Graduate Student Handbook

2024-2025



Graduate Studies Samson Pavilion 439C 216-368-1168 dentgrad@case.edu

Dr. Andres Pinto, Associate Dean of Graduate Studies Nicole Spinosa, Graduate Coordinator

Academic Regulations Registration

Graduate studies programs operate on a twelve-month basis, from July 1 to June 30. The year is divided into two six-month semesters. The fall semester is from July 1 to December 31; and spring semester is from January 1 to June 30. The act of registration includes submission of a course schedule approved by the department, the payment of semester tuition, and the completion of the online registration form. Each semester, registration must be completed as scheduled. Students enrolled in fall and spring semesters may arrange to pay bills for tuition and fees in two installments. At least half of the total bill must be paid at registration; the remainder must be paid in accordance with university policy. Fees may be charged for late registration or late payment. Students who fail to register within 30 days after the published dates will be considered to have withdrawn from the program. In the School of Dental Medicine, students who are not registered are not considered students of record, lose the protections of the university in matters of liability, and therefore, may not treat patients. They can no longer attend class or receive grades and will have to formally reestablish their matriculation. In any circumstance, all lost course and/or clinical time will be added to the end of the program's original completion date.

Under unusual circumstances, special arrangements for registration may be made with permission of the program director and the associate dean for graduate studies. Social security numbers are used for all records and documents and must be provided at the time of registration. Foreign students will be issued a number for this purpose if they have not obtained a social security number prior to registration. New students and new residents who do not register as specified and who have failed to provide satisfactory reasons for the delay in advance will forfeit their right to admission. Vacancies which arise from such circumstances are filled from a list of alternate candidates at the discretion of the department.

Grading

The responsibility for assigning grades rests exclusively with the course director, who must explicitly describe in the syllabus the general method of grading at the beginning of the course. Course grades are submitted through the Student Information System (SIS) within 48 hours of the end of the course. Incomplete or conditional grades can be changed only by the course director as described in in the Registrar section of this bulletin.

Transfer Credit

Transfer of credit from another university is limited to six semester hours of graduate-level courses. Such transfer requires approval from the student's advisor, the program director, and the Office of Graduate Studies. Courses must have been taken within five years prior or subsequent to matriculation in the graduate program at Case Western Reserve University, and only those with grades of "B" or better are transferable. No credit for a thesis may be transferred from another university.

Graduate credit is not awarded for 100- or 200-level courses or their equivalents.

Thesis Advisory Committee

Each master's degree candidate is advised to consult with their program director as to when and how to form a thesis committee. The program director, chooses a faculty member to serve as the primary thesis advisor. This advisor also serves as the chair of the thesis committee. The primary thesis advisor will help identify other members of the faculty (at least two) to serve as secondary advisors and as members of the thesis committee. At least two members of the thesis committee must be from the department in which the student is enrolled, and one must be from another department. Additional membership is not restricted and may include persons from outside the university who have qualifications acceptable to the program director. Members of the thesis committee continue in their capacity until the student graduates or leaves the program of study. The thesis committee will be responsible for guiding the student in the development of a thesis protocol. Once a protocol is acceptable, the thesis committee members advise the student on the conduct of the research and writing of the thesis document. Ultimately, the committee members will evaluate the student's oral defense and final thesis document.

Research Project

For master's degree programs, each student must carry out an original and meaningful research project acceptable to the program director and the advisory committee. A written thesis, similarly acceptable, is to be prepared and must conform to the standard format determined by the Office of Graduate Studies of the School of Dental Medicine. The thesis must be submitted before the prescribed deadline. An oral examination (defense) of the thesis is required. This examination is administered by the student's advisory committee before a standard date set by the Office of Graduate Studies of the School of Dental Medicine. Unanimous agreement of the committee is required to pass the thesis examination. A student must be registered for thesis credit or continuing graduate work during the semester in which the thesis examination is conducted. The thesis defense is ordinarily open to all members of the university faculty, student body, and guests.

Extra Courses

Individual students enrolled in an advanced education program, whether or not a master's degree is involved, may be required to take courses beyond the general requirements set forth by the department in order to complete the program. In such instances, the student must be notified in writing by the program director, with a copy filed in the Office of Graduate Studies of the School of Dental Medicine.

Time Limits

Each student is expected to maintain continuous registration and all requirements must be completed within five consecutive calendar years immediately following matriculation as an advanced education student, including approved periods of leave of absence. A student who fails to complete the requirements within five years must be formally readmitted with full standing in order to continue study, subject to terms of readmission, future time limits, and revised requirements for the award of the degree. Prior status in the program is no guarantee of readmission and should not be assumed.

Leave of Absence

A student may request a leave of absence for personal reasons or reasons of health when anticipated or actual absence is in excess of three weeks. A written request for a leave of absence must include the reason for the request and the length of time requested. A leave of absence cannot exceed one calendar year. It must be submitted to the program director and to the associate dean of graduate studies of the School of Dental Medicine. The program director will forward the request with his/her response to the Committee on Graduate Studies. In order to be eligible for such requests, the student must be currently enrolled and in regular attendance prior to the time or circumstances that necessitated the request. At the expiration of the leave, the student must resume registration unless formally granted an extension. A leave of absence does not extend the maximum time permitted for the completion of degree requirements. A student who fails to obtain an approved leave, or who fails to resume registration at the time expected, may be separated from the program. During the period of leave, it is expected that the student will not avail himself or herself of the teaching and research resources of the School of Dental Medicine or the university. At the end of an approved leave, reentry into the program is reviewed by the program director in concert with the Committee on Graduate Studies, and may not be at the same level attained at the time the leave was granted. Programs with a high patient case component may require that the clinical portion of the program be repeated in its entirety. Finally, the committee also reserves the right to place a student on leave of absence where it has been determined that the circumstances warrant, even in the absence of a formal request.

Parental Leave

Graduate students are entitled to paid parental leave for the adoption or birth of a child. The primary caregiver is entitled to 6 weeks leave and the other parent or domestic partner is entitled to 3 weeks leave. When both parents are supported graduate students, the leave may be used consecutively or together. The leave must be used within 12 months of birth or adoption. Parental leave must be approved in advance in writing by the Program Director. It is permissible to add parental leave and sick leave together for the adoption or birth of a child. Additional time added to the residency may be needed to fulfill CODA requirements. Pregnancy-related leaves of longer duration or pursuant to different conditions may be obtained from the Office of Equity. Students can read about and request pregnancy leaves of absence here.

At the end of an approved leave, reentry into the program is reviewed by the program director in concert with the Committee on Graduate Studies, and may not be at the same level attained at the time the leave was granted. Programs with a high patient case component may require that the clinical portion of the program be partially repeated. Finally, the committee also reserves the right to place a student on leave of absence where it has been determined that the circumstances warrant, even in the absence of a formal request.

Maintenance of Good Standing

A minimum cumulative grade point average of 2.75 is required for good standing in a graduate program for all courses taken for graduate credit (excluding those graded Satisfactory/Unsatisfactory or Pass/No Pass).

The associate dean for graduate studies reviews student performance and may recommend a course of action to the Committee on Graduate Studies. The committee may require remedial work, place a student on academic review or probation, set conditions for continuation in the student's course of study or program, and may require withdrawal for failure to meet the academic standards set by the department or school.

A student who receives a grade deemed unsatisfactory in any course is placed on probation and must remove himself or herself from probation within a time period specified by the committee. It is expected that removal from probation will ordinarily require repetition of the course with an acceptable grade or the successful completion of work deemed equivalent by the student's advisorcommittee and the program director.

In this regard, a student may be separated from the University for any One of the following reasons:

- -Failure to correct probationary status within the specified time period.
- -Failure to achieve a minimum grade point average of 2.50 or above upon completion of 12 semester hours or a grade point average of 2.75 or higher upon completion of 21 semester hours of graduate study.
- -Failure to complete all requirements for the master's degree within five consecutive calendar years from the term of matriculation, unless granted an extension of a maximum of one year upon recommendation of the advisor and program director and approved by the associate dean for graduate studies.

In calculating the grade point average, all courses for which quality points are given are counted, including courses which may be required to be repeated. In addition, on the recommendation of the student's department, and with due process, the School of Dental Medicine may suspend or separate a student from the University for Failure to maintain appropriate standards of conduct and integrity in discharging their responsibilities. Academic failure, moral delinquency, gross misconduct, or failure to meet the specific conditions of probation or academic review is sufficient reason for requiring withdrawal from the school.

Graduate Student Rights and Responsibilities

It is the responsibility of the student to become familiar with the general rules and regulations of the University, not just those of the School of Graduate Studies. These are including but not limited to the University Policies and University Code of Conduct. A member of the University community who is accused of violating any of these rules and regulations is subject to University disciplinary action. Due process procedures of adequate notice of all charges and a fair hearing will apply. Case Western Reserve University has established a mechanism whereby students may express a grievance against the actions of other students or members of the faculty and staff. The Academic Integrity Policies and Procedures to be followed in the case of academic infractions by graduate students may be obtained through the School of Graduate Studies. The University Office of Student Affairs should be consulted for non-academic infractions.

It is also the responsibility of the student to become acquainted with the general regulations and administrative procedures governing graduate study, together with the departmental or school regulations which apply to the student's course of study, and, in consultation with the faculty advisor or advisory committee of the supervising unit, to plan the program and carry out the work in accordance with these regulations and procedures.

Policies & Procedures | School of Graduate Studies | Case Western Reserve University

Graduate Student Grievance Procedure

It is the responsibility of the School of Graduate Studies to ensure that all students enrolled for graduate credit at Case Western Reserve University have adequate access to faculty and administrative consideration of their grievances concerning academic issues. A three-step procedure has been established for graduate students to present complaints about academic actions they feel are unfair.

- 1. Students with complaints should first discuss their grievances with the person against whom the complaint is directed.
- 2. In those instances in which this discussion does not resolve a grievance to the student's satisfaction, a complaint should be presented in writing to the department chairperson. If the complaint is against the department chair and is not resolved with this individual, the complaint should be presented to the dean of the school/college.
- 3. In the event that a decision still appears unfair to the student, the student may bring the matter to the attention of the Associate Dean of Graduate Studies. The Associate Dean may ask the student to put the complaint in writing. They will then discuss the case with the student and the department chair to evaluate the particulars and to make a ruling on it. As the situation warrants, they may appoint a Grievance Committee to recommend what action should be taken. In this event, the Committee will be composed of two faculty members selected from the Committee on Graduate Studies of the Faculty Senate and two graduate students selected either from the Executive Committee of the Graduate Student Council, from the student members of the Committee on Graduate Studies, or from the Academic Integrity and Judicial Board members.

The Dean of Graduate Studies has the responsibility for the final decision, and the ruling from the School of Graduate Studies will be considered final and binding on the persons involved in the grievance.

It should be understood that this grievance procedure relates solely to graduate student complaints concerning academic issues. Other issues including student conduct, community standards or sexual misconduct are covered through different policies.

Distance Education Statement

Specialty programs may provide at times and with CODA approval, distance-based education on a temporary and as needed basis. Residents and faculty have ample opportunities and time during each lecture whether in person or via synchronous zoom, to engage in substantive interaction through Q&A and discussion, and Residents are encouraged to contact faculty during the synchronous or the in-person sessions, or by email out of scheduled class, during office hours. Frequent touch points during the courses (formative) allow residents to monitor their progress with faculty.

The identity of the student and attendance is monitored by different methods. Personal logins and passwords will be used to restrict access to course Canvas, and the program uses electronic platforms (Zoom ®, Canvas®) with web camera enabled attendance. Examinations use software (Exam Soft®), and student-specific randomly generated passwords that are forwarded electronically on the day of the exam by the course director to confirm the identity of the person taking the evaluations.

The verification processes described above are used are to protect student/resident/fellow privacy.

Graduation

The minimum requirements for the master's degree in the School of Dental Medicine are 36 semester hours of course work, including six or more semester hours of thesis/equivalent registration, and the submission of an accepted thesis. Individual departments may require additional semester hours of specific course work and/or thesis. No less than 24 semester hours may be at the 500 level or higher.

A candidate for a Master of Science in Dentistry degree must submit an application for the degree to the Office of Graduate Studies of the School of Dental Medicine no later than three months before the commencement at which the degree is expected.

The awarding of the degree is dependent upon the satisfactory completion of all requirements, and the recommendations of program director, Committee on Graduate Studies, and faculty of the School of Dental Medicine. The student must complete all requirements for both the master's degree and certificate in order to receive either.

Degrees will not be awarded to candidates with delinquent financial accounts that include, but are not limited to, tuition payments, fees, and library fines.

Delayed Graduation

A candidate who has successfully defended his or her thesis, but who fails to meet the deadline for thesis submission for graduation in one semester, will be permitted to receive his or her degree at the next scheduled graduation, without further registration or payment of tuition if the completed thesis is submitted within fourteen days of the date originally scheduled for graduation. If all requirements are not met within this grace period, the candidate must register for the subsequent semester.

Action Plan Form

Students who receive the grade of "I" will need to have the *Action Plan Form* completed and turned into the Office of Graduate Studies. The plan will outline what work must be done to fulfill the requirements of the course and the timeframe within which this will occur. Please note course grade changes *should be turned in within one semester after receiving the "I" grade.*

Current term	and year
	Date
	Course Title and Number
	Course Director
	Student Grade
Action Plan:	
Timeframe a	nd expected completion date
	Student Signature
	Faculty signature
	Associate Dean for Graduate Studies

How to Send Concerns about Case School of Dental Medicine's Compliance with ADA Commission on Dental Accreditation Standards

This is to notify you that you have the right to forward a complaint regarding our School's compliance with accreditation standards to the American Dental Association Commission on Dental Accreditation.

The Commission on Dental Accreditation will review complaints that relate to a program's compliance with the accreditation standards. The Commission is interested in the sustained quality and continued improvement of dental and dental-related education programs but does not intervene on behalf of individuals or act as a court of appeal for treatment received by patients or individuals in matters of admission, appointment, promotion or dismissal of faculty, staff or students.

A copy of the appropriate accreditation standards and/or the Commission's policy and procedure for submission of complaints may be obtained by contacting the Commission at 211 East Chicago Avenue, Chicago, IL 60611-2678 or by calling 1-800-621-8099 extension 4653.

https://www.ada.org/~/media/CODA/Files/coda complaints policy.pdf?la=en

Notice to Patients and Students

The Case Western Reserve University School of Dental Medicine is accredited by the Commission on Dental Accreditation. Third-party comments from students and patients are welcomed by the Commission and must be received no later than sixty (60) days prior to the next scheduled site visit. Comments must pertain only to the standards for the particular program or policies and procedures used in the Commission's accreditation process. A copy of the appropriate accreditation standards and/or the Commission's policy on third-party comments may be obtained by contacting the Commission at 211 East Chicago Avenue, Chicago, IL 60611, or by calling 1/800-621-8099, extension 4653.

Administration

Kenneth B. Chance, Sr., DDS Dean of the School of Dental Medicine

Dale A. Baur, DDS

Vice Dean; Professor and Chair of Oral and Maxillofacial Surgery

Andres Pinto, DMD, MPH, MSCE, MBA

Associate Dean of Graduate Studies; Professor and Chair of Oral and Maxillofacial Medicine and Diagnostic Sciences

Nabil F. Bissada, DDS, MSD, BDS

Associate Dean for Global Relations; Professor of Periodontics

Suchitra S. Nelson, PhD

Associate Dean, Clinical and Translational Research; Professor of Community Dentistry

Manish Valiathan, MSD, BDS

Associate Dean for Clinical Affairs; Associate Professor of Orthodontics

Kristin A. Williams, DDS, MPH

Associate Dean for Admissions and Student Affairs; Assistant Professor of Community

Dentistry; Director of Diversity, Equity and Inclusion

David D. Rolf II, DMD, MS

Associate Dean for Academic Affairs; Professor of Periodontics

Patricia Mehosky Ribeiro, BA, MBA, CRA

Associate Dean for Research Administration

John W. Smolik, MBA, CPA

Associate Dean of Finance, Operations and Information Technology

Carolyn Gordon

Associate Dean of Development and Alumni Relations

Alleged Violations of Standards of Conduct Committee on Graduate Studies

All advanced specialty education students, faculty and staff are expected to conduct themselves in a manner consistent with the rules and regulations of the School of Dental Medicine and Case Western Reserve University. Student conduct, which is subject to disciplinary action, is found in University Bulletin (Student Rights and Responsibilities) at

http://dental.case.edu/gradhandbook/2_casebull/SODM_generalbulletin.pdf and the in Student Guide (Codes of Conduct) at

http://dental.case.edu/gradhandbook/3 schoolpolicy/Student Code of Conduct.pdf. Alleged violations will be addressed in the following manner and in confidence:

Any complaint of alleged violation of the above can be made verbally or in writing to the Associate Dean of Graduate Studies. An attempt will be made to resolve the complaint by a meeting of the parties (complainant and alleged violator) with the Associate Dean of Graduate Studies. If unresolved, the following will apply.

The complainant must file a written statement of alleged misconduct with the Associate Dean of Graduate Studies. This statement should name the alleged violator, detail the violation, give the time, date and place, the circumstances, name witnesses, and provide any other pertinent facts, and be signed and dated by the complainant.

The Associate Dean will read the complaint to the members of the Committee on Graduate Studies and Research. The Committee will decide if the complainant is deserving of a hearing. If the complaint will not be heard, the Chair will inform the parties. If the complaint is to be heard, the Committee will form a Hearing Panel. The Panel shall consist of the Chairperson of the Committee, who acts as the Chair of the Panel (unless the alleged violator is a student enrolled in their department; then the Committee selects another member to serve as chair), two members of the Committee and two advanced specialty education students neither from the department where the alleged violator is enrolled for study. Once appointed to the Hearing Panel, the members must agree not to discuss the complaint with each other, or with other individuals including the complainant or alleged violator except at the time of the hearing or related meetings.

The Chair arranges a time and place for the hearing as quickly as possible allowing a reasonable time for the parties to prepare for the hearing. Once a hearing date is set, the principal parties, members, witnesses and other participants will be so informed. The alleged violator must be provided a copy of the complainant's letter. The Associate Dean or designee will be present at the hearing as a monitor, and will comment only as to policy or procedure.

A copy of the minutes and recommendations of the Hearing Panel will be forwarded to the Dean for disposition.

If the alleged violator is an advanced specialty education student, they should consult with the Director of Student Services. The Director will assist them in their preparation for the hearing. The Director of Student Services can act as a student advocate at the hearing if the student so chooses.

All formal hearings shall be conducted in a manner consistent with University policies on student judicial review.

APPLICATION FOR MASTER OF SCIENCE IN DENTISTRY

Applications are due in the Office of Graduate Studies three months before the expected date of graduation.

Date of application____ Return to: Expected date of graduation OFFICE OF GRADUATE STUDIES School of Dental Medicine Your name on your diploma is taken directly from the CWRU SIS database. The name as it appears on your transcript is the name that will appear on your diploma. If the name on your transcript is incorrect, please notify the Registrar as soon as possible so that the mistake can be fixed well in advance of printing your diploma. A middle initial may be used, but it will not be followed by a period (.). PRINT OR TYPE FULL NAME_____ Middle Last Present address Phone number Study in the Department of RESEARCH PAPER TITLE. ACTUAL OR CONFIRMED DATE OF THESIS DEFENSE____ THESIS COMMITTEE MEMBERS Please list below the degrees which you now hold. Degree Institution Year Awarded FORWARDING ADDRESS (after graduation) Alternate EMAIL: PHONE: It is the graduate student's responsibility to secure the signature of the thesis advisor and department chairperson who indicate that all degree requirements will (in all reasonable probability) be met in time for the commencement indicated. Thesis Advisor's signature_____ Program Director's signature_____

ADVANCED SPECIALTY EDUCATION STUDENT CHECK-OUT LIST ID#____ Department ALL ITEMS MUST HAVE SIGNATURE PRIOR TO RETURNING TO THE OFFICE **OF GRADUATE STUDIES CLINIC INSTRUMENTS AND CLINIC RECORDS:** All instruments and equipment owned by school returned (Clinic Assistant or Program Director) _All items_returned to dispensary including white clinic coats (Dispensary Technician) All records returned (Program Director) _Patient accounts in proper order (Cashier's Office) Personal accounts in proper order (Cashier's Office) LOCKERS, STUDENT ID, PARKING: Parking pass (if applicable) turned in to Access Services, located in Crawford Hall Locker cleaned out (Department Assistant) Receipt from Access Services that you've returned your University ID (Finance Manager) **DEPARTMENT:** Electronic copy of final formatted thesis received (Department Assistant) FORWARDING ADDRESS: (Department Assistant)

Address_

City, State, Zip

Telephone number: Email:

	IRB properly continued/terminated
	(Program Director)
REGISTRAR:	
	All financial obligations to University fulfilled (Dental Registrar)
	Financial Aid exit interview (Dental Registrar)
	All required signatures received on Check-Out List (Department Coordinator)
	All required signatures received on Check-Out List (Department Coordinator)
	Electronic copy of final formatted thesis received
	(Department Coordinator)
OFFICE OF ALUMNI:	
FORWARDING ADDRESS:	
	(Alumni Relations Director)
Address	
City, State, Zip	

Telephone number: Email:

RESEARCH COMPLIANCE (IRB):

TERMINATION / RENEWAL OF IRB:

As students leave or graduate, the Case Western Reserve University Social/ Behavioral IRB would like to remind faculty, instructors and staff who are serving as responsible investigators or co-investigators on Case IRB protocols that the protocols <u>must be properly terminated or renewed via a continuing review form</u> before students leave or graduate.

Please note, if a responsible investigator is leaving Case and/or if a student is graduating or transferring to another school and the protocol represents the student's work, the protocol must be properly terminated.

Be sure to follow these steps to ensure that the protocols are properly terminated:

Download the <u>most current</u> version of the Continuing Review form from our website (http://ora.ra.cwru.edu/research/orc/Case%20IRB%20System/orc_human_subjects CWRU IRB.cfm)

Fully complete and sign the Continuing Review form, marking "Completed or Discontinued" (Please be sure to answer every question or expect a delay in IRB review)

Include a summary of research findings and a summary of addenda, if applicable

Follow the approved protocol's procedure for destroying identifiers

Ensure that you have a copy of (or access to) the research data and the student's new contact information

Ensure that you have a copy of the continuing review form and any attached documents, if applicable, for your records

Acquire the student co-investigator's original signature <u>before they leave</u>! If there is a problem, contact the Case IRB office immediately!

Remember that the IRB holds the responsible investigator accountable for ensuring that these steps are followed. It is much easier to acquire this information before the student leaves!

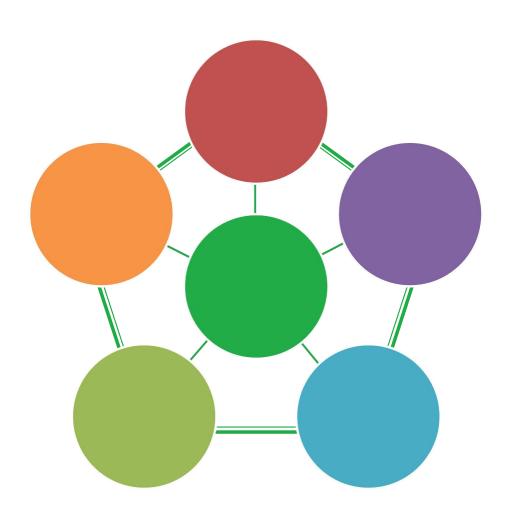
Also remember that failure to submit a continuing review form by the continuing review deadline (on the Notice of Approval) will result in placing the protocol and the responsible investigator on **administrative hold**, which means that research for the protocol in question has to stop completely. If we do not receive the protocol within 30 days of an administrative hold determination, the protocol would be **administratively terminated.**

An **administrative termination** means all of the RI's research must cease and IRB privileges are revoked until the protocol in question has been <u>formally terminated</u>. If a responsible investigator would like to continue conducting research on an administratively terminated protocol, the responsible investigator must submit a <u>fully completed and originally signed new protocol application</u>.

Keep in mind that *de-identified* data can be retained indefinitely. However, if a coded or master list still exists, the data is **NOT** de-identified and, therefore, an IRB protocol needs to be open in order to work with these data.

Council on Ethics, Bylaws and Judicial Affairs

Principles of Ethics



CONTENTS

I. INTRODUCTION

II. PREAMBLE

III. PRINCIPLES, CODE OF PROFESSIONAL CONDUCT AND ADVISORY OPINIONS

The Code of Professional Conduct is organized into five sections. Each section falls under the Principle of Ethics that predominately applies to it. Advisory Opinions follow the section of the Code that they interpret.

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SECTION I– PRINCIPLE: PATIENT AUTONOMY ("self-governance")	
Code of Professional Conduct	
1.A. Patient Involvement	
1.B. Patient Records	
Advisory Opinions	
1.B.1. Furnishing Copies of Records	4
1.B.2. Confidentiality of Patient Records	4
SECTION 2 – PRINCIPLE: NONMALEFICENCE ("do no harm")	5
Code of Professional Conduct	_
2.A. Education	5
2.B. Consultation and Referral	5
Advisory Opinion	
2.B.1. Second Opinions	5
2.C. Use of Auxiliary Personnel	6
2.D. Personal Impairment	6
Advisory Opinion	
2.D.1. Ability To Practice	6
2.E. Postexposure, Bloodborne Pathogens	6
2.F. Patient Abandonment	6
2.G. Personal Relationships with Patients	6
SECTION 3 - PRINCIPLE: BENEFICENCE ("do good")	7
Code of Professional Conduct	
3.A. Community Service	7
Advisory Opinion	
3.A.1. Elective and Non-Emergent Procedures During	
a Public Health Emergency	7
3.B. Government of a Profession	7
3.C. Research and Development	8
3.D. Patents and Copyrights	8
3.E. Abuse and Neglect	8
Advisory Opinion	
3.E.1. Reporting Abuse and Neglect	8
3.F. Professional Demeanor In The Workplace	8
Advisory Opinion	
3.F.1. Disruptive Behavior In The Workplace	8
SECTION 4 – PRINCIPLE: JUSTICE ("fairness")	9
Code of Professional Conduct	
4.A. Patient Selection	9
Advisory Opinion	
4.A.1. Patients with Disabilities or Bloodborne Pathogens	9
4.B. Emergency Service	9
4.C. Justifiable Criticism	9
Advisory Opinion	
4.C.1. Meaning of "Justifiable"	10

4.D. Expert Testimony	10
Advisory Opinion	
4.D.1. Contingent Fees	10
4.E. Rebates and Split Fees	10
Advisory Opinion	
4.E.1. Split Fees in Advertising and Marketing Services	10
SECTION 5 - PRINCIPLE: VERACITY ("truthfulness")	H
Code of Professional Conduct	••
5.A. Representation of Care	11
Advisory Opinions	11
5.A.1. Dental Amalgam and Other Restorative Materials	11
5.A.2. Unsubstantiated Representations	11
5.B. Representation of Fees	11
Advisory Opinions	11
5.B.1. Waiver of Copayment	11
5.B.2. Overbilling	11
5.B.3. Fee Differential	11
5.B.4. Treatment Dates	12
5.B.5. Dental Procedures	12
5.B.6. Unnecessary Services	12
5.C. Disclosure of Conflict of Interest	12
5.D. Devices and Therapeutic Methods	12
Advisory Opinions	
5.D.1. Reporting Adverse Reactions	12
5.D.2. Marketing or Sale of Products or Procedures	12
5.E. Professional Announcement	13
5.F. Advertising	13
Advisory Opinions	
5.F.1. Published Communications	13
5.F.2. Examples of "False or Misleading"	13
5.F.3. Unearned, Nonhealth Degrees	14
5.F.4. Referral Services	14
5.F.5. Infectious Disease Test Results	14
5.F.6. Websites and Search Engine Optimization	15
5.G. Name of Practice	15
Advisory Opinion	
5.G.1. Dentist Leaving Practice	15
5.H. Announcement of Specialization and Limitation of Practice	15
Advisory Opinions	
5.H.1. Dual Degreed Dentists	16
5.H.2. Specialist Announcement of Credentials In Non-Specialty Interest Areas	16
5.I. General Practitioner Announcement of Services	17
Advisory Opinions	
5.I.1. General Practitioner Announcement of Credentials	
In Interest Areas In General Dentistry	17
5.I.2. Credentials In General Dentistry	17
NOTES	17
IV. INTERPRETATION AND APPLICATION	18
V. INDEX	19

I. INTRODUCTION

The dental profession holds a special position of trust within society. As a consequence, society affords the profession certain privileges that are not available to members of the public-at-large. In return, the profession makes a commitment to society that its members will adhere to high ethical standards of conduct. These standards are embodied in the ADA Principles of Ethics and Code of Professional Conduct (ADA Code). The ADA Code is, in effect, a written expression of the obligations arising from the implied contract between the dental profession and society.

Members of the ADA voluntarily agree to abide by the *ADA Code* as a condition of membership in the Association. They recognize that continued public trust in the dental profession is based on the commitment of individual dentists to high ethical standards of conduct.

The ADA Code has three main components: The Principles of Ethics, the Code of Professional Conduct and the Advisory Opinions.

The **Principles of Ethics** are the aspirational goals of the profession. They provide guidance and offer justification for the *Code of Professional Conduct* and the *Advisory Opinions*. There are five fundamental principles that form the foundation of the *ADA Code:* patient autonomy, non-maleficence, beneficence, justice and veracity. Principles can overlap each other as well as compete with each other for priority.

More than one principle can justify a given element of the *Code of Professional Conduct*. Principles may at times need to be balanced against each other, but, otherwise, they are the profession's firm guideposts.

The **Code of Professional Conduct** is an expression of specific types of conduct that are either required or prohibited. The *Code of Professional Conduct* is a product of the ADA's legislative system. All elements of the *Code of Professional Conduct* result from resolutions that are adopted by the ADA's House of Delegates. The *Code of Professional Conduct* is binding on members of the ADA, and violations may result in disciplinary action.

The **Advisory Opinions** are interpretations that apply the *Code of Professional Conduct* to specific fact situations. They are adopted by the ADA's Council on Ethics, Bylaws and Judicial Affairs to provide guidance to the membership on how the Council might interpret the *Code of Professional Conduct* in a disciplinary proceeding.

The ADA Code is an evolving document and by its very nature cannot be a complete articulation of all ethical obligations. The ADA Code is the result of an on-going dialogue between the dental profession and society, and as such, is subject to continuous review.

Although ethics and the law are closely related, they are not the same. Ethical obligations may—and often do—exceed legal duties. In resolving any ethical problem not explicitly covered by the *ADA Code*, dentists should consider the ethical principles, the patient's needs and interests, and any applicable laws.

II. PREAMBLE

The American Dental Association calls upon dentists to follow high ethical standards which have the benefit of the patient as their primary goal. In recognition of this goal, the education and training of a dentist has resulted in society affording to the profession the privilege and obligation of self-government. To fulfill this privilege, these high ethical standards should be adopted and practiced throughout the dental school educational process and subsequent professional career.

The Association believes that dentists should possess not only knowledge, skill and technical competence but also those traits of character that foster adherence to ethical principles. Qualities of honesty, compassion, kindness, integrity, fairness and charity are part of the ethical education of a dentist and practice of dentistry and help to define the true professional. As such, each dentist should share in providing advocacy to and care of the underserved. It is urged that the dentist meet this goal, subject to individual circumstances.

The ethical dentist strives to do that which is right and good. The ADA Code is an instrument to help the dentist in this quest.

III. PRINCIPLES, CODE OF PROFESSIONAL CONDUCT AND ADVISORY OPINIONS

Section I PRINCIPLE: PATIENT AUTONOMY ("self-governance"). The dentist has a duty to respect the patient's rights to self-determination and confidentiality.

This principle expresses the concept that professionals have a duty to treat the patient according to the patient's desires, within the bounds of accepted treatment, and to protect the patient's confidentiality. Under this principle, the dentist's primary obligations include involving patients in treatment decisions in a meaningful way, with due consideration being given to the patient's needs, desires and abilities, and safeguarding the patient's privacy.

CODE OF PROFESSIONAL CONDUCT

1.A. PATIENT INVOLVEMENT.

The dentist should inform the patient of the proposed treatment, and any reasonable alternatives, in a manner that allows the patient to become involved in treatment decisions.

1.B. PATIENT RECORDS.

Dentists are obliged to safeguard the confidentiality of patient records. Dentists shall maintain patient records in a manner consistent with the protection of the welfare of the patient. Upon request of a patient or another dental practitioner, dentists shall provide any information in accordance with applicable law that will be beneficial for the future treatment of that patient.

ADVISORY OPINIONS

1.B.1. FURNISHING COPIES OF RECORDS.

A dentist has the ethical obligation on request of either the patient or the patient's new dentist to furnish in accordance with applicable law, either gratuitously or for nominal cost, such dental records or copies or summaries of them, including dental X-rays or copies of them, as will be beneficial for the future treatment of that patient. This obligation exists whether or not the patient's account is paid in full.

1.B.2. CONFIDENTIALITY OF PATIENT RECORDS.

The dominant theme in Code Section I.B is the protection of the confidentiality of a patient's records. The statement in this section that relevant information in the records should be released to another dental practitioner assumes that the dentist requesting the information is the patient's present dentist. There may be circumstances where the former dentist has an ethical obligation to inform the present dentist of certain facts. Code Section 1.B assumes that the

dentist releasing relevant information is acting in accordance with applicable law. Dentists should be aware that the laws of the various jurisdictions in the United States are not uniform and some confidentiality laws appear to prohibit the transfer of pertinent information, such as HIV seropositivity. Absent certain knowledge that the laws of the dentist's jurisdiction permit the forwarding of this information, a dentist should obtain the patient's written permission before forwarding health records which contain information of a sensitive nature, such as HIV seropositivity, chemical dependency or sexual preference. If it is necessary for a treating dentist to consult with another dentist or physician with respect

to the patient, and the circumstances do not permit the patient to remain anonymous, the treating dentist should seek the permission of the patient prior to the release of data from the patient's records to the consulting practitioner. If the patient refuses, the treating dentist should then contemplate obtaining legal advice regarding the termination of the dentist-patient relationship.

Section 2 PRINCIPLE: NONMALEFICENCE ("do no harm"). The dentist has a

duty to refrain from harming the patient.

This principle expresses the concept that professionals have a duty to protect the patient from harm. Under this principle, the dentist's primary obligations include keeping knowledge and skills current, knowing one's own limitations and when to refer to a specialist or other professional, and knowing when and under what circumstances delegation of patient care to auxiliaries is appropriate.

CODE OF PROFESSIONAL CONDUCT

2.A. EDUCATION.

The privilege of dentists to be accorded professional status rests primarily in the knowledge, skill and experience with which they serve their patients and society. All dentists, therefore, have the obligation of keeping their knowledge and skill current.

2.B. CONSULTATION AND REFERRAL.

Dentists shall be obliged to seek consultation, if possible, whenever the welfare of patients will be safeguarded or advanced by utilizing those who have special skills, knowledge, and experience. When patients visit or are referred to specialists or consulting dentists for consultation:

- 1. The specialists or consulting dentists upon completion of their care shall return the patient, unless the patient expressly reveals a different preference, to the referring dentist, or, if none, to the dentist of record for future care.
- 2. The specialists shall be obliged when there is no referring dentist and upon a completion of their treatment to inform patients when there is a need for further dental care.

ADVISORY OPINION

2.B.1. SECOND OPINIONS.

A dentist who has a patient referred by a third party¹ for a "second opinion" regarding a diagnosis or treatment plan recommended by the patient's treating dentist should render the requested second opinion in accordance with this *Code of Ethics*. In the interest of the patient being afforded quality care, the dentist rendering the second opinion should not have a vested interest in the ensuing recommendation.

2.C. USE OF AUXILIARY PERSONNEL.

Dentists shall be obliged to protect the health of their patients by only assigning to qualified auxiliaries those duties which can be legally delegated. Dentists shall be further obliged to prescribe and supervise the patient care provided by all auxiliary personnel working under their direction.

2.D. PERSONAL IMPAIRMENT.

It is unethical for a dentist to practice while abusing controlled substances, alcohol or other chemical agents which impair the ability to practice. All dentists have an ethical obligation to urge chemically impaired colleagues to seek treatment. Dentists with first-hand knowledge that a colleague is practicing dentistry when so impaired have an ethical responsibility to report such evidence to the professional assistance committee of a dental society.

ADVISORY OPINION

2.D.1. ABILITY TO PRACTICE.

A dentist who contracts any disease or becomes impaired in any way that might endanger patients or dental staff shall, with consultation and advice from a qualified physician or other authority, limit the activities of practice to those areas that do not endanger patients or dental staff. A dentist who has been advised to limit the activities of his or her practice should monitor the aforementioned disease or impairment and make additional limitations to the activities of the dentist's practice, as indicated.

2.E. POSTEXPOSURE, BLOODBORNE PATHOGENS.

All dentists, regardless of their bloodborne pathogen status, have an ethical obligation to immediately inform any patient who may have been exposed to blood or other potentially infectious material in the dental office of the need for postexposure evaluation and follow-up and to immediately refer the patient to a qualified health care practitioner who can provide postexposure services.

The dentist's ethical obligation in the event of an exposure incident extends to providing information concerning the dentist's own bloodborne pathogen status to the evaluating health care practitioner, if the dentist is the source individual, and to submitting to testing that will assist in the evaluation of the patient. If a staff member or other third person is the source individual, the dentist should encourage that person to cooperate as needed for the patient's evaluation.

2.F. PATIENT ABANDONMENT.

Once a dentist has undertaken a course of treatment, the dentist should not discontinue that treatment without giving the patient adequate notice and the opportunity to obtain the services of another dentist. Care should be taken that the patient's oral health is not jeopardized in the process.

2.G. PERSONAL RELATIONSHIPS WITH PATIENTS.

Dentists should avoid interpersonal relationships that could impair their professional judgment or risk the possibility of exploiting the confidence placed in them by a patient.

Section 3 PRINCIPLE: BENEFICENCE ("do good"). The dentist has a duty to promote the patient's welfare.

This principle expresses the concept that professionals have a duty to act for the benefit of others. Under this principle, the dentist's primary obligation is service to the patient and the public-at-large. The most important aspect of this obligation is the competent and timely delivery of dental care within the bounds of clinical circumstances presented by the patient, with due consideration being given to the needs, desires and values of the patient. The same ethical considerations apply

whether the dentist engages in fee-for-service, managed care or some other practice arrangement. Dentists may choose to enter into contracts governing the provision

of care to a group of patients; however, contract obligations do not excuse dentists from their ethical duty to put the patient's welfare first.

CODE OF PROFESSIONAL CONDUCT

3.A. COMMUNITY SERVICE.

Since dentists have an obligation to use their skills, knowledge and experience for the improvement of the dental health of the public and are encouraged to be leaders in their community, dentists in such service shall conduct themselves in such a manner as to maintain or elevate the esteem of the profession.

ADVISORY OPINION

3.A.1. ELECTIVE AND NON-EMERGENT PROCEDURES DURING A PUBLIC HEALTH EMERGENCY.

Dentists have ethical obligations to provide care for patients and also serve the public at large. Typically, these obligations are interrelated. Dentists are able to provide oral health care for patients according to the patient's desires and wishes, so long as the treatment is within the scope of what is deemed acceptable care without causing the patient harm or impacting the public. During public health crises or emergencies, however, the dentist's ethical obligation to the public may supersede the dentist's ethical obligations to individual patients. This may occur, for example, when a communicable disease causes individual patients who undergo treatment and/or the public to be exposed to elevated health risks. During the time of a public health emergency, therefore, dentists should balance the competing ethical obligations to individual patients and the public. If, for example, a patient requests an elective or non-emergent procedure during a public health crisis, the dentist should weigh the risk to the patient and the public from performing that procedure during the public health emergency, postponing such treatment if, in the dentist's judgment, the risk of harm to the patient and/ or the public is elevated and cannot be suitably mitigated. If, however, the patient presents with an urgent or emergent condition necessitating treatment to prevent or eliminate infection or to preserve the structure and function of teeth or orofacial hard and soft tissues, the weighing of the dentist's competing ethical obligations may result in moving forward with the treatment of the patient.

3.B. GOVERNMENT OF A PROFESSION.

Every profession owes society the responsibility to regulate itself. Such regulation is achieved largely through the influence of the professional societies. All dentists, therefore, have the dual obligation of making themselves a part of a professional society and of observing its rules of ethics.

3.C. RESEARCH AND DEVELOPMENT.

Dentists have the obligation of making the results and benefits of their investigative efforts available to all when they are useful in safeguarding or promoting the health of the public.

3.D. PATENTS AND COPYRIGHTS.

Patents and copyrights may be secured by dentists provided that such patents and copyrights shall not be used to restrict research or practice.

3.E. ABUSE AND NEGLECT.

Dentists shall be obliged to become familiar with the signs of abuse and neglect and to report suspected cases to the proper authorities, consistent with state laws.

ADVISORY OPINION

3.E.1. REPORTING ABUSE AND NEGLECT.

The public and the profession are best served by dentists who are familiar with identifying the signs of abuse and neglect and knowledgeable about the appropriate intervention resources for all populations.

A dentist's ethical obligation to identify and report the signs of abuse and neglect is, at a minimum, to be consistent with a dentist's legal obligation in the jurisdiction where the dentist practices. Dentists, therefore, are ethically obliged to identify and report suspected cases of abuse and neglect to the same extent as they are legally obliged to do so in the jurisdiction

where they practice. Dentists have a concurrent ethical obligation to respect an adult patient's right to self-determination and confidentiality and to promote the welfare of all patients. Care should be exercised to respect the wishes of an adult patient who asks that a suspected case of abuse and/or neglect not be reported, where such a report is not mandated by law. With the patient's permission, other possible solutions may be sought.

Dentists should be aware that jurisdictional laws vary in their definitions of abuse and neglect, in their reporting requirements and the extent to which immunity is granted to good faith reporters. The variances may raise potential legal and other risks that should be considered, while keeping in mind the duty to put the welfare of the patient first. Therefore a dentist's ethical obligation to identify and report suspected cases of abuse and neglect can vary from one jurisdiction to another.

Dentists are ethically obligated to keep current their knowledge of both identifying abuse and neglect and reporting it in the jurisdiction(s) where they practice.

3.F. PROFESSIONAL DEMEANOR IN THE WORKPLACE.

Dentists have the obligation to provide a workplace environment that supports respectful and collaborative relationships for all those involved in oral health care.

ADVISORY OPINION

3.F.1. DISRUPTIVE BEHAVIOR IN THE WORKPLACE.

Dentists are the leaders of the oral healthcare team. As such, their behavior in the workplace is instrumental in establishing and maintaining a practice environment that supports the mutual respect, good communication, and high levels of collaboration among team members required to optimize the quality of patient care provided. Dentists who engage in disruptive behavior in the workplace risk

undermining professional relationships among team members, decreasing the quality of patient care provided, and undermining the public's trust and confidence in the profession.

Section 4 PRINCIPLE: JUSTICE ("fairness"). The dentist has a duty to treat people fairly.

This principle expresses the concept that professionals have a duty to be fair in their dealings with patients, colleagues and society. Under this principle, the dentist's primary obligations include dealing with people justly and delivering dental care without prejudice. In its broadest sense, this principle expresses the concept that the dental profession should actively seek allies throughout society on specific activities that will help improve access to care for all.

CODE OF PROFESSIONAL CONDUCT

4.A. PATIENT SELECTION.

While dentists, in serving the public, may exercise reasonable discretion in selecting patients for their practices, dentists shall not refuse to accept patients into their practice or deny dental service to patients because of the patient's race, creed, color, gender, sexual orientation, gender identity, national origin or disability.

ADVISORY OPINION

4.A.1. PATIENTS WITH DISABILITIES OR BLOODBORNE PATHOGENS.

As is the case with all patients, when considering the treatment of patients with a physical, intellectual or developmental disability or disabilities, including patients infected with Human Immunodeficiency Virus, Hepatitis B Virus, Hepatitis C Virus or another bloodborne pathogen, or are otherwise medically compromised, the individual dentist should determine if he or she has the need of another's skills, knowledge, equipment or expertise, and if so, consultation or referral pursuant to Section 2.B hereof is indicated. Decisions regarding the type of dental treatment provided, or referrals made or suggested, should be made on the same basis as they are made with other patients. The dentist should also determine, after consultation with the patient's physician, if appropriate, if the patient's health status would be significantly compromised by the provision of dental treatment.

4.B. EMERGENCY SERVICE.

Dentists shall be obliged to make reasonable arrangements for the emergency care of their patients of record. Dentists shall be obliged when consulted in an emergency by patients not of record to make reasonable arrangements for emergency care.

If treatment is provided, the dentist, upon completion of treatment, is obliged to return the patient to his or her regular dentist unless the patient expressly reveals a different preference.

4.C. JUSTIFIABLE CRITICISM.

Dentists shall be obliged to report to the appropriate reviewing agency as determined by the local component or constituent society instances of gross or continual faulty treatment by other dentists. Patients should be informed of their present oral health status without disparaging comment about prior services.

Dentists issuing a public statement with respect to the profession shall have a reasonable basis to believe that the comments made are true.

ADVISORY OPINION

4.C.1. MEANING OF "JUSTIFIABLE."

Patients are dependent on the expertise of dentists to know their oral health status. Therefore, when informing a patient of the status of his or her oral health, the dentist should exercise care that the comments made are truthful, informed and justifiable. This should, if possible, involve consultation with the previous treating dentist(s), in accordance with applicable law, to determine under what circumstances and conditions the treatment was performed. A difference of opinion as to preferred treatment should not be communicated to the patient in a manner which would unjustly imply mistreatment. There will necessarily be cases where it will be difficult to determine whether the comments made are justifiable. Therefore, this section is phrased to address the discretion of dentists and advises against unknowing or unjustifiable disparaging statements against another dentist. However, it should be noted that, where comments are made which are not supportable and therefore unjustified, such comments can be the basis for the institution of a disciplinary proceeding against the dentist making such statements.

4.D. EXPERT TESTIMONY.

Dentists may provide expert testimony when that testimony is essential to a just and fair disposition of a judicial or administrative action.

ADVISORY OPINION

4.D.1. CONTINGENT FEES.

It is unethical for a dentist to agree to a fee contingent upon the favorable outcome of the litigation in exchange for testifying as a dental expert.

4.E. REBATES AND SPLIT FEES.

Dentists shall not accept or tender "rebates" or "split fees."

ADVISORY OPINION

4.E.1. SPLIT FEES IN ADVERTISING AND MARKETING SERVICES.

The prohibition against a dentist's accepting or tendering rebates or split fees applies to business dealings between dentists and any third party, not just other dentists. Thus, a dentist who pays for advertising or marketing services by sharing a specified portion of the professional fees collected from prospective or actual patients with the vendor providing the advertising or marketing services is engaged in fee splitting. The prohibition against fee splitting is also applicable to the marketing of dental treatments or procedures via "social coupons" if the business arrangement between the dentist and the concern providing the marketing services for that treatment or those procedures allows the issuing company to collect the fee from the prospective patient, retain a defined percentage or portion of the revenue collected as payment for the coupon marketing service provided to the dentist and remit to the dentist the remainder of the amount collected.

Dentists should also be aware that the laws or regulations in their jurisdictions may contain provisions that impact the division of revenue collected from prospective patients between a dentist and a third party to pay for advertising or marketing services.

Section 5 PRINCIPLE: VERACITY ("truthfulness"). The dentist has a duty to communicate truthfully.

This principle expresses the concept that professionals have a duty to be honest and trustworthy in their dealings with people. Under this principle, the dentist's primary obligations include respecting the position of trust inherent in the dentist-patient relationship, communicating truthfully and without deception, and maintaining intellectual integrity.

CODE OF PROFESSIONAL CONDUCT

5.A. REPRESENTATION OF CARE.

Dentists shall not represent the care being rendered to their patients in a false or misleading manner.

ADVISORY OPINIONS

5.A.1. DENTAL AMALGAM AND OTHER RESTORATIVE MATERIALS. Based on current scientific data, the ADA has determined that the removal of amalgam restorations from the non-allergic patient for the alleged purpose of removing toxic substances from the body, when such treatment is performed solely at the recommendation of the dentist, is improper and unethical. The same principle of veracity applies to the dentist's recommendation concerning the removal of any dental restorative material.

5.A.2. UNSUBSTANTIATED REPRESENTATIONS.

A dentist who represents that dental treatment or diagnostic techniques recommended or performed by the dentist has the capacity to diagnose, cure or alleviate diseases, infections or other conditions, when such representations are not based upon accepted scientific knowledge or research, is acting unethically.

5.B. REPRESENTATION OF FEES.

Dentists shall not represent the fees being charged for providing care in a false or misleading manner.

ADVISORY OPINIONS

5.B.1.WAIVER OF COPAYMENT.

A dentist who accepts a third party¹ payment under a copayment plan as payment in full without disclosing to the third party¹ that the patient's payment portion will not be collected, is engaged in overbilling. The essence of this ethical impropriety is deception and misrepresentation; an overbilling dentist makes it appear to the third party¹ that the charge to the patient for services rendered is higher than it actually is.

5.B.2. OVERBILLING.

It is unethical for a dentist to increase a fee to a patient solely because the patient is covered under a dental benefits plan.

5.B.3. FEE DIFFERENTIAL.

The fee for a patient without dental benefits shall be considered a dentist's full fee. This is the fee that should be represented to all benefit carriers regardless of any negotiated fee discount. Payments accepted by a dentist under a governmentally funded program, a component or constituent dental society- sponsored access program, or a participating agreement entered into under

a program with a third party shall not be considered or construed as evidence of overbilling in determining whether a charge to a patient, or to another third party¹ in behalf of a patient not covered under any of the aforecited programs constitutes overbilling under this section of the *Code*.

5.B.4. TREATMENT DATES.

A dentist who submits a claim form to a third party¹ reporting incorrect treatment dates for the purpose of assisting a patient in obtaining benefits under a dental plan, which benefits would otherwise be disallowed, is engaged in making an unethical, false or misleading representation to such third party.¹

5.B.5. DENTAL PROCEDURES.

A dentist who incorrectly describes on a third party¹ claim form a dental procedure in order to receive a greater payment or reimbursement or incorrectly makes a non-covered procedure appear to be a covered procedure on such a claim form is engaged in making an unethical, false or misleading representation to such third party.¹

5.B.6. UNNECESSARY SERVICES.

A dentist who recommends or performs unnecessary dental services or procedures is engaged in unethical conduct. The dentist's ethical obligation in this matter applies regardless of the type of practice arrangement or contractual obligations in which he or she provides patient care.

5.C.1. DISCLOSURE OF CONFLICT OF INTEREST.

A dentist who presents educational or scientific information in an article, seminar or other program shall disclose to the readers or participants any monetary or other special interest the dentist may have with a company whose products are promoted or endorsed in the presentation. Disclosure shall be made in any promotional material and in the presentation itself.

5.C.2. DEVICES AND THERAPEUTIC METHODS.

Except for formal investigative studies, dentists shall be obliged to prescribe, dispense, or promote only those devices, drugs and other agents whose complete formulae are available to the dental profession. Dentists shall have the further obligation of not holding out as exclusive any device, agent, method or technique if that representation would be false or misleading in any material respect.

ADVISORY OPINIONS

5.C.3. REPORTING ADVERSE REACTIONS.

A dentist who suspects the occurrence of an adverse reaction to a drug or dental device has an obligation to communicate that information to the broader medical and dental community, including, in the case of a serious adverse event, the Food and Drug Administration (FDA).

5.C.4. MARKETING OR SALE OF PRODUCTS OR PROCEDURES.

Dentists who, in the regular conduct of their practices, engage in or employ auxiliaries in the marketing or sale of products or procedures to their patients must take care not to exploit the trust inherent in the dentist-patient relationship for their own financial gain. Dentists should not induce their patients to purchase products or undergo procedures by misrepresenting the product's value, the necessity of the procedure or the dentist's professional expertise in recommending the product or procedure.

In the case of a health-related product, it is not enough for the dentist to rely on the manufacturer's or distributor's representations about the product's safety and efficacy. The dentist has an independent obligation to inquire into the truth and accuracy of such claims and verify that they are founded on accepted scientific knowledge or research.

Dentists should disclose to their patients all relevant information the patient needs to make an informed purchase decision, including whether the product is available elsewhere and whether there are any financial incentives for the dentist to recommend the product that would not be evident to the patient.

5.D. PROFESSIONAL ANNOUNCEMENT.

In order to properly serve the public, dentists should represent themselves in a manner that contributes to the esteem of the profession. Dentists should not misrepresent their training and competence in any way that would be false or misleading in any material respect.³

5 F ADVERTISING

Although any dentist may advertise, no dentist shall advertise or solicit patients in any form of communication in a manner that is false or misleading in any material respect.³

ADVISORY OPINIONS

5.E.1. PUBLISHED COMMUNICATIONS.

If a dental health article, message or newsletter is published in print or electronic media under a dentist's byline to the public without making truthful disclosure of the source and authorship or is designed to give rise to questionable expectations for the purpose of inducing the public to utilize the services of the sponsoring dentist, the dentist is engaged in making a false or misleading representation to the public in a material respect.³

5.E.2. EXAMPLES OF "FALSE OR MISLEADING."

The following examples are set forth to provide insight into the meaning of the term "false or misleading in a material respect." These examples are not meant to be all-inclusive. Rather, by restating the concept in alternative language and giving general examples, it is hoped that the membership will gain a better understanding of the term. With this in mind, statements shall be avoided which would:

a) contain a material misrepresentation of fact, b) omit a fact necessary to make the statement considered as a whole not materially misleading, c) be intended

or be likely to create an unjustified expectation about results the dentist can achieve, and d) contain a material, objective representation, whether express or implied, that the advertised services are superior in quality to those of other dentists, if that representation is not subject to reasonable substantiation.

Subjective statements about the quality of dental services can also raise ethical concerns. In particular, statements of opinion may be misleading if they are not honestly held, if they misrepresent the qualifications of the holder, or the basis of the opinion, or if the patient reasonably interprets them as implied statements of fact. Such statements will be evaluated on a case by case basis, considering how patients are likely to respond to the impression made by the advertisement as a whole. The fundamental issue is whether the advertisement, taken as a whole, is false or misleading in a material respect.³

5.E.3. UNEARNED, NONHEALTH DEGREES.

A dentist may use the title Doctor or Dentist, D.D.S., D.M.D. or any additional earned, advanced academic degrees in health service areas in an announcement to the public. The announcement of an unearned academic degree may be misleading because of the likelihood that it will indicate to the public the attainment of specialty or diplomate status.

For purposes of this advisory opinion, an unearned academic degree is one which is awarded by an educational institution not accredited by a generally recognized accrediting body or is an honorary degree.

The use of a nonhealth degree in an announcement to the public may be a representation which is misleading because the public is likely to assume that any degree announced is related to the qualifications of the dentist as a practitioner.

Some organizations grant dentists fellowship status as a token of membership in the organization or some other form of voluntary association. The use of such fellowships in advertising to the general public may be misleading because of the likelihood that it will indicate to the public attainment of education or skill in the field of dentistry.

Generally, unearned or nonhealth degrees and fellowships that designate association, rather than attainment, should be limited to scientific papers and curriculum vitae. In all instances, state law should be consulted. In any review by the council of the use of designations in advertising to the public, the council will apply the standard of whether the use of such is false or misleading in a material respect.³
5.E.4. REFERRAL SERVICES.

There are two basic types of referral services for dental care: not-for-profit and the commercial. The not-for-profit is commonly organized by dental societies or community services. It is open to all qualified practitioners in the area served. A fee is sometimes charged the practitioner to be listed with the service. A fee for such referral services is for the purpose of covering the expenses of the service and has no relation to the number of patients referred. In contrast, some commercial referral services restrict access to the referral service to a limited number of dentists in a particular geographic area. Prospective patients calling the service may be referred to a single subscribing dentist in the geographic area and the respective dentist billed for each patient referred. Commercial referral services often advertise to the public stressing that there is no charge for use

of the service and the patient may not be informed of the referral fee paid by the dentist. There is a connotation to such advertisements that the referral that is being made is in the nature of a public service. A dentist is allowed to pay for any advertising permitted by the *Code*, but is generally not permitted to make

payments to another person or entity for the referral of a patient for professional services. While the particular facts and circumstances relating to an individual commercial referral service will vary, the council believes that the aspects outlined above for commercial referral services violate the *Code* in that it constitutes advertising which is false or misleading in a material respect and violates the prohibitions in the *Code* against fee splitting.³

5.E.5. INFECTIOUS DISEASE TEST RESULTS.

An advertisement or other communication intended to solicit patients which omits a material fact or facts necessary to put the information conveyed in the

advertisement in a proper context can be misleading in a material respect. A dental practice should not seek to attract patients on the basis of partial truths which create a false impression.³

For example, an advertisement to the public of HIV negative test results, without conveying additional information that will clarify the scientific significance of this fact contains a misleading omission. A dentist could satisfy his or her obligation under this advisory opinion to convey additional information by clearly stating in the advertisement or other communication: "This negative HIV test cannot guarantee that I am currently free of HIV."

5.E.6. WEBSITES AND SEARCH ENGINE OPTIMIZATION.

Many dentists employ an Internet web site to announce their practices, introduce viewers to the professionals and staff in the office, describe practice philosophies and impart oral health care information to the public. Dentists may use services to increase the visibility of their web sites when consumers perform searches

for dentally-related content. This technique is generally known as "search engine optimization" or "SEO." Dentists have an ethical obligation to ensure that their web sites, like their other professional announcements, are truthful and do

not present information in a manner that is false and misleading in a material respect.³ Also, any SEO techniques used in connection with a dentist's web site should comport with the ADA *Principles of Ethics and Code of Professional Conduct.*

5.F. NAME OF PRACTICE.

Since the name under which a dentist conducts his or her practice may be a factor in the selection process of the patient, the use of a trade name or an assumed name that is false or misleading in any material respect is unethical. Use of the name of a dentist no longer actively associated with the practice may be continued for a period not to exceed one year.³

ADVISORY OPINION

5.F.1. DENTIST LEAVING PRACTICE.

Dentists leaving a practice who authorize continued use of their names should receive competent advice on the legal implications of this action. With permission of a departing dentist, his or her name may be used for more than one year, if, after the one year grace period has expired, prominent notice is provided to the public through such mediums as a sign at the office and a short statement on stationery and business cards that the departing dentist has retired from the practice.

5.G. ANNOUNCEMENT OF SPECIALIZATION AND LIMITATION OF PRACTICE. A dentist may ethically announce as a specialist to the public in any of the dental specialties recognized by the National Commission on Recognition of Dental Specialties and Certifying Boards including dental public health, endodontics, oral and maxillofacial pathology, oral and maxillofacial radiology, oral and maxillofacial surgery, orthodontics and dentofacial orthopedics, pediatric dentistry, periodontics, and prosthodontics, and in any other areas of dentistry for which specialty

^{*}In the case of the ADA, the educational requirements include successful completion of an advanced educational program accredited by the Commission on Dental Accreditation, two or more years in length, as specified by the Council on Dental Education and Licensure, or being a diplomate of an American Dental Association recognized certifying board for each specialty announced.

recognition has been granted under the standards required or recognized in the practitioner's jurisdiction, provided the dentist meets the educational requirements required for recognition as a specialist adopted by the American Dental Association or accepted in the jurisdiction in which they practice.* Dentists who choose to announce specialization should use "specialist in" and shall devote a sufficient portion of their practice to the announced specialty or specialties to maintain expertise in that specialty or those specialties, Dentists whose practice is devoted exclusively to an announced specialty or specialties may announce that their practice "is limited to" that specialty or those specialties. Dentists who use their eligibility to announce as specialists to make the public believe that specialty services rendered in the dental office are being rendered by qualified specialists when such is not the case are engaged in unethical conduct. The burden of responsibility is on specialists to avoid any inference that general practitioners who are associated with specialists are qualified to announce themselves as specialists.

ADVISORY OPINIONS

5.G.1. DUAL DEGREED DENTISTS.

Nothing in Section 5.H shall be interpreted to prohibit a dual degreed dentist who practices medicine or osteopathy under a valid state license from announcing

to the public as a dental specialist provided the dentist meets the educational, experience and other standards set forth in the *Code* for specialty announcement and further providing that the announcement is truthful and not materially misleading.

5.G.2. SPECIALIST ANNOUNCEMENT OF CREDENTIALS IN NON-SPECIALTY INTEREST AREAS.

A dentist who is qualified to announce specialization under this section may not announce to the public that he or she is certified or a diplomate or otherwise similarly credentialed in an area of dentistry not recognized as a specialty area by the National Commission on Recognition of Dental Specialties and Certifying Boards or by the jurisdiction in which the dentist practices unless:

- 1. The organization granting the credential grants certification or diplomate status based on the following: a) the dentist's successful completion of a formal, full-time advanced education program (graduate or postgraduate level) of at least 12 months' duration; and b) the dentist's training and experience; and c) successful completion of an oral and written examination based on psychometric principles; and
- 2. The announcement includes the following language: [Name of announced area of dental practice] is not recognized as a specialty area by the National Commission on Recognition of Dental Specialties and Certifying Boards or [the name of the jurisdiction in which the dentist practices].

Nothing in this advisory opinion affects the right of a properly qualified dentist to announce specialization in a recognized specialty area(s) or the responsibility of such dentist to maintain exclusivity in the special area(s) of dental practice announced as provided for under Section 5.H of this *Code*. Specialists shall not announce their credentials in a manner that implies specialization in a non-specialty interest area.

5.H. GENERAL PRACTITIONER ANNOUNCEMENT OF SERVICES.

General dentists who wish to announce the services available in their practices are permitted to announce the availability of those services so long as they avoid any communications that express or imply specialization. General dentists shall also state that the services are being provided by general dentists. No dentist shall announce available services in any way that would be false or misleading in any material respect.³

ADVISORY OPINIONS

5.H.1.GENERAL PRACTITIONER ANNOUNCEMENT OF CREDENTIALS IN INTEREST AREAS IN GENERAL DENTISTRY.

A general dentist may not announce to the public that he or she is certified or a diplomate or otherwise similarly credentialed in an area of dentistry not recognized as a specialty area by the National Commission on Recognition of Dental Specialties and Certifying Boards or by the jurisdiction in which the dentist practices unless:

- 1. The organization granting the credential grants certification or diplomate status based on the following: a) the dentist's successful completion of a formal, full-time advanced education program (graduate or postgraduate level) of at least 12 months duration; and b) the dentist's training and experience; and c) successful completion of an oral and written examination based on psychometric principles;
- 2. The dentist discloses that he or she is a general dentist; and
- 3. The announcement includes the following language: [Name of announced area of dental practice] is not recognized as a specialty area by the National Commission on Recognition of Dental Specialties and Certifying Boards or [the name of the jurisdiction in which the dentist practices].

5.H.2. CREDENTIALS IN GENERAL DENTISTRY.

General dentists may announce fellowships or other credentials earned in the area of general dentistry so long as they avoid any communications that express or imply specialization and the announcement includes the disclaimer that the dentist is a general dentist. The use of abbreviations to designate credentials shall be avoided when such use would lead the reasonable person to believe that the designation represents an academic degree, when such is not the case.

NOTES

- 1. A third party is any party to a dental prepayment contract that may collect premiums, assume financial risks, pay claims, and/or provide administrative services.
- 2. A full fee is the fee for a service that is set by the dentist, which reflects the costs of providing the procedure and the value of the dentist's professional judgment.
- 3. Advertising, solicitation of patients or business or other promotional activities by dentists or dental care delivery organizations shall not be considered unethical or improper, except for those promotional activities which are false or misleading in any material respect. Notwithstanding any ADA Principles of Ethics and Code of Professional Conduct or other standards of dentist conduct which may be differently worded, this shall be the sole standard for determining the ethical propriety of such promotional activities. Any provision of an ADA constituent or component society's code of ethics or other standard of dentist conduct relating to dentists' or dental care delivery organizations' advertising, solicitation, or other promotional activities which is worded differently from the above standard shall be deemed to be in conflict with the ADA Principles of Ethics and Code of Professional Conduct.
- 4. Completion of three years of advanced training in oral and maxillofacial surgery or two years of advanced training in one of the other recognized dental specialties prior to 1967.

IV. INTERPRETATION AND APPLICATION OF PRINCIPLES OF ETHICS AND CODE OF PROFESSIONAL CONDUCT.

The foregoing ADA Principles of Ethics and Code of Professional Conduct set forth the ethical duties that are binding on members of the American Dental Association. The component and constituent societies may adopt additional requirements or interpretations not in conflict with the ADA Code.

Anyone who believes that a member-dentist has acted unethically should bring the matter to the attention of the appropriate constituent (state) or component (local) dental society. Whenever possible, problems involving questions of ethics should be resolved at the state or local level. If a satisfactory resolution cannot be reached, the dental society may decide, after proper investigation, that the matter warrants issuing formal charges and conducting a disciplinary hearing pursuant

to the procedures set forth in Chapter XI of the ADA Bylaws and Governance and Organizational Manual of the American Dental Association ("Governance Manual"). PRINCIPLES OF ETHICS AND CODE OF PROFESSIONAL CONDUCT, MEMBER

CONDUCT POLICY AND JUDICIAL PROCEDURES. The Council on Ethics, Bylaws and Judicial Affairs reminds constituent and component societies that before a dentist can be found to have breached any ethical obligation the dentist is entitled to a fair hearing.

A member who is found guilty of unethical conduct proscribed by the ADA Code

or code of ethics of the constituent or component society, may be placed under a sentence of censure or suspension or may be expelled from membership in the

Association. A member under a sentence of censure, suspension or expulsion has the right to appeal the decision to his or her constituent society and the ADA Council on Ethics, Bylaws and Judicial Affairs, as provided in Chapter XI of the ADA Bylaws and Governance Manual.

INDEX

ADVISORY OPINIONS ARE DESIGNATED BY THEIR RELEVANT SECTION IN PARENTHESES, e.g. (2.D.1.).

•	•
•	٠.

Abandonment, 6	B
Ability to practice (2.D.1.), 6	Beneficence, 6
Abuse and neglect, 7	Billing, 11
Abuse and neglect (reporting) (3.E.1.), 7	Bloodborne pathogens, exposure incident, 8
Adverse reactions (reporting) (5.D.1.), 12	Bloodborne pathogens, patients with disabilities or (4.A.1.), 8
Advertising, 12	
Credentials	С
general dentistry (5.I.2.), 16	Code of professional conduct (definition),
interest areas, general	3 Community service, 7
dentistry (5.I.1.), 16	Confidentiality of patient records (1.B.2.),
non-specialty interest areas,	4 Conflict of interest, disclosure, 11
specialist (5.H.2.), 15	Consultation and referral, 5
nonhealth (5.F.3.), 13	Copayment, waiver of (5.B.1.), 11
unearned (5.F.3.), 13	Copyrights and patents, 7
honorary (5.F.3.), 13	Credentials (see advertising)
membership and other	creatitions (see davertising)
affiliations (5.F.3.), 13	D
specialty, 15	Degrees (advertising) (5.F.3. and 5.H.1.), 13, 15
Dual degrees (5.H.1.), 15	Dental amalgam and other
False and misleading (examples) (5.F.2.), 12	restorative materials (5.A.1.), 10
General dentists, 16	Dental procedures, incorrectly reporting (5.B.5.), 11
HIV test results (5.F.5.), 14	
Honorary degrees (5.F.3.), 13	Dentist leaving practice (5.G.1.), 14
Infectious disease test results (5.F.5.), 14	Devices and therapeutic methods,
Name of practice, 14	11
Non-specialty interest areas (5.H.2. and 5.I.1.), 15, 16	Disabilities, patients with bloodborne pathogens or (4.A.1.), 8
Published communications (5.F.1.), 12	
Referral services (5.F.4.), 13 Services, 16	Disclosure, conflict of interest, 11
Specialties, 15	Disruptive behavior (3.F.1.), 8 Dual degreed dentists (5.H.1.), 15
Unearned, nonhealth degrees (5.F.3.), 13	
Advisory opinions (definition), 4	E
Amalgam and other restorative materials (5.A.1.), 10	Education, 5
Announcement of specialization and limitation of practice, 15	Emergency service, 9 Expert testimony, 9
Autonomy (patient), 4	
Auxiliary personnel, 6	

F	M
False and misleading advertising,	Marketing or sale of products
examples (5.F.2.), 12	or procedures (5.D.2.), 12
Fees	N
contingent (4.D.1.), 9	Name of practice, 14
differential (5.B.3.), 11	Nonhealth degrees, advertising (5.F.3.),
rebates, 9	13 Nonmaleficence, 5
representation of, 11	13 Notifiaeficefice, 3
split, 10, 14	0
Furnishing copies of records (1.B.1.), 4	Overbilling (5.B.2.), 11
G	P
General practitioner announcement of	Patents and copyrights,
credentials (5.I.1.), 16	7 Patient
General practitioner announcement of	abandonment, 6
services, 16	Patient autonomy, 4
General standards (for announcement of	Patient involvement, 4
specialization and limitation of practice), 15	Patient records, 4
Government of a profession, 7	confidentiality (1.B.2.), 4
Gross or continual faulty treatment (reporting), 9	furnishing copies (1.B.1.),
(1.000.18))	4
Н	Patient selection, 8
HIV positive patients (4.A.1.), 8 HIV	Personal impairment, 6
post-exposure obligations, 6	Personal relationships with patients,
HIV test results (advertising) (5.F.5.), 14	6 Practice
	ability to (2.D.1.), 6
1	dentist leaving (5.G.1.),
Impaired dentist, 6	14 name of, 14
Infectious disease test results (5.F.5.), 14	Preamble, 3
Interpretation and application of Principles of	Principles of ethics (definition),
Ethics and Code of Professional Conduct, 17	3 Principles
J	beneficence, 6
Justifiable criticism, 9	justice, 8
Justifiable criticism (meaning of	nonmaleficence, 5
"justifiable") (4.C.1.), 9	patient autonomy, 4
Justice, 8	veracity, 10
_	Procedures (marketing or sale) (5.D.2.), 12
L	Products (marketing or sale) (5.D.2.), 12
Law (and ethics), 3 Limitation	Professional announcement, 12
of practice, 15	Professional demeanor, 8

Published communications (5.F.1.), 12

R
Rebates and split fees,
10 Records (patient),
4
confidentiality (1.B.2.),
4 furnishing copies
(I.B.I.), 4
Referral, 5
Referral services (5.F.4.),
13 Reporting
abuse and neglect
(3.E.I.), 7 adverse
reactions (5.D.1.), 12
gross and continual faulty
treatment, 9 personal
impairment, 6
Representation of care,
10 Representation of
fees, 10 Research and
development, 7
c

S

Sale of products or procedures (5.D.2.), 12 Search Engine
Optimization (S.F.6.), 14 Second opinions (2.B.1.), 5
Specialist (announcement and limitation of practice), 15
Specialist (announcement of credentials in non-specialty interest areas) (5.H.2.), 15
Split fees, 10

Т

Treatment dates (5.B.4.), II
Therapeutic methods, II

U

Unearned, nonhealth degrees (5.F.3.), 13 Unnecessary services (5.B.6.), 11 Unsubstantiated representations (5.A.2.), 10 Use of auxiliary personnel, 6

٧

Veracity, 10

W

Waiver of copayment (5.B.I.), I I Websites and search engine optimization (5.F.6.), 14

Quick Guide Information Technology



Technology Help - <u>help@case.edu</u>, <u>help.case.edu</u>, 216.368.HELP (4357) - C.A.R.E. Center - Kelvin Smith Library - Lower Level

- Email webmail.case.edu
- Wireless Network Setup wireless-setup.case.edu
- Wired Network Setup <u>setup.case.edu</u>
- Virtual Private Network (VPN) vpnsetup.case.edu
- Duo Two-Factor Authentication <u>securityaware.case.edu</u>
- Equipment estore
- Software <u>softwarecenter.case.edu</u>
- Canvas canvas.case.edu
- Zoom Zoom
- Research Computing Research Computing
- Student Information System (SIS) <u>case.edu/sis</u>
- Human Capital Management (HCM) <u>case.edu/hcm</u>
- Spartan Answers <u>case.edu/utech/resources/cwru-digital-assistant</u>

School of Dental Medicine Student Computing Facilities Policy Statement

The School of Dental Medicine Computing Facilities are comprised of many computers around the building. This includes the computers in the student lab, A and B clinics, and within each department.

The student lab computers are open for use by any School of Dental Medicine pre-doctoral or advanced specialty education student. The computers are available for use 24 hours a day, 7 days a week for those with an active computer account. All computers are administered by PC Support.

Accounts

Accounts are created automatically for each student before orientation their first year. Your user name is your Case network ID (three letters and a number), and your password is the password you set up when you activate your email. Your email must be activated in order to use the computing facilities. If you have activated your email address and your account does not work, please email denthelp@case.edu from your university email address (web interface available at http://mail.case.edu) for further help.

Access to log in will be removed upon graduation unless we receive a request stating otherwise at least one week prior to graduation.

Security

You are responsible for any computer activities while you are logged in. In effect, this means that if someone breaks something on the computer while you are logged in to it, it is your responsibility. In order to prevent this, when you leave a computer, you must "Log Out". To do this, click on the *Start* menu, then click on *Log Off*, and confirm that you want to log off when asked.

Do not share your account or your password. Anyone found sharing an account will have that account suspended immediately. A problem with your account is not a valid reason to "borrow" someone else's account. If this is the case, both accounts may lose access for an indeterminate amount of time.

Quotas

Each student will receive a quota of 10MB of storage on the server. This will be available from any computer the student logs in to by opening *My Computer* and then the *V* drive. If you need to have your quota raised, please email denthelp@case.edu with your reasons. Please do not store anything on the local computer as any computer may be purged of this data at any time.

You may not store illegal files in your server storage. This includes downloaded program installers, songs (such as mp3s), and videos (such as divx). If these files are found, they will be deleted immediately and your account may be suspended. If a situation arises and you will be storing legal files of this nature in your server storage, please notify denthelp@case.edu to avoid file deletion and account suspension. Appeals of suspended accounts should be directed to the Director of Student Services, who may refer the matter to the Faculty Student Relations Committee.

Passwords

PC Support is not responsible for your password. If you cannot remember your password, go to http://help.case.edu for a web form by which you can reset your password.

Computer Usage

All computing activities in the pre-doctoral lab and specialty clinics must conform to the Case Information Services Ethics Policy. Anyone violating the policy may have his or her account suspended. A copy of the policy can be found at: http://help.case.edu/connect/policy/overview/view

Computers are a resource that many people must share, and thus must be centrally configured and managed. You may not install applications on individual computers. Attempting to do so may render the computer unstable or unusable. This not only impacts you, but every other student who uses the computers. Installing applications may also introduce viruses, which can do serious damage. If there is an application that you believe should be installed on the computers, contact PC Support at denthelp@case.edu to request the addition of the software. PC Support will determine if the program is applicable, and, if so, install the software.

Games, money making opportunities, and other forms of entertainment should not be used on any of the computers, except where it explicitly pertains to class work or research. Excessive forms of computer use for the sole purpose of entertainment/light reading/games/puzzles/chatting/etc will not be tolerated.

Do not leave a computer unattended while you are logged in. Someone can access and even damage or destroy your work. Also, someone with malicious intent could then use your account to damage the resources and leave you responsible by using your User ID and password. If found unattended and/or locked, a computer will be unlocked and rebooted. You may lose data when this happens. By leaving a computer unattended and logged in, you assume all risk.

Responsibility

Violation of these policies may result in the loss of your account on the departmental servers. The goal in publishing these policies is to inform you of how you can help us keep the labs useful and pleasant for you and all the other students who use them.

Version 2.0: 04/30/2004 Case School of Dental Medicine - further policies can be found at:

https://case.edu/dental/resources/it-support/it-related-policies-procedures

CWRU School of Dental Medicine

What Should I Do When....

Please E-Mail (or Call) When You Experience

CBRE Bathrooms - messy; out of supplies

Use the "Contact Maintenance" tool on desktop Batteries

See your department assistant CDs

See your department assistant CWRU AV Services

CBRE Elevators - broken, unruly

See your department assistant Fed-Ex

CBRE Furniture – broken

CBRE Heating/Cooling (I'm too hot! Or too cold!)

Use the "Contact SODM IT" tool on desktop Ink-Jet, Laser Printer Problems

See your department assistant Keys (desks, cabinets, drawers) - lost, forgotten

CBRE Light Bulbs - burned out

Cheryl Silas X6136 Lockers - obtaining, vacating

See your department assistant Payroll Vouchers, Overtime, Student Employment

See your department assistant Printing Services

See your department assistant Purchasing Almost Anything See your department assistant Reimbursement of Expenses

Use the "Contact Maintenance" tool on desktop Repairs of cubicle/dental equipment

CBRE Strange Noises
CBRE Strange Smells

See your department assistant Office Supplies

Tori Hirsch X6982 Telephone - no dial tone, static, inoperative

Tori Hirsch X6982 Telephone - new phone needed

See your department assistant Travel reimbursement

See your department assistant Photocopiers - jammed, toner, staples

Advanced Education in General Dentistry (AEGD)

The AEGD program is a one-year experience with a major emphasis in clinical general dentistry designed to provide the resident with training beyond that received in the pre-doctoral curriculum.

Formal courses, seminars and literature review, as well as one week of "on call" per month, enhance the resident's ability to handle dental and medical emergencies encountered in everyday practice.

The AEGD program provides the resident the opportunity to deliver the highest quality of comprehensive dental care to the broadest range of the population with a knowledge, comfort, and ease in treating the high risk patient and under-served segment of the population including: HIV/AIDS, medically compromised, physically handicapped, and geriatric populations with considerable experience in implantology and full mouth rehabilitation.

The AEGD program enables the resident to become proficient in diagnosis and treatment planning for the more challenging and complex cases to identify and treat many medical and/or dental emergencies encountered in every day dental practice. The AEGD program introduces the resident to the basic concepts of hospital dentistry and help them interact with their medical colleagues and other health care providers to integrate medical and dental

Goals and Objectives

To provide the residents with the didactic knowledge and clinical experience to deliver multidisciplinary comprehensive oral health care to a wide range of the population beyond the level of predoctoral education. (This includes providing community services through the management of the medically and/or immunocompromised patient, the physically handicapped patient, as well as the geriatric and the underserved segment of the population.) Enable the residents to identify and treat the most common medical and/or dental emergencies encountered in every day dental practice.

To develop in the residents, the values of professional ethics, and acceptance of cultural diversity in the practice of dentistry.

To develop the skills of self-evaluation and critical thinking.

To provide the residents with experience to improve their ability to interact, function and communicate effectively with other health care professionals in the delivery of comprehensive treatment.

To encourage the resident to continue the process of lifelong learning through continuing education, professional meetings, and review of literature.

To provide the residents with training in patient, practice and risk management in order to manage a private dental practice.

Admission

Information about <u>admission to the AEGD Program</u> can be found on the School of Dental Medicine website.

Plan of Study

First Year		
	FALL	SPRING
Multidisciplinary Seminar (DENT 698)	05	
Clinical Pharmacology (<u>DENT 550</u>)	0 - 1	
Management of Medical Emergencies (<u>DENT 555</u>)	0 - 1	
AEGD Residency Training (DENT 699)	1 - 8	
Correlative Medical Science (<u>DENT 502</u>)		0 – 2
Multidisciplinary Seminar (<u>DENT 698</u>)		05
AEGD Residency Training (DENT 699)		1 – 8

Year Total: 1-10.5 credit hours

The didactic component of the AEGD program, is conducted in both the formal courses as well as the departmental seminars.

Formal Didactic Courses

- Management of Medical Emergencies
- Pharmacology
- Interdisciplinary Seminars
- Correlative Medical Sciences
- Advanced Oral pathology
- Temporomandibular Disorders
- Ethics
- Head and neck Anatomy
- Correlative medical sciences

Seminars

- Literature Review
- Case Presentations
- Occlusion
- Endodontics
- Periodontics
- Oral Surgery
- Implantology
- Oral Diagnosis and Treatment Planning
- Preventive Dentistry
- Pain and Anxiety Control in the Conscious Patient
- Geriatric Dentistry
- Special Care Patients, Including the Medically Compromised
- Asepsis and Infection Control

- Operative Dentistry
- Fixed and Removable Prosthodontics
- Oral Medicine
- Practice Management

Clinical Component and Rotations

Most of the residents' time is spent providing comprehensive care to a diverse population of patients. In addition, each resident is on call 1 week per month to cover University Hospitals emergency department, and to provide consultations and dental clearances as needed by the UH medical departments. Most of the services to the hospital's patients are provided afterhours. The hospital is conveniently located a short distance from the AEGD clinic. The hospital duty enriches the residents' ability to interact with other health care providers and enhances their ability to incorporate dental service for the medical patients.

Service: Pediatric Rotation

For the child patient to accept needed treatment and to provide advice or guidance to the parent to enhance the child's acceptance.

To assist the resident in developing a working knowledge of preventive and corrective dental procedures relating to the growth and development of the stomatognathic system.

To increase both the confidence and competence of residents in meeting the general oral health needs of the pediatric patient.

Length of Rotation or Experience (in weeks): 12

Number of Hours per week: 4

Objectives:

To provide residents with both clinical and didactic training in pediatric dentistry beyond that received in the pre-doctoral curriculum.

To improve the resident's ability in diagnosis, treatment planning, oral examination, and physical evaluation of the pediatric patient.

To improve the resident's ability to use non-pharmacologic management techniques to appropriately manage and guide the behavior.

Service: Geriatric Dentistry

Length of Rotation or Experience (in weeks): 16

Number of Hours per week: 8

Objectives:

See the variability of patient disability/ability/cognitive impairment in a diverse patient population.

Apply the principles of rational treatment planning to patients with limited access to dental care.

Practice behavioral management techniques for patients who are uncooperative.

Learn how to manage institutionalized patients and coordinate care with staff of the long- term care facilities.

Know how to deal with treatment of patients who cannot give informed consent.

Realize how much dental care is needed by older patients; and you will know what a significant positive impact that your work can have on the quality of life of older individuals.

Become a patient, empathetic care-giver.

Endodontics

The graduate endodontics program is a continuous 24-month master's degree (Master of Science in Dentistry) and certificate program commencing the beginning of July each year. It has a full-time director and 5 part-time clinical faculty members. It is concerned with developing competent, skilled clinicians with teaching and research abilities.

To achieve these objectives, the program provides extensive background in both scientific and clinical knowledge. The curriculum is designed to fulfill the requirements of the American Board of Endodontics and promote Diplomats.

The program will prepare specialists in the fields of diagnosis, all phases of treatment and prevention of pulpal and periapical dental disease. It will provide training in research design and methodology as it relates to pulpal, dentinal, periodontal, and related clinical areas, preparing the resident for teaching responsibilities in undergraduate, postgraduate, and graduate levels.

A top of the line surgical microscope with a complete and full documentation package is provided for teaching a variety of microscopic surgery techniques.

The curriculum includes bone grafting and guided tissue regeneration. The IV sedation and general anesthesia training are provided by University Hospitals of Cleveland for the second year resident. Presentation of multiple table clinics is required. The endodontic residents have won Poster awards for the three years at the annual meeting of the Ohio Dental Association.

Admission

Information about <u>admission to the endodontics program</u> can be found on the School of Dental Medicine website.

Plan of Study

First Year		
	FALL	SPRING
Anatomy of the Head and Neck (<u>DENT 513</u>)	0 - 3	
Multidisciplinary Seminar (<u>DENT 698</u>)	05	
Epidemiology and Biostatistics (<u>DENT 510 &511</u>)	0 - 3	0 - 3
Management of Medical Emergencies (<u>DENT 555</u>)	0 - 1	
Advanced Oral Pathology (DENT 512)	0 - 3	

Endodontology (DNDO 529)	3
Endodontic Literature Review (<u>DNDO 539</u>)	3
Clinical Endodontic Specialty (<u>DNDO 551</u>)	3
Biological Aspects of the Stomatological System (<u>DENT 501</u>)	
Correlative Medical Science (<u>DENT 502</u>)	0 - 2
Multidisciplinary Seminar (<u>DENT 698</u>)	05
Microbiology, Immunology, and Immune Systems (<u>DENT 516</u>)	0 - 1
Clinical Pharmacology (<u>DENT 550</u>)	0 - 1
Research Methods: Preparation (DENT 514)	0 - 1
Endodontology (<u>DNDO 529</u>)	3
Endodontic Literature Review (<u>DNDO 539</u>)	3
Clinical Endodontic Specialty (DNDO 551)	3
Temporomandibular Disorders, Orofacial Pain and Sleep Disorders (<u>DENT 509</u>)	0 – 3

Year Total: 9-20.5

Second Year		
	FALL	SPRING
Multidisciplinary Seminar (<u>DENT 698</u>)	05	
Thesis M.S.D. (DENT 651)	1 - 9	

Endodontology (DNDO 529)	3	
Endodontic Literature Review (<u>DNDO 539</u>)	3	
Clinical Endodontic Specialty (DNDO 551)	3	
Multidisciplinary Seminar (<u>DENT 698</u>)	0)5
Thesis M.S.D. (DENT 651)	1	1 - 9
Endodontology (DNDO 529)	3	3
Endodontic Literature Review (<u>DNDO 539</u>)	3	3
Clinical Endodontic Specialty (<u>DNDO 551</u>)	3	3
Year Total: 10-	-18.5	

39-80

For the MSD Thesis, each resident must complete at least one research project during the training. The project may involve primary data collection or the use of secondary data for analysis.

Total Units in Sequence:

The program director, members of the residency committee, and experts working in the area of each resident's interest will assist with the selection of an appropriate research topic and getting IRB approval. Following the data analysis, each resident will submit and defend a written report of the project. Acquisition of research skills will be facilitated by didactic classes.

Oral and Maxillofacial Surgery

The residency program at Case Western Reserve University in Oral and Maxillofacial Surgery is a joint program with the School of Medicine leading to an MD degree and certificate in oral and maxillofacial surgery. Case Western Reserve University is the only program in the country that enables residents to obtain their medical degree and certificate in five years.

Residents rotate through several institutions: the Department of Oral & Maxillofacial Surgery at University Hospitals of Cleveland, Cleveland's Veterans Administration Hospital, the School of Dental Medicine at Case Western Reserve University, the Department of Oral and Maxillofacial Surgery at the MetroHealth Hospital. This diversity of institutions ensures that residents gain experience in the essential areas of clinical surgery in preparation for all types of practices.

Plan of Study

First Year		
	FALL	SPRING
Multidisciplinary Seminar (DENT 698)	05	
Oral Surgery Residency (<u>DENT 695</u>) (summer/fall)	1 - 10	
Program Year 1 (OMFS 694)	1 - 3	
Program Year 2 (OMFS 695)	1 - 3	
Program Year 3 (OMFS 696)	1 - 3	
Program Year 4 (OMFS 697)	1 - 3	
Program Year 5 (OMFS 698)	1 - 3	
Orthodontics-Oral Surgery Conference (<u>DENT 580</u>)		
Oral Surgery Residency (<u>DENT 695</u>)		1 - 10
Year Total:	6-25.5	

PGY1

University Hospitals/OMFS Veteran's Admin/OMFS University Hospitals/Anesthesia - 2 months

PGY 2

Med School - 12 months Surgery/Internal Medicine Pediatrics/Family Medicine/OB GYN Psychiatry/Neurology Emergency Medicine/Geriatrics

PGY 3

University Hospitals/OMFS
University Hospitals/Anesthesia 3 months (includes 1 month pediatric)

PGY 4

General Surgery Internship: 12 months

University Hospitals/OMFS - 3 months University Hospitals and MetroHealth/Surgery Rotations - 9 months Plastic Surgery ENT SICU/Trauma

PGY 5

University Hospitals/OMFS Chief Resident – 12 months

Admission

More information about <u>admission to the oral and maxillofacial surgery program</u> can be found on the School of Dental Medicine website.

Orthodontics

The graduate program in orthodontics is a master's (Master of Science in Dentistry) and certificate program dedicated to advancing the art and science of orthodontics through research, teaching, and service.

The clinical training of orthodontic residents encompasses all aspects of current orthodontic practice including, full treatment cases with bands and brackets, early treatment, adult treatment, craniofacial anomalies, orthognathic surgery and TMJ/occlusion. The length of the orthodontic program is 30 months. Given this time frame the clinical teaching of orthodontics will be divided according to the importance of the above topics to the private practice of orthodontics.

There is an option to extend the program to 36 months to satisfy European specialty training standards (ERASMUS).

Admission

More information about <u>admission to the orthodontics program</u> can be found on the School of Dental Medicine website

First Year		
	FALL	SPRING
Advanced Facial Growth (DENT 504)	1	
Dentofacial Anomalies (<u>DENT 505</u>)	0 - 1	
Advanced Oral Pathology (DENT 512)	0 - 3	
Anatomy of the Head and Neck (<u>DENT 513</u>)	0 - 3	
Clinical Specialty Seminar (DRTH 523)	2	
Practice Management I (Ortho) (<u>DENT 565</u>)	0 - 1	
Orthodontic Literature Review I (<u>DENT 569</u>)	1	
Advanced Specialty Principles: Clinical I (DENT 573)	2	
Orthodontics-Oral Surgery Conference (DENT 580)	0 - 1	

Orthodontic Diagnostic Seminar I (<u>DENT 583</u>)	1	
Multidisciplinary Seminar (<u>DENT 698</u>)	05	
Epidemiology and Biostatistics (<u>DENT 510& 511</u>)	0 - 3	0 - 3
Pre-Clinical Principles in Orthodontics (<u>DENT 572</u>)	0 - 1	
Cephalometrics (<u>DENT 682</u>)	0 - 1	
Management of Medical Emergencies (<u>DENT 555</u>)	0 - 1	
Facial Growth and Development (<u>DENT 503</u>)	0 - 1	
Correlative Medical Science (<u>DENT 502</u>)		
Biological Aspects of the Stomatological System (<u>DENT 501</u>)		0 – 2
Research Methods: Preparation (<u>DENT 514</u>)		0 – 1
Clinical Pharmacology (<u>DENT 550</u>)		0 – 1
Year Total:	7-23.5	

Second Year		
	FALL	SPRING
Dentofacial Anomalies (<u>DENT 505</u>)	0 - 1	
Orthodontic Diagnostic Seminar III (<u>DENT 585</u>)	1	

Orthodontics-Oral Surgery Conference (<u>DENT 580</u>)	0 - 1	
Thesis M.S.D. (<u>DENT 651</u>) (summer/fall)	1 - 9	
Orthodontics-Oral Surgery Conference (<u>DENT 580</u>)	0 - 1	
Thesis M.S.D. (<u>DENT 651</u>)	1 - 9	
Year Total:	2-12	

10-53.5

Total Units in Sequence:

Pediatric Dentistry

The graduate program in pediatric dentistry is a master's (Master of Science in Dentistry) and certificate program that takes place at Case Western Reserve University School of Dental Medicine, Rainbow Babies and Children's Hospital and MetroHealth Hospital Systems.

The two-year post-doctoral residency program follows closely the principles and policies as outlined in the Guidelines for Advanced Education in Pediatric Dentistry prepared by the American Academy of Pediatric Dentistry and the American Board of Pediatric Dentistry. It is fully accredited by the Commission on Dental Accreditation. Successful completion results in a certificate of specialty education in pediatric dentistry which qualifies the resident for examination by the American Board of Pediatric Dentistry.

Students who elect to complete the master's program pay full tuition. The MSD program is open to non-US citizens and foreign-trained dentists. Foreign-trained dentists must complete a US GPR or AEGD before applying to the program.

Our purpose is to train the specialist as a qualified practitioner, consultant and advocate for complete dental treatment of healthy and special needs children.

The acquired skills prepare the pediatric dental resident to prevent, diagnose and treat common and unusual oral problems that might arise during the physical, psychological and emotional development of the child and adolescent. In addition to the oral aspects of childcare, the resident becomes cognizant of the general health problems related to children.

Our program offers a balanced clinical and didactic curriculum in advanced infant, child and adolescent dental care.

The pediatric dentistry curriculum is designed to have the resident play an integral role in the healthcare of children, side by side with his/her medical colleagues, and to prepare the resident for successful entry into the contemporary practice setting while providing the foundation for future growth in the field.

Admission

More information about <u>admission to the pediatric dentistry program</u> can be found on the School of Dental Medicine website.

Plan of Study

First Year		
Correlative Medical Science (<u>DENT 502</u>)	FALL	SPRING 0 - 2
Anatomy of the Head and Neck (<u>DENT 513</u>)	0 - 3	
Epidemiology and Biostatistics (<u>DENT 510& 511</u>)	0 - 3	0 - 3
Research Methods: Preparation (<u>DENT 514</u>)		0 - 2
Advanced Oral Pathology (<u>DENT 512</u>)	0 - 3	
Facial Growth and Development (<u>DENT 503</u>)		0 - 1
Dentofacial Anomalies (<u>DENT 505</u>)	0 - 1	
Orthodontics for Pediatric Dentists I (<u>DENT 561</u>)	0 - 3	
Pediatric Dentistry Literature Review (DPED 533)	0 - 2	
Fundamentals in Pediatric Dentistry (<u>DPED 535</u>)	0 - 3	
Advanced Clinical Pediatric Dentistry (DPED 537)	0 - 3	
Advanced Seminar in Pediatric Dentistry (DPED 639)	0 - 3	

Pediatric Dental Residency (DPED 690)	0	
Biological Aspects of the Stomatological System (<u>DENT 501</u>)		0 - 2
Microbiology, Immunology, and Immune Systems (<u>DENT 516</u>)	0 - 2	
Clinical Pharmacology (<u>DENT 550</u>)	0 - 1	
Pediatric Dentistry Literature Review (DPED 533)		0 - 2
Fundamentals in Pediatric Dentistry (<u>DPED 535</u>)		0 - 3
Advanced Clinical Pediatric Dentistry (DPED 537)		0 - 3
Advanced Seminar in Pediatric Dentistry (DPED 639)		0 - 3
Pediatric Dental Residency (DPED 690)		

Pediatric Dental Residency (DPED 690)

Year Total:

Second Year		
	FALL	SPRING
Facial Growth and Development (<u>DENT 503</u>)	0 - 1	
Dentofacial Anomalies (<u>DENT 505</u>)	0 - 1	
Pediatric Dentistry Literature Review (DPED 533)	0 - 2	
Orthodontics for Pediatric Dentists I (<u>DENT 561</u>)	0 - 3	
Pediatric Dental Residency (DPED 690)	0	
Pediatric Dentistry Literature Review (DPED 533)		0 - 2

Orthodontics for Pediatric Dentists I (<u>DENT 561</u>)	0 – 3
Advanced Clinical Pediatric Dentistry (DPED 537)	0 – 3
Pediatric Dental Residency (DPED 690)	0
Year Total:	

0-60

The following courses are required for the postdoctoral student:

Behavioral Management

Anatomy

Epidemiology & Biostatistics

Microbiology

Total Units in Sequence:

Facial Growth and Development

Craniofacial Anomalies

Hospital Dentistry

Conscious Sedation

Conferences

Pediatric Dentistry Literature Review

Preventive and Interceptive Orthodontics

Genetics

Pharmacology

Hospital Rotations in the departments of Anesthesia, Pediatric, and Emergency Medicine A research requirement must be fulfilled for certification in pediatric dentistry. Students enrolled in the M.S.D. program must complete a formal thesis.

Periodontics

The graduate program in periodontics is a thirty-six month, continuous course of study, leading to both a certificate in Periodontics and a Master of Science in Dentistry degree. It is a fully accredited program by the American Dental Association, and meets all the clinical and didactic requirements of the American Board of Periodontology.

The general goals of the program are to train expert clinicians in this specialty, and/or to prepare individuals for an academic (research-teaching) career in Periodontics.

This postdoctoral program offers broad clinical experience and research training.

Completion and defense of a research thesis is one of the requirements of this program. Limited teaching experience is offered to the graduate student so that his/her exposure to clinical, research, and teaching facets of periodontics is complete. All of the faculty of the Department of Periodontics involved in teaching graduate students in this program are educationally or board certified periodontists. Additional instruction within this program is by faculty members of the School of Dental Medicine and the School of Medicine. Because of the multiplicity of training programs our professors have completed, the student is exposed to diverse views of diagnosis, prevention, and treatment of periodontal diseases. A brief initial review of basic aspects of periodontology introduces the new graduate student to the specialty training during the summer session. Extensive contact with practicing periodontists, sufficient exposure to hospital periodontal practice, and clinical training in dental implants are additional features of this program.

Admission

More information about <u>admission to the periodontics program</u> can be found on the School of Dental Medicine website

Plan of Study

First Year		
	FALL	SPRING
Epidemiology and Biostatistics (<u>DENT 510& 511</u>)	0 - 3	0 - 3
Advanced Oral Pathology (<u>DENT 512</u>)	0 - 3	
Anatomy of the Head and Neck (<u>DENT 513</u>)	0 - 3	
Research Methods: Preparation (<u>DENT 514</u>)	0 - 1	
Management of Medical Emergencies (<u>DENT 555</u>)	0 - 1	
Periodontal Conference (DPER 557)	0 - 3	

Clinical Periodontics (DPER 577)	0 - 6
Limited Tooth Movement for the Dental Specialist (DENT 586)	0 - 1
Literature Review in Periodontics (DPER 685)	0 - 3
Biological Aspects of the Stomatological System (<u>DENT 501</u>)	0 - 2
Correlative Medical Science (<u>DENT 502</u>)	0 - 2
Research Methods: Preparation (<u>DENT 514</u>)	0 - 1
Multidisciplinary Seminar (DENT 698)	05 05
Microbiology, Immunology, and Immune Systems (<u>DENT 516</u>)	0 - 3
Clinical Pharmacology (DENT 550)	0 - 1
Periodontal Conference (<u>DPER 557</u>)	0 - 3
Clinical Periodontics (<u>DPER 577</u>)	
Literature Review in Periodontics (DPER 685)	0 – 3
Ethics (DENT 507)	0 - 1
Temporomandibular Disorders, Orofacial Pain and Sleep Disorders (DENT 509)	0 – 3
Advanced Principles of Occlusion (DENT 564)	0 - 1
Second Year	

Second Year		
	FALL	SPRING
Periodontal Conference (<u>DPER 557</u>)	0 - 3	

Clinical Periodontics (DPER 577)	0 - 6
Limited Tooth Movement for the Dental Specialist (DENT 586) (summer/fall)	0 - 1
Periodontal Prosthesis (<u>DENT 587</u>)	
Thesis M.S.D. (DENT 651)	1 - 9
Conscious IV Sedation I (<u>DENT 661</u>)	2
Conscious IV Sedation II (<u>DENT 662</u>)	1
Implant Dentistry I Periodontics (<u>DENT 663</u>)	1
Literature Review in Periodontics (DPER 685)	0 - 3
Periodontal Conference (DPER 557)	0 - 3
Clinical Periodontics (<u>DPER 577</u>)	0 - 6
Periodontal Prosthesis (<u>DENT 587</u>)	
Thesis M.S.D. (DENT 651)	1 - 9
Conscious IV Sedation II (DENT 662)	
Implant Dentistry II Periodontics (<u>DENT 664</u>)	
Literature Review in Periodontics (DPER 685)	
Year Total:	7-28
	Í

10-101.5

Total Units in Sequence:

The following courses are required for the postdoctoral student:

Advanced Periodontal Seminar - ongoing for 3 years

Literature Review in Periodontology- ongoing for 3 years

Periodontal Conferences - ongoing for 3 years

Anatomy of the Head and Neck - 1 summer session

Clinical Periodontics- ongoing for 3 year

Advanced Principles of Occlusion - 1 semester

Conscious Sedation - 1 semester (didactic, 2nd year), ongoing for 2 years (clinical)

Implant Dentistry - 1 semester (didactic, 2nd year), ongoing for 2 years (clinical)

Research Thesis - ongoing for 2 year

Periodontal Prosthesis - one semester

Microbiology, Immunology and the Immune Response - 1 semester

Management of Medical Emergencies - 1 summer session

Limited Tooth Movement - 1 summer session

Biological Aspects of the Stomatological System - 1 semester

Correlative Medical Science - 1 semester

Introduction to Research Methods - one semester

Advanced Oral Pathology - one semester

Epidemiology and Biostatistics - 1 semester

Interdisciplinary Seminar - one semester

Clinical Pharmacology - one semester

Creative Thinking in Research Development - 1 semester

Dental Public Health

The Department of Community Dentistry at Case Western Reserve University (CWRU) offers both pre- and post-doctoral training in dental public health. The latter, advanced education/ residency program, is accredited by the Commission on Dental Accreditation without any reporting requirements. The program offers three different tracks to meet various candidates' needs: one-year full time or two-year part-time for dentists with a master's degree in public health (MPH) accredited by the Council on Education for Public Health (CPHE); two-year full-time track for dentists without an MPH degree. During the first year, students in the two-year fulltime program will primarily be working towards the CPHE-accredited MPH program at the CWRU-School of Medicine. During the second year, these students will be primarily engaged in the dental public health residency activities at the School of Dental Medicine, and will also be completing any pending requirements of the MPH. Those successfully completing the advanced education program in dental public health will be educationally qualified to take the qualifying examination of the American Board of Dental Public Health.

All applications to the dental public health advanced education/residency program must be submitted through: adea.org/pass

In addition, those applying to the two-year fulltime track must submit a separate application for the MPH program through the CWRU-graduate education portal: https://applygrad.case.edu/apply/

When in the 'applygrad' portal, select the School of Medicine and MPH program. Applicants will then see a few dual degree options and need to select the 'DPH' option.

Academic Requirements for One-year Fulltime:

Develop a satisfactory residency-training plan in consultation with the program director. Didactic Curriculum: <u>Fall (July-Dec)</u>:

- Principles of Oral Epidemiology &Research Methods (DPHC 501)
- Communication Methods in Dental Public Health (DPHC 505)
- Dental Public Health Administration (DPHC 508)
- Research Practicum (DPHC 555)
- Dental Public Health Practicum (DPHC 551)
- Management of Medical Emergencies (DENT 535)
- Dental Ethics for the Graduate (DENT 507)
- Multidisciplinary Seminar (DENT 698)
- Electives: MPH Courses/Others

Spring (Jan-June):

- Graduate Preventive Dentistry (DPHC 530)
- Oral Health Care Systems (DPHC 532)
- Data Analysis and Report Writing (DPHC 507)
- Dental Public Health Practicum (DPHC 551)
- o Research Practicum (DPHC 555)
- Multidisciplinary Seminar (DENT 698)
- Electives: MPH Courses/Others

Research Practicum: Each resident is required to complete at least one project.

- Identify a research problem/topic
- Develop Protocol
- Collect Data (secondary data can be used)
- Data Analyses
- Report Writing
- Defend Research Report

Teaching Elective: School of Dental Medicine, Cleveland Metropolitan School District.

Dental Public Health Practicum: Cleveland Metropolitan School District

Academic Requirements for Two-year Fulltime:

- Year 1
- <u>Fall (July-Dec)</u>: MPH Classes begin in the latter part of August.
 - o Communication Methods in Dental Public Health (DPHC 505)
 - Introduction to Health Behavior (MPHP 411)
 - History & Philosophy of Public Health (MPHP 406)
 - o Intro. to Epidemiology for Public Health Practice (MPHP 483)
 - Concentration Course #1 (MPHP xxx)
 - Concentration Course #2 (MPHP xxx)
 - MPH Course (MPHP xxx)

Spring (Jan-June):

- Statistical Methods in Public Health (MPHP 405)
- Environmental Health (MPHP 429)
- Health Management and Policy (MPHP 439)
- Concentration Course #3 (MPHP xxx)
- MPH Course (MPHP xxx)
- Public Health Practicum (MPHP 650)
- Public Health Capstone (MPHP 652)
- Year 2: Pending Requirements of the MPH program Plus the following:

Fall (July-Dec):

- Principles of Oral Epidemiology and Research Methods (DPHC 501)
- Dental Public Health Administration (DPHC 508)
- Dental Public Health Practicum (DPHC 551)
- Research Practicum (DPHC 555)
- Management of Medical Emergencies (DENT 535)
- Dental Ethics for the Graduate (DENT 507)
- Multidisciplinary Seminar (DENT 698)
- Electives: MPH Courses/Others

Year 2, Spring (Jan-June):

- Graduate Preventive Dentistry (DPHC 530)
- Oral Health Care Systems (DPHC 532)
- Data Analysis and Report Writing (DPHC 507)
- Dental Public Health Practicum (DPHC 552)
- Research Practicum (DPHC 556)
- Multidisciplinary Seminar (DENT 698)
- Electives: MPH Courses/Others

Research Practicum: Each resident is required to complete at least one project.

- Identify a research problem/topic
- Develop Proposal
- Collect Data (Secondary data can be used)
- Analyze Data
- Write Report
- Defend Research Report

Teaching Elective: School of Dental Medicine, Cleveland Metropolitan School District.

Dental Public Health Practicum: Cleveland Metropolitan School District

Craniofacial Special Care Orthodontic Fellowship

Fellows accepted into the Craniofacial and Special Care Orthodontics Fellowship Program will be provided with advanced clinical, didactic, and research training during the 1-year program of study in the management of children with facial differences. One fellow is accepted in July and another in January and goes through a 1-year program of study.

Graduates of the program will be exposed to the diagnoses, treatment planning, and clinical execution of orthodontic and dentofacial orthopedic services to a large clinical volume of pediatric, adolescent, and adult patients who have congenital and acquired craniofacial abnormalities. The goal of the program is to train the fellow to attain a level of competency that enables them to recognize, diagnose and treat patients with craniofacial anomalies and special needs in a hospital-based, team care setting.

Fellows participate in craniofacial and cleft conferences, review treatment plans and progress notes, and provide clinical care to patients under direct supervision. All complex treatments are discussed with the attending on a case-by-case basis. New patient exams are done on a regular basis and fellows work up cases (clinical exam, study models analysis, CBCT evaluations) and review the treatment plans with the faculty. The fellows will perform all surgical treatment plans, cephalometric prediction tracings, model surgery, and splint construction. They will also scrub in and participate in the OR activities/surgical procedures.

Rotations with other services will form an integral part of the program. The principal rotations will be with the departments of plastic surgery, oral and maxillofacial surgery, and pediatric dentistry. In addition, the fellow will be exposed to speech pathology, pediatric otolaryngology, genetics, and occupational therapy.

The format of the program allows for constant one-on-one supervision that will allow for subjective assessments of the fellow's understanding of the subject matter, clinical skills, and patient management skills. This will be supplemented by weekly sessions with the faculty, where their understanding will be further tested. At the end of each semester, a written examination will form part of the assessment of progress.

Fellows are enrolled in a one-credit hour course throughout enrollment at CWRU and if eligible, are employed by University Hospitals at a PGY 6 level.

DENT COURSES

DENT 501. Biological Aspects of the Stomatological System. 0 - 2 Units.

This course is a review of biochemistry, molecular and cellular biology, histology, and oral anatomy and an expansion of oral biological topics that underlie the disciplines of endodontics, orthodontics, periodontics, and pediatric dentistry.

DENT 502. Correlative Medical Science. 0 - 2 Units.

Case-based discussion of selected systemic disease commonly encountered by the dentist.

DENT 503. Facial Growth and Development. 0 - 1 Units.

Emphasis on the qualitative, quantitative, and integrative changes during postnatal craniofacial growth and development.

DENT 504. Advanced Facial Growth. 1 Unit.

Student participation in seminar evaluation series dealing with problems and controversies apparent in the literature in regard to theories of growth, development, and aging. Emphasis on the craniofacial literature, but not exclusively.

DENT 505. Dentofacial Anomalies. 0 - 1 Units.

This course is designed to provide the student with the practical experience regarding the multidisciplinary aspects of diagnosis and treatment of patients with craniofacial anomalies. Observation of team sessions and active participation in patient examinations, diagnosis, and treatment planning.

DENT 507. Dental Ethics for the Graduate. 0 - 1 Units.

This 8 week course is given in group discussion format. Topics of ethical dilemmas, informed consent, professional (both national and local) codes of ethics, IRB introduction, patient autonomy, contractual obligations and purrery are discussed using case scenarios and student presentations.

DENT 509. Temporomandibular Disorders, Orofacial Pain and Sleep Disorders. 0 - 3 Units.

This course will enable first year dental residents to learn the principles of pain mechanisms, types of OFP and Sleep Disorders, differential diagnosis and management of these conditions in adults and children. By the end of this course the residents should be able to identify the most common types of OFP and sleep disorders, be able to make the differential diagnosis, and manage simple OFP case and / or refer the most complex OFP cases. Recommended preparation: DMD, DDS or equivalent degree.

510. Epidemiology and 511. Biostatistics. 0 - 3 Units.

A detailed presentation of epidemiological and biostatistical techniques designed to acquaint the student with a broad spectrum of scientific approaches and to prepare for a research project. Topics include design of observational and experimental studies, common biostatistical techniques encountered in the dental literature such as t-test, ANOVA, chi-square, correlation and regression, and assessing the validity of diagnostic tests. Instruction includes lectures, critique of selected literature and computer analysis of data.

DENT 512. Advanced Oral Pathology. 0 - 3 Units.

Lectures and seminars on the clinical and histopathologic characteristics of many of the common oral diseases. Special emphasis on developing a logical approach to clinical and histopathologic diagnosis. Participation is expected for in-class discussion of the clinical and histopathology **DENT 513.** Anatomy of the Head and Neck. 0 - 3 Units.

This course deals with the structural, functional, and clinical relationships of the many organs and organ systems which comprise the head, neck, and pharyngeal regions of the human body.

DENT 514. Research Methods: Preparation. 0 - 1 Units.

The goal of this course is to facilitate a formal statement of the student's research idea as preparation for working with a thesis committee or undertaking independent research.

DENT 516. Microbiology, Immunology, and Immune Systems. 0 - 1 Units.

This course reviews bacterial structure and classification, provides insight into oral bacterial pathogenesis. Principles of antibiotic use and mechanisms of resistance are reviewed. Microbial diagnostic methodologies are discussed. Integration of periodontics, endodontics, and pediatric dentistry is stressed as it relates to the inflammatory process in the human host.

DENT 518. Behavioral Considerations in Oral Health Care. 0 - 1 Units.

This course focuses on the behavioral knowledge and skills the oral health practitioner must possess in order to deliver effective, patient-centered care. Specifically, the course is designed to enhance graduate students' existing knowledge and skills in relation to dentist-patient communication, management of diverse patient populations, and patient education and facilitation of health behavior change.

DENT 520. Skeletal Anchorage. .5 Unit.

This course provides 1st year orthodontic residents with the theoretical knowledge and practical skills necessary to successfully treat orthodontic patients in need of absolute anchorage with orthodontic mini-implants. In addition, the most current articles in the orthodontic literature pertaining to this topic are read and discussed. The theory will be supplemented by practical exercises as necessary.

DENT 521. Manot Cave Dig, Israel. 0 - 1 Units.

This project is an ongoing collaboration between the CWRU School of Dental Medicine and Tel Aviv University. The newly discovered excavations have produced thousands of butchered deer bones, hundreds of stone tools, and one partial human skull. Traditionally CWRU faculty and students will be going in July to continue their work. Interested students are given the opportunity to learn basic archeological techniques while working in a newly discovered cave in Northern Israel. The Manot cave was discovered in 2008 and after 6 field seasons has yielded thousands of artifacts shedding light on what life was like for our early ancestors. Each participant will rotate through several stations including wet and dry sieving, excavation, and how to pick through the processed remains. They will learn how to identify stone and bone tools, faunal and floral remains. In addition to the hands-on experience they also get to attend field lectures by some of the world's most famous researchers in human prehistory. Lodging is in comfortable cabins within easy walking distance from the cave site. This two-week field and lab experience is not only educational but also presents the opportunity to travel around the beautiful country of Israel.

DENT 522. Orthodontic Biomechanics. 1 Unit.

This course provides first year orthodontic residents with the theoretical biomechanical knowledge necessary to successfully treat a wide range of orthodontic malocclusions using the preadjusted straight wire appliance, the segmented arch technique, treatment auxiliaries, and orthodontic minimplants. In addition, the most current articles in the orthodontic literature pertaining to this topic are read and discussed. The theory will be supplemented by practical exercises as necessary.

DENT 550. Clinical Pharmacology. 0 - 1 Units.

This course is designed to enable residents to obtain an understanding of the pharmacology of the most commonly prescribed medications; pharmacotherapeutic concepts in relationship to disease pathophysiology; rational drug therapy in the treatment of disease; drug-drug interactions and drug-disease interactions; adverse drug events. Residents will be expected to apply information on disease pathophysiology and pharmacotherapy to clinical cases. The ultimate goal is to provide relevant information to assist clinicians in practice.

DENT 555. Management of Medical Emergencies. 0 - 1 Units.

This course covers the diagnosis and management of common medical emergencies, with special emphasis on patient evaluation and history taking to prevent such emergencies in the dental office. Venipuncture technique and the use of emergency equipment are demonstrated. Also included is a basic course in cardiopulmonary resuscitation, with practical demonstrations and examinations that lead to certification in basic CPR.

DENT 561. Orthodontics for Pediatric Dentists I. 0 - 3 Units.

The course is designed to familiarize the pediatric dentistry residents with (1) the clinical evaluation of patients to determine appropriateness of orthodontic intervention, (2) record taking,(3) diagnosis, (4) treatment planning of cases in the mixed and permanent dentition, (5) treatment administration and (6) retention strategies. The primary focus will be on interceptive orthodontics including growth modification and corrective orthodontics in the permanent dentition. First in a series of four courses.

DENT 564. Advanced Principles of Occlusion. 1 Unit.

This course is designed to provide in-depth knowledge of the structure and function of all anatomic components involved in occlusion, biomechanics of articulation and mastication; recording of mastication patterns; diagnosis of occlusal dysfunction; relationship to neuromuscular and temporomandibular joint anatomy and pathology; evidence based therapy used in the management of occlusal and temporomandibular disorders and its significance to inflammatory periodontal disease.

DENT 565. Practice Management I (Ortho). 0 - 1 Units.

Seminar and demonstration course designed to prepare the student for all phases of the "business" of orthodontics as well as the responsibility of being a "professional." Management of the department clinic, private practice management, office visitations, and the business community, and ethics through the use of guest speakers on jurisprudence, personal and professional insurance, accounting, estate planning, risk management, informed consent, banking, office design, organized dentistry and investments. First in a series of four courses.

DENT 569. Orthodontic Literature Review I. 1 Unit.

The course will focus on contemporary and classic literature selected to cover a wide range of orthodontic topics. The selected literature includes the reading list suggested by the American Board of Orthodontics in preparation for the Part II of the ABO examination. Students will be required to discuss the articles and answer questions pertaining to the reviewed material.

DENT 572. Pre-Clinical Principles in Orthodontics. 0 - 1 Units.

This course is comprised of a series of seminars presented by orthodontic faculty covering topics that will prepare the first orthodontic resident for the initial phases of clinical training.

DENT 573. Advanced Specialty Principles: Clinical I. 2 Units.

Full fixed orthodontic appliance treatment of patients in an educational setting. First in a series of four courses.

DENT 580. Orthodontics-Oral Surgery Conference. 0 - 1 Units.

A seminar series involving a multidisciplinary approach to the treatment of patients with severe craniofacial deformities. Begins in the fall of each year (continuing for four semesters) with a series of lectures, followed by assignment of patients supervised jointly by the departments of orthodontics and oral surgery. Meetings held bimonthly to review patient progress, plan treatment, and present cases for discussion. Each student involved in all phases of treatment: presurgical orthodontics, the surgical procedure, finishing orthodontics, and retention.

DENT 583. Orthodontic Diagnostic Seminar I. 1 Unit.

Series of lectures and seminars covering the science of orthodontic diagnosis. Course consists oflectures on techniques of diagnosis, treatment planning, and critique of cases from the department or from faculty private practices. Content also includes long-term follow-up of post retention cases. First in a series of three courses.

DENT 585. Orthodontic Diagnostic Seminar III. 1 Unit.

Third in a series of three courses. (See <u>DENT 583</u>.)

DENT 586. Limited Tooth Movement for the Dental Specialist. 0 - 1 Units.

A review of the rationale for orthodontic treatment in periodontally diseased patients and in prerestorative dentitions. Lectures, audio-visual programs, and technique sessions. Diagnosis, treatment planning, and various methods of tooth movement.

DENT 587. Periodontal Prosthesis. 1 Unit.

This course examines and defines the periodontal prosthetic interrelationships beginning with treatment planning and continuing with discussing the utilization of the combined treatment modalities. It focuses on provisionalization, furcation treatment, occlusion, aesthetics, removable appliances, and special advanced treatment problems.

DENT 589. Orthodontic Diagnostic Seminar IV. 1 Unit.

The fourth course in a series which consists of weekly lectures and seminars covering the science of orthodontic diagnosis. Consists of lectures on the techniques of diagnosis, various diagnostic aids, and case planning. Also consists of seminars where the students perform diagnosis, plan treatment and critique cases from the department. This course is used for long-term follow-up clinic.

DENT 651. Thesis M.S.D. 1 - 9 Units.

Subsections for each program area of study: endodontics, orthodontics, periodontics, or pediatric dentistry.

DENT 661. Conscious IV Sedation I. 2 Units.

Didactic portion covers physical evaluation, physiology, pharmacology, emergencies, and techniques. Cardiac monitoring, basic life support, and advanced cardiac life support.

DENT 662. Conscious IV Sedation II. 1 Unit.

(See <u>DENT 661</u>.) Supervised clinical experience in conscious IV sedation.

DENT 663. Implant Dentistry I Periodontics. 1 Unit.

Designed to enhance the understanding of current concepts and their role in the multidisciplinary treatment of the patient.

DENT 664. Implant Dentistry II Periodontics. 0 - 6 Units.

(See DENT 663.) Clinical demonstration, participation, and case presentation in implant dentistry.

DENT 682. Cephalometrics. 0 - 1 Units.

A lecture and laboratory course in cephalometric roentgenography leading to a thorough understanding of craniofacial radiographic techniques. Use of x-rays and radiation hygiene, and technical and interpretive proficiency.

DENT 683. Imaging and IT. 1 Unit.

This course is designed to give some basic computer knowledge and prepare the resident for the use of computers in the orthodontic office.

DENT 684. Radiology and Cephalometrics. 1 Unit.

Fundamentally related to cephalometric radiography, skeletal morphology, and cephalogram interpretations of historic analyses via the Krogman-Sassouni Syllabus. Also, clinical evaluations of hard and soft tissue relationships of the airway and skeletal maturation are presented. The use of Bolton Standards in craniofacial analysis is stressed.

DENT 692. Restorative Fellowship. 6 Units.

Provides for 12 months of clinical and didactic training in all phases of general dentistry beyond the scope of predoctoral dental education. Areas of emphasis include advanced restorative techniques, proper selection of restorative materials, restoration of implants, fixed and removable prosthodontics, and esthetic dentistry. At the discretion of the course director, students may register for an additional 12 months, during which time the student will build on knowledge attained during the first year, continue with advanced didactic instruction, expand their clinical experience through continued patient care, participate in clinical research, and have teaching opportunities.

DENT 693. Fellowship of Advanced Clinical Education - Advanced Dental Studies. 1 - 9 Units.

Fellowship of Advanced Clinical Education (or F.A.C.E.) - Advanced Dental Studies is a special course per agreement in collaboration with Qassim University in Saudi Arabia.

DENT 694. Fellowship in Dentistry. 6 Units.

The Fellowship in Dentistry provides for advanced clinical, didactic and research training beyond the scope of the pre-doctoral dental education.

DENT 695. Oral Surgery Residency. 1 - 10 Units.

Allows registration for non-degree-seeking students in graduate level courses at the direction of the department.

DENT 696. Advanced Dental Training. 0 - 6 Units.

This course is a one year advanced training in dental medicine at Case Western Reserve University School of Dental Medicine. Responsibilities may include clinical and didactic responsibilities. The course is designed to give students clinical experience in a defined focus area.

DENT 697. Advanced Dental Training II. 1 Unit.

Continuation of Advanced Dental Training I. Prereq: D.D.S. or equivalent.

DENT 698. Multidisciplinary Seminar. 0 - .5 Units.

This seminar meets monthly to discuss multidisciplinary cases to develop treatment recommendations for the patients presented. Each graduate department selects a clinical case that requires the services of at least three dental specialties. Ideally, patients should be in the beginning stage of treatment planning so the input from the various specialties can be used to develop a comprehensive plan to establish a healthy oral environment. It is expected that several alternative treatments will be discussed and the relative merits of each approach evaluated. To maximize the benefit of this seminar to the student learning process, an attending faculty member should be present from each of the dental specialty programs. In addition, all seminars have a Prosthodontist to provide input on the restorative treatment options.

DENT 699. AEGD Residency Training. 1 - 8 Units.

This is a multidisciplinary course that encompasses didactic and clinical training in general dentistry.

DNDO Courses

DNDO 529. Endodontology. 3 Units.

Scientific rationale for endodontic practice. Endodontic anatomy, physiology, pathology, and microbiology. All treatments and techniques studied and substantiated by current and classical research.

DNDO 539. Endodontic Literature Review. 3 Units.

Provides scientific basis for present and future treatment. Instructs students in critically evaluating literature. Provides format for lifelong self-education. Specific journal assignments summarized, evaluated, and presented for group discussion weekly.

DNDO 551. Clinical Endodontic Specialty. 3 Units.

Students present case histories as they encounter them in clinic. Cases discussed in detail and critically evaluated by colleagues and graduate endodontic faculty. Past endodontic literature discussed in detail as each student presents a topic assigned by faculty. Problems in clinic discussed. Several guest endodontists present various techniques and perform them.

DORL Courses

DORL 529. Oral Diagnosis / Med Seminar. 1 Unit.

Principles of diagnosis of oral mucosal disorders, clinical pathology and systemic pathology will be discussed in an interactive, case based format.

DORL 531. Clinical Oral Diagnosis and Oral Medicine. 1 Unit.

Clinical rotation in oral medicine and orofacial pain service.

DORL 532. Medical Specialty Services. 1 - 3 Units.

This course provides exposure to the graduate student to medical primary and specialty services and applications to the practice of oral medicine.

DORL 541. Clinical Oral and Maxillofacial Radiology. 1 Unit.

Learn the principles of CBCT, MRI, and other advanced imaging Assist in oral and maxillofacial reading service Recognize radiologic appearance of abnormal findings in the maxillofacial complex

DORL 542. Advanced Oral Radiology. 1 Unit.

Seminar format review of advanced imaging techniques and interpretation on a one to one basis with faculty.

DORL 554. Current Concepts in Medicine. 1 Unit.

Students will review contemporary internal medicine topics of relevance to the oral medicine clinician.

DPED Courses

DPED 533. Pediatric Dentistry Literature Review. 0 - 2 Units.

Review of the literature in preparation for the specialty board examination in pediatric dentistry. Includes articles on various topics including growth and development, special needs patients, oral pathology and oral medicine, and clinical and hospital practice.

DPED 535. Fundamentals in Pediatric Dentistry. 0 - 3 Units.

Students present selected chapters from major pediatric dentistry review books for critique and discussion. Major strengths and weaknesses are emphasized. The course director then presents the most current information on the subject.

DPED 537. Advanced Clinical Pediatric Dentistry. 0 - 3 Units.

Students develop skills in diagnosis, radiographic technique, treatment planning, preventive and restorative dentistry, space management, trauma management, and nonpharmacologic behavior management. There is an opportunity to attend hospital grand rounds and physician conferences.

DPED 639. Advanced Seminar in Pediatric Dentistry. 0 - 3 Units.

Students present patient cases for in-depth discussion of specific clinical problems.

DPED 690. Pediatric Dental Residency. 0 - 10 Units.

Allows registration for non-degree-seeking students in graduate level courses at the direction of the department.

DPER Courses

DPER 519. Introduction to the Graduate Periodontology Program. 0 - 1 Units.

Introduction to the Graduate Periodontology Program. Introduce first year residents to the Graduate Periodontal Clinic and Program. The course consists of a series of seminars to discuss a variety of topics regarding patient care in the Graduate Periodontics clinic.

DPER 557. Periodontal Conference, 1 Unit.

Presentation of treated patients with advanced periodontal disease. Discussion of the clinical findings, etiology, diagnosis, and treatment plan. Critical review of the different surgical procedures used in therapy and evaluation of postoperative results. First in a series of four courses.

DPER 577. Clinical Periodontics. 0 - 6 Units.

Clinical practice of periodontics supplemented by case evaluation and treatment planning. A comprehensive study of normal and diseased periodontal tissues including etiology and diagnosis. Current modes of therapy-rationale technique, and prognosis. First in a series of four courses.

DPER 595. Advanced Periodontal Seminar. 1 - 3 Units.

Series of seminars covering clinical, histological, and physiological aspects of the periodontium in health and disease, etiology, diagnosis, prognosis, prevention, and treatment of periodontal disease, as well as the relationship of periodontics to other phases of dentistry.

DPER 665. Implant Literature Review 1. 1 Unit.

This course will consist of presentation/ discussion of pertinent topics related to the practice of implantology. Discussion of most relevant articles of each topic.

DPER 666. Implant Literature Review 2. 1 Unit.

This course will consist of presentation/ discussion of pertinent topics related to practice of implantology and the most relevant articles of each topic.

DPER 667. Implant Literature Review 3. 0 Unit.

This course will consist of presentation/ discussion of pertinent topics related to practice of implantology and relevant articles on each topic.

DPER 685. Literature Review in Periodontics. 1 Unit.

Comprehensive discussion of selected articles related to clinical periodontology and basic sciences of significance to periodontal research and therapy.

DPHC Courses

DPHC 501. Principals of Oral Epidemiology and Research Methods. 2 Units.

This course will address the distribution and determinants of oral and dental diseases at the local, state, national and international levels. Students will be instructed on the application of various dental indexes. Survey research methodology including questionnaire, development, and different forms of validity are also some of the topics taught. The course will enable residents to identify and formulate a research question that will be developed into a research proposal, to fulfill their residency requirement.

DPHC 505. Communication Methods in Dental Public Health. 2 Units.

This course will prepare students to be adept in searching scientific literature and gain/augment their skills in communicating as public health professionals. This skill set includes preparing literature reviews, manuscripts, developing research proposal and for this purpose students will gain proficiency in relevant software such as Reference Manager/EndNote/Adobe Connect. Students will be familiar with the different elements of a research proposal and gain skills in writing these components

DPHC 507. Data Analysis and Reporting. 2 Units.

Data Analysis and report writing will prepare residents to be proficient in analyzing public health/epidemiological by instructing them on the appropriate use of univariate, bivariate, and multivariate statistical test. Students will use either primary or secondary data sets for such applications. Bases on their previously approved research proposal and the results of the data analysis residents will write a scientific report to fulfill one of the requirements of the residency program.

DPHC 508. Dental Public Health Administration, 2 Units.

This course describes the history of dental public health, its principles, and the discipline as a recognized dental specialty. Understanding the discipline/profession and administration at local, state, national, and international levels will enable the graduates to be effective public health administrators.

DPHC 530. Graduate Preventive Dentistry. 2 Units.

This course will address primary, secondary, and tertiary prevention methods to prevent oral and dental diseases with the particular focus on groups of people rather than individual patients. Instruction on cost-effectiveness of different preventive modalities will enable students to choose the applicable program for specific populations.

DPHC 532. Oral Health Care Systems. 2 Units.

The course on oral health care systems will provide an insight into the dental care systems in the U.S. including different forms of financing, private, public, etc. Knowledge of the system will enable future dental public health professionals to recognize the oral health workforce models and their appropriateness to public health settings to provide dental care to various groups.

DPHC 551. Research in Dental Public Health I. 1.5 Unit.

One of the core aspects of dental public health training at CWRU is to augment residents' research skills; each resident will be required to develop, implement, and comp

DPHC 552. Research in Dental Public Health II. 1.5 Unit.

One of the core aspects of dental public health training at CWRU is to augment residents' research skills; each resident will be required to develop, implement, and complete at least one research project during the training. The project may involve primary data collection or the use of secondary data for analysis. The program director, members of the residency committee, and experts working in the area of each resident's interest will assist with the selection of an appropriate research topic and getting IRB approval. Following the data analysis, each resident will submit and defend a written report of the project. Acquisition of research skills will be facilitated by didactic courses and periodical meetings with the residency director and members of the residency committee.

DPHC 555. Dental Public Health Practicum I. 1.5 Unit.

Supervised field experience is an integral part of the advanced education program in dental public health at CWRU; the numerous field experiences are designed to augment residents' requisite public health skills as well as community-oriented primary care. The sites for field experience include Medina County Health Department, Akron Health Resources Inc., Free Medical Clinic of Greater Cleveland, etc. These sites have been carefully chosen for DPH residents to improve public health skills, which would enable them to succeed as a dental public health professional.

DPHC 556. Dental Public Health Practicum II. 1.5 Unit.

Supervised field experience is an integral part of the advanced education program in dental public health at CWRU; the numerous field experiences are designed to augment residents' requisite public health skills as well as community-oriented primary care. The sites for field experience include Medina County Health Department, Akron Health Resources Inc., Free Medical Clinic of Greater Cleveland, etc. These sites have been carefully chosen for DPH residents to improve public health skills, which would enable them to succeed as a dental public health professional.

DPHC 599. Independent Study in Dental Public Health. 1 - 9 Units.

The aim of this course is for dental public health residents to gain an in-depth understanding of selected topics in public health and/or augment their skills in epidemiological research methodology. Students will choose their topic(s) of interest in consultation with the course director and attain the requisite skill levels through assigned readings and written assignments. Students opting to augmenting their research skills will be required to complete a research project by developing and implementing the project followed by data analysis and writing a report.

DRTH Courses

DRTH 510. Humans: An Evolutionary Biology. 0 - 2 Units.

DRTH 523. Clinical Specialty Seminar. 2 Units.

This course is a companion to clinical training in orthodontics and involves faculty and student evaluation of past and present literature. Sessions are used to evaluate current timely literature, and lectures and seminars complement the clinical experiences with topics including patient management, treatment of various aged populations and malocclusions, orthopedic appliances, treatment of patients with special needs, and various aspects of fixed and removable mechanotherapy.

Policy on Academic Integrity and Plagiarism Committee on Graduate Studies Case Western Reserve, School of Dental Medicine

The Case Western Reserve University Statement on Ethics includes the following:

"All students are expected to adhere to the standards of academic honesty consistent with the University Statement on Ethics https://students.case.edu/policy/ethics.html
Any work submitted by a student must represent his or her own efforts. Any student engaging in cheating, plagiarism, or any other acts of academic dishonesty will be subject to disciplinary action" https://case.edu/ugstudies/academic-policies/academic-integrity

All forms of academic dishonesty including cheating, plagiarism, misrepresentation, and obstruction are violations of academic integrity standards. Cheating includes copying from another's work, falsifying problem solutions or laboratory reports, or using unauthorized sources, notes or computer programs. Plagiarism includes the presentation, without proper attribution, of another's words or ideas from printed or electronic sources. It is also plagiarism to submit, without the instructor's consent, an assignment in one class previously submitted in another. Misrepresentation includes forgery of official academic documents, the presentation of altered or falsified documents or testimony to a university office or official, taking an exam for another student, or lying about personal circumstances to postpone tests or assignments. Obstruction occurs when a student engages in unreasonable conduct that interferes with another's ability to conduct scholarly activity. Destroying a student's computer file, stealing a student's notebook, and stealing a book on reserve in the library are examples of obstruction https://students.case.edu/policy/

The following statements are intended to illustrate some basic standards and values to include but not limited to the School of Dental Medicine:

Performance on exams should reflect the student's ability.

~Violations of this standard include:

Giving or receiving privileged information regarding the specific content of an examination, prior to test time, which is not common knowledge of the participants, with the intent of gaining an unfair advantage. Giving, receiving, or using unauthorized aid during an examination, quiz or practical; Disclosing the contents of an exam to a student who has yet to take the exam; and/or

Making an unauthorized copy of an exam or portion thereof, or retaining possession of any exam, which the instructor has no intention of releasing.

Work submitted for credit should reflect the student's performance.

~Violations of this standard include:

Submitting lab projects for evaluation which were not produced by the student. This includes receiving aid beyond a reasonable extent from other students or instructors while preparing projects for evaluation; Claiming credit for clinical treatment which was not completed by the student with the exception of reasonable aid from faculty, and/or illegally altering patient clinic records for any reason; and/or Neglecting to adhere strictly to all conditions set for practical exams.

Respect should be shown for the property of others.

~Violations of this standard include stealing or defacing the project or personal effects of another student, person, the School of Dental Medicine, or the University. The taking or concealing of property with or without the intent of depriving permanently is unacceptable behavior.

Representation of self and others should be fair.

~Violations of this standard include intentional misrepresentation of one's own or any other student's grades, class rank, personal references activities, or any other material facts regarding academic and personal achievements.

(from the Code of Student Rights, Responsibilities, and Conduct, Part II, Student Responsibilities, Academic Misconduct, By action of the University Faculty Council (April 12, 2005) and the Trustees of Indiana University [June 24, 2005].)

Plagiarism, whether from printed, unprinted, or digital sources, is a serious violation of ethical conduct, and will be addressed. Such a violation can have severe consequences that could result in revocation of privileges, other disciplinary action, or possible separation of the student from their program of study. The current policy of the University's School of Graduate studies (Academic Integrity, Procedures and Rules) will be followed for assessment of level of violation and due course for student grievance. All disciplinary action will be placed in the student's academic file in the Office of Graduate Studies.

A qualified plagiarism review by the program director at the department level of all thesis documents (protocol and final document) should not exceed a standardized recommendation of 20% of matching text through any software program. Adopted 6/2020

Policy on Annual Review of Infection Control, Radiation Safety, and HIPAA Training

All advanced specialty education students having any direct patient contact in the clinics of the School of Dental Medicine are required to participate <u>annually</u> in an ongoing educational review program for infection control and radiation safety. The reviews are usually conducted in early July. Participation in clinics and the treatment of patients is not permitted unless the student has completed the reviews (or is in the process of completion).

Additionally, each year, new advanced specialty education students must be trained in HIPAA (Federal Health Insurance Portability and Accountability Act) privacy rules. This mandatory training is usually given in early July.

Failure to comply with this policy can result in loss of credit for time spent in program activities and is sufficient reason to separate the student from their program of study.

1.1 Revised 7/1/99, 4/14/03

Extramural Dental Practice for Advanced Specialty Education Students Committee on Graduate Studies

The advanced specialty education programs are designed as full-time programs of study. Those enrolled may engage in extramural dental practice only by permission of their program director and only within the following parameters:

Extramural dental practice hours must not coincide with any scheduled class, clinic, seminar, duty or on-call assignment, thesis preparation, or other activity of the program.

Extramural dental practice is limited to general practice; no extramural specialty practice is permitted in the area of the student's program of study. Students must not present themselves to others as having greater expertise or ability beyond that of the general dentist.

No extramural practice is permitted for any student while on probation.

Patients of record at the School of Dental Medicine or affiliated institutions cannot be solicited by the student for treatment in an extramural practice.

Patients from extramural practice cannot be treated by the student at the School of Dental Medicine or affiliated institution unless they are patients of record and appropriate fees are paid directly to the institution.

Violation of these guidelines (parameters) can result in revocation of privileges, other disciplinary action or possible separation of the student from their program of study.

Revised 12/16/96, adopted 2/3/97

Policy on Immunity to Hepatitis-B and Tuberculin Testing

In accordance with the Ohio State Dental Board (Ohio Administrative Code 4715-20-01) and the Ohio State Department of Health, all advanced specialty education students must:

Present evidence of natural immunity to hepatitis-B or evidence of immunization with a protective antibody response level to the Office of Associate Dean for Graduate Studies prior to participation in clinical activities at the School of Dental Medicine. The cost of immunization, testing or retesting are the responsibility of the student.

Participate in a no-cost annual tuberculin testing program conducted by the University Health Services (or provide results from another program of the individual's choice) if negative or undetermined for reactivity to tuberculin, or present a recent statement from a physician if tuberculin positive or BCG immunized of non-infectivity to the Office of the Associate Dean for Graduate Studies.

Those who are not in compliance with the above will not be permitted to assist in, or provide care to, patients in the clinics of the School of Dental Medicine. Failure to comply with these policies in a timely manner is sufficient reason to separate the student from their program of study.

Revised 7/1/97

Policy on Timely Registration

All advanced specialty education students in programs in endodontics, oral and maxillofacial surgery, orthodontics, pediatric dentistry, and periodontics must be registered twice each year in the School of Dental Medicine unless they are registered in another school of the University as part of a joint program with the School of Dental Medicine. Registration must be continuous to remain in the program of study. The Dental Registrar registers all students. Students not registered by the first week of classes are not permitted to be in the clinic.

Tuition is divided by semester. Within each semester, the first half is due the by the first day of classes, the second is due (approximately October 5 for Fall and March 5 for Spring). There is no extra charge for this. Students are normally pre-registered for Spring in November. Students are not permitted to register or pre-register if there is a balance due on their tuition account.

If the student anticipates any delay in registration, or the late payment of tuition/fees, the Dental Registrar must be informed by the student.

Participation in clinics and the treatment of patients is not permitted unless the student is registered. The student must ordinarily be registered at the time of their thesis defense.

Failure to comply with this policy of timely registration can result in loss of credit for time spent in program activities and is sufficient reason to separate the student from their program of study.

Revised 6/23/09

Welcome

Welcome to Case Western Reserve University School of Dental Medicine. We are delighted that you chose us as your dental care provider. The School of Dental Medicine is committed to providing you with high quality dental care. This booklet contains important Information for registered patients of the School of Dental Medicine. We urge you to take the time to read through it carefully, and to direct any questions you may have to your dental care provider.

The Mission of the School of Dental Medicine

To provide outstanding programs in oral health education, patient care, focused research and scholarship, and service that are of value to our constituents. We will accomplish this in an environment that fosters collegiality and professionalism, and that enables a diverse group of students to become competent oral health care providers and contributes to the health and well being of individuals and communities

.Dental Clinic Hours of Operation

Our clinics are open Monday through Friday throughout the school year, excluding holidays. During vacations, emergency care coverage for registered school patients on selected weekdays is provided from 9:30 a.m. to 12:30 p.m. A fee may apply.

In case of emergencies, involving severe pain, infection, bleeding and/ or swelling, on weekends or school holidays, please contact University Hospital Cleveland Medical Center at **216.844.1000** and ask for the CWRU School of Dental Medicine resident on call to be paged. Please be advised that the hospital emergency room will not replace or repair fillings, crowns, or other dental appliances. A standard hospital fee for emergency visits, in addition to the hospital's dental clinic procedure fee, may be applied. These fees are the patient's responsibility.

The primary role of the Case Western Reserve University School of Dental Medicine's Clinical Education Program is the training of dental health professionals. The care performed by our student doctors and residents, and overseen by our faculty and attendings, is carried out in a manner that prioritizes education while maintaining a standard of care of the dental profession.

Please be advised that an educational program clinic differs from a private clinic in many ways, and certain services and amenities provided at a private practice may not be available in a teaching clinic. Patients are charged a fee to cover the operating costs and services of the clinic. Educating our student doctors and residents during patient care will result in longer treatment time for most of our procedures and treatment when compared to a private dental office. Patients should consider the amount of time necessary to complete their care at Case Western Reserve University School of Dental Medicine to be sure this will not impose any undue hardship. Further, our student doctors will have periodic educational breaks in their training and therefore, during these times, the patient clinics will not be open for routine dental appointments.

CWRU School of Dental Medicine:

Clinic location: 9601 Chester Avenue, Cleveland, Ohio 44106 Mailing address: 10900 Euclid Avenue, Cleveland, OH 44106-4905

Parking Fees

A parking lot adjacent to the Dental Clinic is exclusive to our Dental Clinic and is managed by Standard Parking (SP Plus). The School of Dental Medicine does discount but not validate parking. Patients are responsible for their own parking fees and transportation. Overflow parking is also available in the Cleveland Clinic JJ Garage.

CWRU School of Dental Medicine Phone Number

Dental School Operator 216.368.3200 Dental School Fax 216.368.3204

Your Case Western Reserve University dental student and/or dental resident is the best source of information about your oral health and wants you to feel comfortable about your care. Maintaining healthy teeth and gums means more than just brushing and flossing every day and visiting the clinic regularly. As an informed dental patient, it also means knowing what you can expect from your dental care team and understanding your role and responsibilities in support of their efforts to provide you with quality oral health care. The rights and responsibilities listed below do not establish legal entitlements or new standards of care, but are simply intended to guide you through the development of a successful and collaborative dentist-patient relationship.

dental records upon request, and to have the information explained or interpreted as

Scheduling for Predoctoral (DMD) Clinic

	Emergency and Existing Patients	216.368.3
	DMD 1	819
DMD 2		216.368.3
	DMD 3	864
	DMD 4	216.368.3 707
	DMD 5	216.368.3
	DMD 6	570
	DMD 7	216.368.6

except when required by law or a thirdparty payer contract, or as permitted under the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

• You have the right to know sufficient

information to allow you to give us your signed informed consent before any treatment is started. Life threatening emergency care could be an exception.

Such Information includes detailed treatment plan(s), risks, benefits, and treatment alternatives for your dental condition including estimated costs.

- You have the right to prompt treatment (within the time constraints of the school calendar) and continuing care after you have reached a maintenance level, including follow-up care.
- You have the right to privacy concerning your dental treatment. Discussions concerning your care will remain confidential between you, your dental student, attending specialty residents (if applicable), clinical staff involved with your treatment, and the supervising faculty.
- You have the right to receive complete and current information concerning the diagnosis, prognosis and treatment of your dental condition, in terms you can understand.

- You have the right to expect that your care meets the Standards of Care of the profession.
- You have the right to considerate and respectful care without discrimination as to age, race, color, religion, sex, national origin, disability, gender identity or sexual orientation.
- You have the right to request and examine any financial statements regarding your treatment.
- You have the right to continue care as a recall patient after you have completed treatment and have reached maintenance level.

- You have the right to emergency care as needed, following the guidelines previously discussed in this booklet.
- You have the right to refuse treatment suggested for you. In that event, you will be advised of the consequences of your decision, including the possibility that your case may be deemed a non-teaching case.
- You have the right to prompt initiation, continuity, and completion of treatment (within the time constraints of the school calendar).
- You have the right to decide to participate or not as a subject of a research effort. Your status as a patient will not be affected by your decision.

- You have the responsibility to provide, to the best of your knowledge, accurate and complete information about your present health, dental complaints, past illnesses, hospitalizations, medications, and other matters pertaining to your health.
- You have the responsibility to keep your appointments, arrive on time and to be available preferably for treatment. (We recommend once every two weeks until your treatment is complete.) If you are unable to make a scheduled appointment, you must call at least 24 hours in advance. Patients may be dismissed from the program for three failed or no-show appointments.
- You have the responsibility to promptly tell your dental student/resident if you do not understand the treatment plan(s) developed for you or if you do not understand the course of your treatment or what is expected of you.
- You have the responsibility to follow the recommended instructions, including preventive techniques and follow-up treatment given to you by your dental student or a faculty member.
- You have the responsibility to know your insurance coverage and comply with the requirements of your insurance carrier. It is your responsibility to pay in full at the time services are rendered.
- You have the responsibility to accept comprehensive care and/or receive care in our specialty clinics. If you refuse our treatment plan(s), the School of Dental Medicine has the right to discontinue providing services to you as a patient. In the event this occurs, you bear the responsibility for any damage to your oral health and other circumstances that result from the refusal.
- You have the responsibility to adhere to the school policies, and to behave in a manner that is not offensive in the clinic setting. CWRU School of Dental Medicine is an institution of higher learning and services are provided to the community where civility is key to a teaching environment.
- You have the responsibility to address any concerns related to your care with your student, resident and/or faculty and/or attending. If these various individuals do not resolve your concerns, you can reach the Office of Patient Services for additional assistance. For concerns of financial nature, please call the Auditing Department via 216.368.6801.
- You have the responsibility to report any changes in your health or contact information since your last appointment.
- You have the responsibility to ensure children and dependent adults are not left unattended in any part of the building and do not access treatment areas.

Patient Inquiry

If you have questions about your treatment, fees, or rights, you should contact your student doctor and/or resident who may direct you to appropriate office. Resolution of non-financial problems and/or complaints should be attempted to be resolved while the patient is in the Clinic and the immediate faculty supervisor of the day is present. In the event this effort is unsuccessful, please contact the office of patient services at 216.368.3882.

Discontinuing Patient Treatment

CWRU School of Dental Medicine accepts all patients with dental needs that are considered appropriate for teaching students, regardless of race, religion, gender identity, age, disability, sexual orientation, ancestry or national origin. However, we reserve the right to dismiss patients or refuse treatment (except

to relieve pain or protect life) to any person for the following reasons:

• Clinic starts promptly at 10:00 a.m. and extends to 4:30 p.m. Monday through

least 24 hours in advance. Excessive cancellations or three failed/broken

All treatment in the School of Dental Medicine's undergraduate

clinical programs is provided by students. Your appointments are

- The patient has a history of not meeting their financial obligations to the School of Dental Medicine.
- The patient has a history of not abiding by the patient responsibilities listed herein.
- The patient's needs are beyond the skill level of students and/or residents.
- The patient's (or person accompanying the patient) conduct is disruptive or compromises the rights of others, or the patient has a history of disruptive conduct.
- Patient engages in inappropriate conduct, touching or hindering another person's movement.

Friday. You should plan to have at least four (4) hours a week available for your dental treatment (i.e. this may be two 2-hour appointments or one 4-hour appointment depending on the nature of the procedure). If your availability is too limited, your case will be discharged as a "NON-TEACHING CASE".

coordinated by our scheduling staff.

 Appointments should be cancelled only if it is absolutely necessary and you are able to contact the Clinic at

Appointments

- appointments during a year may result in your treatment being terminated.
- A patient who does not arrive for an appointment, cancels less than 24 hours in advance, arrives too late for treatment to be provided, not taking required pre-treatment medication or not bringing payment will forfeit their appointment, and it will be considered a 'failed appointment.'

After your initial screening appointment, if you are accepted as a teaching case, you will be given one or more additional appointments to determine your personal treatment plan(s), depending on the complexity of the case. Two treatment plans may be presented. One will be the preferred plan to provide the complete restoration of your mouth. A second plan may be presented that offers you a more limited and likely less expensive alternative. Please know that all treatment plans are estimates and additional services or a new treatment plan may be needed for newly discovered conditions. Please bear in mind that many of these less expensive alternatives also represent fewer permanent solutions to your dental health problems. To further assist you, in some cases, treatment can be phased so that treatment can be affordable.

The school does not generally accept new patients that request limited care or allow patients of record to continue treatment for emergency and/or urgent care only. Patients who continue to present only for emergency and/or urgent care will be dismissed from the program.

During your appointment, cell phone use is not

Continuity of Care

Patients of record will not have the option to select only limited portions of the recommended treatment plan for dental care or to split services between the CWRU School of Dental Medicine and a private dentist. Patients who are referred for specialty services (such as endodontics, periodontics, oral surgery, implants, orthodontics, or oral pathology services) by their private dentist will receive only the specialty care specifically requested and will not be accepted for restorative services.

We do not allow photography or video recording within the Dental Clinics at any time.

Student Doctor Assignments

- Requests for a transfer to another student are to be discussed with the faculty supervising your case.
- The Dental School will not honor repeated requests for a new student or resident.

Emergency Dental Care

Emergency dental care consists of treatment of pain, infection, bleeding and trauma. Emergency care does not include comprehensive examination and replacement of existing restorations or repair of prosthodontic appliances. Patients seen for emergency treatment, who do not have a private dentist, are encouraged to return to the school for comprehensive care.

Registered patients who have a dental emergency during normal school hours should contact the clinic by calling the School's receptionist at **216.368.3200**.

During school vacations, emergency care coverage for registered school patients on selected week days is provided from 9:30 a.m. to 12:30 p.m. To schedule, call 216.368.3200. In case of an emergency on weekends or school holidays, please contact University Hospital Cleveland Medical Center at 216.844.1000 and ask for the CWRU School of Dental Medicine resident on call to be paged. You will be responsible for any fees related to hospital treatment.

INSTRUCTIONS FOR THE PREPARATION OF A

THESIS PROTOCOL

PLEASE READ CAREFULLY

In order to provide assistance to graduate students, this set of instructions has been prepared as an aid to **thesis protocol** preparation. It is advisable that you follow these instructions so that the approval of your protocol is not delayed.

PURPOSE

The purpose of the thesis protocol is to provide the graduate student and their thesis committee with an outline for conducting the research project. Properly designed, the protocol should allow the student to understand the *what, why, when,* and *how* questions that are associated with the execution of their project. Consult your program director on the formation of a thesis committee (see STEP 1below). **Until full agreement exists between the student, the thesis committee, and those assigned for administrative oversight, the project should not be started. One or more revisions of the protocol are to be expected. It is important that some members of the committee have expertise in the area of research being proposed so as to provide advice, direction, and supervision to the student. If expertise is lacking, or if revision fails to improve the protocol, the project should be abandoned in favor of a different project that is more likely to meet with common approval and available expertise. It is far better to have the protocol rejected than the completed thesis. Therefore, a properly developed and approved thesis protocol will help guide the student and increase the likelihood that the thesis and its defense might be accepted.**

TIMING

The graduate programs at the School of Dental Medicine vary in length. Thus, the time for thesis protocol development and submission will vary. In general, the graduate student should be engaged in their program of study for a sufficient length of time to allow them to become familiar with the literature in their field and to identify areas in need of further study. Although the faculty can be helpful in identifying areas for further study, it should be one in which the student has some (special) interest. A year or more is normally needed for an approved protocol to be executed, and a thesis prepared, defended, revised, and accepted.

STEPS

1. Consult with your program director as to when and how to form a thesis committee. This is usually done at least one year prior to the anticipated time of your completion of the program. Your program director will choose a faculty member to serve as your primary thesis advisor. The primary thesis advisor and your program director will help identify other members of the faculty (at least two) to serve as secondary advisors and as members of the thesis committee. Members of the thesis committee continue in their capacity until the student is graduated or leaves the program of study. The thesis committee will be responsible for guiding the student in the development of a thesis protocol. Once a protocol is acceptable, the thesis committee members advise the student on the conduct of the research and writing of the thesis document. Ultimately, the committee members will evaluate the student's oral defense of the thesis.

- 2. Once your these committee has been formed, it is probably a good idea to meet with the members individually or in a group to discuss the general aspects of what research project you are interested in pursuing as your thesis. Based on this meeting, you should proceed appropriately; meet again or go to step three. Consultation with a statistician should occur before the experimental design is finalized to assure that the design permits proper measurements and correct analysis of the results. Statistical design is integral to the project's successful execution.
- Write a thesis protocol that includes all of the necessary elements (see the instructions, NECESSARY ELEMENTS). The entire protocol will be perhaps six to eight pages if all elements are used (less if some elements such as IRB approval or informed consent are not needed).
- 4. Meet with your committee as a group to review your protocol. Each member should hear the comments of the other members and be able to provide input. Modify or revise the protocol as needed. Develop a new protocol if necessary. Once you have revised the protocol to the satisfaction of your entire committee, if no IRB/Animal Experimentation committee approval is needed, ask your thesis advisor to sign the Thesis Protocol Approval Form.
- 5. If IRB/Animal experimentation committee approval is necessary, ask your thesis advisor to assist you in the submission of an application to the appropriate committee. Once accomplished, ask your thesis advisor to sign the **Thesis Protocol Approval Form**.
- 6. Submit each of the following items (as a package) to the Office of Graduate Studies:
 - thesis protocol
 - o timetable for your project and the preparation of your thesis
 - budget
 - signed Thesis Protocol Approval Form
 - o IRB/Animal Experimentation committee approval, if needed
 - o HIPAA compliant informed consent form, if needed.
 - iThenticate report

7. After your protocol receives administrative approval, develop a detailed literature review. Once you actively engage in the execution of the project, be certain that experimental design is being followed as planned and that the data is analyzed according to the protocol. If the protocol needs to be modified, check with your committee and get their permission first. Modification of a project to the point of doing a project markedly different from the project started will require the development and approval of a new protocol before continuing.

NECESSARY ELEMENTS of A THESIS PROTOCOL

- 1) Literature Review (Brief, only a few key articles)
- 2) A statement of the Question; Objective of the Study or the Hypothesis (Clear and precise)
- 3) Experimental Design
- 4) Statistical Design
- 5) Budget
- 6) Timetable
- 7) Review and Approval by the Appropriate Human or Animal Institutional Committee (**if needed**)
- 8) Informed Consent (**if needed**)
- 9) iThenticate report

The thesis project provides the student an opportunity to add to the body of knowledge in their field of study in a meaningful way. It also provides for a first-hand understanding of structured research, scientific method and sharing of ideas and findings.

The thesis must identify an area in need of further study. This should be based on a familiarity of the existing body of knowledge of that discipline for which a problem or question remains unanswered. Therefore, the first element is <u>LITERATURE REVIEW</u>. The literature review is of the key literature that helps to identify the problem (question) to be addressed by the study. It should not be an exhaustive search of the world literature. That is usually reserved for the thesis proper.

It is important to note that the references within your literature review will be cited by author (Please see the book <u>Citing Medicine</u>: <u>The NLM Style Guide for Authors, Editors, and Publishers</u> for precise directions on in-text citations as well as reference pages). A Literature Review reference page is required. This Reference page will list the authors alphabetically as opposed to numerically.

The next element is a <u>STATEMENT OF THE QUESTION</u>/THESIS, <u>OBJECTIVE OF THE STUDY</u>, or the <u>HYPOTHESIS</u> that has been supported by the Literature Review. This is followed by a detailed plan, which includes the <u>EXPERIMENTAL DESIGN</u> to address the question (objective/hypothesis). This aspect must follow scientific method. It must be well thought out, thorough, focused, and controlled to generate results (data) that can be analyzed and might help to answer the question posed. The student must be capable of using the instruments, techniques, etc., outlined in the plan, or have available expertise. The next element is a way to analyze the

data generated with application of using statistics of appropriate <u>STATISTICAL DESIGN</u>. Without a proper analysis of the data, the results will lack credibility and the thesis could prove to be unacceptable. In addition to the elements above that form the main body of the protocol, a <u>BUDGET</u> is needed, so that the cost of conducting the study can be matched with available resources. If the resources cannot be identified, the project will have to be modified while remaining credible, or must be abandoned. This budget must be approved by the Office of Graduate Studies. A <u>TIMETABLE</u> for conducting the project, analyzing the data, preparing, defending, and revising the thesis must be developed. The project must fit into the maximum five-year time frame permitted to complete the program. Embarking on a project that will likely take years to complete, should be modified or abandoned. Lastly, if human or animal subjects are to be used in the study, <u>REVIEW AND APPROVAL BY THE APPROPRIATE HUMAN OR ANIMAL INSTITUTIONAL COMMITTEE</u> of the university must be obtained. In the case of use of human subjects, an <u>INFORMED CONSENT</u> must be submitted for approved for IRB approval.

Thesis Protocol Approval form

Case Western Reserve University School of Dental Medicine Office of Graduate Studies

INSTRUCTIONS TO GRADUATE STUDENTS: Please complete this side of the form and present it to your thesis committee chairperson (primary advisor) who will complete the reverse side following your protocol presentation to your thesis committee. Please note that the members of your committee MUST BE PRESENT at the time of your thesis defense. Substitutions will not be allowed. Attach a copy of the thesis protocol in its final form (see INSTRUCTIONS FOR THE PREPARATION OF A THESIS PROTOCOL), a budget, and (as appropriate) informed consent, IRB or animal experimentation application. Submit to the Dental School Office of Graduate Studies promptly. Students may not begin work on the thesis unless the protocol is approved and signed by the Thesis Committee Primary Advisor and the Associate Dean for Graduate Studies. Should the Associate Dean have questions or concerns, your thesis committee chairperson will be notified.

Your Name:	
Department:	
Committee Members (no less than three, of which two must be from you study and one from outside your home department)	r home department of
	(primary advisor)
Thesis Title:	
Anticipated Date Of Graduation:	

Thesis Protocol Approval Form

(this side to be completed by thesis committee chairperson)

INSTRUCTIONS TO THESIS COMMITTEE CHAIRPERSON: Please sign-off that the protocol for the student's thesis has been critically reviewed by the committee for the following elements and meets with the committee's approval:

Literature review			-
Hypothesis/objective			_
Experimental design			-
Statistical analysis design			-
Reference list/literature cited			_
Budget and time			_
IRB/Animal experimentation approval (if applicable)			_
Informed consent (if applicable)			_
			_
(Date of Committee's Protocol Review)	(Signature of	Program Director)	
INISTRATIVE REVIEW: The proper approvals have beent's thesis work to commence.	en reviewe	ed and are acceptable t	o enable the
(Associate Dean for Graduate Studies)	(Date)		-

SCHOOL OF DENTAL MEDICINE OFFICE OF GRADUATE STUDIES CASE WESTERN RESERVE UNIVERSITY

INSTRUCTIONS FOR THE PREPARATION OF A THESIS DOCUMENT (Including a Manuscript Suitable for Submission to a Refereed Journal)

PLEASE READ CAREFULLY

In order to provide assistance to students, this set of instructions has been prepared as an aid in thesis document preparation. The entire document must be checked by the Office of Graduate Studies <u>before</u> the production of the final copies. It is <u>strongly advised</u> that the document is <u>checked early</u> during the preparation phase and prior to the defense. This office will advise you only on grammar, style, margins, spacing, paper quality, etc. The "Information for Authors" of the journal selected for submission of a final manuscript must be provided to the members of the thesis advisory committee and the Office of Graduate Studies. Content is the prime responsibility of the student and the advisory committee. However, if the contents deviate significantly from an accepted standard of scholarship, the document will not be accepted.

The instructions given here are not intended to be all encompassing, but do provide guidance in meeting the basic requirements for the form of the thesis manuscript. <u>These instructions take precedence over other instructions or advice you may obtain, unless given by the Associate Dean for Graduate Studies.</u>

For questions about formatting not answered by a thorough reading of these instructions, consult with the Office of Graduate Studies. A Manual for Writers of Term Papers, Theses, and Dissertations, authored by Kate L. Turabian, 6th ed. (or later), rev. by John Grossman and Alice Bennett, published by the University of Chicago Press, 1996 (ISBN 022681625) might also be helpful. This guide may be purchased at the University Bookstore at Thwing Student Center. A copy is available in the Office of Graduate Studies for overnight use and must be returned the following morning.

RESEARCH REQUIREMENT

The School of Dental Medicine has established a thesis document as one of the requirements needed to earn the degree Master of Science in Dentistry. The program director and student must establish a thesis advisory committee prior to beginning their research project. The chair of the thesis advisory committee is appointed by the program director. Once appointed, the chair of the thesis advisory committee appoints the other members of the committee. A minimum of three faculty members is required for a master's thesis advisory committee. Two members must be from the student's department of study. The thesis advisory committee must consider and approve a research protocol prior to commencing the actual study. The student must follow the protocol unless it is modified by the thesis committee. Following data collection, a manuscript suitable for submission to a referred journal is prepared in accordance with the detailed instruction to authors established by the journal to which the final manuscript will be submitted. It must be carefully examined by all the members of the thesis advisory committee, who should

offer corrections. Once all corrections of the manuscript for publication have been made, a defense may be scheduled. Notice of the defense must be posted at least ten days prior to the defense. All members must be present at a defense. Approval of the defense must be unanimous for the defense of the research portion of the requirement to be met. The student should allow for a period of time for the correction and revision of the manuscript following the defense, usually 3-4 weeks. Submission of the correct number of copies of the final, revised thesis manuscript, in a form acceptable to the Associate Dean for Graduate Studies, is required.

NUMBER OF COPIES REQUIRED

1. Three (3) copies of the final approved thesis document in proper form (with original photographs or high quality scanned images) must be submitted to the Office of Graduate Studies. Each must include a copy of the approval sheet signed by all members of the thesis advisory committee. The research requirement is not considered completed until these copies are received and accepted. The copies will be bound at the School's expense. One copy will be deposited in the Library, one in University Archives, and one in the Office of Graduate Studies. These final copies should not be produced until the Associate Dean for Graduate Studies has given approval for their production and submission.

Regardless of the method used, all final copies must be on a white bond, 20 lb. weight, of at least 25% cotton content (see "PAPER QUALITY" below). Any of the following methods of reproduction are acceptable.

a) Photocopies. Each must be clean and the print quality of good contrast and in proper alignment. Bond paper can be inserted into photocopying machines. Graduate students in the School of Dental Medicine are permitted to use the photocopy facility in the School of Dental Medicine at no cost. Additional copy centers are available on campus and are used at the student's expense. (Caution! Please be aware that photocopying sometimes causes the text to shift to the left reducing the size of the left margin or can reproduce the text tilted on the page. Be sure to check for this on each page if you are photocopying your thesis manuscript).

- **b)** Word processor or computer-generated copies.
- 2. Additional copies for the examiners. Copies for committee members need not be on bond paper unless required by the department. Students should consult their advisor concerning departmental requirements. It is the student's responsibility to deliver a copy of the thesis document to be defended to each committee member at least ten days prior to the examination date.
- 3. Some departments require one or more final copies of the thesis document for deposit in the department. Please check with your advisor or program director.
- 4. Students may wish to have copies bound for their own use. Please contact University Printing Services (located at Thwing Student Center) for information on this service.

PAPER QUALITY

The three copies of the final corrected thesis document must be submitted to the Office of Graduate Studies and must be on white bond paper, 20 lb. weight, of at least 25% cotton content. **Regular photocopy paper is unacceptable.** Bond paper should <u>not</u> be used until all corrections to the thesis document have been made, and approval given by the Office of Graduate Studies to produce the final copies. A **measured quantity** of bond paper, sufficient to produce the required number of final copies, will be provided by the School of Dental Medicine.

TYPING INSTRUCTIONS

The work must be typed. All equations and annotations on figures, charts, graphs, etc. must also be typed. The only exceptions are symbols not available on a recent model word processor. These may be carefully hand-drawn.

- 1. TYPE STYLE. Any of the following type styles, in font size 12, are acceptable: Arial, courier, elite, Gothic, Helvetica, or Times Roman. Do not use script, italic or bold typefaces for general type style. **Make sure the type style you choose for your outline is the same being used for preparation of your FINAL thesis document copy.** Other type styles may be used in figures, charts, etc., but <u>only those indicated above may be used in the text</u>.
- 2. MARGINS. The margin on the left side of all pages must be 1-1/2 inches. Top, bottom and right margins must be 1-1/4 inches except for the first page of a chapter, which must have a top margin of 2 inches. The text may extend one line below the 1-1/4

inch margin when necessary to avoid creation of a following page of one line in length. All text pages must have justified margins. All photographs, charts, tables, graphs, drawings, etc., must fit within these specified margins.

- 3. SPACING. The text must be double spaced. Quotations of three or more lines, itemized or tabulated material, footnotes, and the bibliography must be single spaced with a double space between entries. **SEE "REFERENCES" FOR CORRECT FORMAT OF BIBLIOGRAPHY.** When a table or figure is inserted into the text, three blank lines precede and follow the table or figure except at the top or end of a page. Titles, legends, and notes to tables and figures are single spaced.
- 4. INDENTATION (TAB). Indent one-half inch (0.5") from the left margin to begin a new paragraph. Indent an additional one-half inch for a block quotation or list. Indentation must be uniform and consistent.
- 5. CHAPTERS (MAJOR PARTS). Each chapter begins on a new page. The title of the chapter (major part) is centered at the top of the page and appears in UPPERCASE with a top margin of two inches. The text, or chapter subsection if used, begins on the third line below the title. The page number is located bottom center. Chapters may be divided into subsections (subheadings) if desired. However, a hierarchy must be consistently followed throughout. The first subsection (sub-level) is centered, underlined or bold, headline style (Capitalize the First Letter of All Important Words). The second sub-level is centered, not underlined or bold, headline style. The third level is flush left margin, underlined or bold, headline style. The fourth level is flush left, not underlined or bold, sentence style. The fifth level is run with the paragraph, underlined or bold, sentence style. Examine the following example for help.

LITERATURE REVIEW

New Generation Impression Materials

Polyether Dual-phase Materials

AquasilTM LV Impression Material

Smart wetting agents in current use <u>Thixotropic properties of hydrophilic agents</u>

6. FOOTNOTES. Footnotes must be single spaced. The preferred location is at the bottom of the page on which the citation occurs. However, footnotes may be placed at the end of each chapter or major section or at the end of the work. Footnotes placed at the bottom of the page must be separated from the text by a solid line and there must be a

double space between footnotes.

- 7. TITLE PAGE. The title page of the thesis document must follow the format of the attached sample (Appendix A). The date on the title page must be the actual month, day and year that the degree is to be conferred NOT the date of the defense or approval.
- 8. ABSTRACT. The abstract of the thesis document <u>may not exceed 350 words</u>, and must follow the format of the attached sample (See Appendix C).
- 9. ORDER OF CONTENTS. The organization of the thesis document must follow the order below. Use UPPERCASE for the titles of the chapters (major divisions) of the TABLE OF CONTENTS. Only the first letter of the first word or proper name is in uppercase in the Table of Contents when subsections of chapters are used. A sample "TABLE OF CONTENTS" may be found at the end of this document (See Appendix C). All pages that precede the text are numbered at the bottom of the page with lowercase Roman numerals.
- 10. PAGINATION. All pages except the approval page and title page (and copyright sheet if used) must be numbered. The numbering must be consecutive. The page number should appear in the margin centered, and midway between the edge of the paper and the text if possible. The page number should appear in the same precise location on every page which requires the same relative location for its page number.

For pages numbered with **Roman numerals**, the number must be at the **bottom center** of the page. For pages using **Arabic numerals** are numbered at the **center bottom** of the page. Pages on which legends appear on a page facing a figure or table are counted in the number sequence but the number is not typed on the legend page. Appendices, bibliography, etc., are considered major divisions. The writer must be consistent in the use of major divisions. If used, standard 8-1/2 x 11 photographic paper pages can be numbered by using press-type or rub-on numbers.

11. REFERENCES (Literature Cited or Bibliography). This represents a complete list of all source materials which the thesis document writer personally examined in preparing the thesis document. The format (output style) needed for the reference list at the end of the thesis document is a **modification** of the format found in the <u>Uniform Requirements for Manuscripts Submitted to Biomedical Journals</u> (also known as the Vancouver style) and uses abbreviations adopted by the Index Medicus (www.ncbi.nlm.nih.gov/PubMed). Mrs. Kathy Blazar, Librarian at the Health Science Library, can help you with this. Please see Appendix B for additional instructions, and a copy of the modified format and guidelines is available on-line at www.icmje.org.

For those who wish, software for the purpose of importing references into a thesis document is available for purchase at the University Bookstore for around \$135.00. The only modification of the instructions given by the ICMEJ is that the references cited are noted as superscripted numbers that appear immediately following the author(s) name or, when the author's name does not appear in the text, at the end of a phrase or sentence attributable to the author and follows all necessary punctuation.

12. TABLES. Tables efficiently organize and condense data into a standardized form. They are an adjunct, and not a replacement for the text. <u>Tables must be carefully constructed, easy to read and self-explanatory</u>. They should be placed directly in the text (as close as possible to their first reference), or may be in an appendix, or both. All tables that appear within the text must be referred to in the text. The main information of the table must be adequately narrated. Tables in an appendix, if used, follow in numerical sequence to those appearing in the text.

Tables used **must** contain the following elements unless the journal chosen for submission follows a different format: Table number, title, and column headings. Footnotes to the table are sometimes necessary and should be included as appropriate. Tables are numbered in sequence by Arabic numerals as they are mentioned in the text, and each appears as close to the first text reference to it as possible or as space permits (inserted at the end of the paragraph). Each table is given an Arabic number followed by a period, two dashes and by a title that is **centered** (single spaced and no wider than the table) **immediately** over the table (as the title is part of the table and not separate from it), e.g.,

TABLE 1.--Mean Velocity of Traffic on Euclid Avenue at Cornell Road between 4:00 A.M. and 6:00 P.M.*

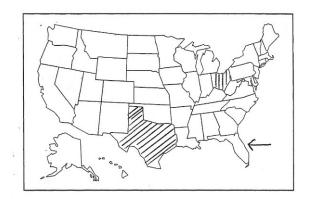
Type of Vehicle	Mean Velocity by Radar	Mean Velocity by Laser
Automobiles	22.35	22.68
Bicycles	12.13	12.33
Trucks	64.55**	66.29**

^{*}velocity given in kilometers/hour

^{**}velocity considered unsafe and a public hazard

13. FIGURES (ILLUSTRATIONS). Figures include drawings, photographs, charts and graphs. Figures should be placed as close as possible to their first reference in the text. Like tables, figures are not a replacement for the text, and they must be numbered in sequence and referred to in the text. Each figure is given an Arabic number followed by a legend that appears below the figure. The legend explains the figure making it self- explanatory. When key symbols are used, the same symbols are used in the legend or, if unavailable, the key symbols are described in the legend and appear underlined or italicized. Figures placed in an appendix, are numbered in sequence. A sample figure follows:

Figure 1. Map of the United States. Ohio



Graphs should ordinarily be line or bar type, drawn in a two-dimensional style. Graphs in three-dimension are often difficult to interpret and should be avoided in most cases. Each axis must be properly labeled and the units of measure given on the axis (or in some cases, the legend).

- 14. PHOTOGRAPHS. High quality scanned images are preferred. Alternately, photographs can be cut to size and dry-mounted (not glued) or affixed with Scotch® 415 Double-coated Polyester Tape onto bond paper or 65 lb. white paper (8-1/2 x 11 Kodak photographic pages are also acceptable). All oversized pages can be reduced and copied onto bond paper. All photographs must have a properly constructed legend and might also require labels for clarity.
- 15. USE OF TRADEMARKSTM AND REGISTERED NAMES[®]. Words, titles, phases, product names or symbols bearing the designations "[®]" or "TM" must be identified as such, and the owner identified by notation in the text (or by footnote) and, if used as a material or method in your study, in the MATERIALS AND METHODS section with

proper footnote. See "FOOTNOTES" for correct format. The symbols "®" or "TM" must be used every time the product name appears. If the word or phase is in common use, e.g., Pepsi®, no footnote is necessary if simply referred to in the text.

HELPFUL EXAMPLES

You might find the following examples helpful in your understanding and application of the instructions. First is a sample of the format to use when creating a list. Please note that each item of the list is indented two levels (one inch) from the left margin. For lists:

- Single space within items on a list. Double space between them.
 Do not use semicolons to separate items.
- 2. Bullets or letters rather than numbers can be used for lists. Always use proper punctuation if the items are written as complete sentences.
- 3. Return to double spacing following the list.

Quotations of less than three lines are placed in the text and identified by quotation marks at the "beginning and end." For a block quotation of three or more lines, use the following format.

"The present study provides another perspective on the contribution of MR imaging variables to TMJ pain and may have an impact on the presumptive terms *internal derangement* and *degenerative joint disease*, which consider TMJ imaging variables of the disk-condyle relationship and osteoarthritis to be diagnostic for disease."

Following a block quotation, return to regular margins, line spacing and format. Examples of a title page, abstract and table of contents are found on the following pages.

A COMPREHENSIVE STUDY OF DENTAL IMPLANTS

by

JOHN L. SMITH, D.D.S.

Submitted in partial fulfillment of the requirements for the degree of Master of Science in Dentistry

Thesis Advisor: Jane Doe, D.D.S., M.S.D.

Case Western Reserve University

School of Dental Medicine

Department of Endodontics

June 30, 2009

Appendix B

The following instructions refer to the options you have on citing your references. The websites where this (and further) information can be found are pasted at the bottom.

IV.A.9. References

IV.A.9.a. General Considerations Related to References

Although references to review articles can be an efficient way to guide readers to a body of literature, review articles do not always reflect original work accurately. Readers should therefore be provided with direct references to original research sources whenever possible. On the other hand, extensive lists of references to original work on a topic can use excessive space on the printed page. Small numbers of references to key original papers often serve as well as more exhaustive lists, particularly since references can now be added to the electronic version of published papers, and since electronic literature searching allows readers to retrieve published literature efficiently.

Avoid using abstracts as references. References to papers accepted but not yet published should be designated as "in press" or "forthcoming"; authors should obtain written permission to cite such papers as well as verification that they have been accepted for publication. Information from manuscripts submitted but not accepted should be cited in the text as "unpublished observations" with written permission from the source.

Avoid citing a "personal communication" unless it provides essential information not available from a public source, in which case the name of the person and date of communication should be cited in parentheses in the text. For scientific articles, obtain written permission and confirmation of accuracy from the source of a personal communication.

Some but not all journals check the accuracy of all reference citations; thus, citation errors sometimes appear in the published version of articles. To minimize such errors, verify references against the original documents. Authors are responsible for checking that none of the references cite retracted articles except in the context of referring to the retraction. For articles published in journals indexed in MEDLINE, the ICMJE considers PubMed the authoritative source for information about retractions. Authors can identify retracted articles in MEDLINE by using the following search term, where pt in square brackets stands for publication type: Retracted publication [pt] in PubMed.

IV.A.9.b. Reference Style and Format

The Uniform Requirements style for references is based largely on an American National Standards Institute style adapted by the NLM for its databases. Authors should consult NLM's Citing Medicine for information on its recommended formats for a variety of reference types.

Appendix B

References should be numbered consecutively in the order in which they are first mentioned in the text. Identify references in text, tables, and legends by Arabic numerals in parentheses. References cited only in tables or figure legends should be numbered in accordance with the sequence established by the first identification in the text of the particular table or figure. The titles of journals should be abbreviated according to the style used in the list of Journals Indexed for MEDLINE, posted by the NLM on the <u>Library's web site</u>. Journals vary on whether they ask authors to cite electronic references within parentheses in the text or in numbered references following the text. Authors should consult with the journal to which they plan to submit their work.

Reference Lists Versus In-Text References

References are presented in two ways in medical publications. At the end of a journal article, book, or book chapter, all of the references that contributed to the work are presented in a list called references, end references, literature cited, or bibliography. Within the text of a publication, individual references are presented in an abbreviated format that refers back to the list. These abbreviated references within the text are called "in-text references."

Three major systems of in-text references are used by medical publishers: citation-sequence, citation-name, and name-year. See *Scientific Style and Format* (7th ed. Reston (VA): Council of Science Editors; 2006) for a detailed discussion of all three systems.

In the citation-sequence system, numbers are used to refer to the reference list. References are numbered in the list in the order they first appear in the text. For example, if a reference by Zelinski is the first one referred to in the text, then the Zelinski reference is number one in the list.

In the citation-name system, numbers are also used in the text to refer to the reference list. However, the references in the list are numbered in alphabetical order by author. Thus a reference authored by Adam would be number 1, by Baker number 2, etc. These numbers are used in the text regardless of the order in which they appear.

Finally, in the name-year system, in-text references consist of the surname of the author and the year of publication, usually enclosed in parentheses, such as (Smith 2006). The list of references is ordered first by author, then by year.

Both the citation-sequence and citation-name systems format parts of references in the same order that they are found in *Citing Medicine*. In the name-year system the date of publication is taken out of order and placed after the author or after the title if there is no author. To accommodate those users who prefer using the name-year system, instructions are provided in each chapter in the Special Rules under "Options for date of publication."

http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=citmed.intro.63373

Appendix B

 $\underline{http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=citmed.TOC\&depth=2}$

Appendix C

THE EFFECTS OF CARCINOGENIC AGENTS ON THE ODONTOGENIC TISSUES IN THE ALBINO RAT

Abstrac

t by

HAROLD JAMES SMITH

An attempt was made to induce neoplasms in the odontogenic tissues of rats by the application of various oncogenic agents: Aniline, arsenic, asbestos, beryllium and nickel. Fifty-five weanling Wistar albino rats were subjected to the bilateral injection of one-tenth mL of a single carcinogenic agent into the posterior mandible at the base of the incisor teeth.

Radiographic and histologic examination revealed that the mandibles of animals subjected to different agents were similarly affected. The materials implanted had no demonstrable oncogenic affect one hundred-day post-injection. However, odontomalike hamartomas encountered in four experimental animals were likely the result of a traumatic disruption of the developing normal odontogenic tissue present at the site of injection. This suggests that trauma may be an important factor in the pathogenesis of hamartomas of the odontogenic apparatus.

Appendix C

Approval Page

this page is not to be numbered or

counted Title Page

not numbered but considered page

i

TABLE OF CONTENTS

		Page
DEDICATION (option	nal)	ii
ACKNOWLEDGEME	ENTS (optional)	ii
ABSTRACT		iv
INTRODUCTION		1
REVIEW OF THE LIT	TERATURE	2
LIT REVIEW REFER	ENCES (ALPHABETICAL BY AUTHOR)	15
STATEMENT OF TH	E THESIS	18
MANUSCRIPT FOR I	PUBLICATION	20
MANUSCRIPT REFE	RENCES (FORMAT ACCORDING TO JOURNAL)	40
APPENDICES (all dat	a collected)	87
A. IRB	APPPROVAL/INFORMED CONSENT (REQUIRED)	101
	TERIALS NEEDED BY DEPARTMENT PREFERENCI CLUDES RAW DATA, ETC	E

CASE WESTERN RESERVE UNIVERSITY SCHOOL OF DENTAL MEDICINE GRADUATE STUDIES

We hereby approve the thesis of
Candidate for the degree Master
of Science in Dentistry.
Signed:
(Thesis Advisor)
Nate:

General Thesis/End of Program Timeline Guidelines Program Directors and Advanced Specialty Education Students

One year before end of program

Final approved thesis protocol submitted to

Office of Graduate Studies (including IRB approval, etc.)

Ninety days before graduation Completed Application for MSD submitted to Office of

Graduate Studies

Ten days before thesis defense Copies of thesis given to all thesis committee members

Copy posted for dental community

30 days before graduation Thesis Defense

Two weeks before graduation Departmental approval of student's completion

filed with the Office of Graduate Studies

Check out sheet submitted to Office of Graduate Studies (MSD & certificate

programs)

Final approved digital copy of thesis including committee signature page submitted to Office of

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Permission to publish submitted to Office of Graduate Studies

Upon receipt of all of the above, Certificate of Completion issued to student (MSD & certificate

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At least fourteen days before graduation Faculty recommends

student for degree

Day after graduation Diploma issued by Registrar

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