DMD
3/3/2013	Midterm Exam	
3/10/2014	Principles of Comprehensive Ortho Treatment/Orthodontic Extraction Patterns(camouflage	Andrea Dopp, DDS
3/24/2014	Principles of Combined Surgical-Orthodontic Treatment	Andrea Dopp, DDS
3/31/2014	Principles of Uprighting Molars/Impacted Teeth	Richard Luff, DDS
4/7/2014	Oral Habits Etiology and Therapy	December Parker, DMD
4/14/2014	Orthodontic treatment of Cleft Lip/Palate	Ryan Ricafort, DDS
4/21/2014	Relapse and Retention	Kyle Wilson, DDS
4/28/2014	Final Exam	

Evaluation

Students will be evaluated on attendance, midterm and final exam.

Grading Scale

93-100 = A
 92-85 = B
 84-75 = C
 74-65 = D
 64-0 = F

Faculty

Dr. Sunita S. Chandiramani Course Director

Dr. Michael P. Becht

Semester Offered – D3 Year; Fall, First Semester

Course Description

This lecture course expands on previous topics covered in Pediatric Dentistry I and also covers space management, dental trauma, pediatric periodontics, Pediatric oral surgery, and emergency management. This course concludes with case presentations designed to bring together previous course work and solidify preparation for the National Boards. The course overlaps the students' first pediatric dentistry clinical rotation and will give the students the opportunity to put this information to good use.

Course Objectives

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

1. Manage the behavior of a child or adolescent patient to the extent that necessary treatment can be rendered while maintaining a positive attitude by the young patient toward dentistry.
2. Describe the most common behavior management tools used by the dentist in the treatment of a child patient, with emphasis on the general child behavior types that the dentist encounters in the office, "crisis points" of a child's dental appointment, and use of restraints in the dental office.
3. Define sedation, analgesia and anesthesia and discuss the use, indications and limitations of sedative drugs as an aid in managing the anxieties of young patients.
4. Describe the management of traumatic injuries to primary and young permanent teeth with emphasis on incidence, work-up, pulp reactions, and treatment options, when presented with concussions, luxations, crown fractures, and avulsions of mature and immature primary teeth.
5. Discuss the need for and use of space maintainers following the premature loss of a primary tooth.
6. Describe the diagnosis and treatment of common periodontal conditions in children and the characteristics of normal gingival tissue in the child and adult.
7. Describe pediatric oral surgery indications and techniques.
8. Describe the appropriate management of medical emergencies in pediatric dentistry.

Competency Statements (Student Learning Outcomes) for Pediatric Dentistry II

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Provide compassionate and ethical care to a diverse population of patients
- 1.4 Communicate effectively with peers, other professionals, staff, patients or guardians at large.
- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.

- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.

Commission on Dental Accreditation (CODA) for Pediatric Dentistry II

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology. (Written exam)
- 2-15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health. (Written exam)
- 2-22 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life. (Written exam)
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - d. health promotion and disease prevention
 - e. anesthesia, and pain and anxiety control;
 - f. restoration of teeth;
 - g. communicating and managing dental laboratory procedures in support of patient care;
 - h. replacement of teeth including fixed, removable and dental implant prosthodontic therapies;
 - i. periodontal therapy;
 - j. pulpal therapy;
 - k. oral mucosal and osseous disorders
 - l. hard and soft tissue surgery;
 - m. dental emergencies
 - n. malocclusion and space maintenance; and
 - o. evaluation of the outcomes of treatment, recall strategies, and prognosis. (Written exam)

Outline

Date	Activity	Presenter
August 13	Course Introduction/Review	Dr. Atarodi/ Dr. Payne
August 20	Behavior Management I	Dr. Payne
August 27	Behavior Management II	Dr. Payne
September 3	Behavior Management III (Pharmacological	Dr. Atarodi

September 10	Trauma I	Dr. Atarodi
September 17	Trauma II	Dr. Atarodi
September 24	Private Practice	Dr. Elliot
October 1	Space Management I	Dr. Atarodi
October 8	Fall Break	
October 15	MIDTERM	Dr. Atarodi
October 22	Midterm Review	Dr. Atarodi
October 29	Pediatric Periodontics	Dr. Atarodi
November 5	Pediatric Oral Surgery	Dr. Atarodi
November 12	Pediatric Emergencies	Dr. Atarodi
November 19	Antibiotic Therapy/ Case presentations	Dr. Atarodi
December 3	FINAL	Dr. Atarodi/ / Dr. Payne
December 10	Finals Week	

Evaluation

Students will be evaluated on a midterm and a final examination.

A one-hour midterm examination will count 40% of the final course grade and a one-hour plus cumulative final examination will count 60%.

Midterm 40%

Final 60%

Grade Scale

A 90 to 100

B 80 to 89

C 70 to 79

F 0 to 69

Faculty

Dr. Merila Atarodi (Course Directors)

Dr. Sandra Payne

Semester Offered – D3 Year, Spring Semester

Course Description

Concepts in Special Patient Care is a lecture course designed to provide the student with a review of basic concepts pertinent to the provision of quality dental care to several patient groups which fall outside the mainstream of more traditional patient care activities – a constellation of populations commonly referred to as patients with special needs. Concepts discussed address special patient care in a variety of clinical settings, and focus on multiple special needs patient populations, including patients with neurodevelopmental disorders and intellectual disabilities, patients with acquired brain injuries, psychiatric inpatients and geriatric patients. Because special needs populations often present with complex medical histories and clinical presentations requiring an interdisciplinary approach, the course content is interdisciplinary and includes presentations by ULSD faculty, as well as lecturers representing other health care professions and other academic units of the University.

The course assumes a general understanding of the clinical dental sciences and traditional clinical service systems as taught by the courses which precede this course in the DMD curriculum.

In addition to discussing the designated patient groups, the course will provide lecture instruction to (third year) dental students, which will help form the conceptual basis for required, fourth-year clinical rotations in special care dentistry at the Lee Specialty Clinic, an interdisciplinary (developmental medicine, developmental dentistry and developmental neuropsychiatry) outpatient clinic serving exclusively individuals with intellectual and developmental disabilities.

Course Objectives

Upon completion of this course, the students should be able to:

1. Define the terms: neurodevelopmental disorder and intellectual disability
2. Gain understanding of the impact that increasing lifespan has had on these various sub-groups
3. Discuss the significance and the impact of the Americans with Disabilities Act, the Olmstead Decision, and community integration, with respect to people with neurodevelopmental disorders and intellectual disabilities (ND/ID)
4. Discuss the impact of 16th Surgeon General David Satcher's report *Closing the Gap* in identifying disparities in access to medical and dental care for special needs patients
5. Identify the professional associations and academies involved in the care of patients with ND/ID
6. Gain understanding of the importance of a biomedically-based language and approach in providing dental services to special needs populations
7. Identify the Five Essential Concepts of Developmental Medicine and Dentistry
8. Understand the relationship between neurodevelopmental dysfunction, disorder-related complications, health consequences, and syndrome-specific conditions
9. Identify major medical / legal issues relevant to the delivery of dental services to special needs populations

10. Understand the importance of the doctor-patient relationship in dealing with medical / legal issues relevant to special needs populations
11. Understand the impact that intellectual disability has on the informed consent process, the obtaining of a health history, and patient compliance
12. Recall basic genetic terms and concepts
13. Identify features of the more commonly occurring neurodevelopmental disorders, including: Fetal Alcohol syndrome; Fragile X Syndrome; Down syndrome; and Cerebral Palsy, and understand their relative prevalence in the general population
14. Understand how intellectual disability, Autism and seizure disorders relate to the major neurodevelopmental illnesses.
15. Recognize the impact of intellectual disability and physical impairment on the delivery of dental care
16. Apply the Five Essential Concepts of Developmental Medicine and Dentistry to clinical case studies
17. Understand the importance of appropriate radiographic imaging techniques adapted for the special needs population
18. Understand the impact of poor periodontal health in the patient with ND/ID
19. Understand the relationship between oral pathologies and multi-systemic conditions in the special needs population
20. Understand the significant and positive impact that dentist / physician collaboration can have on the quality of dental care for special needs patients
21. Gain understanding of the challenges facing America's health care delivery systems in addressing the clinical needs of both outpatient and inpatient psychiatric populations
22. Recognize the impact that various psychiatric illnesses have on dental health and on the delivery of dental services
23. Understand the role of the dentist as an advocate for the psychiatric patient's dental health
24. Recognize clinically-observed behaviors associated with Autism Spectrum Disorder (ASD)
25. Understand the unique challenges facing the dentist treating the patient with ASD
26. Identify physiological changes commonly observed in an aging population
27. Recognize the impact that these changes – both physical and mental – have on an aging patient's daily life, and on the delivery of dental care to that patient
28. Understand the impact that polypharmacy has on this population
29. Identify significant changes in the cardiovascular system of the aging patient, and the ramifications of those changes for the geriatric dentist
30. Identify significant changes in the digestive systems of aging patients, and the impact these changes have on the delivery of dental services
31. Identify the potential impact of dementia and depression on the doctor patient relationship
32. Gain understanding of the role of the clinical geneticist on the special care team
33. Gain understanding of the process by which a neurodevelopmental diagnosis is established
34. Learn to correlate certain neurodevelopmental disorders with their classic phenotypic presentations
35. Gain understanding of the mission of the Lee Specialty Clinic

36. Gain understanding of the clinical and operational protocols of the Lee Specialty Clinic
37. Have an opportunity to have questions about their clinical responsibilities as fourth-year students in the special needs clinical setting answered
38. Gain understanding of the impact that stigma can have on the health of people with neurodevelopmental disorders and intellectual disabilities
39. Gain understanding of the impact that stigma can have on those clinicians who care for people with neurodevelopmental disorders and intellectual disabilities

Commission on Dental Accreditation (CODA) for Lecture Course:

This course contributes to foundation knowledge in the attainment of CODA Standard:

- 2.24 Graduates must be competent in assessing the treatment needs of patients with special needs.

Outline

Date	Activity	Presenter
January 16	Course Overview	Henry Hood, DMD
January 23	Surveying the Landscape: An Overview of Major Relevant Historical Events	Henry Hood, DMD
January 30	Speaking the Language of Medicine and Dentistry: The Five Essential Concepts	Henry Hood, DMD
February 6	Medical / Legal Issues Pertinent to the Patient with Special Needs	Henry Hood, DMD
February 13	Review of Common Neurodevelopmental Disorders – I	Henry Hood, DMD
February 20	Review of Common Neurodevelopmental Disorders – II	
February 27	Mid-Term Examination	
March 6	Clinical Care – I: The Patient with ND/ID	Linel Holwager, DMD
March 13	Clinical Care – II: The Patient with ND/ID	Linel Holwager, DMD
March 20	Spring Break	
March 27	The Adult Psychiatric Inpatient / Patients with Autism Spectrum Disorders	Henry Hood, DMD
April 3	Dental Care of Geriatric Patients	Linda Maytan, DDS
April 10	The Role of a Clinical Geneticist in Assessing Children	Gordon Gowans, MD
April 17	Preparation for Lee Specialty Clinic Rotation	Linel Holwager, DMD
April 24	Say it Ain't So: The Stigmatization of People with Intellectual Disabilities	Rick Rader, MD
April 28	Final Examination	

Evaluation

Two written examinations are administered.

Grade Scale

A: 90 - 100%

B: 80 - 89%

C: 70 - 79%
D: 60 - 69%
F: 0 - 60%

Faculty

Henry Hood, DMD
Linel Holwager, DMD
Gordon Gowans, MD
Linda Maytan, DDS
Rick Rader, MD

Semester Offered- Clinical Pediatric Dentistry I- D3 Fall, Spring, Summer
Clinical Pediatric Dentistry II – D4 Fall, Spring

Course Description

On completion of D2 course and exam a student should feel confident performing patient assessment, Caries risk assessment, diagnosis and treatment plan options, preventive and restorative management, including pulp therapy of the primary dentition as well as behavior management of the child patient, contributing to the development of the clinical skills. The Pediatric Clinic courses are completed on a block assignment basis. Five weeks of rotation are included , The students receive a Pediatric Clinic Orientation session at the beginning of the first rotation designed to review the clinical application of the information received during the Pre-clinical I and II courses. The students receive selected literature review documentation as an EBD support for each required competency that needs to be performed in order to be prepared for the clinical performance in the Pediatric patient.

Students will follow scientific articles and guidelines from the AAPD as the EBD support for their clinic procedures

Course Objectives

Upon completion of these courses, the student should be able to:

1. Differentiate between normal and abnormal physical and psychological development of the child.
2. Diagnose the nature of a child's oral health problem and plan appropriate therapy according to the caries risk assessment factors.
3. Develop an individualized treatment plan according to patient specific needs.
4. Educate parents and patients using an anticipatory guidance and establish a dental home for the patient. Implement a scientifically based, effective program of primary prevention.
5. Perform restorative care for primary and young permanent teeth whose structural integrity has been compromised.
6. Treat primary and young permanent teeth that have pulpal involvement with the most accurate pulp therapy techniques.
7. Evaluate the developing occlusion in such a manner that certain malocclusions can be prevented or intercepted with appropriate therapy.
8. Guide the behavior of the child to the extent that necessary dental procedures can be accomplished.
9. Manage oral trauma in primary and permanent dentition following AAPD, IADT guidelines
10. Manage dental care for that portion of the Special Needs population and know when it is appropriate to refer.
11. Understand the application of critical thinking in evidence-based dentistry

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.

- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including: restoration of teeth.

Evaluation

This class consists of a lecture portion and a lab portion – each of the portions will have graded work which will determine a final grade for the class. Lecture quizzes will be given at various times during most of the lecture sessions, and will be turned in immediately following the quiz. Lecture quizzes (approximately 10) will make up 30% of the overall grade for the class. There are no make-up quizzes, and if a student missed quizzes due to an excused absence, the overall quiz grade will be an average of the other lecture quiz grades. Lab exercises (7 projects) will account for the other 70% of the grade.

Grading

92 - 100% = A----2.5 to 3.0 average

85 - 92% = B----1.8 to 2.4

75 - 84% = C----1.2 to 1.7

70 - 74% = D----below 1.2 average

<69% = F

Faculty

Dr. Lilliana Rozo

OPSC-816-06 Pediatric Special Needs**Credits: 1 hour****Semester Offered** – D3, Spring Semester**Course Description**

The American Academy of Pediatric Dentistry (AAPD) defines Special Health Care Needs as “any physical, developmental, mental, sensory, behavioral, cognitive, or emotional impairment of limiting condition that requires medical management, health care intervention, and/or use of specialized services or programs. The condition may be congenital, developmental, or acquired through disease, trauma, or environmental cause ... Health care for individuals with special needs requires specialized knowledge acquired by additional training, as well as increased awareness and attention, adaptation, and accommodative measures beyond what are considered routine.” This is a required course for the 3rd year dental students. It will help students develop the knowledge base needed to treat special needs patients successfully and safely. This will foster an interest in caring for special needs patients when they get into practice. The students will receive didactic and clinical instruction.

Course Objectives

Upon completion of this course, the students should be able to:

1. Understand the dental concerns and treatment implications for pediatric patients with mental disabilities, as well as commonly seen syndromes, malformations, developmental and medical conditions
2. Develop a comfort level with pediatric special needs patients by understanding their conditions/limitations better
3. Understand and be able to execute meaningful ways to communicate, examine and treat pediatric patients with special health care needs and when to refer

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.

Commission on Dental Accreditation (CODA) Standards for Lecture Course

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients.

- 2.11 Biomedical instruction in dental education must ensure an in-depth understanding of basic biological principals, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems.
- 2.12 The biomedical knowledge base must emphasize the oro-facial complex as an important anatomical area existing in a complex biological interrelationships with the entire body.
- 2.13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders.
- 2.15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2.19 Graduates must be competent in communicating and collaboration with other members of the health care team to facilitate the provision of health care.
- 2.20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2.22 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life.
- 2.24 Graduates must be competent in assessing the treatment needs of patients with special needs.

Outline

Date	Topic	Presenter
1/8/14	Introduction to Special Patient Care: Medical, Social, Emotional Issues	Dr. Greenwell
1/15/14	<u>Common Congenital Syndromes:</u> (Down Syndrome, Cerebral Palsy)	Dr. Greenwell / Resident
1/22/14	<u>Craniofacial Anomalies, Part 1:</u> (Treacher Collins, Pierre Robin Sx, Crouzon Sx, Apert Sx)	Dr. Greenwell / Resident
1/29/14	<u>Craniofacial Anomalies, Part 2:</u> (Williams Sx, Cornelia deLange Sx, Cleidocranial Dysostosis)	Dr. Greenwell / Resident
2/5/14	<u>Craniofacial Anomalies, Part 3</u> (Noonan Sx, Hemifacial Microsomia, Fetal Alcohol Sx)	Dr. Greenwell / Resident
2/12/14	Quiz #1	Dr. Greenwell/ Resident
2/19/14	<u>Neurologically Compromised Patient:</u> (Shunts, Seizures, ADHD)	Dr. Greenwell / Resident
2/26/14	<u>Hematologically Compromised Patient:</u> (Anemia, Leukemia, Sickle Cell Disease, Hemophilia)	Dr. Greenwell / Resident
3/5/14	<u>Cardiac Compromised Patient:</u> (CHARGE Syndrome, Septal Defects, Left Heart Syndrome)	Dr. Greenwell / Resident
3/12/14	Quiz #2	Dr. Greenwell
3/19/14	Spring Break	

3/26/14	<u>Metabolic Disorders:</u> (Hurler/Hunter Sx, Hypophosphatasia, Diabetes, GERD, Peutz-Jeghers Syndrome)	Dr. Greenwell / Resident
4/2/14	<u>Caring for the Blind / Deaf Child</u>	Dr. Greenwell / Resident
4/9/14	<u>Autistic Child Patient</u>	Dr. Greenwell / Resident
4/16/14	<u>Growth & Development Disorders:</u> (Achondroplasia, Ehlers-Danlos Syndrome, Osteogenesis Imperfecta Syndrome)	Dr. Greenwell / Resident
4/23/14	Final Exam	Dr. Greenwell

Evaluation

There will be two quizzes and a comprehensive final to be given during the lecture period. The quizzes will cover all material given in the lectures.

Grading

Satisfactory/Passing = 75 – 100

Unsatisfactory/Failing = <75

Faculty

Ann Greenwell, DMD, MSD (course director)

Semester Offered – D3, Summer

Course Description

Course of study that combines both didactic and clinical components to help students acquire an understanding of pain and the principles of pain control as related to the clinical treatment of dental patients. Evaluation of the physical-mental-emotional status of the patient and the determination of the proper pain control technique and its correlation with procedures to be performed are integrated with an understanding of advanced pain and anxiety-control modalities. Included in this course is a series of in-depth discussions covering the spectrum of advanced pain control techniques with emphasis on the history of the development of such techniques as they apply to dentistry. Information that represents the "state of the art" will be presented covering local anesthesia, diagnosis of pain and anesthesia problems, various pharmacological approaches to pain and anxiety management, iatro-sedation techniques, and finally, management of pain after the fact with various non-opioid and opioid analgesics. All of this increases the range of options for management of various treatment situations for the student and patient alike.

Course Objectives

Upon completion of this course, the students should be able to:

1. discuss the use of local anesthesia and conscious-sedation techniques in dentistry
2. demonstrate an understanding of pain and the principles of pain as related to the treatment of dental patients.
3. demonstrate the basic and advanced modalities of pain control, especially local anesthesia and conscious sedation.
4. describe the correlation of basic sciences with pain control and anxiety management.
5. discuss the pharmacodynamics of local and topical anesthetic agents.
6. understand the interaction of psychology and apprehension and pain.
7. demonstrate the use of local infiltration, field block anesthesia, regional anesthesia, and conscious sedation.
8. discuss the management of complications to treatment.
9. discuss the use of pre- and post-operative medications.
10. describe the basic techniques of induction of out-patient general anesthesia as it relates to dental and oral surgery treatment and the management of such patients.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.3 Recognize the role of self-directed lifelong learning and self-assessment in maintaining competency and pursuing proficiency.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and and environmental safety measures in all clinical procedures.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery and outcome of dental care.

- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the methods of evaluation to be used, and how grades and competency are determined.
- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - e. local anesthesia, and pain and anxiety control
 - f. dental emergencies

Outline

Date	Title	Presenter
June 3- am session	Gr A: Maxillary Injections - review/video; MSA	Dr. Mercke
pm session	Gr A: N2O review/demonstration; ASA, MSA, PSA, N2O	Dr. Mercke
June 4- am session	Gr B: Maxillary Injections – review/video; MSA	Dr. Mercke
pm session	Gr B: N2O review/demonstration; ASA, MSA, PSA, N2O	Dr. Mercke
June 5- am session	Gr A: Infraorbital, GP, NP	Dr. Mercke
pm session	Gr A: Mand Injections – review/video; Conventional Block, Long Buccal	Dr. Mercke
June 6- am session	Gr B: Infraorbital, GP, NP	Dr. Mercke
pm session	Gr B: Mand Injections – review/video; Conventional Block, Long Buccal	Dr. Mercke
June 7- am session	Gr A: Unilinear Mand Block, Mand Accessory	Dr. Mercke
pm session	Gr A: Max infiltration, Akinosi Mand Block	Dr. Mercke
June 10-am session	Gr B: Unilinear Mand Block, Mand Accessory	Dr. Mercke
pm session	Gr B: Max infiltration, Akinosi Mand Block	Dr. Mercke
June 11-am session	Gr A: Gow Gates Mand Block, student choice – prep for practical	Dr. Mercke
pm session	Gr A: Make-up day; student choice – prep for practical	Dr. Mercke
June 12-am session	Gr B: Gow Gates Mand Block, Student choice – prep for practical	Dr. Mercke
pm session	Gr B: Make-up day; student choice – prep for practical	Dr. Mercke
June 13	Group A Practical Exam – 2 nd floor Clinic	Dr. Mercke
June 14	Group B Practical Exam – 2 nd floor Clinic	Dr. Mercke

Grading

Each of the following components will be factored in to obtain a final score:

Midterm Examination	40%
Final Examination	40%
Practical Examination	20%

Grades will be assigned on the following scale:

90 - 100% = A

80 - 89% = B

70 - 79% = C

60 - 69% = D

<60% = F

Course Faculty

Dr. Rebecca Mercke (course director)

Dr. Michael Mansfield

Dr. Stephen Mattingly

Semester Offered – D3 Spring Semester

Course Description

The course consists of 61 lecture hours and 2 interactive seminars. It is divided into three major sections, mucosal/soft tissue lesions, bone/dental hard tissue pathology, and differential diagnosis/diagnostic techniques. Students are exposed to course material through lectures, handouts and reading assignments. These exposures introduce the student to:

1. The vocabulary of oral pathology
2. The conditions encountered in the oral and maxillofacial complex grouped by traditional categories following text chapters
3. Core concepts that determine the rationale and approach to management of patient's lesions and complaints
4. The process of differential diagnosis, tests to attain the diagnosis, and management of the condition
5. The dentist's role in person (child, partner, elder) maltreatment

Course Objectives

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

1. recognize common, serious, infectious and iatrogenic conditions.
2. recognize oral manifestations of systemic and genetic disease.
3. determine the etiology, pathogenesis, natural history and prognosis of oral pathologic conditions.
4. develop a prioritized differential diagnosis of red and white mucosal lesions, acute and chronic ulcers, vesiculobullous conditions, lumps, radiolucent, radiopaque and mixed bony lesions.
5. develop an action plan to manage the above lesions considering the patient's overall health.
6. draw and label classic features of radiographic lesions.
7. recognize signs of person maltreatment and non-accidental injury and implement the legal and ethical role of the dentist when suspicion of abuse is suspected.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively and in a professional manner with peers, other health care providers, staff, patients or guardians and the public at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.

- 4.7 Recognize predisposing, genetic, environmental, and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery and outcome of dental care.
- 4.10 Integrate subjective and objective clinical findings, including evidence-based and emerging science in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.10 Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates **must** be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2.11 Biomedical science instruction in dental education **must** ensure an in-depth understanding of basic biological principles, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems.
- 2.12 The biomedical knowledge base **must** emphasize that the oro-facial complex is an important anatomical area existing in a complex biological interrelationship with the entire body.
- 2.13 In-depth information on abnormal biological conditions **must** be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis for oral and oral-related diseases.
- 2.23 At a minimum, graduates **must** be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - b. screening and risk assessment for head and neck cancer;
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - k. oral mucosal and osseous disorders;
 - o. evaluation of the outcomes of treatment, recall strategies, and prognosis.

Outline

Date	Activity	Presenter
Jan. 6	Introduction	
Jan. 7	Benign epithelial lesions Premalignant lesions	Dr. Bernstein Dr. Shumway
Jan. 13	Premalignant lesions Premalignant lesions	Dr. Shumway
Jan. 14	Malignant epithelial lesions Physical/chemical injury 1	Dr. Shumway Dr. Bernstein

Jan. 21	Physical/chemical injury 2 Physical/chemical injury 3 Denture related lesions	Dr. Bernstein
Jan. 27	Mucocutaneous lesions 1 Mucocutaneous lesions 2	Dr. Bernstein
Jan. 28	Mucocutaneous lesions 3	Dr. Bernstein
Feb. 3	Soft tissue tumors 1, 2 & 3	Dr. Shumway
Feb. 10	Soft tissue tumors 4 Oral lymphoma and leukemia	Dr. Shumway
Feb. 11	Salivary gland tumors 1 & 2 Non-neoplastic lesions of salivary gland	Dr. Bernstein
Feb. 17	Bacterial, fungal, granulomatous disease 1 & 2	Dr. Shumway
Feb. 18	Bacterial, fungal, granulomatous disease 3, 4 & 5	Dr. Shumway
Feb. 24	Developmental lesions of soft tissue	Dr. Bernstein
Feb. 25	Acute oral ulcers 1,2 & 3	Dr. Bernstein
Mar. 3	Bone disease/neoplasms	Dr. Shumway
Mar. 10	Bone disease/neoplasms 3 Syndromes and facial clefts	Dr. Shumway
Mar. 24	Odontogenic tumors & Cysts	Dr. Bernstein
Mar. 25	Odontogenic cysts Non-odontogenic cysts/developmental conditions of bone	Dr. Bernstein
Mar. 31	Fibro-osseous lesions of bone Giant cell lesions of bone Lab	Dr. Bernstein
Apr. 1	Lab Developmental conditions of teeth	Dr. Bernstein
Apr. 7	Child abuse	Dr. Bernstein
Apr. 14	Regressive conditions of teeth Biopsy and other adjunctive diagnostic techniques 1	Dr. Bernstein
Apr. 15	Biopsy and other adjunctive diagnostic techniques 2 & 3	Dr. Bernstein
Apr. 21	Differential dx 2 & 3	Dr. Bernstein
Apr. 22	Differential dx 4,5 & 6	Dr. Bernstein

Evaluation

There are four regularly scheduled examinations. The first three cover the material from a specific section of study. The final examination is comprehensive. Most exam items are multiple choice type questions. Some test knowledge, many test higher learning objectives such as application of knowledge, comparing and contrasting, and problem solving. Each exam is accompanied by a clinical section where photographs (sometimes accompanied by photomicrographs) are presented as case studies, requiring the student to select or generate a

diagnosis, suggest additional testing and/or manage the condition. Occasional pop quizzes may be given.

Grade Scale

90 - 100% = A

80 - 89.5% = B

70 - 79.5% = C

65 - 69.5% = D

Below 65% =F

Course Faculty

Dr. Mark Bernstein (course director)

Dr. Brian Shumway

SUHD 805-05 Principles of Oral Surgery I

Credits: 1.0

Semester Offered – D3, Fall Semester

Course Description

This course introduces the third year dental student to the basic principles of oral surgery and oral surgical techniques. The course is designed to develop a fundamental understanding of the role and scope of oral surgery in the practice of general dentistry. The course encompasses a broad spectrum of diagnostic and technical knowledge that will prepare the student for the clinical rotations and for the subsequent courses in oral surgery.

Course Objectives

Upon completion of this course, the students should have acquired the following:

1. An awareness of basic surgical principles and oral surgery technique that are identified with the practice of general dentistry
2. Competence in patient evaluation (history and physical examination) and clinical diagnostic skills
3. An understanding of general systemic conditions that affect oral surgery treatment and outcome
4. Increasing surgical competence in basic oral surgical procedures including exodontia and preparation of the mouth for prostheses
5. An understanding of the potential complications associated with oral surgery procedures and how to prevent them and/or manage them
6. An understanding of the etiology and sequela of odontogenic infections and the dissemination of infection into adjacent fascial spaces
7. An understanding of the classifications of impacted and supernumerary teeth as related to their positioning within the jaws and the indications/contraindications for surgical removal
8. An understanding of diseases of the maxillary sinus, surgical and dental implications
9. An understanding of the pharmacological agents, their actions/interactions prescribed for oral surgery patients
10. Ability to recognize, diagnose and treat office emergencies that may arise during an oral surgical procedure
11. An understanding of the rationale for the biopsy and application of the diagnosis to pathologic conditions of the oral cavity
12. An understanding of health care delivery as it relates to dentistry

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.

- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9. Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment

Commission on Dental Accreditation (CODA)

This course contributes to foundational knowledge in the attainment of CODA Standards:

2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:

- c. recognizing the complexity of patient treatment and identifying when referral is indicated;
- h. replacement of teeth including fixed, removable and dental implant prosthodontic therapies;
- k. oral mucosal and osseous disorders;
- l. hard and soft tissue surgery

Outline

Date	Title	Faculty
Aug 16	Introduction to Clinic	Dr. Kushner
Aug 23	Preoperative Health Status Evaluation	Dr. Kushner
Aug 30	Principles of Surgery/Armamentarium for Basic Oral Surgery	Dr. Alpert
Sept 6	Principles of Basic & Complex Exodontia	Dr. Alpert
Sept 14	Common Prescription Writing	Dr. Kushner
Sept 20	Medical Emergencies	Dr. Kushner
Oct 4	Management of Impacted Teeth	Dr. Alpert
Oct 18	Principles of Management & Prevention of Odontogenic Infections	Dr. Alpert
Oct 25	Preprosthetic Surgery	Dr. Alpert
Nov 1	Biopsy Technique	Resident
Nov 8	Postoperative Care/Complications	Dr. Kushner
Nov 15	Diseases of the Maxillary Sinus	Dr. Alpert
Nov 22	Management of the Hospitalized Patient & Topics in Health Care Delivery	Dr. Alpert
Dec 6	Final Exam	

Grading:

>90% = A

80% - 89% = B

70% - 79% = C

65% - 69% = D

<69% = failure

Faculty

Dr. Brian Alpert

Dr. George Kushner

Semester Offered – D3, Spring Semester

Course Description

This course is designed to give the D3 dental student a basic understanding of the specialty of oral and maxillofacial surgery; the process of diagnosis, surgical and adjunctive management of diseases, deformities and malformation of the mouth and jaws and associated structures. The material presented will be structured to help the student acquire: an understanding of the specialty of oral and maxillofacial surgery; fundamentals in diagnosis and treatment of facial injuries; fundamental knowledge of the functional disorders affecting the temporomandibular joints and muscles of mastication; knowledge of surgical diseases of the salivary glands; awareness of the various dentofacial, cleft, and craniofacial deformities and what surgical and reconstructive therapy has to offer and an understanding of the basic management of oral tumors. The student is expected to gain an awareness of surgical disorders and modern surgical therapy so that as a practitioner he/she recognizes surgical problems in his/her patients, initiates appropriate therapy and/or makes intelligent referrals.

Course Objectives

Upon completion of this course, the students should have acquired the following:

1. An understanding of the specialty of Oral and Maxillofacial Surgery and how it relates to general practice
2. Fundamentals in diagnosis and treatment of facial injuries
3. Fundamental knowledge of the functional disorders affecting the temporomandibular joints and muscles of mastication as well as craniomandibular pain disorders
4. Knowledge of surgical diseases of the salivary glands
5. Awareness of esthetic and functional defects, and dentofacial deformities and what surgical therapy has to offer
6. An understanding of the basic management of oral cysts & tumors and reconstruction thereof
7. Awareness and understanding of cleft palate – craniofacial deformity management

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.2. Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, community based service learning, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the public.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients. consultations when appropriate.
- 2.2. Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.10. Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11. Evaluate the prognoses of various treatment options.

- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.7. Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment

Commission on Dental Accreditation (CODA)

This course contributes to foundational knowledge in the attainment of CODA Standards:

2- 9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.

2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:

- c. recognizing the complexity of patient treatment and identifying when referral is indicated;
- k. oral mucosal and osseous disorders;
- l. hard and soft tissue surgery
- m. dental emergencies;

Outline

Date	Title	Presenter
Jan 7	The Specialty of Oral and Maxillofacial Surgery	Dr. Alpert
Jan 14	Temporomandibular Joint Disorders	Dr. Alpert
Jan 21	Facial Injuries I	Dr. Kushner
Jan 28	Facial Injuries II	Dr. Kushner
Feb 11	Facial Neuropathy	Resident
Feb 18	Surgical Aspects of Oral Cysts & Tumors	Dr. Kushner
Feb 25	Surgical Reconstruction of Jaw Defects	Dr. Alpert
Mar 25	Diseases of Salivary Glands	Dr. Alpert
Apr 1	Management of Patients with Clefts	Resident
Apr 8	Dentofacial Deformities I	Dr. Alpert
Apr 15	Dentofacial Deformities II	Dr. Alpert
Apr 22	Esthetic Surgery	Resident
Apr 29	Comprehensive Final Exam	

Evaluation

Comprehensive final exam

Grading:

>90% = A

80% - 89% = B

70% - 79% = C

65% - 69% = D

<64% = failure

Faculty

Dr. Brian Alpert

Dr. George Kushner

Residents

Semester Offered – D3, Fall/Spring Semester

Course Description

This course is designed to permit the student to be able to evaluate, manage or treat conditions requiring basic dento-alveolar surgery techniques in clinical dental practice. It involves the application of the student's knowledge in the basic sciences, physical diagnosis, and risk assessment in the performance of basic oral surgery procedures.

Course Objectives

Upon completion of this course, the students will be expected to:

1. Interpret the medical history and make treatment modification as necessary
2. Administer adequate local anesthetic
3. Perform office based dento-alveolar surgery such as extractions, alveoloplasty and single biopsies
4. Manage postoperative discomfort by appropriate prescription medication (if necessary)
5. Complete the appropriate medical record chart note
6. Manage postoperative complications in surgical patients

Competency Statements (Student Learning Outcomes) for Clinical Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 3.4. Establish and maintain patient records and assure confidentiality of information.
- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.3. Perform a clinical examination of the head and neck and intraoral structures.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment

Commission on Dental Accreditation (CODA)

This course contributes to foundational knowledge in the attainment of CODA Standards:

2-23 At a minimum, graduates must be competent in providing oral health care within the

- scope of general dentistry, as defined by the school, including:
- c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - k. oral mucosal and osseous disorders;
 - l. hard and soft tissue surgery

Outline

Date	Title	Faculty
Variable	Clinical rotation	Dr. Kushner

Grading Scale

Pass/Fail (Competency exam)

Faculty

Dr. George Kushner

Semester Offered- D4 Year, Fall Semester**Course Description**

This three year course provides the student dentist with the opportunity to participate in a wide range of service learning community activities. In so doing, it affords the student an opportunity to learn more about the community in which he or she is living and working, as well as to experience the responsibility of the health care professional in terms of community engagement. Successful educational outcomes in management of community dentistry are demonstrated by the new dentist's ability to self-assess and describe an active role in promoting oral health in his or her community.

Course Objectives

Completion of the Community Services course will allow students to be able to:

1. Demonstrate an understanding of the role of the health care professional as it relates to the community in terms of civic involvement, service, and engagement.
2. Discuss the need for and value of professional involvement in the operation of a community's health and social service programs.
3. Acquire an understanding of community needs as well as health activities and service programs designed to meet those needs.
4. Experience the personal fulfillment and enjoyment which come from using their professional knowledge to help those in need
5. Report on, evaluate, and self-reflect about personal experiences with service learning projects.

Competencies (Student Learning Outcomes)

This course contributes to basic knowledge to acquire student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients. (Records Review)
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large. (Records Review)
- 1.3 Recognize the role of life-long learning and self-assessment in maintaining competency. (Records Review and Self-Assessment)
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large. (Records Review)
- 2.1 Apply critical thinking and problem solving skills in comprehensive care of patients. (Records review and Self-Assessment)
- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures. (Records Review)
- 3.2 Evaluate relevant models of oral health care management and delivery. (Record Review)
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient centered approaches for promoting, improving and maintaining oral health. (Records Review)

Commission on Dental Accreditation (CODA) for Service Learning/Community Based Course

This course contributes to essential comprehension in the acquisition of CODA Standards:

- 1-1 The dental school **must** develop a clearly stated purpose/mission statement appropriate to dental education, addressing teaching, patient care, research and service.
- 1-2 Ongoing planning for, assessment of and improvement of educational quality and program effectiveness at the dental school must be broad-based, systematic, continuous, and designed to promote achievement of institutional goals related to institutional effectiveness, student achievement, patient care, research, and service.
- 1-3 The dental education program **must** have a stated commitment to a humanistic culture and learning environment that is regularly evaluated.
- 2-9 Graduates **must** be competent in the use of critical thinking and problem solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates **must** demonstrate the ability to self-asses, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-15 Graduates **must** be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2-16 Graduates **must** be competent in managing a diverse patient population and have the interpersonal and communication skills to function successfully in a multicultural work environment.
- 2-17 Graduates **must** be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2-19 Graduates **must** be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care.
- 2-20 Graduates **must** be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-21 Graduates **must** be competent to assess, critically appraise, apply and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2-25 Dental education programs **must** make available opportunities and encourage students to engage in service learning experiences and/or community-based learning experiences.
- 4-10 There **must** be a mechanism for ready access to health care for students while they are enrolled in dental school.

Outline

Seminars, Fall 2013:

Freshman Halloween Project 8/23, 10/17 – Dr. Mayer

Outreach Scholarship 8/28- Dr. Mayer

Dean's Hour 9/16- Dr. Mayer

Cultural Competency Day 9/19 Dr. Mayer, Ms. Drury

Smile KY! 11/23 Dr. Mayer

Evaluation

Each DMD student is required to complete 16 hours of community service between January (spring semester) of his /her freshman year and December (fall semester) of his/her senior year in order to graduate.

Grading

Students receive a pass/fail (P/F) grade. Subjective interpretation of the student's performance by faculty and community personnel involved with a given project will serve as the basis for the grade. This will include, but is not limited to the following:

- A. Completion of **all** course requirements (16 hours of service) **within the designated time**.
- B. General personal conduct while participating in activities (professionalism, attendance, etc.)
- C. Promptness and completeness of submitting course credit forms and evaluations.
- D. Participation in course seminars.
- E. Attendance is required at course sessions, outreach sites, and seminars

Course Faculty

Dr. Lee Mayer (course director)

Semester Offered – D4, Fall Semester

Course Description

This is the capstone practice management course for dental students. The course describes business principles and how they are applied in a typical general dental practice. The didactic portion of the course is lecture and case-based, based on the required text. Teams of students also operate a computer-simulated dental practice. Classroom activities support the concepts that govern the computer simulation and material in the lectures and text.

Course Objectives

Upon completion of this course, the students should be able to:

1. Describe basic personal money management techniques.
2. Decide personal insurance needs.
3. Describe how to establish a basic retirement plan strategy.
4. Describe personal income taxes.
5. Discuss how business laws affect the dental practice.
6. Apply basic business finance concepts to the dental practice.
7. Apply business tax concepts to the dental practice.
8. Perform a financial analysis of a typical dental practice.
9. Describe how duty delegation affects the profitability of the practice.
10. Use patient scheduling techniques to improve patient flow in the practice.
11. Develop a credit and collection policy.
12. Describe how to generate patients for the dental practice.
13. Describe cost control measures for the dental practice.
14. Discuss how to select employee for the office.
15. Develop a compensation package for dental office employees.
16. Define basic accounting principles for the dental office.
17. Describe the effect of various insurance plans on the profitability of the dental practice.
18. Define how to manage the risks found in a dental practice.
19. Discuss quality assurance in dental practice.
20. Discuss advantages and disadvantages of practice ownership.
21. Discuss typical practice transitions.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 3.2 Evaluate relevant models of oral health care management and delivery
- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health team.
- 3.4 Establish and maintain patient records and assure confidentiality of information.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2-18 Graduates must be competent in applying the basic principles and philosophies of practice management, models of oral health care delivery, and how to function successfully as the leader of the oral health care team.

Outline

Date	Activity	Presenter
Aug 13	Course Description	
14	Introduction to the Simulation	
15	Personal Money Management	
	Personal Risk Management	
20	Retirement Planning	
21	Strategic Planning	
22	Simulation Group Planning Exercise	
	Simulation Group Planning Exercise	
27	Personal Taxes	
28	Legal Environment	
29	Simulation Pre-Test	
	Planning Forms	
Sept 3	Business Finance	
4	Business Taxes	
5	Simulation Decision #1	
	Simulation Decision #1	
10	Management Principles	
11	Simulation Decision #2	
12	Financial Analysis of the Practice	
	Duty Delegation	
17	Patient Scheduling	
18	Simulation Decision #3	
19	Fee and Collection Policies	
	Generating Patients	
24	Managing Continuing Care	
25	Simulation Decision #4	
26	Written Exam #1	
	Communication / Case Presentation	
Oct 1	Cost Control	
2	Simulation Decision #5 & Critical Thinking Ex. #1	
3	Selecting Employees	
	Compensating Employees	
8	<i>No Class</i>	
9	Simulation Decision #6	
10	Leading, Motivating and Assessing Employees	
	Office Accounting	
15	Office Accounting	
16	Simulation Decision #7	
17	Daily Operation Management	
	Dental Insurance Management	

22	Dental Insurance Management	
23	Simulation Decision #8 & Critical Thinking Ex. #2	
24	Supply and Lab Management	
	Daily Office Operations	
29	Office Risk Management	
30	Simulation Decision #9	
31	Regulatory Compliance	
	Quality Assurance	
Nov 5	Written Exam #2	
6	Simulation Decision #10	
7	Career Planning	
	Employment	
12	Practice Ownership	
13	Simulation Decision #11	
14	Group Practices	
	Practice Valuation	
19	Securing Financing	
20	Simulation Decision #12	
21	Practice Transitions	
	Practice Transitions	
26	Flex Day	
27	<i>No Classes</i>	
28	<i>No Classes</i>	
	<i>No Classes</i>	
Dec 3	Prepare Report to the Banker	
4	Prepare Report to the Banker	
5	Report to the Banker	
	Report to the Banker	
10	Written Exam #3	

Grading

Letter grades will be given for this course. The grade scale for the course is:

90.00 -100% =	A
80.00 -89.99 =	B
70.00 -79.99 =	C
65.00 -69.99 =	D
Below 65.00 =	F

Evaluation

Grades will be assigned according to the following formula:

3 Lecture Exams	=	50 points	=	75%
Simulation	=	50 points	=	25%
<hr/>				
Final Grade	=	100 points	=	100%

Points will be determined in the following method:

Examinations

A total of 50 points will be available for performance on each of three exams covering material from the course text. The exam will consist of multiple choice, true-false or other computer

scored type questions. Questions will be based on the “Behavioral Objectives” and the “Terms” that are available in each chapter of the text or on Blackboard. These exams will begin promptly on the hour on the scheduled test day and must be completed within 50 minutes. They will cover the material as described in the accompanying schedule, and may be modified by the course director during the course. The third exam will occur during finals week, as scheduled by the Dean’s office. Please note: the exams are not commutative in nature. Each exam only covers the material from that particular section.

Simulation

There will be 50 points available for performance on the business simulation. Points will be awarded to the group as a whole, allowing latitude for individual performance within the group. Individual performance will be assessed by both me, the instructor, and also the other members of your group. Points will be awarded for all exercises turned in, as follows:

10%	Simulation “pre-test”
20%	Report to the Banker
10%	Final Ranking
20%	Ratio Analysis
5%	Critical Thinking Exercise #1
5%	Critical Thinking Exercise #2
10%	Taxes Year #1
10%	Taxes Year #2
10%	Taxes Year #3

Groups who fail to complete their quarterly decisions on time will have their overall simulation grade lowered by 2 points for each late (or non-) submission. The “Report to the Banker” has evaluation forms for individual performance within the group. All simulation decisions and assignments are due by the close of business (5:00 pm ET) on Thursday of the assignment.

Course Faculty

Dr. David Willis (course director)

GDOM 842-07 Restorative Dentistry Review

Credit: 1.0

Semester Offered – D4 Year; Fall Semester

Course Description

The lecture series is correlated with clinical experience a student obtains in the senior year. The most current concepts in Restorative Dentistry are reviewed, and the material and discussion periods are presented on Blackboard to prepare the student for the National Board Examination Part II in Operative Dentistry.

Course Objectives

1. Prepare the fourth year dental student for the operative dentistry and case based sections of the national board examination part II.
2. Review fundamental concepts in Restorative Dentistry
3. Review current concepts in Restorative Dentistry

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss {with the patient} an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.

Evaluation

The course grade will be an accumulation of the following:

Case Studies: There will be several patient cases presented to the class. Each student will be required to use Blackboard to access the cases. Each student will evaluate, diagnose and devise a treatment plan tailored to the specific case scenario, to be discussed in class. Each student's case response must be emailed or posted on Blackboard to the course director by the due date. The student will be evaluated on the ability to critically assess and plan treatment for each case.

Grade Scale

Pass/Fail

Faculty

Dr. Jennifer McCants (Course Director)

Semester Offered – D4, Fall, Spring Semester

Course Description - The treatment planning curriculum is designed to teach the student the interrelationship of all of the clinical disciplines in dentistry. We attempt to have the student recognize the proper and necessary diagnostic and treatment steps to recommend and implement for an individual patient, within the context of a Comprehensive Care Philosophy. This is the second year clinical treatment planning experience for the student.

Course Objectives

The following objectives serve for the entire three year curriculum in treatment planning. The student should be able to:

1. recognize the rights and responsibilities of the dentist.
2. recognize the rights and responsibilities of the student dentist as a developing professional.
3. recognize the rights and responsibilities of the patient.
4. effectively use the axiUm clinical computer software.
5. interpret and evaluate the following as each relates to the treatment plan of a patient:
 - A. Medical History.
 - B. Family History.
 - C. Social History.
 - D. Dental History.
 - E. Chief Complaint/Concern.
6. distinguish between normal and abnormal findings contained in a medical history and be able to relate these findings to systemic and dental disease processes.
7. correlate the medical history with clinical signs and symptoms.
8. determine whether conditions found in a medical history or clinical observations and vital signs necessitate further evaluation by a physician and/or medical consultations and follow-up.
9. correlate the dental history with clinical signs and symptoms of dental disease.
10. consult with a patient's previous dentist if the history warrants further investigation.
11. explain why knowledge of general state of physical and mental health, social and cultural background, patient attitude about health and health care, teeth, and supporting structures of patient is important to the synthesis of a treatment plan.
12. identify a patient's knowledge and appreciation of dentistry.
13. determine the effect of a patient's past dental experience on a treatment plan.
14. determine when psychological or psychiatric consultation is necessary to insure successful dental treatment.
15. discuss the significance of the patient's medications as they relate to the patient's illness, the choice of anesthesia, the overall treatment plan, and determine if treatment modifications are necessary.
16. predict the possible significance of any finding in dental or medical history to the total care of a patient.
17. state precautions/modifications necessary when treating patients with any of the following medical conditions:

- A. Allergies.
 - B. Anticoagulant Therapy.
 - C. Asthma/COPD.
 - D. Bisphosphonates Use.
 - E. Cardiovascular Disease.
 - F. Cerebrovascular Disease.
 - G. Cirrhosis.
 - H. Diabetes.
 - I. Hepatitis.
 - J. HIV/AIDS.
 - K. Hypertension.
 - L. Infective Endocarditis.
 - M. Pregnancy.
 - N. Prosthetic Joints.
 - O. Psychiatric/Cognitive Disorders.
 - P. Renal Disease.
 - Q. Seizure Disorder/Epilepsy.
 - R. Tuberculosis.
18. identify undiagnosed systemic diseases based on observed signs and patient symptoms.
 19. describe current AHA recommendations for prevention of subacute bacterial endocarditis.
 20. recommend to treatment planning faculty the appropriate medications required for the treatment of a patient.
 21. indicate appropriate drugs which might substitute for penicillin when prophylactic antibiotic coverage is indicated.
 22. state what medical and dental complications may develop in an uncontrolled diabetic.
 23. evaluate the results of heat, cold, percussion, and electric pulp tests in relation to a sequential comprehensive treatment plan.
 24. identify the need for endodontic treatment/retreatment and endodontic surgery.
 25. evaluate a patient's ability to perform oral hygiene procedures in relation to the proposed comprehensive treatment plan.
 26. evaluate a patient's diet in relation to proposed comprehensive treatment plan.
 27. evaluate the effect of oral habits on the proposed comprehensive treatment plan.
 28. list the possible dental implications of xerostomia.
 29. evaluate the indication for fluoride and sealants as related to a proposed comprehensive treatment plan.
 30. correlate dental radiographic findings with clinical dental findings.
 31. detect clinical dental caries.
 32. identify radiographically incipient carious lesions and recommend appropriate therapeutic measures.
 33. identify the classification and surfaces of a required restoration.
 34. recognize the diagnostic value of therapeutic services.
 35. recognize and interpret roentgenologic signs of traumatic occlusion.
 36. recognize and interpret roentgenologic signs tooth pathology.
 37. consistently produce quality diagnostic casts.
 38. identify when the use of mounted casts is indicated for diagnostic purposes.
 39. demonstrate ability to obtain an accurate facebow transfer.

40. determine when diagnostic casts must be mounted in MICP vs. RJP.
41. understand the importance of properly mounted diagnostic casts.
42. identify the significant findings from the collected data which may contribute to the diagnosis and plan of treatment.
43. identify the Angle's orthodontic classification of a patient.
44. diagnosis need and determine proper sequencing of orthodontic treatment in a comprehensive treatment plan.
45. identify indications for orthognathic surgery.
46. recognize a patient's need for specialty consultations within and outside of the comprehensive care clinic and demonstrate the ability to clearly communicate the issues with the appropriate specialist.
47. demonstrate the ability to properly diagnose periodontal disease.
48. correlate the relationship of all local etiologic factors contributing to periodontal disease with the dental findings and proposed treatment.
49. explain the clinical significance of radiographic vertical and horizontal bone loss.
50. recommend proper treatment modalities to address periodontal disease and sequence them properly in a comprehensive treatment plan.
51. identify the indications for periodontal surgery.
52. determine the proper sequencing of periodontal surgery in a comprehensive treatment plan.
53. explain the risks vs. benefits of periodontal surgery to a patient.
54. describe the effect of missing teeth on the periodontium of a patient.
55. discuss indications and contraindications for removal of erupted third molars.
56. discuss indications and contraindications for removal of impacted teeth.
57. discuss criteria which would result in a hopeless prognosis for a tooth.
58. evaluate crown to root ratio relative to utilization of a tooth as a potential abutment for a prosthesis.
59. evaluate the risks vs. benefits of using a questionable tooth as an abutment for a prosthesis.
60. summarize treatment alternatives for a tooth in an abnormal intra-arch or inter-arch position.
61. evaluate all pertinent diagnostic factors substantially affecting the decision for placement of a fixed or removable prosthesis in a patient with appropriate indications.
62. select the most appropriate treatment modality for a tooth in an abnormal intra-arch or inter-arch position.
63. identify dental implant indications.
64. identify dental implant medical and dental contraindications.
65. identify the need for orthodontic consultation in relation to a patient's fixed prosthodontic needs.
66. interpret radiographs in relation to crown to root ratio, alveolar bone height, crown and root angulation, and edentulous areas.
67. justify the need for orthodontic correction of an abnormal maxillary/mandibular intra-arch and/or inter-arch relationship.
68. justify the need for surgical correction of an abnormal maxillary-mandibular ridge/inter-arch relationship.

69. summarize treatment alternatives when inter-ridge distance is inadequate for proper prosthetic restoration.
70. make informed, defensible decision relative to the recommendation of a removable prosthesis.
71. evaluate the risks vs. benefits of not replacing a missing tooth.
72. discuss maintenance of arch integrity with a patient.
73. plan the appropriate restoration for carious teeth.
74. identify teeth to be extracted.
75. list pertinent factors relating to the decision to extract a mobile tooth.
76. evaluate the effect of extraction of hopeless teeth on the overall proposed treatment.
77. determine proper sequence of extractions in a comprehensive treatment plan.
78. describe the sequellae of not replacing missing teeth.
79. collate and analyze all pertinent findings necessary to determine a protocol of preventive, therapeutic, and educational services for a patient.
80. assess a patient's ability to follow treatment recommendations.
81. avoid prejudicial analysis.
82. synthesize a treatment plan sequence which, by carefully selected treatment priorities, will preclude patient emergencies.
83. synthesize a treatment plan which, by carefully selected treatment priorities, will address a patient's need for preventive services.
84. synthesize a treatment plan in a logical sequence based on complete diagnostic findings on a patient.
85. alter treatment plans based on the aging process and other environmental factors when necessary.
86. present a properly sequenced comprehensive treatment plan to faculty.
87. write a treatment plan containing the following four phases:
 - A. Emergency care.
 - B. Urgent care.
 - C. E & E to determine restorability.
 - D. Disease control and preprosthetic surgery.
 - E. Reconstruction of form, function, and esthetics.
 - F. Maintenance protocol.
88. utilize appropriate identifying ADA codes and fees for a patient's comprehensive treatment plan.
89. list the reasons for proper sequencing in a comprehensive treatment plan.
90. synthesize a treatment plan in a logical sequence based on complete diagnostic findings for a patient.
91. justify the sequence of a treatment plan for a patient.
92. discuss the total patient care concept as it relates to the student's responsibility to patients while in school and the dentist's responsibility to patients and community while in private practice.
93. develop appropriate alternate treatment plans if necessary.
94. alter treatment plans based on a patient's handicap if indicated.
95. provide complete, current information to a patient in understandable terms concerning the diagnosis, treatment, and prognosis.
96. explain to a patient reasons why recommended procedures are considered necessary.

97. give a patient the right to refuse treatment after providing information about the consequences of such action.
98. make a reasonable response to the request of a patient for services.
99. avoid withholding information from a patient.
100. evaluate whether a tooth is of sufficient strategic value to warrant retention via endodontic/periodontal therapy for advanced restorative procedures.
101. recognize the purpose of the periodontal reevaluation by proper entry into the sequence of treatment.
102. appraise a patient's needs for consultation or referral for restorative, endodontic, oral surgery, periodontal, or orthodontic problems which are beyond the student's capacity to treat.
103. identify the potential need for special appointment planning or special precautions to prevent disease transmission, allergic reaction, or emergency care.

Competency Statements (Student Learning Outcomes) for the Pre-Doctoral Curriculum addressed in GDOM 824-04, GDOM 833-56, GDOM 844-78

This course contributes to foundational knowledge in the development of student competencies:

- 1.1. Provide compassionate and ethical care to a diverse population of patients
- 1.2. Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3. Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2. Evaluate and integrate the best research outcomes with clinical expertise and patient values for evidence based practice.
- 2.3. Apply information technology resources in contemporary dental practice.
- 3.1. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.2. Evaluate relevant models of oral health care management and delivery.
- 3.3. Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 3.4. Establish and maintain patient records and assure confidentiality of information.
- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.3. Perform a clinical examination of the head and neck and intraoral structures.
- 4.4. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5. Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.

- 4.6. Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7. Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9. Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10. Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11. Evaluate the prognosis of various treatment options.
- 5.1. Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2. Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2. Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3. Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4. Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5. Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6. Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7. Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8. Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9. Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10. Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14. Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15. Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.

- 6.18. Recognize and manage (refer or treat) substance abuse in dental patients.
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20. Periodically assess and monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for GDOM 824-04, GDOM 833-56, GDOM 844-78

This course contributes to foundation knowledge in the attainment of CODA standards:

- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.
- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning (GDOM 833-56 and GDOM 844-78 only).
- 2-17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated
 - d. health promotion and disease prevention
 - h. replacement of teeth including fixed, removable, and dental implant prosthodontic therapies
 - o. evaluation of the outcomes of treatment, recall strategies, and prognosis
- 5-2 Patient care must be evidenced-based, integrating the best research evidence and patient values.

Evaluation

All treatment planning competency evaluations will be graded on a pass/fail basis. Remediation for failed competency examinations will be determined on an individual basis at the discretion of the course director. It is the student's responsibility to insure that all passed competency evaluation forms are recorded accurately in the departmental office.

Grade Scale

- A: 4 passed clinical competency cases.
- B: 3 passed clinical competency cases.
- C: 2 passed clinical competency cases.
- D: 1 passed clinical competency case.

F: 0 passed clinical competency cases.

Faculty:

Course Director:

Timothy C. Daugherty, D.M.D.

Senior Group Managers*

Course Participants:

Dr. Joseph A. Haake, D.D.S.

Michael J. Metz, D.M.D.

Dr. Ryan M. Noble, D.M.D.

Semester Offered – D4, Fall/ Spring Semester

Course Description - Clinical Operative Dentistry II is a clinical course composed of various direct operative restorative procedures on patients of record. Essential skills presented and practiced in pre-clinical operative dentistry technique course are utilized and expanded in clinical applications. As students' progress in the clinical environment, more advanced direct restorative techniques are introduced and mastered. Clinical Operative Dentistry II employs a competency education curriculum placing value on the students' knowledge of operative dentistry, dental materials, evidence-based literature, critical thinking, treatment rational and skill proficiency. Competency education is effective in teaching and accessing student progression as it is based demonstration of a pre-defined level of competence.

Course Objectives

Upon completion of this course, the students should be able to:

13. Provide students with the opportunity to perform clinically the techniques presented and mastered in their pre-clinical operative course
14. Provide students with clinical applications of adhesive dentistry as related to direct polymeric resin composite and glass ionomer restorations
15. Provide students with clinical applications of dental amalgam alloy from simple to advanced direct restorations
16. Provide students with clinical treatment planning strategies on patients with ideal operative needs to patients suffering from rampant caries, medical compromise, root caries and financial limitations
17. Provide the student with the treatment planning knowledge to accurately present and obtain consent for appropriate care of their patients while restoring form and function
18. Provide the student with the concepts of inter-disciplinary consultations and appropriate referrals to trained specialists
19. Provide the student with encouragement in obtaining and continuing competency examinations via daily constructive feed-back on Essential Clinical Experiences, D3clinical competencies, D4 clinical competencies and mock regional board examinations
20. Provide the student with basic direct restorative dental materials knowledge and clinical applications of those specific materials
21. Provide the clinical knowledge and recall of dental anatomy to restore form and function via direct restorations in harmonious occlusion to promote continued TMJ health
22. Provide the clinical knowledge to construct a stable foundation core restoration for severally compromised teeth with the use of auxiliary retention (slots, pins, grooves, etc.)
23. Provide the student with the diagnostic ability to determine pre-operative pulpal status in emergency pain patients for appropriate triage or treatment (indirect pulp cap, direct pulp cap, sedative fill, root canal therapy, etc.)
24. Provide the student with the knowledge to honor the patients' rights of personal autonomy, nonmaleficence, beneficence, justice and veracity.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients
- 1.2 Communicate effectively with peers, other professionals, staff, patients and guardians and the public at large.
- 3.1 Comply with federal, state and local regulations as related to infection control, radiation and environmental safety measures on all clinical procedures
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.19 Anticipate, prevent and manage complications of dental treatment.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.
- 2-2 If students do not meet the didactic, behavioral and/or clinical criteria as published and distributed, individual evaluations must be performed that lead to an appropriate decision in accordance with institutional due process policies.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-25 Dental education programs must make available opportunities and encourage students to engage in service learning experiences and/or community-based learning experiences.
- 5-2 Patient care must be evidenced-based, integrating the best research evidence and patient values.

Outline

Students to schedule in operative block for operative competency examinations. Competency eligibility is as follows:

Competency Eligibility: Successful completion of clinical operative dentistry I (GDOM 834-56).

Competency Examination: Each student is required to complete **3 (three)** competency examinations on permanent vital teeth on patients of record before the end of the spring semester.

- **2 (two) direct posterior Class II preparation/restoration**
 - Must have at least one virgin proximal lesion or evidence of significant clinical caries to the DEJ

- One (1) restored with amalgam
- One (1) restored with composite
- **1 (one) direct anterior Class III or IV preparation/restoration**
 - Must have at least one virgin proximal lesion or evidence of significant clinical caries to the DEJ
 - Restored with composite

One (1) of these competency examinations must be successfully completed prior to participating in D4 Clinical Proficiency Examinations.

Two (2) of these competency examinations must be successfully completed as part of the D4 Clinical Proficiency Examinations.

D4 Clinical Proficiency Examinations: The D4 Clinical Proficiency Examinations are designed to simulate actual testing format on regional licensure examinations (WREB/SRTA). The operative section of the D4 Clinical Proficiency Examinations must be successfully completed during the scheduled examination time frame, or, in the event of a failure, successfully retaken on a later specified date. Upon **successful completion** of both D4 Clinical Proficiency Examination indications, credit will be awarded towards Clinical Operative Dentistry II. Upon **unsuccessful completion** of both D4 Clinical Proficiency Examination indications, a formal remediation will be assigned as deemed appropriate by the Course Director to improve deficient areas in operative dentistry.

Successful completion of the D4 Clinical Proficiency Examinations operative section is mandatory to receive a final grade in Clinical Operative Dentistry II and to graduate. You will not be given permission to register to participate in any regional licensure examination until the operative section of the D4 Clinical Proficiency Examinations is successfully completed. Additional detailed information will be forthcoming about D4 Clinical Proficiency Examinations in the fall semester as part of the D4 Clinical Proficiency Examinations Manual.

Evaluation

The final course grade for Clinical Operative Dentistry II will be determined by clinical performances on the competency examinations only. The final grade will be the average of the attempted competency examination grades. Each student will be allowed **ONE** competency failure that will NOT be used in the calculation of the final course grade. However, another passing score on the same competency indication must replace it prior to the end of the spring semester. There must be a total of three D4 competency examination grades to be averaged for course grade. Each failure will be recorded as a 0 (zero) in the final course grade and if the student does not attempt their replacement of the one failed competency then a 0 (zero) will be recorded as one of the three grades.

Grading

The evaluation of the competency examination preparation skill, restoration skill and overall performance will be based on the following grading scale:

3= Superior; satisfies all criteria

2= Acceptable; could be improved with minor deficient area improvement

1= Marginal; needs major improvement in deficient areas

0= Unacceptable; unsatisfactory and serious remediation is required

The examiners of the competency examination reserve the right to score in (.1) increments. The following conversion of averaged points to a course letter grade will be employed by the Course Director as graded by the two examiners:

2.50 – 3.00 = A

2.00 – 2.49 = B

1.50 – 1.99 = C

< 1.50 = F

Faculty

Dr. Michael Metz (course director)

GDOM 848-07 Dental Extramural Education Program**Credits: 4****Semester Offered-** D4, Fall Semester**Course Description**

This is a five week community-based clinical rotation in dental sites throughout the Commonwealth of Kentucky as well as across the United States. The experience is comprised of 4 (80%) days per week in a clinical setting and 1.0 (20%) day per week completing a community evaluation of oral health needs, one community service /outreach activity, a personal growth plan, an evidence-based dental materials evaluation, and a personal growth plan

Course Objectives

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

1. become more clinically proficient, as well as more confident in his/her ability to diagnose, treat and manage patients.
2. increase his/her proficiency (in terms of time and resources required) in primary treatment procedures and gain confidence in his/her diagnostic and technical skill
3. identify clinical areas in which he/she feels the need for further experience prior to graduation.
4. use published evidence for the choice of particular dental materials or clinical techniques
5. describe the business and personnel procedures used in the participating practice.
6. identify general areas in practice management in which he/she feels the need for further study
7. identify the critical health needs of the community.
8. identify and meet with community health leaders.
9. identify community health resources.
10. assess the effectiveness of existing health programs that pertain to dentistry.
11. conduct a community based service project that addresses identified health needs of the community or neighborhood supported by related journal articles (Examples of such projects are making presentations to professional, civic, business or educational groups, or a health care facility/agency).
12. identify preferences for practice location.
13. discover the value of developing a specific practice philosophy.
14. formulate a personal and professional growth plan based on goals and practice characteristics and philosophies.

Competencies (Student Learning Outcomes)

This course contributes to the basic knowledge in the acquisition of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients. (Records Review, Portfolio)
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large. (Self-Assessment, Portfolio)
- 1.3 Recognize the role of life-long learning and self- assessment on maintaining competency. (Self-Assessment, Records Review, Proctorship)
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional

- responsibility as they pertain to patient care and practice management and addressing the oral health status of the community at large. (Self-Assessment, Records Review, Proctorship)
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of a patient (Self-Assessment, Records Review, Proctorship)
 - 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-base practice. (Self-Assessment, Records Review, Proctorship)
 - 3.1 Comply with federal, state and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures. (Self-Assessment, Records Review, Proctorship)
 - 3.2 Evaluate relevant models of oral health care management and delivery. (Self-Assessment, Records Review, Proctorship)
 - 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team. (Self-Assessment, Records Review, Proctorship)
 - 7.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care. (Self-Assessment, Records Review, Proctorship)
 - 7.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate. (Self-Assessment, Records Review, Proctorship)
 - 6.4 Apply principals of patient management and interpersonal skills services as they pertain to patient care as means for promoting, improving and maintaining oral health. (Self-Assessment, Records Review, Proctorship).

Commission on Dental Accreditation (CODA) for a Community-based Extramural Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 1-1 The dental educational program must have a stated commitment to humanistic culture and learning environment that is regularly evaluated.
- 2-1 In advance of each course or other unit of, students must be provided written information about the goals and requirements of each instruction course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined.
- 2-2 If students do not meet the didactic, behavioral and/or clinical criteria as published and distributed, individual evaluations must be performed that lead to an appropriate decision in accordance with institutional due process policies.
- 2-5 The dental education program must employ student evaluation methods that measure its defined competencies .Evidence to demonstrate compliance includes narrative descriptions of student performance and professionalism in courses where teacher-student interactions permit this type of assessment.
- 2-7 The dental school must have a curriculum management plan that ensures:
 - a. An ongoing curriculum review and evaluation process which includes input from faculty, students, administration and appropriate sources;
 - b. Evaluation of all courses with respect to defined competencies of the school to include student evaluation of instruction;
 - c. Elimination of unwarranted repetition, outdated material and unnecessary material;
 - d. Incorporation of emerging information and achievement of appropriate sequencing.

- 2-9 Graduates must be competent in the use of critical thinking and problem solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology. Examples of evidence to demonstrate compliance may include:
Use of questions by instructors that require students to analyze problem etiology, compare and evaluate alternative approaches, provide rationale for plans of actions and predict outcomes. Retrospective critiques of cases in which decisions are reviewed to identify errors, reasons for errors and exemplary performance with students to analyze and discuss work products to compare how outcomes correspond best to evidence or other professional standards. Demonstration of the use of active learning methods, such as case analysis and discussion, critical appraisal of scientific evidence in combination with clinical application and patient factors and structured sessions in which faculty and students reason aloud about patient care.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and demonstration of professional values and capacities associated with self-directed, lifelong learning. Examples of evidence to demonstrate compliance include Students participate in the education of others, including fellow students, patients and other health care professionals, which involve critique and feedback. Students identify learning needs and create personal growth/ learning plans.
- 2-13 In-depth information on abnormal biological condition must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral related disorders.
- 2-14 Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2-15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2-16 Graduates must be competent in managing a diverse patient population and have interpersonal and communications skills to function successfully in a multicultural work environment.
- 2-17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2-18 Graduates must be competent in applying the basic principles and philosophies of practice management, model of oral health care delivery and how to function successfully as the leader of the oral health team.
- 2-19 Graduates must be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-21 Graduates must be competent to access, critically appraise, apply and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2-22 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
a. Patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;

- b. Screening and risk assessment for head and neck cancer;
 - c. Recognizing the complexity of patient treatment and identifying when referral is indicated;
 - d. Health promotion and disease prevention;
 - e. Anesthesia, and pain and anxiety control;
 - f. Restoration of teeth;
 - g. Communicating and managing dental laboratory procedures in support of patient care;
 - h. Replacement of teeth including fixed, removable and dental implant prosthodontic therapies;
 - i. Periodontal therapy;
 - j. Pulpal therapy;
 - k. Oral mucosal and osseous disorders;
 - l. Hard and soft tissue surgery
 - m. Malocclusion and space management; and
 - n. Evaluation of the outcomes of treatment, recall strategies, and prognosis Dental emergencies
- 2-24 Graduates must be competent in assessing the treatment needs of patients with special needs.
- 2-25 Dental education programs must make available opportunities and encourage students to engage in service experiences and/or community-based learning experiences
- 4-10 A mechanism must be in place for early access to health care for students while they are enrolled in dental school.
- 5-2 Patient care must be evidence-based, integrating the best research evidence and patient values.

Outline

Date	Rotation Number
5/27/13-6/21/13	1
7/1/13-8/2/13	2
8/26/13-9/27/13	3
10/14/13-11/15/13	4

Grading

The grading for the extramural course is on a *PASS/FAIL* basis.

Subjective interpretation of the student's performance by University of Louisville faculty and the preceptor at the extramural site will be the basis for the grade. Preceptors will not be asked to complete a grade sheet for each patient seen. They will, however, be asked to complete post-rotation evaluations, similar to the student's self-evaluation.

This will include, but is not limited to the following:

- Quality of patient care
- General personal conduct during the rotation
- Attendance to scheduled work hours
- Completion of community engagement/service activities
- Completeness and promptness of paperwork
- Students' written reports of the community projects

- Students' evidence-based journal abstracts for the service project and choice of dental materials.
- Student's self-reflection and formulated professional growth plan.

Daily Time Record indicates the number of hours spent each day in patient care and /or community service activities. Documentation on the Daily Time Record of any day or portion of a day that you are not in the office or participating in a community service event (e.g., office closed, illness, etc.) and all "work day" hours must be logged. Any absence must be reported to your preceptor and the Student Affairs Office in the Dental School (502) 852-5081.

Service Summary Sheets Document by date the number of patients you treated that day including the services you provided.

Endodontic Work Sheets Students may be given credit for one anterior and one posterior (premolar or molar) if all paperwork and radiographs are satisfactorily completed with the noted rubber dam and obturation requirements.

Pedodontic Competency Forms Students may be given credit for one Class 2 amalgam (MO or DO) on a primary molar, one pulpotomy, and one stainless steel crown if all paperwork and required radiographs are satisfactorily completed.

A Community Project Summary Sheet should be completed for the community project conducted by the student during the extramural program and signed by the appropriate local sponsoring or administrative person. Neatness and legibility are important and will be given consideration in grading. Related journal articles must be attached to the summary sheet.

Post-Rotation Questionnaires Prior to beginning the extramural program, group managers must complete and submit a "Levels of Supervision Form" to list the student's ability in numerous clinical areas. The post-rotation questionnaires will be analyzed in an effort to determine the effect of the extramural program on student's perceptions of their skills. The post-rotation questionnaire will also provide the student with an opportunity to critique the extramural course.

Professional Growth Plan Directions are provided as well as a template for the student to begin to self-reflection and formulate a personal/profession development plan in order to establish goals and become a life-long learner.

Dental student externs are required to work the preceptor's normal office schedule at least four days per week for the entire five week period. This means that approximately 80 percent of the externship experience should be spent in the office/clinic being involved in clinical treatment activities. Twenty percent of the externship should be utilized to conduct required practice management, community experience exercises, and the other projects. Time requirements may be modified by the preceptor whose practice needs take precedence over the minimum program time requirements.

Course Faculty

Dr. Lee Mayer (course director)

Ms. Julie Drury (extramural education)

GDOM 855-78 Clinical Patient Management II

Credits: 4

Semester Offered – D4, Fall and Spring Semesters

Course Description

The course will consist of the aspects of a student's skills, behavior and knowledge that are separate from clinical technical skills. Those elements include clinical utilization, patient management, professionalism, case presentation, personal interaction, self-assessment and case presentation activities.

Clinical Patient Management I & II are each four (4) hour courses graded at the end of the D3 and D4 Spring semesters, respectively. The purpose of both courses is to provide a means of evaluation for the more subjective/behavioral elements of dentistry and to focus upon critical thinking and integration of the disciplines in clinical dentistry. This approach complements Competency Based Education (CBE) in that it recognizes and values the multifaceted nature of dentistry. We recognize that the educational experience in dentistry encompasses more than mastering a set of hand skills and techniques; it also involves mastering behavioral skill sets as well. In reaching our goal of graduating competent general dentists, we recognize the fact that graduates must develop an appreciation for and competence in many diverse skill sets. Both courses encompass every ULSD competency statement.

Course Objectives

1. Provide an environment that facilitates the development of clinical judgment and problem solving skills.
2. Provide an environment that facilitates the development of excellent communication skills.
3. Provide opportunity for growth in professional development (e.g., ethics, practice management).
4. Foster an appreciation for patient-centered care.
5. Graduate socially responsible, professional, and competent general dentists.
6. Provide opportunities for the treatment of patients with special needs.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients.
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.

- 3.1 Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.1 Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal disease.
- 6.6 Diagnose and manage (refer or treat) patients with pulpal disease and related periradicular pathology.
- 6.7 Diagnose and manage (refer or treat) patients with temporomandibular disorders.
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition.
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance.
- 6.10 Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12 Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.

- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.15 Diagnose and manage (refer or treat) patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems, and significant physical limitations.
- 6.16 Recognize and manage (refer or treat) medical emergencies that may occur in dental practice.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.
- 6.18 Recognize and manage (refer or treat) substance abuse in dental patients. A
- 6.19 Anticipate, prevent, and manage (refer or treat) complications of dental treatment.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-15 Graduates must be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2-16 Graduates must be competent in managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment.
- 2-17 Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.
- 2-19 Graduates must be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

Outline

Date	Activity	Presenter
Aug 16	During the weekly treatment planning session for each comprehensive care group, a critical thinking case will be presented and graded on a pass/fail scale. Students will be presented with a variety of cases. Students will be expected to discuss each case and complete assignments related to each	Dr. Ljaljevic
Aug 23		Dr. Baughman
Aug 30		Dr. Hassell
Sept 6		Dr. Harris Weber
Sept 13		Dr. Boyd
Sept 20		Dr. Sanders

Oct 4	case.	
Oct 11		
Oct 18		
Oct 25		
Nov 1		
Nov 8		
Nov 15		
Nov 22		
Dec 9-13	By appointment, each student to meet with Group Manager to review progress. Students will complete a professional development plan to be presented and discussed with their group manager at the Fall and Spring semester evaluation meetings.	Assigned Group Manager
Spring Dates		
Jan 10	D4 student will present a treatment planning case complete in the format of a portfolio. The case presentation will be evaluated on use of evidence based data and the critical thinking skills used by the student to justify treatment decisions. Each student will be required to complete a self-assessment (reflection) for their presentation. Each student will also act as a peer reviewer and will be evaluated on the quality of questions posted on an assigned Blackboard Wiki.	Dr. Ljaljevic Dr. Baughman Dr. Hassell Dr. Harris Weber Dr. Boyd Dr. Sanders
Jan 17		
Jan 24		
Jan 30		
Feb 21		
Feb 28		
Mar 7		
Mar 14		
Apr 4		
Apr 18		
Apr 25		
May 5-9	By appointment, each student to meet with Group Manager to review readiness for graduation. Students will complete a professional development plan to be presented and discussed with their group manager at the Fall and Spring semester evaluation meetings. Assessment by Group Manager and faculty for readiness to graduate.	Assigned Group Manager

Grading Scale

- 3 – Honors
- 2 – Acceptable
- 1 – Marginal
- 0 – Unacceptable

I Treatment Planning Case Presentations: 35%

Total possible points = 225

- 100 points – peer assessment
- 100 points – GM assessment
- 25 points – questions

- 0 to 165 points – Unacceptable (0)
- 166 to 185 points – Marginal (1)
- 186 to 205 points – Acceptable (2)
- 206 to 225 points – Honors (3)

II Group Manager Evaluation: 35%

III Faculty Evaluation: 30%

A Grade - 3 to 2.5

B Grade - 2.49 to 2

C Grade - 1.99 to 1.50

D Grade – Below 1.50

Course Faculty

Dr. Theresa G. Mayfield

Dr. O'Malley

Dr. Stratton

Dr. Gardner

Dr. Sasek

Dr. Utley

Dr. Paris

Dr. Ljaljevic

Dr. Baughman

Dr. Hassell

Dr. Harris Weber

Dr. Boyd

Semester Offered – D4, Fall Semester**Course Description**

Special Topics in Clinical Dentistry is an on-line, multi-disciplinary course designed to update and review current information in clinical endodontics, prosthodontics, and related dental materials. The objective of the course is to prepare the student to successfully integrate these subject areas into their private practice experience. The material in this course directly impacts on the National Board Examination, Part II.

Course Objectives:

Upon completion of this course, the students should be able to:

1. understand the biomaterials science for currently available restorative materials.
2. understand the principles of design for removable partial dentures.
3. describe the indications and procedures for the construction of complete dentures.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.4 Diagnose and manage patients with uncomplicated partial or complete edentulous areas, including the use of implants.
- 6.6 Diagnose and manage patients with pulpal disease and related periradicular pathology.

Commission on Dental Accreditation (CODA)

This course contributes to foundational knowledge in the attainment of CODA Standards:

- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth
 - h. replacement of teeth including fixed, removable and dental implant prosthodontic therapies
 - j. pulpal therapy
- 6.6 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 6.8 Diagnose and manage (treat or refer) patients with pulpal disease and related periradicular pathology.
- 6.14 Diagnose and manage (treat or refer) patients with uncomplicated partial or complete edentulous areas, including the use of implants.

Outline

Date	Title	PowerPoint
Variable	Prosthodontic Materials	Dr. Crim
Variable	Clinical Endodontics	Dr. Clark
Variable	Complete Prosthodontics	Dr. Boyd

Grading:
Pass/Fail

Faculty
Dr. Gary Crim

GDOM 879-01 Principles of Photography

1 Credit Hour

Semester Offered – D4 Elective, fall, and spring semester

Course objectives

Upon completion of this course, the students should be able to:

1. Understanding the importance of the digital dental photography.
2. Understanding the fundamentals of photography
3. Learning the application of dental photography into daily practice.
4. Using different techniques and various equipment to obtain valuable documents of cases that enables them to use in Portfolios, Presentations, communication with labs and in Seminars
5. Recognizing the problem and being able to solve it, in order to obtain a valuable images.

Competency Statements (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.2. Communicate effectively and in a professional manner with peers, other health care providers, staff, patients or guardians and the public at large
- 1.3. Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care patients
- 2.3. Apply information technology resources with proper security safeguards in contemporary dental practices
- 3.4. Establish and maintain patient records and assure confidentiality of information
- 4.2. Obtain patient data adequate to provide dental treatment

Commission on Dental Accreditation (CODA) for Laboratory Course

This course contributes to foundational knowledge in the attainment of CODA Standards:

- 2.9. Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.10. Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 5-9. The school's policies and procedures must ensure that the confidentiality of information pertaining to the health status of each individual patient is strictly maintained

Date	Activity	Presenter
January 8	Introduction	Dr. Eldairi
January 15	Intraoral Photography	Dr. Eldairi
January 22	Hands on Intraoral Photography	
January 29	Hands on Intraoral Photography	
February, Tues.4 th .	Casts Photography	Dr. Eldairi
February, Tues. 11 th .	Hands on Casts	

February, Tues. 18	Portrait Photography and HIPPA	Dr. Collins
February, Tues. 25	Hands on Portrait Photography	
March Tues. 4 th .	Hands on Portrait Photography	
March Tues. 25 th .	Review	
April 2	Intra Oral Cameras	Dr. Stratton
April 9	Review	Dr. Eldairi
April 16	Final	Dr. Eldairi

Evaluation

Review sessions (P/F): 2 quizzes, will include, evaluation, problem list, problem solving.

Final Exam (P/F) A combination of multiple choice questions and open response questions.

Course Faculty

Dr. Alia Eldairi (course director)

Dr. Paula Collins

Dr. Barbara Stratton

GDOM 880-08 Senior Selective: A Multidisciplinary Approach to Geriatric Dentistry

Credit: 1.0

Semester Offered – D4 Year; Spring

Course Description

By the year 2030, it is estimated that one in five Americans will be over the age of 65. The elder population(those 65 years and older) is the fastest growing group in the United States and similarly in Kentucky. As the population in the United States continues to age, Dentists will encounter more and more geriatric patients in their practices.

Because the geriatric patient often presents complex and unique treatment challenges, a multidisciplinary approach to geriatric patient care involving the expertise of a variety of healthcare providers is often indicated. Accordingly, speakers from a variety of healthcare disciplines will present lectures using various learning formats including Skype, Live Lecture and Case Studies. This course is meant to compliment and supplement information provided in the 3rd Year Pediatric Special Patient Care Course and the 3rd year Concepts in Special Patient Care Course. A variety of topics on Multidisciplinary Geriatric Dental Patient Care will be addressed including:

- Geriatric Patient Demographics
- Relationships between Oral Health and Systemic Diseases
- Frailty and The Physiology of Aging
- Assessment and Behavior Management of the Geriatric Dental Patient
- -Effective Treatment Planning of the Geriatric Dental Patient
- Understanding Informed Consent and Recognizing Signs of Elder Abuse
- Polypharmacy and its Impact on Geriatric Patients
- Key Medications and Concepts of Dental Pharmacology for Geriatric Patients
- Dementia and Sensory Changes Associated with Aging
- Common Psychiatric Conditions in Geriatric Patients
- Death, Dying and Palliative Care Principles for Geriatric Patients
- Bisphosphonate Therapy and other Conditions which can Impact Surgical Procedure Outcomes in Geriatric Patients
- Restorative Procedures and Material Considerations for Geriatric Patients
- Current Trends in Preventive Dentistry Therapy for Geriatric Patients
- Managing and Treating Dental Patients in Long Term Care Facilities

Course Objectives

1. Upon completion of this course, the students should be able to:
2. Understand demographics for the geriatric population
3. Understand the relationship between oral health and various systemic diseases.
4. Understand the physiology of aging and be able to execute meaningful ways to communicate, examine and treat geriatric patients with special health care needs and when it is appropriate to refer these patients.
5. Understand proper assessment and behavior management for the geriatric patient
6. 5) Understand effective treatment planning principles for geriatric patient care.
7. 6) Understand informed consent and recognize signs of elder abuse

8. Understand Polypharmacy and its impact on geriatric patients
9. Understand key medications and concepts of dental pharmacology for geriatric patients
10. Understand common psychiatric conditions in geriatric patients
11. Understand dementia and sensory changes associated with aging
12. Understand issues and principles of geriatric patient treatment associated with death, dying and palliative care.
13. Understand bisphosphonate therapy and other conditions which can impact dental surgical procedure outcomes with geriatric patients
14. Understand restorative procedures and material considerations for geriatric patients
15. Understand current trends in preventive dentistry therapy for geriatric patients
16. Understand management and treatment of geriatric dental patients in long term care facilities
17. Understand present and future issues surrounding patient care in long term care facilities

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1 Provide compassionate and ethical care to a diverse population of patients
- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 3.2 Evaluate relevant models of oral health care management and delivery.
- 3.3 Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to perform dental treatment.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.11 Evaluate the prognosis of various treatment options
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternative plans on relevant diagnostic findings and patient considerations.

- 5.3 Identify the need for and manage timely refer and consultations with other health care providers when appropriate.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.
- 6.14 Apply principles of behavior management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 6.15 Diagnose and manage(refer or treat) patients whose medical, physical, psychological or social situations make it necessary to to modify normal dental routines in order to provide dental treatment including, but not limited to, people with developmental and/or mental disabilities, complex medical problems and significant physical limitations.
- 6.17 Recognize and manage (refer or treat) patient abuse and/or neglect.
- 6.18 Recognize and manage (refer or treat) substance abuse in dental patients
- 6.19 Anticipate, prevent and manage (refer or treat) complications of dental treatment.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.11 Biomedical instruction in dental education must ensure an in-depth understanding of basic biological principals, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems.
- 2.12 The biomedical knowledge base must emphasize the oro-facial complex as an important anatomical area existing in a complex biological interrelationships with the entire body.
- 2.13 In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral-related disorders.
- 2.14 Graduates **must** be competent in the application of biomedical science knowledge in the delivery of patient care.
- 2.15 Graduates **must** be competent in the application of the fundamental principles of behavioral sciences as they pertain to patient-centered approaches for promoting, improving and maintaining oral health.
- 2.19 Graduates **must** be competent in communicating and collaboration with other members of the health care team to facilitate the provision of health care.
- 2.20 Graduates **must** be competent in the application of the principles of ethical decision making and professional responsibility.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth
- 2.24 Graduates **must** be competent in assessing the treatment needs of patients with special needs.

Outline

January 8, 2014 Week one- W. Michael Mansfield, D.M.D., UL Dept. of General Dentistry and Oral Medicine, Course Introduction + “Understanding Geriatric Patient Demographics”

January 15, 2014 Week Two-Ricardo Vidal, D.D.S., MS, UL Dept. of Oral Health and Rehabilitation, “Understanding Relationships between Oral Health and Systemic Diseases”

January 22, 2014 Week Three- W. Michael Mansfield, D.M.D., UL Dept. of General Dentistry and Oral Medicine, “Frailty and The Physiology of Aging”

January 29, 2014 Week Four- Demetra Antimisiaris, PharmD.,CGP, FASCP -UL Dept. Of Family Medicine and Geriatrics, “Understanding Polypharmacy and its Impact on Geriatric Patients”

February 5, 2014 Week Five- Snow Day-Class Cancelled and rescheduled for March 26, 2014

February 12, 2014 Week Six- Laura J. Morton, MD., Assistant Professor, UL Dept. Of Family Medicine and Geriatrics, “Dementia and Sensory Changes Associated with Aging”

February 19, 2014 Week Seven- Skype Lecture-Robert Henry, D.M.D., Dental Director, VA Hospital, Lexington, KY & Faculty, University of Kentucky College of Dentistry, ”Effective Assessment & Treatment Planning of the Geriatric Patient

February 26, 2014 Week Eight-David Casey, M.D., UL Dept. Of Psychiatry, “Common Psychiatric Conditions in Geriatric Patients”

March 5, 2014 Week Nine- Christian Furman, M.D., Vice-Chair, UL Dept. Of Family Medicine and Geriatrics, “Death, Dying and Palliative Care Principles for Geriatric Dental Patients.

March 12, 2014 Week Ten-George Kushner, D.M.D., M.D., UL Dept. of Surgical and Hospital Dentistry, “Bisphosphonate Therapy and Other Conditions Which Can Impact Surgical Procedure Outcomes in Geriatric Patients”

March 19, 2014 Spring Break

March 26, 2014 Week Eleven- James O’Brien, M.D., Director, UL Institute on Optimal Aging, “Understanding Informed Consent and Recognizing Signs of Elder Abuse”

April 2, 2014 Week Twelve-Michael Metz, D.M.D., M.S., M.B.A., Acting Chair, UL Dept of General Dentistry and Oral Medicine, “Current Trends in Preventive Dental Therapy for Geriatric Patients”

April 9, 2014 Week Thirteen-Gus Oliveira, D.M.D., M.S., UL Dept of General Dentistry and Oral Medicine, “ Effective Restorative Procedures and Material Considerations for Geriatric Patients”

April 16, 2014 Week Fourteen-Thomas Cranfill, D.M.D. Private Practice, Louisville, KY,
“Effectively Managing and Treating Dental Patients in Long Term Care Facilities”

April 23, 2014 Week Fifteen- Skype Lecture Demetra Antimisias, PharmD.,CGP, FASCP -UL
Dept. Of Family Medicine and Geriatrics-Case Studies Interview Exercise

Evaluation

There will be no formal examinations in the Course. Attendance at Course Sessions will be taken. Students are expected to participate in Case Study Exercises.

Grade Scale

Pass/Fail

Faculty

Course Director: W. Michael Mansfield, D.M.D.

Semester Offered – D4- Spring 2014

Course Description

Advanced occlusal concepts with an emphasis on restorative concerns will be the major focus of the class. The course will be discussion led and will lead towards clinical usage and applications. Critical thinking, clinical analysis and group discussions will be moderated by the course director. The class will be kept to a small size for maximum effectiveness in a small group learning atmosphere.

Course Objectives

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

1. Identify signs and symptoms of Occlusal disease and record the findings in charting notation.
2. Use occlusal disease notations to create a diagnosis and treatment plan.
3. Understand the anatomy of the TMJ and be able to distinguish a healthy from a diseased state in a clinical setting.
4. Understand in a clinical setting the Centric Relation Jaw position, how to find it, when to find it and when not to find it.
5. Understand the limits and boundaries of restorative care in conformity occlusion.
6. Clinically verify the Centric jaw Position.
7. Understand the importance of anterior guidance and the significance it has on the total occlusion.
8. Record a Centric Jaw Relation bite record using the Lucia Jig/Denar Wax technique.
9. Understand the use of the Tekscan system for occlusal analysis
10. Understand the use of a Doppler in the diagnosis of TMJ disease.
11. Know the indications and the techniques in Occlusal Equilibration.
12. Construct an occlusal in office splint with an ideal CR/CO relation with anterior protective guidance.
13. Most importantly, the student will now know a little bit about what they do not know so that they will understand the importance of continuing education in the area of advanced occlusion before they start major mouth rehabilitations.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.3 Perform a clinical examination of the head and neck and intraoral structures
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and or other diagnostic procedures.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.

- 6.7 Diagnose and manage (refer or treat) patients with temporomandibular disorders.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9. Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.13 In depth information on abnormal biological conditions must be provided to support a high level of understanding of the etiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of oral and oral related disorders.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
- a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
 - f. restoration of teeth
 - h. replacement of teeth including fixed, removable and dental implant prosthodontic therapies

Outline

4 classes were taught with 8 sessions each

Session 1: **Clinic** Review objectives and course progression. Group discussion focusing on etiology, diagnosis and the treatment of occlusal disease. Review my occlusal chart recording. Examine partner's mouth for occlusal disease and record on my chart .

Dates: 1-7-2014, 1-9-2104, 3-4-2014, 3-6-2014

Session 2: **Classroom** Review occlusal exam notes from last appointment and fill in top section. Group discussion focusing on splint types and/or construction. Prepare maxillary casts by blocking out areas in preparation for splint overlay. The Eclipse and Biostar machines will be available for students to see.

Dates: 1-14-2014, 1-16-2014, 3-11-2014, 3-13-2014

Session 3: **Clinic** Group discussion examining in detail what CR is, where it is, when it is used, and how to use it as a position of restorative concern. Practice finding CR on partner by using bimanual manipulation technique. Fit Lucia Jig on partner. Take Lucia Jig CR IOR (intraoral occlusal records) on each other.

Dates: 1-28-2014, 1-30-2014, 3-25-2014, 3-27-2014

Session 4: **Classroom** Group discussion focusing on how, when and why an equilibration could be beneficial and/or necessary. Clinical Case Discussion: Using an anterior custom guide table. Clinic Occlusion Tips.

Dates: 2-4-2014, 2-5-2014, 4-1-2014, 4-3-2014

Session 5: **Clinic** Add acrylic to anterior areas of splint to make an anterior deprogrammer.

Dates: 1-11-2014, 1-13-2014, 4-8-2014, 4-10-2014

- Session 6: **Clinic** Complete splints by adding acrylic to posterior areas.
Dates: 2-18-2014, 2-20-2014, 4-15-2014, 4-17-2014
- Session 7: **Classroom** Clinical Case Discussions: Post orthodontic CR/MI case , Anterior Reconstruction with study equilibration , Reproducing transitionals exactly as they are on a study model. Selected other topics: Smile Vision, Where to go for further training, Skull model, Re-fitting Splint after new restorative
Dates: 2-25-2014, 2-27-2014, 4-22-2014, 4-24-2014
- Session 8: **Private Practice Office** Friday afternoon. Doppler and Tekscan will be demonstrated.
Dates: 4-12-2014, 4-19-2014

Evaluation

Students will be given a pass/fail grade based upon participation, attendance and project completion.

Grading

Pass/Fail

Course Faculty

David Maddy DMD (course director)

David Jones (guest instructor)

Semester Offered – Fall and Spring, D4 Year

Course Description

Senior Clinical Endodontics is entirely clinical in nature and is the final course in the predoctoral endodontic clinical curriculum. This course continues to emphasize diagnostic and therapeutic procedures as well as provide clinical application of principles taught in the second and third year courses. In addition, the student dentist is exposed to manage or treat more complicated endodontic therapy.

Course Objectives

Upon completion of this course, the students should be able to:

1. give the student dentist the experience of providing patient education by correcting misinformation about endodontic procedures, presenting current relevant information with regard to the risks and benefits of the proposed endodontic treatment, and providing information with regard to possible treatment alternatives.
2. provide the student dentist the endodontic experience of diagnosing, treatment planning, and treating both uncomplicated and more complicated anterior and posterior teeth encountered in the general practice of dentistry.
3. provide the student dentist the experience of evaluating the results of endodontic cases encountered in the general practice of dentistry. This experience includes the opportunity of managing patients in which endodontic treatment is failing and referral to an endodontic specialist or endodontic resident for treatment and/or periapical surgery.
4. provide the student dentist the experience of treating endodontic infections with antimicrobial therapy and, if needed, incision and drainage.
5. provide the student dentist with increased knowledge of the complexity of some endodontic cases and provide the experience of referring these complex cases to an endodontic specialist or resident for treatment.
6. provide the student dentist with the experience of infection control practices in endodontics.

Competencies (Student Learning Outcomes)

Upon course completion of this course, the students should be able to:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 3.4 Establish and maintain patient records and assure confidentiality of information.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.11 Evaluate the prognoses of various treatment options.
- 6.6 Diagnose and manage patients with pulpal disease and related Periradicular pathology.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in The treatment of patients with dental disease.

Evaluation

The grade earned on the competency exam coupled with the daily clinic evaluations will determine the final course grade.

Grading Scale

- A: The student dentist performed at a Superior level during treatment, meeting all criteria of good endodontic care, and showed exceptional competence when treating patients on a more independent level
- B: The student dentist performed at an Acceptable level, meeting most criteria of good endodontic care, and was considered competent to perform on a more independent level.
- C: The student dentist performed at a marginal level and had some criteria of endodontic care which were marginally accomplished.
- F: The student dentist performed at an unacceptable level. If the student fails to pass the competency exam, he/she may re-take the exam on another tooth. Both competency exams will be averaged for a final Competency grade. The goal of this course will be to make the student dentist competent to perform endodontic therapy.
- I: The course was not completed on schedule because of extenuating circumstances, and there is a reasonable possibility that a passing grade will be earned upon completion of the course. The course director will have the final decision as to whether the extenuating circumstances warrant an incomplete grade.

Faculty

Dr. Joseph Morelli

Semester Offered – D4 Year**Course Description**

The Endodontic Clinic has been modernized and has the “state of the art” equipment. Our role as dental teachers is to foster critical reflection and negotiate meaning with the students. The D4 undergraduate students will be exposed to the newer concepts of endodontic therapy. In this course we will apply the **constructivists** learning approach and is when the knowledge is formed within the student by integrating learning activities and experiences into knowledge and beliefs with more mature intellectual. The students will learn by creating meanings from past clinical experiences, achieving understanding and experiences.

This D4 Selective Endodontic course is designed for the last year students and has different learning goals that include lectures on the biological and clinical aspects of Clinical Endodontics focused on Critical thinking also known as "higher-order thinking." Our goal as dental educators is to aid students in advancing from knowledge of concepts to clinical application, skills development, analysis, synthesis, and evaluation. We can do this by providing these advance endodontics experiences for the application within the clinical practice and by promoting culminating experiences that will further allow the D4 dental students to use and refine their skills in problem solving.

D4 students will be exposed to newer concepts of endodontic therapy and more challenging clinical situations including molar therapy, retreatments, difficult access preparations, optional obturation methods, advanced methods of instrumenting root canals with NiTi CM rotary instruments.

Appropriate instructional technologies is used for all presentations, class lectures, and/or facilitations, including use of Blackboard website and Academic Technology Tools (SoftChalk, YouTube, FlipSnack), creating a learning landscape as a new broader concept, placing the students at the centre of their learning, allowing them to connect with other learners and create online communities. This Learning Landscape concept brings together the strengths of Electronic Portfolio and Social Networking. Lectures, manuals, guidelines as PDF files are available online on the Blackboard course library.

This Elective Program will provide a meaningful extension to the educational and clinical experience to Dental D4 students.

Course Objectives

Upon completion of this selective endodontic course, the students should be able to:

1. Enhance endodontic skills and expand the scope of treatment.
2. Diagnose diseases of the pulp and periradicular tissues.
3. Identify and determine etiological factors responsible for pulpal and periradicular diseases
4. Identify and use appropriate measures to prevent diseases of the pulp and periradicular tissues.

5. Identify, based on diagnosis and etiology, factors which may affect progress of the proposed treatment.
6. Select cases for either treatment or referral to an Endo-specialist based on knowledge, experience, and ability on cases selected for treatment.
7. Provide care, which is proper and consistent with knowledge, experience, and ability on cases selected for treatment.
8. Identify need for appropriate adjunctive procedures or restorations subsequent to endodontic treatment.
9. Determine a reasonable prognosis for cases selected for treatment
10. Evaluate the completed endodontic procedures

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to the foundation knowledge in the development of student clinical competencies:

- 1.3 Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5 Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 2.3 Apply information technology resources in contemporary dental practice.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.
- 3.2 Evaluate relevant models of oral health care management and delivery.
- 3.3. Understand the basic principles and philosophies of practice management and have the skills to function successfully as the leader of the oral health care team.
- 3.4. Establish and maintain patient records and assure confidentiality of information.
- 5.1. Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2. Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.3 Restore missing or defective tooth structure to proper form, function, and esthetics.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.

- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including: f: restoration of teeth

Outline

Date	Activity	Lecturer
February 5	Endodontic Anatomy New Approach	Dr. Ricardo Caicedo
February 12	Endodontic Emergencies	Dr. Stephen J Clark
February 19	Endodontic Instruments New Technology	Dr. Ricardo Caicedo
February 26	Contemporary Perspectives on Canal Obturation	Dr. Ricardo Caicedo
March 5	When to Refer	Dr. Stephen J Clark
March 12	Management of Procedural Errors	Dr. Ricardo Caicedo
March 26	Microsurgical Endodontics	Dr. Ricardo Caicedo
April 2	Root Resorption and It's Treatment	Dr. Ricardo Caicedo
April 9	Endodontic Pharmacology	Dr. Stephen J Clark
April 16	Endodontics--Prosthodontics Relations	Dr. Ricardo Caicedo
April 23	Implants and Root Canals: Can they co-exist?	Dr. Stephen J Clark

Evaluation

Attendance of all lecture session.

Grading

Pass-Fail (**P-F**)

Course Faculty

Dr. Ricardo Caicedo (Course Director)

Dr. Stephen J Clark

Semester Offered – D4, Fall Semester

Course Description

This class is presented in an online format, located on the Blackboard learning management system. The material includes both review of the material that forms the foundation for the study of periodontics and preventive dentistry as well as additional advanced concepts. The main goals of this course are to be an extensive review for the periodontics section of the National Boards Part II, to review for the case-based section of National Boards Part II, and to cover advanced concepts in patient treatment. A series of lectures and cases will be available on Blackboard that discuss multidisciplinary approaches to diagnose and treatment plan periodontal cases, incorporate basic science principles to evaluate and select appropriate periodontal treatment modalities, explore the literature for updated techniques and current concepts of periodontal therapy, and learn treatment sequences for simulated cases

Course Objectives

Upon completion of this course, the students should be able to:

1. Review for periodontics and preventive topics of National Boards Part II.
2. Review for the case-based section of National Boards Part II.
3. Cover advanced concepts in periodontal treatment.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 4.7 Recognize predisposing, genetic, environmental, and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery and outcome of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.1 Formulate and discuss with the patient an individual, comprehensive, sequenced treatment plan and alternate plans based on relevant diagnostic findings and patient considerations.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.2 Perform and evaluate therapies that emphasize prevention of oral disease.
- 6.5 Diagnose and manage (refer or treat) patients with periodontal
- 6.14 Apply principles of behavioral patient management and interpersonal skills sciences as they pertain to patient-centered approaches for promoting, improving, and maintaining oral health.
- 6.20 Periodically assess and monitor the outcomes of comprehensive dental care.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-23 At a minimum, graduates **must** be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
- Patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent (a);
 - Recognizing the complexity of patient treatment and identifying when referral is indicated (c);
 - Health promotion and disease prevention (d);
 - Periodontal therapy (i);
 - Evaluation of the outcomes of treatment, recall strategies, and prognosis (o).

Outline

Self-paced, on-line course

Grading

Pass/Fail.

Course Faculty

Dr. Margaret Hill (course director)

OHR 893-08 Clinical Removable Partial Dentures

3 Credit Hours

Semester Offered – D3 & D4 Year; Fall & Spring

Course Description

This course involves the combined third and fourth-year experiences in clinical removable partial dentures. Students are expected to successfully treat patients with a variety of removable partial denture needs during non-structured clinical time.

Clinical sessions are offered so the student can apply and reinforce knowledge gained from the pre-clinical course and lectures presented during the third and fourth years.

Course Objectives

Upon completion of this course, the students should be able to:

1. Comply with the clinical procedural policies and protocol as described by the teacher in class or written in handouts.
2. Design removable partial dentures that demonstrate the application of principles of design involving the reduction of stress on abutment teeth.
3. Diagnose the need for and be able to perform the procedures required to prepare the mouth prior to making a removable partial denture.
4. Make impressions using the materials specified by the department.
5. Recognize the physical, chemical and handling characteristics of impression materials by selection of the correct material for clinical use.
6. Recognize diseases and conditions of the oral cavity that affect removable partial denture therapy.
7. Diagnose the need for and be able to perform an altered cast procedure.
8. Recognize the indications for, procedures of, and state the rationale for the altered cast procedure.
9. Write a prescription for the construction, repair or relining of a removable partial denture.
10. Diagnose the need for and be able to perform the clinical procedures for relining a removable partial denture.
11. Diagnose the need for and be able to perform the procedures for an implant retained removable partial denture.
12. Demonstrate the application of knowledge of the anatomy that is related to the treatment of patients in need of removable partial dentures.
13. Diagnose the need for and be able to adjust the removable partial denture before and after delivery to the patient.
14. Give the instructions to the patient on oral health related to removable partial denture therapy and demonstrate care of the removable partial denture to the patient.
15. Demonstrate the application of principles of design of removable partial dentures.
16. Demonstrate that the patient is able to carry out measures to prevent dental disease.
17. Answer any questions related to mouth preparation and impressions for a given patient.
18. Make an accurate reproduction, in dental stone, of the dental arches.
19. Make occlusion rims.
20. Make jaw relation records.
21. With or without jaw relation records be able to position and attach casts to the articulator.

22. Select artificial teeth that will satisfy the requirements of esthetics, phonetics and function.
23. Evaluate the removable partial denture framework, after fabrication by the dental technician, to determine whether the specifications in the prescription and principles of design have been followed.
24. Identify, locate and remove interferences while attempting to replace the framework in its terminal position in the mouth.
25. With the framework in its terminal position in the mouth, be able to identify, locate and remove impingement on tissues and occlusal interferences.
26. With the artificial teeth set up in wax on the articulator, evaluate the position and occlusion of those teeth.
27. With the artificial teeth set up in wax and the trial denture in the mouth, evaluate for esthetics, phonetics and function.
28. Verify that the maxillo-mandibular relationship in the mouth is the same as it is on the articulator.
29. Answer any questions related to inspection, adjustment, insertion, and care of the removable partial denture.
30. Demonstrate that satisfactory prosthodontic therapy has been completed for a given patient.
31. Appraise the patient and complete a diagnosis of the state of health and condition of the oral cavity, affecting removable partial denture therapy.
32. Explain to the patient the state of health and condition of the oral cavity that affect removable
33. Give the patient an estimate of cost for removable partial denture therapy.
34. Explain to the faculty the patient's problems, proposed treatment plan and treatment procedures.
35. Show sensitivity to the patient's needs.
36. Manage the Clinical notes and forms.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients. (Patient Based cases are used)
- 2.2 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice. (Written examinations)
- 6.4 Diagnose and manage (refer or treat) patients with uncomplicated partial or complete edentulous areas, including the use of implants. (Seminars using real patient models)

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - f. restoration of teeth

Evaluation

Evaluation of student progress in Clinical Removable Partial Dentures will involve two processes: daily evaluations and clinical competencies.

Grade Scale

A = 90-100

B = 80 -89.99

C = 70 - 79.99

F = Below 70

Faculty

Dr. Allan Linehan

Semester Offered – D4, All year (Apply to the Spring, Summer, Fall Semesters)

Course Description

Experiences in Clinical Fixed Prosthodontics during the junior and senior year enable the student to apply the knowledge and skills learned in the preclinical fixed prosthodontics courses to patient care. These experiences will be obtained in either the General Dentistry and Oral Medicine (GDOM) or Oral Health and Rehabilitation (OHR) student clinics, and may encompass all Fixed Prosthodontic options. Such options include esthetic and non-esthetic single crowns and fixed dental prosthesis fabricated from a variety of materials and using a variety of methods. All procedures will be completed with a patient-centered and ethical approach to treatment planning and delivery, with emphasis on timely treatment and sequencing, optimum function, and esthetics. As the student demonstrates improved skills and documents competency in performance of Fixed Prosthodontic procedures, more complicated treatments may be undertaken, inclusive of more advanced concepts and clinical options. For the most part, demonstration of competency will be undertaken in the GDOM clinics. More challenging patient treatments will, for the most part, be undertaken in OHR as identified below. Each student will be encouraged to critique his/her own work, as well as work fabricated by Dental Laboratories, with increasing importance placed on appropriate decision making. For the most part documentation of clinical progression, and satisfaction of clinical competence will be undertaken in GDOM. The OHR, Division of Prosthodontics, is designed to facilitate inter-disciplinary planning and treatment of patients with advanced and complex needs. These procedures are intended to be completed by students who have documented competence in Fixed Prosthodontic procedures in the GDOM clinics. Ultimately patients considered appropriate for the OHR clinics (with specific, objectively identified pretreatment characteristics) will be identified through screening in addition to GDOM.

Course Objectives

Upon completion of this course, the students should be able to:

1. Demonstrate an understanding of appropriate treatment planning and sequencing.
2. Demonstrate an understanding of healthy occlusion and recognition of compromised occlusal conditions.
3. Demonstrate knowledge regarding dental material options and appropriate use of dental materials as applied to fixed prosthodontics.
4. Demonstrate understanding of patient general health and dental histories, and the appropriate indications for and provision of local anesthesia.
5. Understand the principles of tooth preparation, to provide for mechanical and esthetic predictability while conserving tooth structure and promoting health of the pulp.
6. Understand tooth preparation with regard to adequate reduction, retention and resistance form, and applied dental materials (space required for a strong and esthetic restoration).
7. Fabricate provisional restorations with adequate retention, marginal integrity, axial contours, pontic form, occlusion, surface polish, strength and longevity.
8. Fabricate customized impression trays where appropriate, manipulate impression materials, fabricate working casts, and articulate casts required to fabricate successful restorations. These procedures will include both analog and digital alternatives.

9. Wax, invest, cast and polish crowns with margins of good quality. This includes an applied understanding of tooth form as it relates to occlusion and as to the form of the axial surfaces, proximal contacts and embrasures; therefore, the health of the supporting periodontal tissues. Where appropriate, develop the knowledge required to discuss these prosthesis characteristics with the dental laboratory in a meaningful way.
10. Illustrate an understanding of pontic form during fabrication of fixed dental prostheses and provisional restorations.
11. Understand the phases of fixed prosthesis fabrication that are the responsibility of the dentist and those that may be delegated to laboratory and staff personnel.
12. Demonstrate a basic understanding of the Sciences of Color and shade selection as applied to ceramic, composite and acrylic resin restorations.
13. Write complete and legal laboratory work authorizations.
14. Critically evaluate the quality of work distributed to and returned from commercial dental laboratories.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardian and the public at large.
- 1.3 Recognize the role of life-long learning and self-assessment in maintaining competency.
- 1.4 Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2. Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice
- 6.3. Restore missing or defective tooth structure to proper form, function and esthetics.
- 6.4. Diagnose and manage patients with uncomplicated partial or complete edentulous areas including the use of implants.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem- solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including: restoration of teeth

Outline

Office of Clinical Affairs determines each student's individual clinical schedule. It may differ from student to student.

Evaluations

Competency exams

Grading

91 - 100% = A

81 - 90% = B

71 - 80% = C

<70% = F

Faculty

Dr. Wei-Shao Lin (course director)

All the full-time and part-time clinical faculty covering DMD clinic.

Semester Offered – D4 Year; Spring Semester

Course Description

The course is comprised of a series of lectures designed to complement the clinical experiences a student acquires during the senior year. The most current concepts in prosthodontic dentistry are reviewed, and the lectures and discussion periods prepare the senior student for clinical use of these ideas and concepts. In addition, information on new techniques and new dental materials are presented which will prepare the student for private practice.

The format of the class will be lectures and slide presentation. When possible, product samples will be displayed and their use explained.

Course Objectives

Upon completion of this course, the students should be able to:

1. To present the advanced topics in the prosthodontic, periodontic and endodontic dentistry.
2. Review fundamental concepts in the prosthodontic, periodontic and endodontic dentistry, and show the progression to more advanced techniques.
3. To present and discuss some of the newer discoveries, techniques, procedures and materials in dentistry.
4. To thoroughly prepare students for ULSD D4 final examination.
5. To prepare students for SRTA/ADEX, WREB, and other regional board examinations.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1. Provide compassionate and ethical care to a diverse population of patients.
- 1.2. Communicate effectively and in a professional manner with peers, other health care providers, staff, patients or guardians and the public at large.
- 1.3. Recognize the role of self-directed lifelong learning and self-assessment in maintaining competency and pursuing proficiency.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.2. Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.3. Restore missing or defective tooth structure to proper form, function and esthetics.
- 6.4. Diagnose and manage patients with uncomplicated partial or complete edentulous areas including the use of implants.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.

- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school.

Outline

Date	Topic	Faculty
January 6	Course Intro, Review Board Dates	Drs. Zandi/Lin
January 13	Review of Crown Preps and Construction of Reduction Guides, Intro of ULSD D4 clinical exam	Drs. Zandi/Lin / Harris
January 20	Martin Luther King holiday-ULSD Closed	
January 27	Review of Prosthodontics Section (Removable) of SRTA (ADEX) , WREB "CSW" Exam	Dr. Linehan
February 3	Review of Prosthodontics Section (Fixed & Implant) of SRTA, WREB "CSW" Exam	Drs. Azim / Elathamna
February 10	Review of Endodontic portion for SRTA (ADEX)	Drs. Clark / Morelli
February 17	Review of Endodontic portion for WREB	Drs. Clark / Morelli
February 24	Review of Perio Section of SRTA (ADEX), WREB "CSW" Exam	Dr. Hill
March 3	Review of Patient-Based Periodontal Treatment Portion for SRTA (ADEX), WREB	Dr. Hill
March 17	SPRING BREAK	
March 24	Review of D4 / ADEX Fixed Section / Common mistakes	Dr. Zandi
March 31	Digital Implant Dentistry	Dr. Lin
April 7	Implants in the esthetic zone	Dr.Zandi
April 14	DMD_PDI Review	Dr. Morton
April 21	Microwave in Dentistry	Dr. Elathamna
April 28	Final Exam (OSCE)	Dr.Zandi

Evaluation

Advanced Concepts in Dentistry II is the second segment of two courses during the Spring Semester of Junior year and Senior year. Each student will receive two separate grades for these courses. Advanced Concepts I is graded at the end of the Spring semester, Junior year. Advanced Concepts II is graded at the end of the Spring semester, Senior year.

The emphasis of Advanced Concepts II is to prepare the student for the ULSD D4 Final exam and ultimately the SRTA (ADEX) or WREB clinical licensure examinations. However, the more advanced topics in the dentistry will also be introduced.

An Objective Structured Clinical Examination (OSCE) will test student competency in assessing the difficulty level of proposed treatment and need for referral.

Grade Scale

All students are expected to be on time and attend every class. The following policy will be in effect for this course this semester.

Clinical rotations have been scheduled so that they do not start until 2:00 p.m. therefore, assignment to rotation such as hospital dentistry is not a legitimate excuse for missing class. One absence will not be counted this semester.

With the second absence, 5 points will be deducted from the final grade average.

With the third absence, 10 points will be deducted from the final grade average.

With any absence over three, 15 points will be deducted from your grade for each absence.

If you are late more than two times, 5 points will be deducted for the third time and at each time thereafter. (Late is defined as five minutes after the lecture starts.)

Students are encouraged to request discussions/lectures on subjects of interest.

This course will be graded as Pass/Fail, using Departmental-grading scale.

Any failing grade in this course must be remediated prior to graduation. Removal of an "F" grade will consist of remediation with the course director.

Faculty

Dr. Zandi (Course director)

Dr.Lin

Dr. Harris

Dr.Linehan

Dr.Azim

Dr.Elathamna

Dr.Morelli

Dr.Hill

Semester Offered – D4 Year; Spring

Course Description

In previous didactic courses students have been introduced to orthodontic principles and practices and learned how to identify orthodontic problems. To graduate, students are required to complete 5 orthodontic evaluations on patients at ULSD. Students are expected to examine these 5 patients, identify orthodontic problems, and create a problem list. As a general dentist, you will need to know how to identify and diagnose orthodontic problems, educate patients on those problems, and perform either appropriate treatment for those problems or appropriate referral to a specialist. The didactic curriculum emphasizes these principles of orthodontics, while the clinical orthodontic curriculum is intended to give you hands-on experience doing this with patients. This course has two primary components: clinical orthodontics and a competency examination

Course Objectives

Upon completion of this course, the students should be able to:

After viewing the pictures and radiographs, you will answer questions about:

1. Growth and Development
 - Dental Age vs. Chronological Age vs. Skeletal Age
 - Eruption timing and sequence
 - Dental development – spacing and crowding over time
2. Orthodontic Diagnosis
 - Systematic description of malocclusion
 - Patient profile analysis
3. Orthodontic Treatment
 - Treatment timing
 - Extraction vs. Non-Extraction
 - Indications for Orthognathic Surgery

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 2.1 Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate
- 6.8 Diagnose and manage (refer or treat) patients with malocclusion in the primary, mixed, and permanent dentition
- 6.9 Diagnose and manage (refer or treat) patients requiring orthodontic treatment or space maintenance

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:

- a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
- c. recognizing the complexity of patient treatment and identifying when referral is indicated;
- n. malocclusion and space management

Evaluation

Lecture - 4 written examinations will be given during the course.

Grade Scale

The 5 exams are evaluated on a Pass/Fail basis – each student is required to complete 5 acceptable orthodontic evaluations.

The competency exam is also a Pass/Fail examination, with 70% being the lowest passing score. Students must retake the exam (evaluating a different set of patient records) until they achieve a passing score.

Faculty

Eric D. Bednar, D.D.S., M.S.

Semester Offered – D4, Fall Semester

Course Description

This course is designed to permit the student to be able to evaluate, manage or treat conditions requiring basic dento-alveolar surgery techniques in clinical dental practice. It involves the application of the student's knowledge in the basic sciences, physical diagnosis, and risk assessment in the performance of basic oral surgery procedures.

Course Objectives

Upon completion of this course, the students will be expected to:

1. Interpret the medical history and make treatment modification as necessary
2. Administer adequate local anesthetic
3. Perform office based dento-alveolar surgery such as extractions, alveoloplasty and single biopsies
4. Manage postoperative discomfort by appropriate prescription medication (if necessary)
5. Complete the appropriate medical record chart note
6. Manage postoperative complications in surgical patients

Competency Statements (Student Learning Outcomes) for Clinical Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 3.4. Establish and maintain patient records and assure confidentiality of information.
- 4.1. Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.3. Perform a clinical examination of the head and neck and intraoral structures.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 6.1. Manage (refer or treat) dental pain and emergencies, including the diagnosis and management of traumatic injuries to the tooth, pulp, and maxillofacial structures.
- 6.11. Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.12. Identify and manage (refer or treat) patients with pain and anxiety associated with dental procedures.
- 6.13. Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease
- 6.19. Anticipate, prevent, and manage (refer or treat) complications of dental treatment

Commission on Dental Accreditation (CODA)

This course contributes to foundational knowledge in the attainment of CODA Standards:

2-23 At a minimum, graduates must be competent in providing oral health care within the

scope of general dentistry, as defined by the school, including:

c. recognizing the complexity of patient treatment and identifying when referral is indicated;

k. oral mucosal and osseous disorders;

l. hard and soft tissue surgery

Outline

Date	Title	Faculty
Variable	Clinical rotation	Dr. Kushner

Grading Scale

Pass/Fail (Competency exam)

Faculty

Dr. George Kushner

Semester Offered – D4, Fall Semester

Course Description

This course introduces the fourth year dental student to general medicine concepts and their application to Dentistry. The body will be broken down into the major organ systems, with discussion on their pathophysiology and how it affects dental care. There will be heavy clinical basis and clinical application of basic science principles. Lecture topics will be as listed on the schedule.

Course Objectives

Upon completion of this course, the students should be able to:

1. Review and understand routine clinical lab values
2. Manage and understand the most commonly prescribed medications in the United States today
3. Manage patients with cardiovascular system abnormalities.
4. Manage patients with endocrine system abnormalities.
5. Manage patients with hepatic system abnormalities.
6. Manage patients with renal system abnormalities.
7. Manage patients with pulmonary system abnormalities.
8. Manage patients with hematologic problems.
9. Manage patients with nervous system abnormalities.
10. Manage the pregnant patient.
11. Manage patients with HIV infection and AIDS.
12. Manage patients with head and neck cancer who are receiving chemotherapy and radiation therapy.
13. Manage transplant patients.
14. Manage patients with special health care needs, physical and mental disabilities, and chemical dependency.
15. Identify and manage Medical Emergencies in the dental office.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.1. Provide compassionate and ethical care to a diverse population of patients.
- 1.2. Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3. Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the community at large.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.2. Obtain patient data adequate to provide dental treatment.
- 4.3. Perform a clinical examination of the head and neck and intraoral structures.
- 4.5. Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.7. Recognize predisposing and etiologic factors that require intervention to prevent disease.

Commission on Dental Accreditation (CODA)

This course contributes to foundational knowledge in the attainment of CODA Standards:

- 2- 9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.
- 2-16 Graduates must be competent in managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment.
- 2-20 Graduates must be competent in the application of the principles of ethical decision making and professional responsibility.
- 2-23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - c. recognizing the complexity of patient treatment and identifying when referral is indicated;
 - d. health promotion and disease prevention;
 - m. dental emergencies;
- 2-24 Graduates must be competent in assessing the treatment needs of patients with special needs.

Outline

Date	Title	Presenter
Aug 12	Course Introduction, Outline and Objectives	Dr. Kushner
Aug 19	Dr. Farman lecture	Dr. Farman
Aug 26	Review of Pertinent Lab Tests and Values	Dr. Kushner
Sept 9	Common Prescription Meds	Dr. Hupp
Sept 16	Medical Lab Tests for Dentists	Dr. Hupp
Sept 23	Medical Emergencies	Dr. Kushner
Sept 30	Medical Emergencies Competency Exam	
Oct 14	Pregnancy and Women's Health	Dr. Hupp
Oct 21	Dental Care of Cancer/Transplant Patients	Dr. Hupp
Oct 28	Cardiovascular	
Nov 4	Pulmonary	
Nov 11	Hepatic	
Nov 18	Renal	
Nov 25	Endocrine	
Dec 2	BRONJ	Dr. Kushner
Dec 9	Final Exam	

Grading Scale

Pass/Fail

Faculty

Dr. George Kushner
Dr. Wendy Hupp
OMFS Residents

Semester Offered – D4, Fall and Spring Semester

Course Description

This seminar, and case-based course, covers the radiologic features of local and systemic disease processes affecting the head and neck. Comparisons are made between different imaging modalities including plain radiographs, computed tomography, magnetic resonance imaging, nuclear medicine and ultrasound. Factors in setting up and maintaining a radiographic facility for dental practice are addressed.

Course Objectives

Upon completion of this course, the students should be able to:

8. Understand the common and advanced radiologic presentation of various disease of the head and neck region including
 - a. developmental anomalies of the cranial and maxillofacial structures.
 - b. infections affecting, and trauma to, the maxillofacial structures.
 - c. benign cysts and tumors of the jaws.
 - d. malignant neoplasms in the head and neck.
 - e. fibro-osseous conditions affecting the jaws.
 - f. metabolic and systemic diseases affecting the jaws.
9. Write a radiologic report including a comprehensive description and interpretation of pertinent features found in diagnostic images.
10. Prepare a letter of patient referral for additional tests, evaluation or treatment based upon preliminary radiologic findings.
11. Develop a plan for setting up and managing a radiographic facility for a dental practice.

Competencies (Student Learning Outcomes)

This course contributes to foundation knowledge in the development of student competencies:

- 1.2. Communicate effectively and in a professional manner with peers, other health care providers, staff, patients or guardians and the public at large.
- 1.3. Recognize the role of self-directed lifelong learning and self-assessment in maintaining competency and pursuing proficiency.
- 1.4. Obtain informed consent for oral health therapies that meets ethical and legal responsibilities.
- 1.5. Apply the principles of ethical reasoning, evidence-based information, community based service learning, and professional responsibility as they pertain to patient care, practice management, and addressing the oral health status of the public.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 2.3. Apply information technology resources with proper security safeguards in contemporary dental practice.
- 3.1. Comply with federal, state, and local regulations related to infection control, radiation and environmental safety measures in all clinical procedures.
- 4.4. Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.6. Recognize the normal range of clinical and radiographic findings and conditions that

- require monitoring or management.
- 4.8. Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.10. Integrate subjective and objective clinical findings, including evidence-based and emerging science in the formulation of the diagnosis.
- 5.3. Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2.9 Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry, and research methodology.
- 2.21 Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care.
- 2.23 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including:
 - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;

Outline

Date	Title	Presenter
Aug 11	Orientation/Principles of Interpretation.	Dr. Scarfe
Aug 18	Digital imaging - A synopsis	Dr. Scarfe
Aug 25	Interoperability.	Dr. Scarfe
Sept 1	Cone beam CT and Image-Guidance.	Dr. Scarfe
Sept 8	Maxillary sinus disease.	Dr. Scarfe
Sept 15	Mandibular canal; Implants and injuries.	Dr. Scarfe
Sept 22	Temporomandibular joint.	Dr. Scarfe
Sept 29	Manifestations of systemic disease.	Dr. Scarfe
Oct 6	Technique review.	Dr. Scarfe
Oct 13	Buyer's guide to imaging in practice.	Dr. Scarfe
TBA	Examination	Dr. Scarfe

NOTE: Because of AHEC rotations in the Fall of D4, only 2/3rds of the students are physically present at the dental school. Therefore apart from orientation, all lectures are on Tegrity and are to be accessed by students individually.

Grading Scale

- 1) Formal Examination (30%)
- 2) Cases Quizzes (20 cases) (40%)
- 3) Library Research Paper (30%)

90 - 100% = A
 80 - 89.99% = B
 75 - 79.99% = C
 70 - 74.00% = D
 <70% = F

Course Faculty
Dr. William C. Scarfe

Semester Offered – D4 Year; Spring Semester

Course Description

Following a rigorous oral pathology course Spring semester of the DMD 3rd year, it has been noted that students often forget a large portion of the information that is critical to diagnosis of oral disease. Also, even when the information is retained, upon being presented with a random oral disease in one of their patients, students often struggle to accurately describe visible lesions, ask detailed and appropriate questions and develop a reasonable differential diagnosis that leads to appropriate management or referral to a specialist. In short, they can tell you some facts about various diseases but they struggle to use that information in a real-life situation. As the students have already had a detailed review of oral disease, this elective will focus on the more common, clinically distinguishable and potentially serious oral diseases. A case-based, highly interactive format will be used to help students apply the knowledge they have gained and to hone their reasoning and diagnostic skills. This will lead to greater student confidence and better patient care. Through case-based, interactive, group presentations and discussions students will apply detailed knowledge acquired in DMD 3rd year oral pathology to hone their reasoning and diagnostic skills of common and serious oral diseases.

Course Objectives

Upon completion of this course, the students should be able to:

1. Apply the general principles and concepts of diseases as learned in Pathomedicine and Junior Oral Pathology to those diseases which manifest in and about the oral cavity. Through such application of disease concepts, the student may more fully appreciate the biological nature of the disorder with which he/she is dealing. This in turn will provide a basis for patient analysis, prediction of course and prognosis, and rationale of therapy.
2. Delineate the etiology and pathogenesis of specific oral diseases. Through a knowledge of the causes and mechanisms of disease development, the student may logically act to prevent or effectively treat these disorders.
3. Adequately describe the clinical and/or radiographic changes and epidemiologic characteristics observed in disease states of the oral and para oral structures. From these descriptions and a knowledge of anatomy, histology and pathology, the student is expected to be able to develop an accurate differential diagnosis and make appropriate recommendations for patient management.
4. Predict the sequelae and prognosis of diseases which manifest within the oral cavity. By doing this, the student can better choose and evaluate his course of treatment and advise the patient of the consequences of the disease.
5. Recognize the signs and symptoms of diseases which affect the body as a whole as well as the oral manifestations of systemic disease. This enables the student to detect occult or unsuspected disease.
6. Recognize signs and symptoms of infectious contagious disease in the oral cavity so as to identify the disease and the proper precautions to protect the practitioner, his office personnel and other patients.
7. Evaluate the effects of oral disease and its treatment on the patient's total systemic and oral state. The student can, therefore, decide upon a course of oral dental management which will

not aggravate or complicate the disease or treatment.

Competency Statements (Student Learning Outcomes) for Lecture Course

This course contributes to foundation knowledge in the development of student competencies:

- 1.2 Communicate effectively with peers, other professionals, staff, patients or guardians and the public at large.
- 1.3. Recognize the role of lifelong learning and self-assessment in maintaining competency.
- 2.1. Apply critical thinking and problem solving skills in the comprehensive care of patients.
- 4.1 Identify a patient's chief complaint, general needs, past dental history, and treatment expectations.
- 4.2 Obtain patient data adequate to provide dental treatment.
- 4.4 Assess the need for, apply radiographic selection criteria, perform selected intra and extraoral radiographic procedures, and interpret appropriate oral and maxillofacial radiographs required for diagnosis.
- 4.5 Obtain other relevant diagnostic information such as laboratory tests and medical consultations when appropriate.
- 4.6 Recognize the normal range of clinical and radiographic findings and conditions that require monitoring or management.
- 4.7 Recognize predisposing and etiologic factors that require intervention to prevent disease.
- 4.8 Interpret findings from the history, clinical and radiographic examinations, and other diagnostic procedures.
- 4.9 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.
- 4.10 Integrate subjective and objective clinical findings in the formulation of the diagnosis.
- 4.11 Evaluate the prognoses of various treatment options.
- 5.2 Discuss etiologies, prognoses, and preventive strategies with the patient; educate the patient so he/she can participate in the management of his/her own oral health care.
- 5.3 Identify the need for and manage timely referrals and consultations with other health care providers when appropriate.
- 6.10 Diagnose and manage (refer or treat) patients with oral mucosal and osseous disorders.
- 6.11 Diagnose and manage (refer or treat) patients requiring oral surgical procedures.
- 6.13 Select and administer/prescribe appropriate pharmacological agents in the treatment of patients with dental disease.

Commission on Dental Accreditation (CODA) for Lecture Course

This course contributes to foundation knowledge in the attainment of CODA Standards:

- 2-1 In advance of each course or other unit of instruction, students must be provided written information about the goals and requirements of each course, the nature of the course content, the method(s) of evaluation to be used, and how grades and competency are determined. This is accomplished by distribution of this syllabus through blackboard prior to course initiation.
- 2-5 The dental education program must employ student evaluation methods that measure its defined competencies. Each student will present a case and the instructor will subjectively evaluate their performance and give verbal feedback according to the outline below (L.4).
- 2- 9 Graduates must be competent in the use of critical thinking and problem-solving,

including their use in the comprehensive care of patients, scientific inquiry and research methodology. Each session includes questions regarding each case that promote critical thinking about diagnosis and management of each patient.

- 2-10 Graduates must demonstrate the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning. At the beginning and end of the course students turn in a self-assessment form that asks them the following questions:

- What is your overall comfort level today in diagnosing and managing common oral pathologic conditions? (circle one)

Very comfortable Comfortable Somewhat uncomfortable Very uncomfortable

- In what areas of oral pathology do you feel your knowledge is sufficient or strong?
- In what areas of oral pathology do you feel weak?
- How do you expect or how have you found that this course can/did help you become more confident in diagnosing and managing common oral pathologic conditions?
- What do you plan to do to make your weak areas stronger (both short and long term) and how can this class or other future educational events best support that effort?

- 2-19 Graduates must be competent in communicating and collaborating with other members of the health care team to facilitate the provision of health care. Each case includes a discussion of how to communicate a diagnosis to a patient, including how their disease will be managed.

Outline

Date	Activity	Presenter
1/9/2014	Introduction/Case Presentations	Dr. Shumway
1/16/2014	Case Presentations	
1/23/2014	Case Presentations	
1/30/2014	Case Presentations	
2/6/2014	Case Presentations	
2/13/2014	Case Presentations	
2/20/2014	Case Presentations	
2/27/2014	Case Presentations	
3/6/2014	Case Presentations	
3/13/2014	Case Presentations	
3/20/2014	NO CLASS- Spring Break	
3/27/2014	NO CLASS- SRTA/ADEX exam	
4/3/2014	Case Presentations	
4/10/2014	NO CLASS- WREB exam	
4/17/2014	Case Presentations	
4/24/2014	Case Presentations/final discussion	

Evaluation

Subjective evaluation of student presentations, participation in class discussions and attendance

Grade Scale

Grading for the course will be Pass/Fail

Faculty

Dr. Brian Shumway