

# Dental Hygiene Care II

**Lamar Institute of  
Technology**

**DHYG 2331**

**Course Syllabus**

**Fall 2021**

**Taught by:  
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MPC 214**



## TABLE OF CONTENTS DHYG 2231

LECTURE SCHEDULE.....	3
COURSE DESCRIPTION.....	5
COURSE GOALS.....	5
CREDIT HOURS.....	6
CLASS MEETING TIME.....	6
INSTRUCTOR.....	6
PROGRAM POLICIES.....	6
DISABILITIES STATEMENT .....	10
TEACHING METHODS.....	9
REQUIRED TEXTS .....	11
EVALUATION CRITERIA .....	11
CONTENT OUTLINE .....	12
LEARNER OBJECTIVES.....	14
APPENDIX A .....	19
INSTRUCTIONS FOR MAGNETOSTRICTIVE ULTRASONIC PRACTICE ..	221
INSTRUCTIONS FOR AREA SPECIFIC CURET AND ADVANCED FULCRUM PRACTICE .....	232
MEDICALLY COMPROMISED PATIENT PRESENTATION CRITERIA .....	243
MEDICALLY COMPROMISED PATIENT PRESENTATION EVALUATION ..	275
RESEARCH PROJECT PRESENTATION CRITERIA .....	286
RESEARCH PROJECT PRESENTATION EVALUATION .....	297
E-PORTFOLIO INSTRUCTIONS.....	28

### LECTURE SCHEDULE

Topic		Assignments
Week 1	Fundamental of Ultrasonic Instrumentation for complete Debridement Procedures	Wilkins Chapter 37 Pgs. 655-660 Fundamental Periodontal Instrumentation Book Module 26
Week 1	Continue Ultrasonic discussion	
Week 2	Continue Ultrasonic discussion	<b>ALL STUDENTS MUST ATTEND. ULTRASONIC LAB 12:30-3:30 IN CLINIC</b>
Week 2	Advanced Instrumentation & Root Debridement	Wilkins Chapter 37 Pgs. 652-654 Fundamental Instrumentation Book Module 26
Week 3	<b>LABOR DAY – NO CLASS</b>	
Week 3	Local Anesthesia/ Pain Management	Guest Speaker Dr. Christy Boudreaux DDS Wilkins Chapter 36 Pgs. 620-639
Week 3	<b>E- PORTFOLIO JOURNAL #1 DUE</b>	<b>THIS IS A FRIDAY</b>
Week 4	Advanced Instrumentation & Root debridement continued	
Week 4	Advanced Instrumentation & Root Debridement  Air Polishing	Wilkins Chapter 42 Pgs. 739-741
Week 5	<b>EXAM 1 Ultrasonic, Area Specific Curets</b>	<b>*Gracey practice day in clinic 12:30 pm – 3:30 pm EVERYONE!!</b>
Week5	Local Anesthesia/Pain Management cont.	
Week 6	Local Anesthesia/Pain Management Cont.	
Week 6	<b>Research Project Corrections Due by 12:00 (Noon) Webinar on Arestin</b>	<b>May be emailed or printed- Submit power point and handout</b> Wilkins Chapter 42 Pg. 739-741

Fall 2021

	Air polish	
Week 7	Patient with Cleft Lip and/or Palate	Chapter 49
Week 7	<b>EXAM 2 Area Specific Curets, Cleft Lip</b>	
Week 8	Nitrous Oxide/Oxygen Sedation	Nitrous Oxide and Oxygen Sedation and handbook
Week 8	Nitrous Oxide/Oxygen Sedation	Nitrous Oxide and Oxygen Sedation and Hand book
Week 9	Nitrous Oxide/Oxygen Sedation	Nitrous Oxide and Oxygen Sedation and Handbook
Week10	The Patient with a Neurodevelopmental Disorder	Chapter 50
Week 10	The Patient with a Neurodevelopmental Disorder	Chapter 50
Week 11	The Patient with a Disability	Chapter 51
Week 11	E-Portfolio Journal entry #2 Due	THIS IS A FRIDAY

Week 12	<b>EXAM 3 Nitrous Oxide/ Neurodevelopment Disorder, Patient with Disability</b>	
Week 12	Neurologic Disorders and Stoke	Chapter 52
Week 13	The Oral and Maxillofacial Surgery Patient	Chapter 56
<b>Week 13</b>	<b>Research Project Student Presentation</b>	<b>6:00 pm in the MPC</b>
Week 13	The Patient with a seizure Disorder	Chapter 57
Week 14	The Patient with a Seizure Disorder	Wilkins Chapter 57
Week 14	<b>Exam 4 Neurologic Disorders and Stroke, Oral Maxillofacial Surgery, Seizure Disorder</b>	Active Learning workbook
Week 15	<b>E Portfolio Journal 2 Due</b>	This is a Friday
Week 15	Medically Compromised Patient (presentations)	<b>Group 4:</b> The Patient with Feeding and Eating Disorder, Schizophrenia, How to deal with a Mental Health Emergency. <b>Group 5:</b> The Patient with a Alcohol consumption problem, Metabolism of Alcohol, Health Hazards of Alcohol, Fetal Alcohol

Fall 2021

	Assignment #1 Chapter 52	Spectrum Disorders, Alcohol Withdrawal Syndrome. <b>Group 6:</b> Patient with need of Treatment of AUD, Abuse of Prescription and Street Drugs, Risk Management for Prescription Drugs Wilkins Workbook
Week 16	Medically Compromised Patient Presentations continue  Assignment #2 Chapter 59	<b>Group 7:</b> Most Common Drug Abuse, Medical Effects of Drug Abuse, Treatment Methods of Drug Abuse <b>Group 8:</b> Over view of Autoimmune Diseases, Connective Tissue Autoimmune Diseases, Oral Lichen Planus, Scleroderma  Wilkins Work Book
Week 16	Medically Compromised Patient Presentations Continue  Assignment #3 Chapter 63	<b>Group 9:</b> Gastrointestinal Tract Autoimmune Disease, Cellac Disease, Crohn's Disease, Ulcerative Colitis, Neurologic System Autoimmune Disease <b>Group 10:</b> Multiple Sclerosis, Myasthenia Gravis, Systemic Autoimmune Diseases, Sjogren's Syndrome, Systemic Lupus Erythematosus
<b>Comprehensive Final</b>		TBA

Fall 2021

### **COURSE DESCRIPTION**

A continuation of Dental Hygiene Care I. Dental hygiene care for the medically or dentally compromised patient including advanced instrumentation techniques.

### **PREREQUISITE**

DHYG 1301, 1431, 1304, 1227, 1219, 1235, 2301, 1207, & 1260.

### **CO-REQUISITE**

DHYG 1311, 1339 & 2261.

### **COURSE GOALS**

The student will design advanced instrumentation techniques appropriate to various patient needs and explain modifications in the treatment of the medically and dentally compromised patient.

#### **Specifically the student will be able to:**

- Discuss modifications in dental hygiene care, contraindications for treatment, and preparation/avoidance of medical emergencies for patients with physical/sensory impaired patients, patients with a neurodevelopmental disorder, alcoholic patients, homebound patients, patients with heart disease, hypertension, blood disorders, thyroid disease, pulmonary disease, respiratory disease, family abuse/neglect, seizure disorder, mental health disorder, head and neck cancer, and Alzheimer's disease.
- Describe principles, indications and contraindications of ultrasonic scaling devices.
- Identify and describe appropriate instruments for effective calculus removal.
- Describe the physical characteristics, types and etiology of the intellectually and developmentally impaired patient.
- Discuss the rationale and indications for performing root debridement procedures, describe appropriate stroke sequence and discuss the visual and tactile indications of a properly root planed tooth.
- Identify and describe the landmarks of the head and neck, rationale for selection of anesthetics, injection sites and basic theory of local anesthesia.
- Describe the use of nitrous oxide and oxygen conscious sedation in the dental office.
- Describe the anti-microbials/chemical plaque control agents and their actions.
- Describe principles, indications and contraindications of air-polishers.

Fall 2021

### **CREDIT HOURS**

Course Credit- 3 hours

Class hours- 3 hours

### **CLASS MEETING TIME**

9:00 AM – 10:15 AM Monday and Wednesday

Room 112 Multi-purpose Center

### **INSTRUCTOR**

Renee Sandusky, RDH, BS

Office: Rm 214 MPC

Phone: 409-880-5680

E-mail: rssandusky@lit.edu

Students should discuss questions by appointment or as the instructor is available.

### **PROGRAM POLICIES**

#### **Attendance Policy**

##### **Absenteeism**

In order to ensure the students in the dental hygiene program achieve the necessary didactic and clinical competencies outlined in the curriculum, it is necessary that the student complete all assigned lecture classes, clinical and laboratory hours. It is the responsibility of the student to attend class, clinic or lab. The instructor expects each student to be present at each session.

It is expected that students will appear to take their exams at the regularly scheduled examination time. Make-up examinations will be given **only** if the absence is due to illness (confirmed by a physicians' excuse), a death in the immediate family, or at the discretion of the instructor.

If students are unable to attend lecture class, clinic or lab, it is **mandatory that you call the appropriate instructor prior to the scheduled class, clinic or lab time. An absence will be considered unexcused if the student fails to notify the course faculty prior to the start of class, clinic, or lab. Attendance through Blackboard Collaborate is considered an absence. The course instructor must be notified at least one hour prior to the beginning of class/lab if the student plans to attend through Blackboard Collaborate.** The student is responsible for all material missed at the time of absence. Extenuating circumstances will be taken into account to determine if the absence is excused. Extenuating circumstances might include but are not limited to: funeral of immediate family member, maternity, hospitalization, etc. If the student has surgery, a debilitating injury, or an extended illness, a doctor's release will be required before returning to clinic.

Fall 2021

a. **Fall/Spring Semesters:**

Dental hygiene students will be allowed **two excused absences** in any lecture, clinic or lab. Absences must be accompanied by a written excuse on the next class day. In the event that a student misses class, clinic or lab beyond the allowed absences, the following policy will be enforced:

2 absences = notification in Starfish

Beginning with the third absence, **2 points** will be deducted from the final course grade for each absence thereafter.

**Two** (2) points will be deducted from the final course grade for each unexcused absence.

b. **Summer Sessions:**

Regular class attendance is expected. Be sure to sign in on a regular basis to check for any additional assignment openings, and to be sure your coursework is being completed. Also, be sure to check your gradebook regularly for missing or inaccurate grades. Bring any grade questions to the instructor immediately upon noticing them.

### **Tardiness**

Tardiness is disruptive to the instructor and the students in the classroom. A student is considered tardy if not present at the start of class, clinic or lab. It is expected that students will arrive on time for class, clinic or lab, and remain until dismissed by the instructor. If tardiness becomes an issue, the following policy will be enforced:

Tardy 1 time = notification in Starfish

Tardy 2 times = is considered an unexcused absence. (See the definition of an unexcused absence)

If a student is more than 15 minutes late to any class period, it will be considered an unexcused absence.

**Students should plan on attending classes, labs and clinic sessions as assigned throughout the semester. Family outings, vacations and personal business should be scheduled when school is not in session and will not be considered excuses for missing assignments, examinations, classes, labs or clinic time.**

### **Electronic Devices**

Electronic devices are a part of many individual's lives today. Devices such as recording devices, radios, cell phones, and laptop computers may be disturbing to faculty and classmates. Students, therefore, must receive the instructor's permission to operate all electronic devices in the classroom and clinic. Texting on cell phones or computers will not be allowed during class or clinic.

It shall be considered a breach of academic integrity (cheating) to use or possess on your body any of the following devices during any examination unless it is



Fall 2021

required for that examination and approved by the instructor: Cell phone, smart watch/watch phone, laptop, tablet, electronic communication devices (including optical), and earphones connected to or used as electronic communication devices. Use of such devices during an examination will be considered academic dishonesty. The examination will be considered over and the student will receive a zero for the exam.

Students with special needs and/or medical emergencies or situations should communicate with their instructor regarding individual exceptions/provisions. It is the student's responsibility to communicate such needs to the instructor.

### **Leaving Class during Lecture**

You should be prepared to remain in class for the entire class period. Any personal business should be taken care of prior to or after class. If a medical problem exists or an emergency occurs please inform the instructor.

### **Examination & Quiz Policy**

Examinations will be based on objectives, lecture notes, handouts, assigned readings, and audiovisual material and class discussions. Major Examinations will consist of multiple choice, true/false, matching, short answer, and case study questions. No questions will be allowed during exams.

Students are expected to complete examinations as scheduled. Make-up examinations will be given ONLY if the absence is due to illness (confirmed by a physician's excuse), a death in the immediate family, or at the discretion of the Instructor. All make-up examinations must be taken within two (2) weeks from the scheduled exam date. All examinations will be kept on file by the Instructor. Students may have access to the examination by appointment during the Instructor's office hours. Exams may be reviewed up to two (2) weeks following the exam date. **You may not copy, reproduce, distribute or publish any exam questions.** A grade of "0" will be recorded for all assignments due on the day of absences unless prior arrangements have been made with the Instructor.

### **Remediation**

Remediation is available by appointment with the instructor. Please advise the instructor if you feel you need remediation and every effort will be made to accommodate you. If a student receives a failing grade on any major exam, the student will be required to meet with course instructor within 2 weeks of the failed exam.

### **Starfish**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags

Fall 2021

and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.



### **Technical Requirements (for Blackboard)**

The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at: [https://help.blackboard.com/en-us/Learn/9.1\\_2014\\_04/Student/015\\_Browser\\_Support/015\\_Browser\\_Support\\_Policy](https://help.blackboard.com/en-us/Learn/9.1_2014_04/Student/015_Browser_Support/015_Browser_Support_Policy). A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of the online technology and resources.

### **Disabilities Statement**

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities.

If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 839-2018 or visit the office in Student Services, Eagles' Nest Building. You may also visit the online resource at <https://www.lit.edu/student-success/special-populations>.

### **Student Code of Conduct Statement**

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at [www.lit.edu](http://www.lit.edu) or obtained in print upon request at the Student Services Office. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

### **TEACHING METHODS**

- Lecture by instructor
- Demonstration by instructor
- Class discussion
- Instrumentation videos

### **REQUIRED TEXTS**

Nield-Gehrig, Fundamentals of Periodontal Instrumentation & Advanced Root Instrumentation, 8<sup>th</sup> edition, Lippincott, Williams, & Wilkins, 2017. ISBN: 9781496320209.

Wilkins, E., Clinical Practice of the Dental Hygienist, 13<sup>th</sup> edition, Lippincott, Williams, & Wilkins, 2020. ISBN: 9781284217803.

### **REFERENCES AND SUGGESTED TEXTS**

Clark & Brunick, Handbook of Nitrous Oxide and Oxygen Sedation, 5th edition, Elsevier 2020.

Daniel, Harfst, & Wilder, Mosby's Dental Hygiene Concepts, Cases, and Competencies, 2<sup>nd</sup> edition, Mosby's 2007.

Logothetis, D, Local Anesthesia for the Dental Hygienist, 2<sup>nd</sup> edition, Elsevier 2016.

Malamed, S., Handbook of Local Anesthesia, 7<sup>th</sup> edition, Elsevier, 2019.

### **COURSE REQUIREMENTS**

The student must pass the course with a 75% or more in order to receive credit for DHYG 2331. All course work must be successfully completed by the last class day. Failure to complete course work will result in the grade of "F" being awarded for DHYG 2331 and dismissal from the DH program. Exclusions from this policy will be dealt with on an individual basis by the instructor.

Requirements for this course include three tests, one comprehensive final, Research Project Presentation, and a Medically Compromised Patient presentation. Instructions and evaluation forms for these presentations can be found in the Appendix of this syllabus.

### **EVALUATION CRITERIA**

#### Grade Distribution

- |  |     |
|--|-----|
| • Major Tests                          | 50% |
| • Comprehensive Final                  | 10% |
| • Research Project Presentation        | 15% |
| • Medically Compromised Presentation   | 10% |
| • Active Learning Workbook Assignments | 15% |

#### Grading Scale

- 92-100 = A
- 83-91 = B
- 75-82 = C
- 60-74 = D
- 59-0 = F

Fall 2021

## **CONTENT OUTLINE FOR DHYG 2331**

- I. Advanced Instrumentation & Root Debridement
  - A. Advanced Fulcrums
  - B. Define root debridement
  - C. Objectives and benefits of root debridement
  - D. Instrumentation techniques for effective root debridement
  - E. Design, Uses and Effective instrumentation with specialized instruments
    - 1. Site-Specific curets
    - 2. After five curets
    - 3. Mini five curets
    - 4. Diamond-coated instruments
    - 5. Endoscope
    - 4. Hoe
    - 5. File
    - 6. Chisel
- II. Air Polishing
  - A. Uses and preparation of air polishers
  - B. Mode of action and effects of air polishers
  - C. Instrumentation techniques for air polishing
  - D. Precautions and contraindications for using air polishers
- III. Powered Instrumentation
  - A. Powered Instrument design and function
  - B. Advantages and disadvantages of powered instrumentation
  - C. Mode of action of powered instruments
  - D. Effects of powered instrumentation
  - E. Preparing for powered instrumentation
  - F. Patient selection for powered instrumentation
  - G. Effective instrumentation with a powered instrument
  - H. Infection control and precautionary measures
  - I. Tip wear and replacement
- IV. Antimicrobials/Chemotherapeutic Agents
  - A. Actions and substantivity of antimicrobials/chemotherapeutic agents
    - 1. Antibiotics
    - 2. Chlorhexidine
    - 3. Phenolic compounds
    - 4. Sanginarine
    - 5. Oxygenation agents
  - B. Indications and contraindications for use of antimicrobials/chemotherapeutic agents
- V. Local Anesthesia
  - A. Classification of local anesthetics
  - B. Types of oral injections
  - C. Tray set up for injection

Fall 2021

- D. Nerves and structures anesthetized
- E. Injection sites and needle position

VI. Nitrous Oxide Sedation

- A. Discovery, History, and Evolution of Nitrous Oxide/Oxygen Sedation
- B. Pain and Anxiety Management
- C. Desirable Characteristics of Nitrous Oxide/Oxygen Sedation
- D. Delivery of Nitrous Oxide/Oxygen Sedation
- E. Titration of Nitrous Oxide and Oxygen Gases
- F. Signs and Symptoms of Nitrous Oxide and Oxygen Sedation
- G. Technique for Nitrous Oxide and Oxygen Administration and Assessment of Recovery
- H. Nitrous Oxide and Oxygen Sedation in Pediatrics

VII. Special Needs Patients

- A. Indications and contraindications for dental treatment
- B. Emergency management of special needs patients
- C. Periodontal management of special needs patients
- D. Recall intervals for special needs patients
- E. Special patients addressed include:
  - 1. Patient with Endocrine Disorder/Hormonal changes
  - 2. Patient with a Disability
  - 3. Patients with physical impairment
  - 4. Respiratory disease
  - 5. Blood disorders
  - 6. Patients with Cardiovascular Disease

VIII. Medically Compromised Patient

- A. Indications and contraindications for dental treatment
- B. Emergency management of medically compromised patients
- C. Periodontal management of medically compromised patients
- D. Recall intervals for medically compromised patients
- E. Medical conditions addressed include:
  - 1. Oral surgery/Maxillofacial surgery patient
  - 2. Patient with alcoholism
  - 3. Cleft lip and palate patient
  - 4. Patient with a Sensory Impairment
  - 5. Substance-related disorders
  - 6. Family abuse and neglect
  - 7. Neurodevelopment disorder
  - 8. Mental Health disorders

Fall 2021

## **LEARNER OBJECTIVES**

### **Powered Instrumentation**

1. Given information about oral conditions and general health status, identify those patients for whom powered instrumentation is or is not an appropriate choice.
2. Describe the advantages and disadvantages of ultrasonic instrumentation.
3. Briefly describe how the powered instrument removes deposits.
4. Identify precautions that must be taken to minimize cross-contamination during powered instrumentation.
5. Identify four important measures for helping the patient cope with water flow.
6. Describe the procedure for preparing an instrument insert for use in an ultrasonic unit.
7. Compare and contrast standard-diameter and slim-diameter instrument tip design.
8. Describe the best sequence and stroke pattern for effective biofilm & calculus removal using powered instrumentation.
9. Describe the length and speed of the stroke used during powered instrument.
10. Contrast powered instrumentation principles with those employed with hand instruments.
11. List three functions of the water lavage in ultrasonic instrumentation.
12. Briefly describe research findings related to effectiveness, tissue response, root smoothness, and safety precautions concerning powered instrumentation.
13. Discuss the differences in the magnetostrictive, piezoelectric and sonic scalers.

### **Advanced Instrumentation and Root Debridement**

1. Given a variety of area-specific curets, identify the design characteristics of each instrument.
2. Name the uses of area-specific curets.
3. Describe how the clinician can use visual clues to select the correct working-end of an area-specific curet on anterior and posterior teeth.
4. Describe characteristics of root morphology that make root instrumentation challenging.
5. Define root debridement.
6. List benefits of root debridement.
7. State the primary objective of root debridement.
8. Compare root debridement to scaling.
9. Identify instruments utilized for root debridement.
10. Describe the technique used and evaluation of root debridement.

Fall 2021

### **Special Instruments**

1. Identify the use of diamond-coated instruments
2. Describe an endoscope and its purpose.
3. Identify the use of the hoe.
4. Describe the design of the hoe.
5. Describe principles of instrumentation with the hoe.
6. Identify three contraindications for utilization of the hoe.
7. Identify the use of the file
8. Describe the design of the file.
9. Describe principles of instrumentation with the file.
10. Describe the design of the chisel.
11. Identify three areas in which the chisel is appropriate for use.
12. Describe the application of the chisel for instrumentation.

### **Air Polishing**

1. List the uses of Air polishers.
2. List the contraindications for using air polishers.
3. Describe the mode of action and effects of the air polisher.
4. Discuss instrumentation techniques and precautions.

### **Chemotherapeutic Plaque Control**

1. Compare and contrast the action, substantively, indication and contraindications of the following chemotherapeutic plaque control agents.
  - Antibiotics
  - Chlorhexidine
  - Phenolic compounds
  - Fluorides
  - Sanguinarine
  - Oxygenation agents

### **Local Anesthesia**

1. Describe the procedure for injection site preparation.
2. Classify local anesthetics.
3. Define block anesthesia.
4. Define infiltration anesthesia.
5. Describe the appropriate tray set-up for injection.
6. Identify the nerve and structures anesthetized and needle position for each injection site.

### **Nitrous Oxide Sedation**

1. Define nitrous oxide and oxygen conscious sedation.
2. List indications/contraindications for nitrous oxide sedation.
3. Describe the history of nitrous oxide sedation.
4. List benefits of nitrous oxide.

Fall 2021

5. Describe the mechanism by which nitrous oxide works.
6. Define conscious according to the ADA.
7. Describe normal responses to nitrous oxide sedation.
8. State properties of nitrous oxide.
9. Give and be able to utilize the equation for determining nitrous oxide concentration.
10. List signs and symptoms in response to nitrous oxide sedation by % of nitrous concentration.
11. State the acceptable concentration range for maximum nitrous oxide sedation.
12. Describe factors affecting the concentration needed for nitrous oxide sedation.
13. Describe the procedure for patient selection and list contraindications.
14. Define hypoxia and how to avoid hypoxia.
15. Describe the equipment used for nitrous oxide sedation.
16. Describe the procedure for administration of nitrous oxide sedation.

### **The Oral Surgery and Maxillofacial Surgery Patient**

1. Discuss the role of the dental hygienist in the pre- and postsurgery care of the oral and maxillofacial surgery patient.
2. Discuss pre- and postsurgical care planning for the maxillofacial surgery patient.
3. Identify types of maxillary and mandibular fractures and discuss treatment options.
4. Describe modifications for dental hygiene treatment, diet, and personal oral care procedures needed after maxillofacial surgery.
5. Explain dental hygiene care needed before and after general surgery.
6. Describe emergency care for a fractured jaw patient.

### **The Patient with Alcoholism**

1. Explain key terms and concepts related to the metabolism, intoxication effects, and use patterns of alcohol.
2. Discuss health hazards related to prolonged alcohol use.
3. Discuss the use of alcohol during pregnancy.
4. Explain withdrawal syndrome.
5. Discuss oral conditions seen in alcoholics.
6. List different treatment options for patients using alcohol.

### **The Patient with a Cleft Lip and/or Palate**

1. Describe the types of cleft lip and palate that result from developmental disturbances.
2. Discuss problems presented with different classifications of clefts.
3. Discuss types of treatment.
4. Identify psychological effects of patient care.



Fall 2021

5. Discuss ways to help a patient obtain treatment.
6. Identify common occurrences found in cleft patients.
7. Discuss the importance of individualized education programs when treating the cleft patient.

### **The Patient with a Mental Health Disorder**

1. Describe the various types of mental health disorders and major symptoms of each.
2. Discuss the side effects of treatment for mental health disorders that may have oral health implications.
3. Explain dental hygiene care treatment considerations for each major category of mental health disorder which include:
  - Anxiety disorders
  - Depressive disorders
  - Bipolar disorder
  - Feeding and eating disorders
  - Schizophrenia
4. Be able to identify patients at risk for an emergency, how to prevent an emergency, and how to prepare for an emergency.

### **The Patient with a Neurodevelopmental Disorder**

1. Define and describe neurodevelopmental disorders.
2. Give examples of the characteristics, oral findings, and health problems significant for providing dental hygiene care for patients with:
  - Intellectual Disorder
  - Down syndrome
  - Autism spectrum disorder
3. Recognize adaptations necessary for providing dental hygiene care for a patient with a neurodevelopmental disorder.

### **The Patient with a Seizure Disorder**

1. Define each of the terms associated with types of seizure disorders.
2. Discuss the etiology of seizure disorders.
3. Describe the clinical manifestations of seizure disorders.
4. Develop a dental hygiene care plan, including patient education prevention strategies, for working with patients who have seizure disorders.
5. Discuss the occurrence of the phenytoin induced gingival enlargement.
6. Describe emergency care procedures to employ when a seizure occurs.

Fall 2021

### **Dental Hygiene Care in Alternative Settings**

1. Identify and define key terms and concepts related to oral health care in alternative settings.
2. Identify materials necessary for providing dental hygiene care in alternative settings.
3. Discuss the appropriate patient approach, modification in technique and procedures when caring for the following patients:
  - Homebound patient
  - Bedridden patient
  - Unconscious patient
  - Terminally ill patient

### **The Patient with a Physical Impairment**

1. Identify and define key terms and concepts related to physical impairment.
2. Describe the characteristics, complications, occurrence, and medical treatment of a variety of physical impairments.
3. Identify oral factors and findings related to physical impairments.
4. Describe modifications for dental hygiene care based on assessment of needs specific to a patient's physical impairment.
5. Discuss etiologic factors, occurrence, signs and symptoms, medical treatment, and dental hygiene care of the following impairments/disorders:
  - Spinal Cord Injury
  - Cerebrovascular accident
  - Bell's Palsy
  - Multiple Sclerosis
  - Amyotrophic Lateral Sclerosis
  - Parkinson's Disease
  - Myasthenia Gravis
  - Postpolio Syndrome
  - Cerebral Palsy
  - Muscular Dystrophies
  - Myelomeningocele
  - Arthritis
  - Scleroderma

### **The Patient with a Sensory Impairment**

1. Describe the purpose of the Americans with Disabilities Act.
2. Explain the causes and types of visual and hearing impairment.
3. Identify different auxiliary aids that help the visually and hearing impaired.
4. How to communicate with the visually and hearing impaired.

Fall 2021

### **Medically Compromised Patient**

Students will discuss cases of medically compromised patients to provide significance and management of medical problems in the dental office.

The student will emphasize:

- The periodontal management of these patients.
- Indications and contraindications for dental treatment.
- Identify patients who are taking drugs for systemic diseases.
- How to prepare/manage a medical emergency in the dental office.

Cases to be addressed include:

- The patient with Amyotrophic Lateral Sclerosis, Parkinson's Disease, Postpolio Syndrome
- The patient with Cerebral Palsy, Muscular Dystrophies, Myelomeningocele, Arthritis
- The Patient with Anxiety Disorder, Depressive Disorder, Bipolar Disorder
- The Patient with feeding and Eating Disorder, Schizophrenia, How to deal with a Mental Health Emergency
- The patient a Alcohol consumption problem, Metabolism of Alcohol, Health Hazards of Alcohol , Fetal Alcohol Spectrum Disorders, Alcohol Withdrawal Syndrome
- The Patient with need of treatment of AUD, Abuse of Prescription and street Drugs, Risk Management for Prescription Drugs
- The most common drug abuse, Medical effects of drug abuse, Treatment of drug abuse
- Over view of Autoimmune Diseases, Connective Tissue Autoimmune Diseases, Oral Lichen Planus, Scleroderma
- Gastrointestinal Tract Autoimmune Disease, Celiac Disease, Crohn's Disease, Ulcerative Colitis, Neurologic Systems Autoimmune Disease.
- Multiple Sclerosis, Myasthenia Gravis, Systemic Autoimmune Diseases, Sjogren's Syndrome, Systemic Lupus, Erythematosis

## **APPENDIX A**

Grade Computation Sheet  
Criteria Information  
Evaluation Forms

# Grade Computation Sheet

## Major Test Grades:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Test Average: \_\_\_\_\_  
(Total 4 exams and divide by 4 for  
average)

Major Tests Average:	_____	X .50=	_____+
Comprehensive Final:	_____	X .10=	_____+
Research Project Presentation:	_____	X .15=	_____+
Medically Compromised Presentation:	_____	X .10=	_____+
Active Learning Workbook	_____	X .15=	_____+
	Final Grade:		_____

## Instructions for Magnetostrictive Ultrasonic Practice

### **Needed Supplies:**

- Ultrasonic insert tips
- Face shield
- Mask
- Gloves
- Nitrile gloves
- Ultrasonic Skill evaluation from clinic syllabus
- Instrumentation book – page 708

### **Set Up:**

- Without gloves take the unit out of the drawer
- Connect the power cord, water line and foot pedal
- Set up the head in the patient chair with your typodont

### **Disinfect:**

- With nitrile gloves disinfect the cart, unit and hose

### **Barrier:**

- Remove nitrile gloves, wash hands and put on exam gloves
- Place a barrier across the cart covering the unit
- Attach the handpiece and place on top of the barrier

Turn on the power and place black handpiece sleeve on to cord

Purge the water line for 2 minutes over the sink

Fill handpiece with water & lubricate o-ring on insert

Insert your universal tip (blue)

Adjust the spray to a fine mist

Universal tip (blue) Use power setting from halfway mark to high power  
For heavy to light deposits

Slim line tip (green) Use power setting from low power to halfway mark  
For light deposits and root smoothing

THINsert tip 30k (purple) Improves subgingival and interproximal access during  
scaling procedures.

You will practice strokes that were demonstrated in class. You will practice in pairs. Each operator will complete **Module 26 Skill Application** for Powered Instrumentation in the Instrumentation Book on **page 708**. This will be checked by the instructor but not turned in for a grade. The first operator will practice while the second operator suction with the high-speed suction. Clinic faculty will assist you as needed. You will be instructed when to switch operators.

**NOTE:** You will be checked off on the set up as part of the **Ultrasonic Instrumentation Skill Evaluation**.

Fall 2021

## **Instructions for Area Specific Curet and Advanced Fulcrum Practice**

### **Needed supplies:**

- Gracey curets (1/2, 11/12, 13/14, 15/16, 17/18)
- Typodont
- Instrumentation book
- This page is needed for Area designations

### **Set up:**

- Set up head with your typodont
- Have available area specific curets 1/2, 11/12, 13/14 or 1/2, 15/16, 17/18

You do not need to disinfect or barrier for this practice.

You will practice strokes with your area specific curets and advanced fulcrums that were demonstrated in class. You will practice in pairs. Each operator will do the following skill application modules in the instrumentation book:

- Module 19 Area Specific Curets on pages 485-486.
  - Area 1 = Teeth # 3, 7
  - Area 2 = Teeth # 12, 15
  - Area 3 = Teeth # 19, 24
  - Area 4 = Teeth # 27, 31
- Module 21 Advanced Techniques for Root Surface Debridement on page 563

Clinic faculty will assist you as needed. You will be instructed when to switch operators. The skill evaluations will be checked by the instructor but not turned in for a grade.

## **MEDICALLY COMPROMISED PATIENT PRESENTATION CRITERIA**

The purpose of this project is to familiarize the student with the medically compromised patient and to supply appropriate treatment methods for these patients. It also gives the student an opportunity to research a topic and make an oral presentation to their peers. This project will consist of an oral report and a 1-2 page handout (make copies of the handout for all students in the class). A minimum of three references should be used in this presentation (references should be no older than 5 years). One reference should be obtained from the internet. The oral report will be 15-20 minutes in length and will be done in a PowerPoint format. At the end of the report, provide 3 multiple choice test questions related to the report. Review the test questions with the class. E-mail a copy of the PowerPoint presentation, the handout, the test questions and a bibliography of your references to the instructor.

Topics for this project will include the following:

- The patient with Amyotrophic Lateral Sclerosis, Parkinson's Disease, Postpolio Syndrome
- The patient with Cerebral Palsy, Muscular Dystrophies, Myelomeningocele, Arthritis
- The Patient with Anxiety Disorder, Depressive Disorder, Bipolar Disorder
- The Patient with feeding and Eating Disorder, Schizophrenia, How to deal with a Mental Health Emergency
- The patient a Alcohol consumption problem, Metabolism of Alcohol, Health Hazards of Alcohol , Fetal Alcohol Spectrum Disorders, Alcohol Withdrawal Syndrome
- The Patient with need of treatment of AUD, Abuse of Prescription and street Drugs, Risk Management for Prescription Drugs
- The most common drug abuse, Medical effects of drug abuse, Treatment of drug abuse
- Over view of Autoimmune Diseases, Connective Tissue Autoimmune Diseases, Oral Lichen Planus, Scleroderma
- Gastrointestinal Tract Autoimmune Disease, Celiac Disease, Crohn's Disease, Ulcerative Colitis, Neurologic Systems Autoimmune Disease.
- Multiple Sclerosis, Myasthenia Gravis, Systemic Autoimmune Diseases, Sjogren's Syndrome, Systemic Lupus, Erythematosus

Students will work in groups of two and will be assigned one of the topics above to research. Thorough research of the medical condition should be



Fall 2021

completed by the group. Special attention should be paid to treatment of the condition, how the condition impacts oral health and dental treatment, including contraindications, management, and emergency protocol for the patient with this condition.

This presentation will be 10% of the grade for DHYG 2331.

## **MEDICALLY COMPROMISED PATIENT PROJECT INFORMATION**

Grading rubric for this project can be found on page 23 of this syllabus. Additional information for use in completing your presentation includes, but is not limited to, the following:

**Thoroughly research the condition/disease you have chosen.**

- Etiology
- Occurrence and in what population
- Treatment of condition
- Medications used in treatment

**What are dental concerns associated with this disease/condition?**

- Indications and contraindications for dental treatment
- How will oral health be impacted
- Will medical treatment and/or medications impact oral health? How?
- Periodontal management of this patient

**What would be expected and accepted treatment options for a patient with this disease/condition?**

- Pre-med
- Patient positioning
- Appointment length
- Ultrasonic use
- Recall intervals

**Is there a possibility for a medical emergency with a patient with this disease/condition?**

- Preparation of a possible emergency
- Avoidance of an emergency
- Management of an emergency

You may want to reference some of the National Board review books to see what type of information may be referred to on boards concerning some of these topics.

Fall 2021

<b>DHYG 2331</b>			
<b>Medically Compromised Patient Presentation Evaluation</b>			
LIT Competency Statements	CC2. Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care. CC4. Communicate effectively with individuals and groups from diverse populations both verbally and in writing.		
Student		Date:	
Instructor			
			Total points awarded

The student, in accordance with the standards set forth by the ADA and the Dental Hygiene Program, has demonstrated the following criteria.		Total Points	Points Awarded
1	Thoroughly defined and discussed medical condition, the etiology, and occurrence of the condition	15	
2	Demonstrates effective interpersonal communication skills. Students were easy to hear and understand. Used good vocal projection and enunciation.	10	
3	Discussed oral manifestations of the condition or from use of medications	15	
4	Discussed management of the patient before treatment, during treatment & after treatment including emergency management protocol for the condition	20	
5	Thoroughly discussed indications and contraindications for treatment	10	
6	PowerPoint Presentation was easily understood. No typographical errors and free from extraneous information.	10	
7	Test questions were appropriate and well explained.	5	
8	Student handouts were informative and easily understood	5	
9	References used were current	10	
Total Points Possible		100	

**Comments:**

## **RESEARCH PROJECT PRESENTATION CRITERIA**

Each student worked on preparing and presenting a research project last spring in DHYG 2301/ Dental Hygiene Care I. Presentations were made to fellow classmates and to faculty. Grades were assigned to the research projects in DHYG 2301/ Dental Hygiene Care I and suggestions were made for improving the presentation.

In DHYG 2331, students are expected to have made the changes suggested to improve their presentations. Evidence of the changes must be turned in by September 27, 2021, to the instructor. Evidence of changes include a handout from the PowerPoint of the slides and/or a printout of the brochure. This is part of the grade for the presentation.

This semester, students will be responsible for presenting their research project to local area Dental Hygienists. Judges from the audience will evaluate each presentation. Points will be tabulated and monetary awards will be given to the top three groups with the most points.

The instructor for DHYG 2331 will use the evaluation form on page 27 of this syllabus to assign a grade to each student for the research project presentation. This presentation will be 15% of the grade for DHYG 2331.

Fall 2021

<b>DHYG 2331</b>		
<b>Research Project Presentation Evaluation</b>		
LIT Competency Statements	CC2. Assume responsibility for dental hygiene actions and care based on accepted scientific theories and research as well as the accepted standard of care. CC4. Communicate effectively with individuals and groups from diverse populations both verbally and in writing.	
Students		
Research Project Title		
Evaluator		Date:
<b>100 Total Points Available</b>		_____ <b>Total Points Awarded</b>

The student, in accordance with the standards set forth by the ADA and the Dental Hygiene Program, has demonstrated the following criteria.		Total Points	Points Awarded
1	Thoroughly defined and discussed Research Project Topic	15	
2	Subject matter presented reflected accurate and current information	15	
3	Presentation was organized and flowed in a logical sequence	10	
4	Audiovisual materials were well constructed and easily understood	15	
5	Audiovisual materials were integrated into the presentation	10	
6	Clinicians demonstrated professional demeanor	10	
7	Clinicians demonstrated knowledge and skill in the subject area	5	
8	Clinicians were easily heard and understood – able to correctly pronounce words and not read material	5	
8	Clinicians were receptive to questions and provided additional information when needed	5	
9	Handouts were informative and easily understood	5	
10	Suggested corrections from the Spring semester were made to the PowerPoint and/or brochure	10	
	<b>Total Points</b>	<b>100</b>	

Comments:

## E-Portfolio

This semester there will be several journal entries to add to your E-Portfolio. These journal entries are meant to be a reflection on what you have learned through your clinical experiences, patient interactions, challenges or triumphs you have encountered and growth you have seen within yourself.

Please use proper grammar, spelling, and punctuation. Refrain from inappropriate language, derogatory comments, and non-clinical issues. You will submit 3 complete journal entries during the semester.

The following are to be included in your E-Portfolio this semester:

Journal Entry #1 – due date October 1, 2021

1. Did you feel prepared coming into 2<sup>nd</sup> year clinic?
2. What could you, as a student, done differently to be better prepared for clinic?
3. Since the beginning of this semester, what differences have you seen in yourself in clinic?

Journal Entry #2 – due date 10/29/2029

1. At this point in the semester, where do you see that you have made the most improvement?
2. What have your challenges been so far and how have you been able to overcome them?
3. In what area do you feel that you have excelled in the clinical setting or what area do you feel that you still need to develop your skills?

Journal Entry #3 – due date 11/19/2021

1. Comparing where you ended the semester to when you started in August, where do you see the most growth in clinic?
2. Where there any moments when you had a patient interaction that was challenging or rewarding? Explain that moment.
3. What skill area do you feel that you positively developed the most this semester?