

SCHOOL OF DENTAL MEDICINE

SCHOOL OF DENTAL MEDICINE

10900 Euclid Avenue
Phone 216-368-3200; Fax 216-368-3204
Jerold S. Goldberg, Dean

The School of Dental Medicine is a professional school offering a curriculum leading to the Doctor of Dental Medicine degree (D.M.D.). Advanced education programs in the dental specialties are also available. In conjunction with the School of Medicine, the School of Dental Medicine offers a combined D.M.D./M.D. program. The School of Dental Medicine also offers a program of continuing education courses in conjunction with the Greater Cleveland Dental Society for dental practitioners and auxiliaries including dental laboratory technicians.

The School of Dental Medicine was organized June 21, 1892, as the Dental Department of Western Reserve University. For the first 25 years of its existence, the school was located in downtown Cleveland. In 1917, the School of Dental Medicine became an integral part of the university and now occupies a building adjacent to the schools of medicine and nursing and University Hospitals of Cleveland. In 2003 the name of the school officially changed from the School of Dental Surgery to the School of Dental Medicine and the degree offered changed from Doctor of Dental Surgery to Doctor of Dental Medicine.

The School of Dental Medicine is a member of the American Association of Dental Schools and all of the programs of the School of Dental Medicine are accredited by the Commission of Dental Accreditation. Since its organization, it has conferred degrees on approximately 4,700 graduates.

ADMINISTRATION

Jerold S. Goldberg, D.D.S.
(Case Western Reserve University)
Dean of the School of Dental Medicine; Professor of Oral and Maxillofacial Surgery; Interim Provost

Ronald L. Occhionero, D.D.S.
(Case Western Reserve University)
Associate Dean for Administration; Professor of Comprehensive Care

Marsha A. Pyle, D.D.S.
(Case Western Reserve University), M.Ed.
(Cleveland State University)
Associate Dean for Education; Associate Professor of Oral Diagnosis and Radiology

Stanley A. Hirsch, D.D.S.
(Case Western Reserve University), M.S.
(Indiana University)
Associate Dean for Graduate Studies; Associate Professor of Oral Pathology and Acting Chair of the Department

Danny R. Sawyer, D.D.S., Ph.D.
(Medical College of Virginia)
Assistant Dean for Didactic Education; Professor of Oral Diagnosis and Radiology and Chair of the Department

Heather M. Siegel, B.A., MPA
(Western Michigan University)
Director of Development and Alumni Affairs

Philip C. Aftoora, B.S. (University of Dayton), M.A. (Case Western Reserve University)
Director of Student Services

David A. Dalsky, B.A., M.Ed.
(Kent State University)
Director of Admissions

John W. Smolik, M.B.A., C.P.A.
(Baldwin Wallace College)
Director of Finance and Operations

FACULTY

Jose Araúz-Dutari, D.D.S.
(University of Panama)
Assistant Professor of Periodontics

Cecil S. Ash, D.D.S. (Dalhousie University), M.S. (University of Manitoba)
Assistant Professor of Oral and Maxillofacial Surgery

Hussein M. Assaf, D.D.S.
(The Ohio State University)
Assistant Professor of Comprehensive Care

Sally T. Baden, D.D.S., M.S.
(Case Western Reserve University)
Associate Professor of Oral Diagnosis and Radiology

Dennis C. Beeson, D.D.S., M.S.
(Case Western Reserve University);
Assistant Professor of Orthodontics

Nabil F. Bissada, B.D.S. (University of Cairo, Egypt), D.D.S. (Case Western Reserve University), M.S.D. (University of Minnesota)
Professor of Periodontics and Chair

Jon P. Bradrick, D.D.S. (University of Iowa)
Associate Professor of Oral and Maxillofacial Surgery

Louis P. Castellarin, D.D.S.
(Marquette University)
Associate Professor of Comprehensive Care

Sami M. Chogle, D.D.S.
(Dharwad University, India), M.S.D. (Case Western Reserve University)
Assistant Professor of Endodontics

Catherine Demko, Ph.D.
(Case Western Reserve University)
Assistant Professor of Community Dentistry

Fady F. Faddoul, D.D.S., M.S.D.
(Case Western Reserve University)
Associate Professor of Comprehensive Care

Gerald A. Ferretti, (Georgetown University), M.S. (University of Connecticut); M.P.H. (University of Kentucky)
Professor of Pediatric Dentistry and Chair of the Department

Monica Fisher, D.D.S., M.P.H., Ph.D..
(University of Michigan); M.S.
(University of Connecticut)
Associate Professor of Orthodontics

Jerold S. Goldberg, D.D.S.
(Case Western Reserve University)
Professor of Oral and Maxillofacial Surgery; Dean; Interim Provost

Angela R. Graves, D.D.S. (Meharry Medical College), M.S. (Columbia University)
Assistant Professor of Comprehensive Care

Yping W. Han, Ph.D. (University of Illinois)
Associate Professor of Biological Sciences

Mark G. Hans, D.D.S., M.S.
(Case Western Reserve University)
Professor of Orthodontics and Chair

Alfredo Hernandez, D.D.S. (Javeriana University, Columbia); M.S. (The Ohio State University)
Assistant Professor of Comprehensive Care

Stanley A. Hirsch, D.D.S. (Case Western Reserve University), M.S.
(Indiana University)

Associate Professor of Oral Pathology and Acting Chair; Associate Dean for Graduate Studies

T. Roma Jasinevicius, D.D.S. (Case Western Reserve University), M.Ed. (Cleveland State University)

Associate Professor of Comprehensive Care

Ge Jin, Ph.D.

(Case Western Reserve University)

Assistant Professor of Biological Sciences

Zinaida Kaleinikova, D.D.S.

(Kaunas Medical University, Lithuania)

Assistant Professor of Comprehensive Care

Jefferson J. Jones, D.D.S.

(University of Pittsburgh)

Associate Professor of Endodontics and Chair

James A. Lalumandier, D.D.S. (Georgetown University), M.P.H. (University of North Carolina)

Associate Professor of Community Dentistry and Chair

Michael A. Landers, D.D.S.

(Case Western Reserve University)

Associate Professor of Oral Diagnosis and Radiology

Charles J. Love, D.D.S.

(Case Western Reserve University)

Associate Professor of Comprehensive Care

André K. Mickel, D.D.S., M.S.D.

(Case Western Reserve University)

Assistant Professor of Endodontics

Sena Narendran, B.D.S. (University of Ceylon, Sri-Lanka), M.S. (University of London, England)

Associate Professor of Community Dentistry

Suchitra S. Nelson, Ph.D.

(Case Western Reserve University)

Associate Professor of Community Dentistry

Ronald L. Occhionero, D.D.S.

(Case Western Reserve University)

Professor of Comprehensive Care; Associate Dean for Administration

Juan Martin Palomo, D.D.S. (Ponta Grossa State University, Brazil), M.S.D.

(Case Western Reserve University)

Assistant Professor of Orthodontics

Leena Palomo, D.D.S., M.S.D.

(Case Western Reserve University)

Assistant Professor of Periodontics

Jin-Ho Phark, D.D.S. (Humboldt University, Berlin)

Assistant Professor of Comprehensive Care

Marsha A. Pyle, D.D.S. (Case Western Reserve University), M.Ed.

(Cleveland State University)

Associate Professor of Oral Diagnosis and Radiology; Associate Dean for Education

Faisal A. Qureshy, D.D.S. (State University of New York), M.D. (Case Western Reserve University)

Assistant Professor of Oral and Maxillofacial Surgery

Avishai Sadan, D.M.D.

(Hebrew University, Jerusalem, Israel)

Professor of Comprehensive Care and Chair

Danny R. Sawyer, D.D.S., Ph.D.

(Medical College of Virginia)

Professor of Oral Diagnosis and Radiology and Chair of the Department; Assistant Dean for Didactic Education

Benjamin L. Schechter, D.D.S.

(Case Western Reserve University)

Assistant Professor of Comprehensive Care

Robert C. Skillicorn, B.A., D.D.S.

(Ohio State University)

Associate Professor of Periodontics

Manish Valiathan, B.D.S.

(College of Dental Surgery, Manipal, India),

M.S.D. (Case Western Reserve University)

Assistant Professor of Orthodontics

Lance Vernon, D.M.D., M.P.H.

(University of Pittsburgh)

Senior Instructor of Biological Sciences

Kristin A. Victoroff, D.D.S.

(Dalhousie University)

Assistant Professor of Community Dentistry

Russell Wang, D.D.S. (University of Toronto)

M.S.D. (Indiana University)

Associate Professor of Comprehensive Care

Aaron Weinberg, D.M.D., Ph.D.

(The Hebrew University, Israel)

Associate Professor of Biological Sciences and Chair

Kristin A. Williams, D.D.S., M.P.H.

(Case Western Reserve University)

Assistant Professor of Community Dentistry

Stephen Wotman, D.D.S.

(University of Pennsylvania)

Professor of Community Dentistry

FACILITIES

PHYSICAL RESOURCES

The entire Health Sciences Center has been designed so that students can travel from the School of Dental Medicine to the School of Medicine, the School of Nursing, the Health Sciences Library, the Health Sciences Dining Room, and any component of University Hospitals without having to go outside.

The dental school building was designed to provide a modern teaching facility. The Multimedia Laboratories are designed and equipped so that the basic sciences (except for anatomy), technique and simulated clinical experience can be carried on by the student in his or her individual area. The 50,000 square foot dental clinic floor consists of two major clinical areas and five specialty clinics. The major clinics are made up of individual cubicles, fully equipped as private operatories. Each student clinician is assigned to one of the individual operatories for the academic year.

Drawing from a local population of more than one million, the clinics provide a broad spectrum of care to the population, affording the student substantial clinical experience. The school cooperates with various organizations of the city in caring for their clients, an arrangement that provides additional clinical experience for students.

LIBRARIES

The Cleveland Health Sciences Library (CHSL) was formed in 1966 by an agreement between the Cleveland Medical Library Association (CMLA) and Western Reserve University. CHSL operates in two locations: the Allen Memorial Medical Library and the Health Center Library (HCL). The total collection currently numbers 380,000 volumes. More than 1,700 journals are received.

The Allen collection, strongly clinical, serves private and institutional members of the Cleveland Medical Library Association as well as faculty and students of Case Western Reserve University.

The Health Center Library collection of basic science materials is primarily for faculty and students of the schools of dentistry, medicine, and nursing and the department of biology.

The Dittrick Museum of Medical History, located on the third floor of the Allen Library, contains nearly 20,000 objects related to the history of medicine, dentistry, and pharmacy, with special emphasis on Cleveland and the Western

Reserve. The museum also contains a medical archives collection and a rare book room.

Reference staff in both libraries help and instruct patrons in the use of the library and its bibliographic resources. Items not available on campus may be obtained through interlibrary loan. Other services provided are quick telephone reference, citation verification, computerized or manual bibliographic searches, and access to the internet. The library staff can provide online searching of more than 100 data bases.

HOSPITAL AFFILIATIONS

The School of Dental Medicine has working relationships with many hospitals and health clinics in the Greater Cleveland community. Students have the opportunity to function as dentists and observe hospital routine and operating room techniques in these hospitals. Many members of the faculty hold staff appointments in these extramural health facilities.

University Hospitals is a 974-bed tertiary care facility located across the street from the School of Dental Medicine. Graduate departments in oral and maxillofacial surgery and pediatric dentistry are based at this facility. A variety of educational and research opportunities exist in relation to this affiliation.

The Veterans Administration Medical Center is a modern 780-bed hospital in the University Circle area. The hospital provides dental services for both outpatient and inpatient veterans.

THE FREE CLINIC

The Free Medical Clinic of Greater Cleveland, at 12201 Euclid Avenue, is a nonprofit community service organization that presently offers medical, dental, podiatric, and legal services, as well as family planning and psychological counseling programs for adults and children; provides a patient advocacy program and speakers for community education and training at other health agencies; and operates a hotline seven evenings a week.

Dental students may volunteer their services to any of the programs at the clinic. However, most participate in delivering dental care to the indigent; this also increases students' skills in emergency and comprehensive patient care.

THE PROFESSION OF DENTISTRY

The mission of dentistry is the protection and improvement of the health of individuals and society with a concentration on oral health. Professional activities encompass a wide variety of endeavors including the clinical care

of individuals, the prevention of disease, the discovery of new knowledge, and the development of procedures and policies that protect and improve health, especially for those populations at risk for disease.

Because oral health is an important concern of society, the role of the dentist continues to be essential and rewarding. Men and women who are interested in scientific studies directly related to the welfare of people should find a strong appeal in dentistry as a life work. It offers an unusual opportunity for public service, community respect, and the use of originality, compassion, and substantial skill and independent judgment on a daily basis.

MISSION STATEMENT

The mission of the Case Western Reserve University School of Dental Medicine is to efficiently provide contemporary programs in oral health education, patient care, research and scholarship, and service that are attractive to our constituents. We will accomplish this in an environment which fosters collegiality and professionalism, and that enables a diverse group of students to become competent practitioners of dentistry.

DENTAL EDUCATION PROGRAM

The students who enter the School of Dental Medicine are very carefully selected and already have had many opportunities for intellectual and social development. The years in dental school should permit the continued maturation of the individual and should emphasize the basic knowledge and skills which are common to all dentists. Graduates should continue their dental education during their professional careers and add to the basic concepts taught in dental school by studying the literature and by attending continuing education courses. While in dental school, the student develops an attitude of professionalism and a sense of responsibility toward the patient's welfare, which will provide optimal dental care.

The Committee on Dental Education studies, reviews, and evaluates the school's educational goals and objectives, subject matter, grading systems, and clinical and laboratory experiences.

CONTINUING EDUCATION

The School of Dental Medicine, in conjunction with the Greater Cleveland Dental Society, offers a program of continuing dental education to practicing dentists and auxiliary personnel.

Guest lecturers, including faculty, who have distinguished themselves in one of the many specialty areas of dentistry present courses on an annual basis.

The continuing education courses encompass the expanding horizons of dentistry, covering such subjects as endosseous implants, periodontics, oral medicine, endodontics, dental materials, esthetic dentistry, restorative and prosthetic dentistry, occlusion, practice management, and orthodontics, as well as expanded functions for dental auxiliaries.

These courses are designed to keep the practitioner abreast of current procedures and enrich the participant's knowledge of the newest and most accepted advances in all subjects of dentistry. Courses may include subject matter of an experimental and/or controversial nature. This material is offered to the profession for educational and informational purposes in a spirit of academic freedom. Participants are given the opportunity to weigh the validity and usefulness of this material according to their own professional experience and judgment.

Case Western Reserve School of Dental Medicine continuing education courses are eligible for fellowship credit through the Academy of General Dentistry (AGD). The Case Western Reserve University School of Dental Medicine continuing education program is an ADA-recognized provider (Continuing Education Recognition Program.)

LICENSE TO PRACTICE DENTISTRY IN OHIO

Currently the license to practice dentistry is granted by the Ohio State Dental Board after successful completion of appropriate examinations.

The candidate must be 21 years of age, show evidence of good moral character, and affirm that he or she understands the Ohio Dental Law.

Specific information about licensure in Ohio and other states should be obtained from the individual state boards of dentistry.

ADMISSION

Admission to the D.M.D. Program

The Case Western Reserve University School of Dental Medicine is a participant in the American Association of Dental Schools Application Service (AADSAS). The online application is available from AADSAS (www.adea.org) in mid-May and should be submit-

ted as soon as possible after that date to ensure consideration for the primary class by the Admissions Committee. Early applications are strongly encouraged and given priority in the rolling admissions process. To increase the likelihood of receiving primary class consideration, complete application materials should be received in our offices by October 1; those applications received/completed after that date will most likely be considered for alternate list interview invitation only. The deadline to apply is February 1.

Completed applications must include an application fee and an official copy of the Dental Admissions Test (DAT) score report sent directly to the school. Official transcripts from all post-secondary educational institutions attended and letters of recommendations should be submitted directly to AADSAS. When the application is complete, it will be reviewed by the Admissions Committee. If additional material is required, it will be requested after review of the application. The committee reviews applications continuously throughout the year.

DENTAL ADMISSIONS TEST

All applicants are required to take the Dental Admissions Test (DAT). The Dental Admissions Test (DAT) is conducted by the American Dental Association (ADA). The test is administered on computer at Prometric Testing Centers year-round. The testing program is designed to measure general academic ability, comprehension of scientific information, and perceptual ability. Information and registration is available on the ADA's Web site at www.ada.org.

LETTERS OF RECOMMENDATION

The applicant should arrange to have letters of recommendation sent to AADSAS at the time the application is submitted. These should be from the Pre-Dental Advisory Committee at the applicant's undergraduate institution. If no Pre-Dental Advisory Committee exists, letters from two instructors in the basic sciences are acceptable.

PERSONAL INTERVIEWS

A personal interview at the School of Dental Medicine, by invitation of the Admissions Committee, is necessary prior to acceptance. The interviewee will tour the school, receive information about financial aid, and have an opportunity to talk with faculty and students.

During the interview, the committee looks for

evidence of such personal qualities as integrity, motivation and maturity. The committee also expects applicants to have been exposed to the delivery of dental care either as participants or observers.

The Admissions Committee begins conduction formal interviews in August for entrance into the School of Dental Medicine the following July or August.

Academic Requirements

Matriculation at the School of Dental Medicine requires a minimum of 60 semester hours, or the equivalent, of collegiate courses, exclusive of physical education and military training. All requirements must be completed before enrollment. Applicants are strongly encouraged to earn their baccalaureate degree prior to enrollment in dental school.

The prerequisite coursework includes a minimum of 12 semester hours of chemistry, of which 6 semester hours must be in organic chemistry; 6 semester hours of biology; 6 semester hours of physics, and 6 semester hours of English. The science courses must include laboratory instruction.

Primary consideration is given to applicants with a superior grade point average in both overall coursework and prerequisite pre-dental courses. Students likely to be given first priority are those who have achieved superior grades in the basic sciences and who have taken an adequate sampling of courses in the social sciences and humanities to give them a broad background. Candidates who majored in non-science fields are given equal consideration with those who majored in the basic sciences.

Pre-dental electives suggested by the Admissions Committee include comparative anatomy, cell biology, genetics, biochemistry, microbiology and physiology. These courses are helpful in providing a foundation for the basic science courses to be taken in dental school.

Notification of Acceptance and Deposit

The American Dental Education Association stipulates that applicants not be advised of acceptance prior to December 1 of the year preceding enrollment. Acceptance is provisional and contingent on the applicant maintaining an acceptable level of achievement throughout the remainder of the college program. Upon notification of acceptance, the applicant is required to make a deposit of \$1,000, which is

applied to tuition costs. This deposit is nonrefundable and nontransferable.

Advanced Standing

A graduate of a foreign dental school may be considered for advanced standing at the School of Dental Medicine. Applications for advanced standing are accepted beginning on August 1 of each year; those completed by November 1 are reviewed by the Admissions Committee.

In addition to the completed application form and \$55.00 application fee, the applicant must submit all undergraduate and dental school transcripts, Part 1 National Board scores and a letter of recommendation from the dean or faculty of the school attended stating that the student was graduated and at what rank. In order to apply candidates must have earned a minimum of 85 or better on Part 1.

If the committee decides that the candidate is competitive, the applicant will be required to come to the School for a "bench test" examination. All travel and lodging costs are borne by the candidate and an additional fee for the bench test is required. Acceptance is based on the review of credentials, personal interview, bench testing and English language testing as applicable.

ACADEMIC REGULATIONS

D.M.D. Program

REGISTRATION

The act of registration includes the payment of the first semester tuition and the completion of the simplified registration form provided by the School of Dental Medicine. First-year students who do not register on the opening day of school and who have failed to provide satisfactory reasons in advance for the delay forfeit their right to admission. Vacancies which arise from such circumstances are filled from the list of alternate candidates at the discretion of the Committee on Admissions.

Registration must be completed by all upper-level students within 10 days after the opening day of school. Under unusual circumstances, special arrangements may be made with permission of the Dean. The Social Security numbers of students 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.

FOR STUDENTS ENTERING THE PROGRAM PRIOR TO 2006 GRADING POLICY

The responsibility for assigning grades rests exclusively with the course director, who must announce the general method of grading at the beginning of the course. Course grades are reported to the registrar of the school at the end of the course or when a final grade has been determined if prior to the scheduled completion time for the course. Incomplete or conditional grades can be changed only by the course director in accordance with university policy.

The following grading system is used at the School of Dental Medicine for students entering the Doctor of Dental Medicine program:

GRADES AVERAGED

Letter Grade	Quality Points
A	4.00
A-	3.66
B+	3.33
B	3.00
B-	2.66
C+	2.33
C	2.00
C-	1.66
D+	1.33
D	1.00
D-	0.66
F	0.00

GRADES NOT AVERAGED

- IN: Incomplete and not averaged when received.
- P: Passed and not averaged for pass/fail course.
- NP: Failed and not averaged for pass/fail courses; Must be removed through remediation.

Grade point averages are calculated by multiplying the number equivalent of the letter grade by the number of credit hours for the course. The semester grade point average is computed by dividing the total number of grade points earned during a given semester by the sum of the credit hours for all courses in which the student received letter grades of A, A-, B+... or F taken during that same semes-

ter. The cumulative grade point average is computed by dividing the total grade points earned by the sum of the credit hours for all courses included in the grade point calculation. Grade points earned when an IN grade is replaced by the appropriate course grade are credited to the semester in which the incomplete or course in progress grade was received, but action taken regarding student standing or promotion at the time of the incomplete is not affected.

PROMOTION

The general guidelines used by the Committee on Student Standing and Promotion are that each student must attain a grade point average of at least 2.0 for didactic courses and for technique/clinical courses by the end of the first semester, and each semester thereafter. Students may not be promoted with one or more failing or incomplete grades unless they have entered a remedial program to remove those grades by a deadline set by the course director or committee. In the usual case, students will have 30 days after the conclusion of the course to successfully resolve incomplete or failing grades. Students cannot be graduated with any failing or incomplete grades and must have a minimum overall cumulative 2.0 grade point average. Each student's academic performance is reviewed by the Committee on Student Standing and Promotion as soon as possible after the conclusion of each semester and summer clinic session. Additional review may occur after each eight week period or when grade reports are submitted. The committee sets standards of academic performance for promotion and standing, probationary requirements and remedial actions, and recommends candidates for graduation. The committee, at its option, may place a student on academic review, academic probation, require repeat of an academic period, or recommend to the Dean, dismissal from the program. Additionally, all students are required to pass the National Dental Board Examinations Part I and II in order to be considered for graduation from the School of Dental Medicine.

The committee will notify each student in writing of their status at least twice each academic year; following the end of each semester and more frequently if necessary. The committee takes reasonable care to accurately evaluate each student and inform them of their status by letter in a timely manner. If a letter cannot be hand delivered, it will be mailed to the student's official address. The committee reserves the right to reissue letters of standing or promotion at any time it deems necessary.

It is the responsibility of the student to fulfill all academic, pre-clinical, and clinical requirements, and to abide by all official policies and protocols outlined in the student services and clinical policy manuals of the School of Dental Medicine. For each semester of enrollment, the student is expected to achieve a grade point average of at least 2.0 for didactic courses and 2.0 for clinical technique and/or clinical courses. The following categories describe student academic status:

ACADEMIC COMMENDATION:

demonstrated a high level of performance with a semester G.P.A. of 3.5 or above.

ACADEMIC GOOD STANDING:

met all academic requirements (have earned a 2.0 average and have no incomplete, "D" or "F" grades for this semester. Also, there can be no prior Incomplete or "F" grades on your transcript)

ACADEMIC REVIEW I (ARI):

1 OR 2 GRADES OF "D" OR "I"

Academic Review II (AR II): Second term on ARI status, or an additional "D" or "I," or student has not completed the requirements for any previous "I" grade. Student has until 30 days into the subsequent term to complete the work in order to remove the "I" or s/he will be moved to Probation or his/her association with the School may be terminated.

ACADEMIC PROBATION:

Semester or cumulative overall G.P.A. is <2.0, or any failing grade. Student has 30 days to complete any incomplete coursework or to remove a failing grade through course remediation (unless the Committee on Student Standing and Promotion has approved an alternative plan for remediation). Failure to complete coursework in the appropriate time or failure to improve G.P.A. may be cause for a student's association with the School to be terminated. The usual response to failure to improve from Probation will be a requirement that the student withdraw from the program. A student cannot be on ARI or ARII more than two total terms during his/her educational program at Case. If a student qualifies for academic review beyond a second term, s/he will be immediately placed on Probation. For any course where the grade is "I" or "F", it is the student's responsibility to contact the instructor

A student may appeal an action of the Committee on Student Standing and Promotion.

The appeal must be in writing, state the basis of the appeal, and be filed within 14 days of the issuance of the notification letter sent to the student informing them of committee action. The written appeal should be directed to the chairperson of the committee. The student may request or be invited to appear before the committee at the hearing of the appeal. The committee will inform the student in writing of the results of the hearing of the appeal. The student is advised to consult with the chairperson, the Director of Student Services, or the Associate Dean for Education for further information prior to filing the appeal so that the process can be fully explained and the student's rights protected. The school reserves the right to dismiss a student from the school for any reason it deems sufficient. Academic or clinical failure, moral delinquency, gross misconduct, or failure to meet the specific conditions of probation or review is sufficient reason for dismissal from the school.

TERMS AND COURSE LENGTH

The school year consists of 34 weeks of five days each, exclusive of vacations, and is divided into two semesters of two terms each. The final week of each semester is reserved for examinations. There are mandatory summer clinic and class sessions for all students at the end of the second and third years. A fee is charged for these summer sessions.

ATTENDANCE

Students enrolled at the School of Dental Medicine are expected to pursue their course of study according to a systematic plan as determined by the Faculty. It is the policy of the School that student attendance for clinic and clinic duty assignments is mandatory. Attendance requirements for lectures, laboratories and seminars are at the discretion of the course director. The course director is free to determine the extent to which absences affect the final grade. The student should realize that lack of regular attendance is extremely disruptive of academic progress and every attempt to attend all classes is strongly encouraged. The student should also be aware that the Committee on Student Standing and Promotion will consider faculty notation of poor attendance in its deliberations.

The Office of Student Services serves as a clearinghouse to notify faculty and staff of a student's absence. Students who are not able to attend classes, laboratories or clinic are to call 216-368-6136 and advise the office of the period and expected duration of an absence

and the reason that you will not be able to attend classes. The office will notify appropriate faculty and staff.

Note that the above action does not represent an approved absence. The clearinghouse function provided by the Student Service Office is a notification service. Individual faculty may express their own policy concerning absence as stated in the course syllabus.

There are situations where an approved absence that excuses the individual from classes et. al. is appropriate. An approved absence requires the approval and signature of the Director of Student Services.

For Students Entering the Program as of Fall 2006

GRADING POLICY

Beginning with the class entering in the fall of 2006, the grading system of the School of Dental Medicine will be Pass/NoPass for all coursework. The faculty will specify the mastery level in each course or module that is equivalent with passing. Students must pass each course/educational module. In each course or educational module students will receive formative feedback from the instructor as well as summative assessments which will contribute to the determination of their academic status in each respective course. At the end of each semester in the first two years of the program, students will be required to successfully complete the Comprehensive Assessment Week battery of examinations.

PROMOTION

Ongoing review of student progress will be conducted by faculty mentors. Student progress will be formally reviewed at the end of each semester or sooner in each year of the program by the Committee on Student Standing and Promotion. Students will receive written notification of their status at the end of each semester or sooner. Students must pass each course or educational module and the Comprehensive Assessment Week battery of examinations. Passing of courses and educational modules involves satisfactory accomplishment in both course content and/or small group learning processes, for which students receive ongoing evaluation. Students may not be promoted with one or more failing or incomplete grades unless they have entered a remedial program to remove those grades by a deadline set by the course director or Committee. In the usual case students will be provided 30 days after the end of the semester to complete all

incomplete or failing coursework unless an instructor or the Committee specifies an alternative time for remediation and/or completion of coursework.

Students must sit for the National Board Dental Examination Part I (NDBE I) by April 1 of the second year. Students who do not pass NDBE I prior to the beginning of the fall semester of the third year will not be permitted to begin the semester. Additionally, students must successfully complete all course work and pass the National Board Examination Parts I and II in order to be considered for graduation from the School of Dental Medicine.

ATTENDANCE

Students entering the School of Dental Medicine as of fall 2006 are expected to pursue their course of study according to a systematic plan as determined by the faculty. All students are required to attend class, be prepared for small and large group learning sessions, and attend all laboratory and clinic sessions. Because students work in teams during components of the curriculum, absences negatively impact the functioning and learning within a group. Students are evaluated in an ongoing manner on knowledge of content as well as small group learning processes and by clinical competency examinations.

The Following Information Applies to All Pre-Doctoral Students of the School of Dental Medicine

ABSENCE FROM EXAMINATIONS

The student is expected to be present at all examinations or provide, when possible, advance notice to the Office of Student Services when absence from an examination is anticipated. If a student fails to provide advanced notice, the student must provide an appropriate excuse. Failing to provide an acceptable excuse, the student will meet with the Director of Student Services and the course director to discuss the absence. Following such consultation, the student will be informed of the consequences. The course director may permit the student to be re-tested (with or without penalty), be assigned a grade of zero for the examination, or receive a failing grade for the course.

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. Such request must be submitted in writing to the Director of Student Services who

will forward the request to the Committee on Student Standing and Promotion. The request must be submitted by letter and state the reason for the request, the length of leave requested and the date of return. The Committee will ordinarily grant such requests if the student is currently enrolled and has been in regular attendance prior to the time or circumstances that necessitated the request. The request may be submitted by a parent, spouse or authorized agent of the student if the student is unable to file the request. The maximum length of leave is one year. Students must resume registration at the expiration of the leave unless formally granted an extension. Re-entry into the dental program is determined by the Committee on Student Standing and Promotion and may not necessarily be at the same level attained at the time the leave was granted. The Committee also reserves the right to place a student on Leave of Absence when it has determined that the circumstances warrant that action, even in the absence of a formal request.

DEGREES CONFERRED

The degree Doctor of Dental Medicine (D.M.D.) is awarded to students successfully completing the four-year professional program offered by the school. The Master of Science in Dentistry (M.S.D.) degree is awarded to graduate students who successfully complete a graduate program of advanced study. Degrees are granted by the university on the recommendation of the faculty subject to the satisfactory completion of all curricular requirements and the discharge of all financial obligations to the university. The recommendation for a degree is discretionary with the faculty, and there is no contract stated or implied, between the university and the student that a degree will be conferred at any stated time, or at all.

WITHDRAWALS AND REFUNDS

To officially withdraw from the School of Dental Medicine, a written notice must be submitted to the Dean for approval. Failure to attend class or merely giving notice to an instructor will not be regarded as an official notice of withdrawal. A student who withdraws after the start of a semester must pay a portion of the usual tuition. The student is charged in accordance with the University policy on withdrawals. If the withdrawal occurs during the time that the student is enrolled in summer clinic, the student is charged at a rate of 12.5 percent per week of usual fee for summer clinic.

The university will refund any tuition paid for

a semester by any student in good standing who is inducted, or called to active duty, by the Armed Forces of the United States prior to completing that semester, and who does not receive credit for the work completed during that semester.

APPROPRIATE ATTIRE

All students are expected to dress appropriately. The dental student is obliged to follow the dress code developed by the Dental Student Council and approved by the faculty. Graduate students and residents are expected to dress in a manner acceptable to their department.

PERSONAL PROPERTY INSURANCE

Students are responsible for their personal property while on campus. The university assumes no responsibility for loss of or damage to a student's personal property and the university insurance program does not cover such losses. Many families have homeowner or renter insurance policies which provide coverage for such perils as fire, water and theft. If this coverage does not exist, the student may wish to consider a separate renters insurance policy.

STUDENT SERVICES

The School of Dental Medicine's Office of Student Services acts as a resource for individual dental students and for classes as a whole, providing services and administering programs that supplement the regular curriculum and enrich the quality of student life. Programs under the direction of this office include:

STUDENT ACTIVITIES

The School of Dental Medicine encourages its students to avail themselves of cultural opportunities within the university and the community.

Each class has its own student organization, which is governed by the students, with advice from the school's Office of Student Services and other teaching staff, when such advice is requested.

The Student Council is an organization representing the entire student body whose purpose is to advance the interests of the students of the School of Dental Medicine and the university. Students of the School of Dental Medicine share in university athletics, participating in interclass, interdepartmental, and intercollegiate contests in various activities.

The School of Dental Medicine has chapters of

two of the national dental student fraternities: Delta Sigma Delta and Psi Omega. Students of all classes are eligible for student membership in the American Dental Association.

American Student Dental Association

The American Student Dental Association (ASDA) is a student organization of approximately 20,000 individual predoctoral and postdoctoral members organized into chapters, one at each of the U.S. dental schools. The ASDA is committed to the following:

1. Developing and training future leaders of the dental profession
2. Improving the quality of dental education
3. Disseminating information of value to dental students
4. Promoting the social, moral, and ethical obligations of the profession
5. Ensuring due process for all dental students
6. Representing dental students before legislative bodies and organizations
7. Providing opportunities for students and recent graduates to deliver health care to people in areas of need

The local chapter at Case Western Reserve University, representing all of the dental

students, provides benefits that include:

1. Five professional publications
2. Reprints of national dental board examinations
3. Insurance at low group rates (disability/major medical, equipment, professional liability, term life insurance)
4. Reduced ADA dues upon graduation.

First-Year Orientation

Incoming students are introduced to the school, the university, and the Cleveland area in a four-day program presented by the Office of Student Services, faculty members, and upper-class students.

Faculty Mentors

All students are assigned to faculty mentors during freshman orientation. The advisors are volunteers from the faculty who offer the students guidance and fellowship during their educational program.

Student Monitoring

The Director of Student Services monitors student grades on a regular basis and works individually with students. Students are assisted in defining problems, identifying available re-

sources, and choosing specific steps to be taken toward improvement.

Tutoring

The Office of Student Services provides tutoring for students who need to improve their academic performance. The tutors are usually upperclassmen or graduate students. Students may seek tutoring on their own or be recommended for tutoring by course instructors. Tutors emphasize study techniques, time allotment, problem solving, and communication in addition to comprehension of content.

HONORS, PRIZES AND AWARDS

Recognition, both honorary and monetary, is given to students who achieve excellence in different facets of their dental education. A complete description of each award is available in the Office of the Dean.

Scholastic Achievement

- Alpha Omega Fraternity Award for Scholarship
- Omicron Kappa Upsilon
- Callahan Prize
- American Academy of Oral Medicine
- American Association of Women Dentists Award

General Dentistry

- American College of Dentists, Ohio Section
- International College of Dentists
- Pierre Fauchard Academy Award

Community Dentistry

- Robert Dean Feder Award
- Comprehensive Dental Care
- Ohio Academy of General Dentistry

Endodontics

- American Association of Endodontists
- Doctor Paul P. Sherwood/Hrutkay Award

Operative Dentistry

- Academy of Operative Dentistry

Oral Diagnosis, Radiology, and Treatment Planning

- American Academy of Radiology
- American Academy of Oral Medicine

Oral Pathology

- American Academy of Oral and Maxillofacial Pathology

Oral and Maxillofacial Surgery

- American Association of Oral and Maxillofacial Surgeons
- American Dental Society of Anesthesiology, Incorporated

Orthodontics

- American Society of Orthodontists
- Pediatric Dentistry
- American Society of Dentistry for Children

- Academy of Dentistry for the Handicapped

Periodontics

- American Academy of Periodontology

Prosthodontics

- Dentsply International Merit Award in Prosthodontics

Practice Management

- Richard A. Collier Prize

RESEARCH AND SCIENTIFIC PAPERS

- Alpha Omega Prize
- Block Drug Award

STUDENT AFFAIRS

The University Office of Student Affairs serves as an ombudsman focusing attention on the rights and responsibilities of students within the university community. In addition, it serves as a central source of information about university policies and procedures that affect student life and extracurricular programs and services. Students may contact the University Office of Student Affairs for resolution of specific problems and for referral to other university offices or campus agencies.

ACADEMIC PROGRAMS

Beginning with the fall 2006 entering class, the School of Dental Medicine will begin a three-year implementation plan for a new curriculum. Students who entered the program prior to fall 2006 will continue until graduation with the conventional curriculum, which includes traditional forms of instruction organized in discipline-based units. Updates about the curriculum implementation and current schedules are available at <http://dental.case.edu/insidecase>.

DOCTOR OF DENTAL MEDICINE DEGREE PROGRAM

Entering Class, Fall 2006

The new curriculum will be accomplished through an integrated approach to instruction. The program will accomplish its goals through academic work in four themes and two threads, which are woven throughout the four years of the program. The program includes a variety of educational formats to deliver the curricula, including problem-based learning sessions, team-based learning, independent study, seminars, experiential learning opportunities, traditional lectures, virtual reality clinical simulation, laboratories, standardized patient experiences, and patient-based comprehensive care. The goal of the new curriculum is to help students become better prepared in indepen-

dent learning, critical thinking skills, and the use of evidence. The new curriculum is a program of student organized around integrated educational modules in the following themes and threads.

Themes

HEALTH AND WELL-BEING

This theme contains all curricula -- both didactic and clinical -- that apply to health and the normal structure and functioning of the body and of the oral complex. The traditional content areas of physiology, biochemistry, anatomy, histology, among other dental science classes, are integrated through cases to form a better bridge between the basic sciences and the clinical sciences.

DISEASE PROCESSES

The Disease Processes theme includes content related to general and oral diseases. These topics are often melded with healthy structure and function content to provide students with a global perspective of the implications of disease on usual functioning.

RESTORATION OF HEALTH

This theme contains content related to therapies necessary for treatment of medical disease and dental disease. A focus on restoring oral health is accomplished through virtual reality clinical skills training, training on models and progression to comprehensive dental care in conjunction with didactic knowledge.

MAINTENANCE OF HEALTH

The Maintenance of Health theme focuses on curriculum which explores strategies for preserving health through general and oral health therapies, patient education, disease risk assessment, and disease prevention. This theme provides viewpoint from which students can develop life-long care plans for their patients.

Threads

INQUIRY

This thread that runs throughout the four-year program supports student growth in skills in clinical decision making. Students develop an understanding of what scientific evidence is, how to make clinical decisions, and to value scientific discovery in all aspects of dentistry.

LEADERSHIP

This thread contains curriculum for the development of students as ethical, sensitive, caring

practitioners who are stewards of oral health of the individual patient, the community, and society. An important focus in Leadership curriculum is content that helps students advance in their role as a professional. It also supports the integration of all students into the practice management curriculum centered within their clinical preceptor groups.

YEAR 1

This year includes curriculum describing normal healthy functioning and disease processes. Basic science content is taught in the context of clinical cases. Foundational work in understanding human structure and function is paired with learning about disease. Dental clinical sciences study the foundational elements of oral health.

YEAR 2

This year continues with an integrated approach to curricula in health and disease with an emphasis on the development of dental clinical skills. Further development of students as clinicians proceeds with their involvement in the clinical preceptor groups. Students will make a transition to increasing patient-centered clinical care as they demonstrate competency in clinical skills and didactic knowledge.

YEAR 3

This year includes didactic work related to advancing levels of knowledge and clinical experience. Students spend time in didactic classes that are directly related to clinical practice and in rotations to specialty clinical areas while accomplishing comprehensive patient care.

YEAR 4

Students gain clinical experience in the Comprehensive Care Clinics and finish didactic work which may include enrichment courses. They participate in practice management activities of their preceptor group, developing critical skills for general practice dentistry.

Coursework in Year 1

Course Title	Course Code	Number
Fall		
Orientation to Small Group Learning	INQU	101
Health, Science, and Society	LDRS	111
DentSim Laboratory	REHE	155
ACE: Outreach Preventive Dentistry	MAHE	145
Foundations of Life Sciences	HEWB	121
Preventive Periodontics	MAHE	141
Dental Anatomy	REHE	151
Dental Anatomy Laboratory	REHE	153
Preventive Periodontics Clinic	MAHE	143
Heart and Lungs in Health	HEWB	125
Heart and Lungs in Disease	DSPR	135
Facial Growth	HEWB	123
Integration Conference	INQU	103
Spring		
Renal and Hematologic Systems in Health	HEWB	122
Renal and Hematologic Systems in Disease	DSPR	132
Masticatory Dynamics	HEWB	124
Masticatory Dynamics Laboratory	HEWB	126
ACE: Knowing the Patient	INQU	102
Integration Conference	INQU	103
DentSim Laboratory	REHE	156
Preventive Periodontics Clinic	MAHE	143
Head, Neck, and Neurology in Health	HEWB	123
Head, Neck, and Neurology in Disease	DSPR	133
Body as Host	HEWB	128
Basic Procedures (BP) in Fixed Prosthetics	REHE	152
Basic Procedures (BP) in Fixed Prosthetics Lab	REHE	154
Dental Materials	REHE	158

DOCTOR OF DENTAL MEDICINE DEGREE PROGRAM

Classes Entering Prior to 2006

The Doctor of Dental Medicine curriculum is a sequence of learning experiences designed to prepare the student to serve as an effective general dental practitioner. The present curriculum is a “diagonal” structure designed to give the student a broad foundation through initial instruction in the basic sciences and an introduction of limited clinical experiences during the early period of education. As the student progresses through the educational program, clinical experience increases to facilitate integration of basic science information with clinical science training.

METHODS OF INSTRUCTION

The traditional methodology of lecture, seminars, laboratory, and clinical teaching is augmented by the use of teaching aids developed at the School of Dental Medicine and elsewhere. Among these aids are:

1. Television monitors for live and taped presentations
2. Slides with accompanying text (audio and visual)
3. Programmed texts and exercises
4. Sequential models
5. Computerized presentations
6. Multimedia/simulation laboratory
7. Case presentation
8. Virtual reality clinical simulation exercises

Instructional techniques utilized are intended to encourage students to be active participants in their education wherever possible, and are facilitated by small group conferences, seminars, and demonstrations. These small group settings promote personal and informal communication between students and instructors. In addition, the resources of the libraries offer the opportunity to satisfy personal interests and professional aspirations.

Combined Degree Programs

By arrangement with the College of Arts and Sciences of Case Western Reserve University and other cooperating institutions of higher education, an in absentia privilege is accorded undergraduates in their senior year, whereby the first year of professional study may be substituted for the last year of liberal arts education. The student may be granted a baccalaureate degree by the liberal arts college upon completion of the first year in the School of Dental Medicine. Arrangements for this in ab-

sentia privilege must be made by the student with the liberal arts college before entering the School of Dental Medicine. This option must be exercised at completion of the first year of study in the School of Dental Medicine unless permission is granted by the undergraduate college and dental school by prior arrangement.

Joint Degree Programs

[*Note: The D.M.D./M.D. Program described below is an exception to these policies. For details, please see the D.M.D./M.D. program description details.*] Students enrolled full time in the School of Dental Medicine desiring to enter a joint degree program must apply and be admitted to a non-dental degree program of another school of the university through the usual process followed for admission at that school. If accepted, the student must notify the Associate Dean for Education in writing at least four weeks prior to the start of the semester they wish to initiate non-dental course work in the joint degree program. A dental student must be in the top one-half of the class to be eligible to enter a joint degree program and may not begin earlier than the second semester of the first year.

If the student appears eligible for the initiation of a joint degree program, a dental faculty member will be assigned as an Advisor to the student. The faculty Advisor will be responsible for routine matters such as assisting in registration (e.g. add slips) in addition to the advisory function. Students should be assigned, or request, an advisor on the faculty of the second school in which non-dental course work is taken.

Eligible students must meet with the advisors and program coordinators of both schools. Following this meeting, the student will be provided with a written agreement and guidelines specifying the program which will have priority in all future considerations, a curriculum plan and projected timetable for the completion of course work, and other conditions or stipulations in effect that will govern the student's tenure in both programs. The student will acknowledge the agreement with their signature.

First year students are limited to one course (3 credit hours) in the first semester (spring) of a joint program. Upper-level students (years two through four) in good standing (defined as top one-half for this purpose) may enroll for up to two courses (six credit hours) in each of the fall or spring semesters. Course work undertaken

in the non-dental program should not ordinarily be scheduled during the regular school hours at the School of Dental Medicine unless approval is granted by the Associate Dean for Education. Course work taken as a part of the non-dental program cannot be used to meet the requirements of the dental program.

Tuition charges for course work taken in the non-dental program are the responsibility of the School of Dental Medicine to the extent outlined in the agreement and to a maximum of six credit hours per semester (fall and spring semesters only) if the student fulfills all eligibility requirements, is enrolled full time and in good standing at the School of Dental Medicine, and is current in the payment of tuition to the School of Dental Medicine. Tuition charges for non-dental courses taken during the summer semester are the responsibility of the student. Enrollment in a joint degree program does not constitute a guarantee that a degree will be granted for either program at any given time or at all.

Permission to continue in the joint program may be withdrawn by either school for a variety of reasons including, but not limited to, poor or failing grades or grade point averages, incompleteness or tardiness in completing program requirements, delinquency in payment of tuition, nonacademic or academic probation, suspension or dismissal.

Problems that might arise will be resolved on a case-by-case basis by the Associate Dean for Education and the faculty advisors in consultation with the student. The student may appeal any unfavorable decision to the Committee on Student Standing and Promotion for final resolution.

D.M.D./M.D. Program

The joint degree D.M.D./M.D. program of the Case Western Reserve University School of Dental Medicine and School of Medicine is poised as an innovative approach to satisfy the need for creation of a cadre of uniquely trained individuals who will integrate aspects of primary care into the practice of general dentistry. Students will obtain training in both the fields of medicine and dentistry in a five-year integrated training program that will lead to the D.M.D. and M.D. degrees. This new joint degree program will address the emerging requirement for health professions students to be broadly trained with an extensive perspective of health and disease. As the associations between oral health and systemic health become clearer, the role of these new health care

practitioners of tomorrow will emerge to provide health promotion and disease prevention care in a new framework.

Prospective students of this new innovative program are interested in the health professions using a more broadly defined context, are independent thinkers, and have excelled in baccalaureate programs in the sciences. A pioneering spirit will characterize their motivation. Students will be prepared to sit for the clinical licensure examination leading to the practice of dentistry and for post-graduate, year-one residencies in medicine which are required prior to medical licensure.

Special Programs for Undergraduates

The College of Arts and Sciences and the School of Dental Medicine jointly offer two programs for exceptionally able and well qualified high school seniors who plan to pursue careers in dentistry. Students admitted to these programs will be provided with advisors from both the College of Arts and Sciences and the School of Dental Medicine. Prior to enrollment in the School of Dental Medicine, all students are required to achieve an acceptable performance on the Dental Admission Test given by the American Dental Association. Students in the Six-Year Dental Program should take the test no later than April of the second year and must achieve an average of 16 or higher on both "Academic" and "PAT" portions of the test.

SIX-YEAR DENTAL PROGRAM

The Six-Year Dental Program is designed to enable the especially mature student who is determined to pursue a career in dentistry to accelerate his or her undergraduate and professional education.

The first two years of the program are spent in the College of Arts and Sciences. Students are required to follow a specific curriculum. In order to secure the place reserved for them in the first class year at the School of Dental Medicine, students must earn a cumulative average of 3.0 or higher for all course work attempted and must achieve grades of "B" or higher in the required courses in biology, chemistry, and physics.

After successful performance in the pre-dental part of the program and on the Dental Admission Test, students in the Six-Year program move into the first year of dental school. The D.M.D. is awarded upon completion of the six-year program.

Up to 10 students can be admitted to the Six-Year Dental Program each year.

PRE-PROFESSIONAL SCHOLARS PROGRAM IN DENTISTRY

The Pre-Professional Scholars Program in Dentistry is designed for those who desire careers in dentistry but wish to broaden and enrich themselves with a full undergraduate program before embarking on study in a professional school. Such students matriculate in the College of Arts and Sciences with a conditional commitment for admission to the School of Dental Medicine to be honored upon completion of the bachelor's degree.

Students are free to develop and follow a course of study that reflects their educational interests and needs rather than concentrating solely on activities that enhance their chances for admission to professional study. Participants will be expected to take the courses required of pre-dental students and to maintain a grade-point average of 3.0 or higher both for their work in the sciences and overall.

EXPANDED FUNCTION DENTAL AUXILIARY PROGRAM

The School of Dental Medicine offers a non-degree certificate course in expanded dental functions to dental auxiliaries with requisite training and experience. This continuing education program prepares the student to take an examination administered by the Ohio Commission on Dental Testing for Advanced Qualified Personnel.

The Expanded Function Dental Auxiliary course is a part-time program and includes didactic, pre-clinical laboratory, and clinical training. It is affiliated with several hospitals and health agencies in the Cleveland metropolitan area, where a portion of the clinical training takes place. Students are selected for admission on the basis of their performance on an entrance examination administered by the program faculty.

BASIC SCIENCE PROGRAMS

The most direct route toward a career in research is through the Doctor of Philosophy degree programs offered by the departments that are basic to health education: anatomy, biochemistry, microbiology, pathology, pharmacology, and physiology. Inquiries about these non-dental school programs should be addressed to the Dean of Graduate Studies, whose catalogue provides specific information about these programs. Fellowships may be available to qualified students to assist them during their period of study and research leading to an advanced degree. The curricula of

the School of Dental Medicine are designed to provide general education in dentistry or in areas of clinical specialization. However, recognizing the need within dentistry for individuals qualified for teaching and research, the School of Dental Medicine may provide the use of its facilities and faculty as part of a cooperative program in the training of such individuals.

ADMISSION TO ADVANCED EDUCATION PROGRAMS

Programs Offered

The School of Dental Medicine, in cooperation with other institutions, offers programs of study in advanced education in general dentistry, endodontics, pediatric dentistry, periodontics, orthodontics, and oral and maxillofacial surgery. Entry requirements vary and are determined by the program director and faculty of each program who select applicants for admission. Program length, stipends offered and program requirements vary by program. Requests for application materials should be directed to the Office of Graduate Studies of the School of Dental Medicine. Application materials are also available online at <http://dental.case.edu/admissions/gradstudies/howtoapply.htm>.

All advanced education programs are accredited by the Commission on Dental Accreditation of the American Dental Association and are board-eligible programs for the respective specialty boards. The programs in endodontics, orthodontics, and periodontics are master's degree programs with a certificate granted upon completion of the degree requirements. The programs in advanced education in general dentistry and pediatric dentistry are certificate-only programs. There is an optional master's degree program offered in pediatric dentistry. The program in oral and maxillofacial surgery is a joint program with the School of Medicine leading to the M.D. degree and certificate in oral and maxillofacial surgery. A certificate-only program in oral and maxillofacial surgery may be available at the discretion of the department.

Entry Requirements

All programs are highly structured and require a commitment to full-time study. Time for employment is limited; enrolled students are not permitted to engage in outside dental practice without the approval of their program director.

In order to be considered for admission, the applicant must submit several items; a completed application form (PASS or MATCH applications are accepted for some programs), all requested supporting documents such as transcripts, letters of recommendation, etc., and an application fee by the deadline published for each program. Incomplete or late applications will not be considered unless all other qualified applicants have been offered admission and a vacancy remains.

The selection of individuals for entry into a program of study is made by the program director (faculty) from the pool of applicants. The general criteria of the most qualified applicants for admission are as follows:

The applicant must be a graduate of dental school accredited by the American or Canadian Dental Association or have been graduated from an institution considered by the School of Dental Medicine as one of acceptable academic caliber. (Applicants who are currently enrolled as dental students must submit a final transcript and verification of graduation from a dental school prior to entry if selected.)

The applicant should have earned a 3.0 (B) average or its equivalent and/or been graduated in the highest one-third of their graduating dental class.

The applicant must have passed Part I of the National Dental Board and should have an average score of at least 85 and have taken or applied for Part II (to be completed with a score of 85 or higher prior to entry if selected). If the applicant is a graduate of a foreign dental school and has not taken the National Dental Board, recent GRE examination results may be substituted (general test and one subject test in biochemistry, biology or chemistry). GRE scores should be at the fiftieth percentile or higher.

The applicant should have a documented interest in their field of study and must meet additional criteria set by the department to which they are applying. Applicants graduated from a non-English speaking dental school, and for whom English is not their first language, must take the TOEFL test with a minimum score of 550 (paper-based score), 213 (computer-based score), or 79 (internet-based score).

These criteria are considered minimums and a higher level of performance (where applicable) enhances the likelihood of acceptance. Applicants who paid an application fee but were not accepted, can be considered, at no additional

fee, for entry the following year. In order for the application to be considered for the following year, a request for reactivation of the application must be made in writing and received by the deadline for applications for the following year. Those not selected for the second year must submit a new application and pay the applicable fee for further consideration.

Applicants selected for programs in advanced education in general dentistry, oral and maxillofacial surgery, or pediatric dentistry must be eligible for licensure or intern certificate issued by the State of Ohio, and must be a graduate of a dental school accredited by the Commission on Dental Accreditation. International applicants are accepted into the programs offered by the Departments of Endodontics, Orthodontics, and Periodontics.

ADMISSION OF STUDENTS FROM OTHER COUNTRIES

See "Students from Other Countries" in the Student Affairs section of this Bulletin.

M.S.D. DEGREE AND RESIDENCY PROGRAMS

Registration

Advanced education programs operate on a twelve-month basis, from July 1 of one year to June 30 of the next. The year is divided into two, six-month semesters (Fall: July 1 to December 31; Spring: 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 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 department chair 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, 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 announce the general method of grading at the beginning of the course. Course grades are reported to the Registrar of the School at the end of the course or when a final grade has been determined if prior to the scheduled completion time for the course. Incomplete or conditional grades can be changed only by the course director (see grading policies of the university). The following grading system is used at the School of Dental Medicine for advanced education courses:

Letter Grade	Quality Points
A	4.00
A-	3.66
B+	3.33
B	3.00
B-	2.66
C+	2.33
C	2.00
C-	1.66
D+	1.33
D	1.00
D-	0.66
F	0.00

- IN Incomplete
- S Satisfactory (Thesis or Research)
- U Unsatisfactory (Thesis or Research)
- AD Successful Audit
- NG Unsuccessful Audit
- P Passing (Pass/Fail Course)
- NP Not Passing (Pass/Fail Course)
- W Withdrew class
- WD Withdrew all classes

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 departmental chairperson, 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 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 department chair, in consultation with 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 department chair. 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 department chairperson 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 commit-

tee 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 department chairperson, 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 for 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.

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 advisory committee and the departmental chairperson.

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

1. Failure to correct probationary status within the specified time period.
2. 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.

3. 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 chairperson 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.

Graduation

The minimum requirements for the master's degree in the School of Dental Medicine are 54 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. Not less than 48 semester hours may be at the 500 level or higher.

A candidate for a Master of Science in Dentistry degree must make 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 department chair, 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, with-

out 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.

COURSE DESCRIPTIONS (DENC)

DENC 163. Masticatory Dynamics Lab (1)
(See DENC 162.)

DENC 172. Basic Procedures in Fixed Prosthodontics (2)
Laboratory component of DEND 172.

DENC 222. Periodontics (1)
Companion clinical component for DEND 222. Students observe and assist at periodontal surgical procedures on moderately advanced periodontal diseases. Treatment includes root planing, curettage, occlusal adjustment, minor tooth movement and case maintenance.

DENC 229. Radiology Rotation (1)

DENC 248. Endodontics (.5)
Companion laboratory component to DEND 248. Complete endodontic treatment performed by each student on extracted teeth using gutta percha.

DENC 262. Basic Procedure Operative (1)
Laboratory component of DEND 262.

DENC 265. Basic Procedure Esthetics (.5)
Laboratory component of DEND 265.

DENC 267. Partial Denture Design Lab (1)
Theories of removable partial denture construction which enable the student to perform exercises that are associated with the techniques used to achieve a successful result. Students will be evaluated by various testing methods.

DENC 268. BP Competency Lab (1.5)

DENC 269. Prosthodontic Technology (2)
Companion preclinical component to DEND 269. Each student constructs a complete set of dentures using laboratory manikin as patient. Although DENC 269 was conceived as a technique course, one of its principal objectives is to prepare the student for the clinical aspect of dental education.

DENC 274. Basic Procedure Fixed Prosthodontics II (1)
Laboratory component of DEND 274.

DENC 282. Orthodontics (.5)
Companion laboratory component to DEND 282. Application and fabrication of various orthodontic appliances.

DENC 322. Surgical Periodontics (1.5)
Companion clinical component to DEND 321. Clinical treatment in conjunction with residents and faculty.

DENC 328. Oral Diagnosis and Treatment Planning (1)

Treatment planning based on the correlation of fundamentals taught in diagnosis, preventive dentistry and restorative dentistry. Clinical experience in the application of didactic training consists of four components; assignments in the admitting and radiology service where students carry out examinations of the newly admitted patients and evaluate their problems and needs; radiology seminars where the technique and interpretation of the radiographs taken by the students are discussed; assignments to the emergency service; and clinical conferences with a staff member.

DENC 348. Endodontics Clinic (1.5)
Companion clinical component to DEND 348. Clinical application of endodontic techniques.

DENC 364. Operative Dentistry Clinic (2)
Clinical application of the basic principles of operative and cosmetic dentistry.

DENC 374. Fixed Prosthodontics Clinic (2)
Clinical experiences in fixed prosthodontics.

DENC 378. Pediatric Dentistry Clinic (1.5)
Companion clinical component of DEND 378.

DENC 387. General Practice Dentistry A (1.5)
Comprehensive dental care. Each student is assigned for clinical training to a preceptor group led by a practicing general dentist. The preceptor guides the students in diagnosis, treatment planning, and actual patient treatment with consultation in various specialties as required. Experience in the provision of emergency dental care. The preceptor directs the total dental health care of the patients of each of his students. Biweekly seminars are provided for each preceptor group. Special topics, student cases, techniques, and journal articles are discussed. Coreq: DENC 389.

DENC 389. General Practice Dentistry B (1.5)
Comprehensive dental care. Each student is assigned for clinical training to a preceptor group led by a practicing general dentist. The preceptor guides the students in diagnosis, treatment planning, and actual patient treatment with consultation in various specialties as required. Experiences in the provision of emergency dental care. The preceptor directs the total dental health care of the patients of each of his students. Biweekly seminars are provided for each preceptor group. Special topics, student cases, techniques, and journal articles are discussed. Coreq: DENC 387.

DENC 390. General Practice Dentistry A (1.5)
Clinical application of the principles of general practice dentistry. Coreq: DENC 394.

DENC 392. General Dentistry Clinical Qualifying (.5)
This course consists of the successful completion of the recall clinical qualifying exam and two diagnosis and treatment planning clinical qualifying exams. It is also necessary for the student to successfully fulfill

the recall needs of their assigned clinic patients in order to pass this course.

DENC 394. General Practice Dentistry B (1.5)
Clinical applications of the principles of general practice dentistry. Coreq: DENC 390.

DENC 397. Quality Assurance (1)
This course entails quality assurance issues including, but not limited to: providing students with the working knowledge of dental record keeping, as it relates to diagnosis and treatment of pathology; recognition and management of medical illness and disabilities; treatment planning; documentation of pre-existing conditions, current and past treatment; established laboratory protocols; evaluation of reasons for remakes and re-dos; post-treatment evaluation of care. Prereq: DENC 394.

DENC 422. Periodontics (.5)
Clinical application of surgical and nonsurgical techniques used in the treatment of moderate periodontal disease. Students exposed to more advanced cases through clinical demonstrations by instructors. Students encouraged to gain additional experience and become more confident in the management of periodontal patients.

DENC 428. Oral Diagnosis and Radiology (.5)
Clinical experience in the admitting and radiology service.

DENC 448. Endodontics (1)
Clinical application of the principles of endodontics therapy. Diagnosis and treatment planning. Management of endodontic emergencies and prognosis of endodontic treatment.

DENC 458. Clinical Oral Surgery (.5)
Clinical application of the principles of oral surgery.

DENC 464. Operative Dentistry (1.5)
Clinical application of the principles of operative dentistry.

DENC 468. Prosthodontics (1.5)
Clinical application of the principles of prosthodontic dentistry.

DENC 474. Fixed Prosthodontics (1.5)
Treatment of patients requiring simple and advanced fixed prostheses as an integrated part of total patient care.

DENC 478. Pediatric Dentistry (1)
Emphasizes comprehensive oral health care of the well child to provide experience in examining, diagnosing, treatment planning, and completing treatment of a selected number of children. Preventive aspects of pediatric dentistry emphasized. Additional voluntary experiences in clinical practice of pediatric dentistry available.

DENC 482. Clinical Orthodontics (1)
Clinical application of the principles of orthodontics.

DENC 487. General Practice Dentistry B (2.5)
Comprehensive dental care. Each student is assigned for clinical training to a preceptor group led by a practicing general dentist. The preceptor guides the students in diagnosis, treatment planning, and actual patient treatment with consultation in various specialties as required. Experiences in the provision of emergency dental care. The preceptor directs the total dental health care of the patients of each of his students. Biweekly seminars are provided for each preceptor group. Special topics, students cases, techniques, and journal articles are discussed. Coreq: DENC 489.

DENC 489. General Practice Dentistry B (2.5)
Comprehensive dental care. Each student is assigned for clinical training to a preceptor group led by a practicing general dentist. The preceptor guides the students in diagnosis, treatment planning, and actual patient treatment with consultation in various specialties as required. Experiences in the provision of emergency dental care. The preceptor directs the total dental health care of the patients of each of his students. Biweekly seminars are provided for each preceptor group. Special topics, students cases, techniques, and journal articles are discussed. Coreq: DENC 487.

DENC 490. General Practice Dentistry A (2.5)
Clinical application of the principles of general practice dentistry. Coreq: DENC 494.

DENC 492. General Dentistry Clinical Competency (.5)
This course consists of the successful completion of the recall, emergency, diagnosis and treatment planning, and patient outcomes clinical competencies. It is also necessary for the student to successfully fulfill the recall needs of their assigned clinic patients in order to pass this course. Prereq: Completion of Basic Core Program.

DENC 494. General Practice Dentistry B (2.5)
Clinical application of the principles of general practice dentistry. Coreq: DENC 490.

DENC 498. Quality Assurance (1)
This course reinforces quality assurance skills and knowledge provided in the prerequisite course including, but not limited to: providing students with the working knowledge of dental record keeping, as it relates to diagnosis and treatment of pathology; recognition and management of medical illness and disabilities; treatment planning; documentation of pre-existing conditions, current and past treatment; established laboratory protocols; evaluation of reasons for remakes and re-dos; post-treatment evaluation of care. Prereq: DENC 394.

COURSE DESCRIPTIONS (DEND)

DEND 110. Special Topics in Dentistry (.5-4)
Directed study under faculty supervision and with special permission of the Associate Dean for Education.

DEND 158. Introduction to Dental Materials (.5)

The primary goal is to introduce basic material science concepts needed to evaluate, compare and select materials for a specific application. Knowledge of properties, indications and limitations of different clinical and laboratory materials will be presented. The effect of manipulation variables on material properties will be emphasized.

DEND 163. Masticatory Dynamics (3.5) (See DEND 162.)

DEND 172. Basic Procedures in Fixed Prosthodontics (2)

To introduce and familiarize the dental student to basic principles related to fixed prosthodontics. The introduction will emphasize principles of engineering and preparation designs, full coverage retains for both metal and ceramic restorations.

DEND 211. General Pathology (5)

General principles of pathology; etiology; retrograde changes; inflammation and repair; bacterial, viral, and mycotic infections, and disturbances of growth presented as an introduction to a more detailed consideration of oral pathology. The pathology of the organ systems.

DEND 214. Oral Pathology (4)

Diseases and abnormalities of the teeth and adjacent hard and soft tissues. Includes periodontal, pulpal, and periapical diseases as well as cysts, tumors, developmental anomalies, and oral aspects of systematic disease.

DEND 215. Medical Microbiology and Immunology (5)

Fundamental concepts of bacteriology, virology, and immunology, and their interrelationships in systemic and oral disease processes.

DEND 222. Periodontics (1)

A comprehensive course in periodontology including etiology, diagnosis, radiographic, interpretations and prognosis.

DEND 225. Physical Evaluation (1)

Involves the exploration of patient database building. The scope and methods for data collection, physical examination appropriate to dental care, data recording and data interpretation are discussed in order to be able to assess the patient's ability to receive dental care safely. The recognition of signs and symptoms of medical and dental disease and the implications for patient well-being are discussed. Systematic evaluation of the patient's physical examination, medical history, and dental history are integrated so that differential diagnoses may be developed.

DEND 228. Treatment Planning I (1)

This course provides lecture presentations to help prepare the student to develop skills in patient diagnosis and treatment planning. The lectures will guide the students through the thought processes necessary in the development of workable treatment

plans. The emphasis will be on exposing the students to the approach used in our clinic of providing the patients with options of optimal, alternative and emergency diagnostic or recall treatment plans using decisional analysis.

DEND 229. Principles of Radiography (1)

Initial course consisting of lecture and laboratory covering basic principles of radiography. Included are: instructions on taking intraoral radiographs, radiation physics involved in x-ray generation and the parts and function of the x-ray unit, radiation biology of x-ray interaction with tissue, head and neck anatomy and pathology with regards to radiographic interpretation. Each student will have a clinic rotation.

DEND 230. Advanced Principles of Radiography (1)

This is a continuation of DEND 229. This course will explore alternative intraoral radiographic techniques, extraoral radiography techniques, their uses and limitation. Included is a discussion of radiation safety in the dental office and film processing. Each student will have an opportunity to gain "hands-on" experience in patient alignment for a panoramic radiograph and alternative tools for taking quality films. Each student will have a clinic rotation.

DEND 243. Pharmacology (4)

This course introduces students to the principles of pharmacology and to the mechanisms of drug action in the context of common disease states.

DEND 248. Endodontics (1)

Introduction to methods and materials necessary for successful root canal therapy.

DEND 251. Applied Anatomy of the Head and Neck (.5)

Review of head and neck anatomy with clinical correlations.

DEND 252. Oral Surgery - Pain Control (1)

Anatomy pertaining to local anesthesia. Drugs used in local anesthesia and technique of administration. Management of complications. Slides and clinical demonstrations.

DEND 262. Basic Procedures in Operative Dentistry (2)

This course, together with DEND/DENC 265, covers the criteria, techniques, and practice of preparing "ideal/standard" operative preparations and placement of operative restorations. The emphasis is on posterior amalgam preparations and restorations, as well as an introduction to cast gold inlay and onlays. Students will be introduced to basic cariology and radiology as it relates to operative dentistry. In addition, the composition and properties of amalgam, liners and bases, investment material, and gold will be reviewed. Students will work on typodont and extracted teeth.

DEND 265. Basic Procedures in Esthetic Dentistry (1)

This course provides formal lecture presentations

and laboratory exercises to introduce the students to basic operative procedures for direct composite resin restorations.

DEND 267. Partial Denture Design (3)

Recognition of clinical situations that require partial denture therapy are developed. Introduction to the terms used in removable partial prosthodontics. Partially edentulous casts diagnosed, designed, surveyed, contoured for path of insertion, prepared for rest seat areas, and finally tripoded for further orientation by each student on his or her own casts. Thus the design, surveying, and clinical applications for removable partial service are presented in order to maintain optimal oral health conditions and to provide a sound basis for the prosthesis.

DEND 269. Prosthodontic Technology (2)

A lecture-demonstration-laboratory approach to complete denture prosthesis construction. Emphasis on certain fundamental biological considerations of the edentulous patient, such as the oral membranes, muscles, bones, and phonetics and how they relate to the technical aspects of denture constructions.

DEND 274. Basic Procedures in Fixed Prosthodontics II (3)

This course builds upon those core elements covered in DEND/DENC 172. Emphasis on principles of engineering for fixed partial dentures, preparation and design of fixed partial dentures, considerations for the restoration of endodontically involved teeth, and definitive and provisional fixed partial denture restorations. Introduces dental material topics related to fabrication of a fixed partial denture restoration, including: chemomechanical soft tissue retraction, die spacers, investments, casting and casting alloys, ceramics, soldering, provisional materials, prefabricated and custom post and core systems.

DEND 282. Orthodontics (.5)

Presents principles of orthodontics including relevant areas of applied growth and development, diagnosis methods, biomechanics, and techniques. Histological and physiological changes due to orthodontic tooth movement and biomechanics and laboratory techniques related to the fabrication and use of suitable orthodontic appliances. Biomechanical principles and the materials science and biologic background necessary for proper clinical management of these appliances.

DEND 284. Dentofacial Morphology (1)

Provides the dental student with an introduction to the assessment of dynamic faces and the relatively static dentition. The course details the etiologies and characteristics of various malocclusions including developmental disharmonies observed during the growth and development of a child. Primary emphasis is on empowering the student in the diagnoses of malocclusions employing study casts, intra and extra-oral photographs and cephalograms.

DEND 291. Dental Auxiliary Management (.5)

Lectures in the principles of auxiliary management. Overview of organization management, communi-

cation skills, duty delegation, and organization of work. Information is provided about the dental allied health fields, duties, responsibilities, training, and testing.

DEND 312. Oral Cancer Diagnosis (1)

Lecture and discussion of the etiology, epidemiology, differential diagnosis, and psychosocial impact of oral cancer. Legal and ethical responsibilities in diagnosis and detection of malignant oral tumors, oral complications of cancer therapy, dental management, surgical treatment and radiation therapy. Principles of early detection, treatment, and rehabilitation.

DEND 315. Practice Management I (1)

This course is designed to develop practical knowledge and skills in dental practice management. It is organized around initial topics that will lay the foundation for adequate planning for practice success after graduation. The subsequent courses build upon this foundation knowledge so that students will have a general perspective of where to begin their strategies for success in the future. This course discusses topics that include analysis of practice configurations, choosing the appropriate consultants, basic tools for fiscal management and evaluation, and identifying opportunities that match the student's life goals.

DEND 320. Issues and Trends (1)

Major issues and trends that affect oral health and the mission of dentistry in the United States. Behavioral knowledge and skills essential to the oral health practitioner's ability to deliver effective patient-centered care.

DEND 321. Surgical Periodontics (1)

Case analysis and treatment planning for various conditions of periodontal disease. Case presentation to patients. Basic surgical technique and advanced types of periodontal surgery demonstrated. Occlusal analysis and occlusal adjustment considered.

DEND 326. Oral Rehabilitation (1)

The didactic curriculum provides a series of lectures that emphasize the importance of evaluation of the entire stomatognathic system for treatment planning. Causal relationships influenced by misdirected forces and hyperfunction are discussed.

DEND 328. Treatment Planning II (.5)

This course provides formal instruction designed to prepare the students for patient management, practice management, and treatment planning. Emphasis on devising optimal, alternative and emergency diagnostic treatment plans.

DEND 329. Oral Diagnosis and Radiology (2)

This course helps the beginning clinician develop and understand the diagnostic process. It is designed to present to the student a method by which the common oral problems facing the dental practitioner can be recognized, diagnosed, evaluated and managed.

DEND 332. Dental Care for the Aging Population (1)

The didactic curriculum provides a general background on the changing demographics of our population as well as knowledge about the medical, social, psychological, and dental problems many older Americans face today. Dental problems common to the elderly, approaches to treatment planning and the provision of care for this unique group in traditional and non-traditional settings are explored.

DEND 333. Management of Medical Emergencies (1)

Patient evaluation, diagnosis and treatment of life-threatening emergencies that may arise in the course of dental treatment. Includes instruction in basic life support and cardiopulmonary resuscitation.

DEND 340. Clinical Pharmacology (2)

This course is designed to review common pharmacologic agents encountered in the general population. Emphasis is placed on the prescription, action, and interaction of dental pharmacologic agents as well as the implication of medical prescriptions on dental therapy. The course culminates in the evaluation of case studies and problem solving in drug therapy.

DEND 348. Endodontics (1)

Recognition of endodontic pulpal health and the changes that occur in the transition from health to disease. The didactic component focuses on scientific basis for recognition of degenerative states of the dental pulp and the philosophy of endodontic therapy. The clinical component focuses on the treatment of diseased, pulpally-involved teeth of actual patients. It provides practical instruction on how to render endodontic therapy under the direct supervision of qualified endodontic personnel.

DEND 351. Oral Surgery II (1)

Physical evaluation of patient before removal of teeth. Techniques of tooth removal. Complications during and following tooth extraction and their management. Preprosthetic minor surgery.

DEND 352. Dental Management of Medical Disease (1)

Hospital procedures and protocol and the management of surgical complications and emergencies. General principles of surgery as applied to selected topics.

DEND 354. Oral Surgery IV (1)

Removal of impacted teeth and post-operative complications. Management of cysts and other soft and hard tissue pathology of the oral regions. Management of trauma to the facial structures. Pre-prosthetics and orthognathic surgery in contemporary dental practice. Temporomandibular joint disorders.

DEND 355. Introduction to Conscious Sedation (.5)

Physiopharmacology of nitrous oxide use. Indications, contraindications, and complications.

DEND 360. Implant Dentistry (1)

Didactic and laboratory instruction that introduces the concepts used in implantology. These include the scientific basis of implant tissue reactions, and the surgical and restorative protocols. Emphasis is placed on slide presentation of actual cases. An opportunity is given to students to place an implant in an artificial mandible and to manipulate implant components on a typodont.

DEND 364. Esthetic Dentistry (1)

Lectures and demonstrations. The indications, contraindications, limitations, and use of modern techniques and materials in esthetic dentistry.

DEND 371. Occlusion Seminar (2)

An introduction to gnathological principles: terminology, procedures and instrumentation. Correlation of history and clinical symptoms with treatment modalities emphasized. Use of bite planes, centric relation registration, and diagnostic waxup on mounted casts.

DEND 374. Fixed Prosthodontics (1.5)

Diagnosis and treatment planning in fixed prosthodontics and construction of simple crowns and bridges. Lecture series concerning the discussions and demonstration of elementary and advanced methods of restoring occlusion, esthetics, and speech using fixed prosthesis.

DEND 378. Pediatric Dentistry (2)

Principles and practices of modern dental care for children presented. Special diagnostic, preventative, and treatment procedures applied to dental caries, malocclusion, and periodontal disease in children. Emphasis on current concepts of behavior guidance of children in the dental treatment setting.

DEND 379. Nutrition for Dentistry (1)

General nutrition concepts are presented in addition to aspects pertinent to the practice of dentistry.

DEND 394. Dental Patient Management/Risk Management (1)

Principles of patient management and risk management are reviewed. The primary focus is directed toward the skills associated with communication. A variety of examples of malpractice are reviewed and discussed. Other areas of risk are discussed such as infection and occupational hazards related to EPA and OSHA standards.

DEND 415. Practice Management II (2)

Students deal with entrepreneurship applications and experiences specific to dentistry and are introduced to the process of formulating a business plan. Personal finance and investment strategies are covered in this course, particularly as they pertain to developing a business plan for the students' careers. Each student constructs a business plan specific to the goals and situation of that student.

DEND 416. Practice Management III (1.5)

This course is designed to develop practical knowledge and skills in dental practice management. As the student prepares for clinical practice, topics sur-

rounding negotiation of working contracts, insurance contract evaluation, policies, compliance, and marketing are among some of the most important issues to be familiar with. Skills acquired in the preceding course are applied to the student's "practice" (panel of patients) for evaluation of practice productivity and growth.

DEND 420. Jurisprudence and Professional Ethical Responsibility (.5)

Ethical and legal issues, civil and criminal law, contracts, malpractice and current ethical and legal dilemmas encountered in practice.

DEND 421. Periodontal Medicine and Cases (1)

Further application of the knowledge and skills learned in prior periodontal courses. Focus is on how selective periodontal treatment can be integrated into a treatment plan considering the parameters presented by a special situation. Some examples are treatment related to endodontics, prosthodontics, geriatrics, esthetics, orthodontics and implantology.

DEND 426. Oral Diagnosis Seminar (1)

Case-based review of oral diagnosis, radiology, and medicine.

DEND 455. Oral Surgery IV-A (.5)

Patient evaluation for anesthesia. Anesthetic agents and techniques for inhalation and intravenous anesthesia. Medical emergencies. Postanesthetic management. Sedation techniques. Pharmacology of anesthetic agents.

DEND 482. Orthodontics (1)

Instruction through lectures and audio-visual programs enabling the student to gain judgment, knowledge, and skills to select and treat uncomplicated tooth irregularities in children and adults. Advanced topics in comprehensive orthodontics, such as surgical orthodontics and cleft-palate treatment.

DEND 488. Case Presentations (2.5)**COURSE DESCRIPTIONS (DENF)****DENF 422. Comprehensive Periodontics (3)**

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have approval of their Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the periodontic procedures associated with general dentistry.

DENF 428. Comprehensive Oral Medicine (3)

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have the approval of their Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other

written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the radiologic and oral diagnostic procedures associated with general dentistry.

DENF 448. Comprehensive Endodontics (3)

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have the approval of their Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the endodontic procedures associated with general dentistry.

DENF 455. Comprehensive Oral Surgery (3)

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have the approval of their Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the oral surgery procedures associated with general dentistry.

DENF 464. Comprehensive Operative Dentistry (3)

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have the approval of their Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the operative procedures associated with general dentistry.

DENF 468. Comprehensive Removable Prosthodontics (3)

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have the approval of their Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the removable prosthodontics procedures associated with general dentistry.

DENF 474. Comprehensive Fixed Prosthodontics (3)

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have the approval of their

Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the fixed prosthodontic procedures associated with general dentistry.

DENT 478. Comprehensive Pedodontics and Orthodontics (3)

This course is available only to dental school faculty who have earned dental degrees from foreign institutions and who have the approval of their Chairperson and the Dean to register. Successful completion of the course is accomplished by fulfilling the unit requirements, competency exams and any other written or practical requirements set forward by the Dental Education Committee and approved by the general faculty of the School of Dental Medicine in order to assure competency in the pediatric and orthodontic procedures associated with general dentistry.

COURSE DESCRIPTIONS (DENT)

DENT 501. Biological Aspects of the Stomatological System (2)

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 (2)

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

DENT 503. Facial Growth and Development (1)

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

DENT 504. Advanced Facial Growth (1)

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 (1)

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 506. Concepts of Occlusion (Orthodontics) (1)

Course given in a continuing education format dealing with the spectrum of gnathology. Subjects include the physiology of occlusion, record-taking and mounting of cases, laboratory and clinical exercises in occlusal equilibration, splint construction, set-ups, positioner construction, and the examina-

tion, diagnosis, and treatment of various TMJ disorder. Instruction is carried out by the use of lectures and laboratory and clinical exercises.

DENT 507. Master's Thesis Hypothesis (1)

The requirements for the degree of Master of Science in Dentistry include the successful completion of a suitable research experience, demonstration of scholarly attainment, and the ability to conduct directed research. This course will be directed toward initiating the student's research component of their Master of Science in Dentistry degree by culminating in the development of the thesis protocol. Research topics covered include human subjects protection, sample size calculation and power applied to student's area of research interest, study design, and statistical approach. Students will complete the CITI certification process.

DENT 508. Master's Thesis Protocol (2)

The requirements for the degree of Master of Science in Dentistry include the successful completion of a suitable research experience, demonstration of scholarly attainment, and the ability to conduct directed research.

DENT 509. Advanced Dental Studies (1-10)

A course for non-degree-seeking students who wish to pursue special post-doctoral studies in the School of Dental Medicine. Arrangement made through the department and the Associate Dean for Graduate Studies.

DENT 510. Epidemiology and Biostatistics (3)

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 (3)

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 histopathologic material presented.

DENT 513. Anatomy of the Head and Neck (3)

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 (1.5)

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 515. Interdisciplinary Seminar (.5)

A weekly seminar in which faculty research is presented and discussed. Included are dental, medical, engineering and social sciences faculty who are collaborating in an interdisciplinary fashion on basic and/or applied research topics of interest to the dental profession. When appropriate, M.S.D. candidates present their thesis research to the seminar group.

DENT 516. Microbiology, Immunology, and Immune Systems (1)

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 (.5)

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 523. Clinical Specialty Seminar I - Orthodontics (2)

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. First in a series of four courses.

DENT 524. Clinical Specialty Seminar II - Orthodontics (2)

Second in a series of four courses. (See DENT 523.)

DENT 527. Clinical Specialty Seminar III - Orthodontics (2)

Third in a series of four courses. (See DENT 523.)

DENT 528. Clinical Specialty Seminar IV - Orthodontics (2)

Fourth in a series of four courses. (See DENT 523.)

DENT 529. Endodontology I (3)

Scientific rationale for endodontic practice. Endodontic anatomy, physiology, pathology, and microbiology. All treatments and techniques studied and substantiated by current and classical research. First in a series of four courses.

DENT 530. Endodontology II (3)

Second in a series of four courses. (See DENT 529.)

DENT 531. Endodontology III (3)

Third in a series of four courses. (See DENT 529.)

DENT 532. Endodontology IV (3)

Fourth in a series of four courses. (See DENT 529.)

DENT 533. Pediatric Dentistry Literature Review I (2)

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.

DENT 534. Pediatric Dentistry Literature Review II (2)

Second in a series of four courses. See DENT 533 Pediatric Literature Review I.

DENT 535. Fundamentals in Pediatric Dentistry I (3)

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.

DENT 536. Fundamentals in Pediatric Dentistry II (3)

Second in a series of two courses. See DENT 535 Fundamentals in Pediatric Dentistry I.

DENT 537. Advanced Clinical Pediatric Dentistry I (3)

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.

DENT 538. Advanced Clinical Pediatric Dentistry II (3)

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.

DENT 539. Endodontic Literature Review I (3)

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. First in a series of four courses.

DENT 540. Endodontic Literature Review II (3)

Second in a series of four courses. (See DENT 539.)

DENT 541. Endodontic Literature Review III (3)

Third in a series of four courses. (See DENT 539.)

DENT 542. Endodontic Literature Review IV (3)

Fourth in a series of four courses. (See DENT 539.)

DENT 550. Clinical Pharmacology (1)

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 551. Clinical Endodontic Specialty I (3)

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. First in a series of four courses.

DENT 552. Clinical Endodontic Specialty II (3)

Second in a series of four courses. (See DENT 551.)

DENT 553. Clinical Endodontic Specialty III (3)

Third in a series of four courses. (See DENT 551.)

DENT 554. Clinical Endodontic Specialty IV (3)

Fourth in a series of four courses. (See DENT 551.)

DENT 555. Management of Medical Emergencies (1)

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 557. Periodontal Conference I (1)

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.

DENT 558. Periodontal Conference II (1)

Second in a series of four courses. (See DENT 557.)

DENT 559. Periodontal Conference III (1)

Third in a series of four courses. (See DENT 557.)

DENT 560. Periodontal Conference IV (1)

Fourth in a series of four courses. (See DENT 557.)

DENT 561. Orthodontics for Pediatric Dentists I (1)

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 562. Orthodontics for Pediatric Dentists II (1)

Second in a series of four courses. See DENT 561 Orthodontics for Pediatric Dentists.

DENT 564. Advanced Principles of Occlusion (1)

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) (1)

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 566. Practice Management II (Ortho) (1)

Second in a series of four courses. (See DENT 565.)

DENT 567. Practice Management III (Ortho) (1)

Third in a series of four courses. (See DENT 565.)

DENT 568. Practice Management IV (Ortho) (1)

Fourth in a series of four courses. (See DENT 565.)

DENT 569. Orthodontic Literature Review I (1)

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 570. Orthodontic Literature Review II (1)

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 (1)

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)

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

DENT 574. Advanced Specialty Principles: Clinical II (2)

Second in a series of four courses. (See DENT 573.)

DENT 575. Advanced Specialty Principles: Clinical III (2)

Third in a series of four courses. (See DENT 573.)

DENT 576. Advanced Specialty Principles: Clinical IV (1)

Fourth in a series of four courses. (See DENT 573.)

DENT 577. Clinical Periodontics I (3)

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.

DENT 578. Clinical Periodontics II (3)

Second in a series of four courses. (See DENT 577.)

DENT 580. Orthodontics-Oral Surgery Conference (1)

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 581. Clinical Periodontics III (3)

Third in a series of four courses. (See DENT 577.)

DENT 582. Clinical Periodontics IV (3)

Fourth in a series of four courses. (See DENT 577.)

DENT 583. Orthodontic Diagnostic Seminar I (1)

Series of lectures and seminars covering the science of orthodontic diagnosis. Course consists of lectures 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 584. Orthodontic Diagnostic Seminar II (1)

Second in a series of three courses. (See DENT 583.)

DENT 585. Orthodontic Diagnostic Seminar III (1)

Third in a series of three courses. (See DENT 583.)

DENT 586. Limited Tooth Movement for the Dental Specialist (1)

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

DENT 587. Periodontal Prosthesis (1)

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 588. Hospital Rotation (2)

Students are assigned full time to anesthesia service and perform such duties as directed by anesthesiology staff: preoperative evaluation of patients, indications and contraindications for specific methods of anesthesia, relationship of medical problems to anesthesia risks, assisting in preparation of patients for anesthesia, intubation and anesthesia management, assisting in the management of complications, and post-anesthetic recovery management including monitoring of vital signs, blood gases, EKG, etc., and participation in post-anesthesia rounds and conferences.

DENT 591. Orthodontics for Pediatric Dentists III (1)

Third in a series of four courses. See DENT 561 Orthodontics for Pediatric Dentists.

DENT 592. Orthodontics for Pediatric Dentists IV (1)

Fourth in a series of four courses. See DENT 561 Orthodontics for Pediatric Dentists.

DENT 595. Advanced Periodontal Seminar I (1.5)

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. First in a series of four courses.

DENT 596. Advanced Periodontal Seminar II (1.5)

Second in a series of four courses. (See DENT 595.)

DENT 597. Advanced Periodontal Seminar III (1.5)

Third in a series of four courses. (See DENT 595.)

DENT 598. Advanced Periodontal Seminar IV (1.5)

Fourth in a series of four courses. (See DENT 595.)

DENT 631. Pediatric Dentistry Literature Review III (2)

Third in a series of four courses. See DENT 533 Pediatric Dentistry Literature Review I.

DENT 632. Pediatric Dentistry Literature Review IV (2)

Fourth in a series of four courses. See DENT 533 Pediatric Dentistry Review I.

DENT 637. Advanced Clinical Pediatric Dentistry III (3)

Third in a series of four courses. See DENT 537 Advanced Clinical Pediatric Dentistry I. Additionally, residents learn to manage children with complex special health care needs, including inpatients. Residents interact and coordinate with other medical departments within the hospital, and with outside clinics and practitioners.

DENT 638. Advanced Clinical Pediatric Dentistry IV (3)

Fourth in a series of four courses. See DENT 637 Advanced Clinical Pediatric Dentistry III.

DENT 639. Advanced Seminar in Pediatric Dentistry I (3)

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

DENT 640. Advanced Seminar in Pediatric Dentistry II (3)

Second in a series of two courses. See DENT 637 Pediatric Dental Seminar I.

DENT 651. Thesis M.S.D. (1-9)

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

DENT 661. Conscious IV Sedation I (2)

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)
(See DENT 661.) Supervised clinical experience in conscious IV sedation.

DENT 663. Implant Dentistry I Periodontics (1)
Designed to enhance the understanding of current concepts and their role in the multidisciplinary treatment of the patient.

DENT 664. Implant Dentistry II Periodontics (1)
(See DENT 663.) Clinical demonstration, participation, and case presentation in implant dentistry.

DENT 682. Cephalometrics (1)
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 in the Orthodontic Office (1)
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)
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 685. Literature Review in Periodontics I (1)
Comprehensive discussion of selected articles related to clinical periodontology and basic sciences of significance to periodontal research and therapy.

DENT 686. Literature Review in Periodontics II (1)
(See DENT 685.)

DENT 687. Literature Review in Periodontics III (1)
Third in a series of four courses. See DENT 685.

DENT 688. Literature Review in Periodontics IV (1)
Fourth in a series of four courses. See DENT 685.

DENT 690. Pediatric Dental Residency (1-10)
Allows registration for non-degree-seeking students in graduate level courses at the direction of the department.

DENT 692. Restorative Fellowship (1-3)
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 694. Fellowship in Dentistry (3)
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)
Allows registration for non-degree-seeking students in graduate level courses at the direction of the department.

COURSE DESCRIPTIONS (DSPR)

DSPR 135. Heart and Lungs in Disease (1)
This education module facilitates student recognition of cardiovascular and respiratory dysfunction that may be present in their patients and helps students understand how such conditions may affect their patients' general and oral health.

COURSE DESCRIPTIONS (HEWB)

HEWB 121. Foundations of Life Science (4.5)
This course includes an introduction to basic elements of cell structure and function. This includes the characteristics and role of different types of cells, the cell cycle, mechanisms for cell damage, repair and death, cell signaling, differentiation and gene expression. This course serves as a foundation for the modules in Health and Wellbeing and Disease Processes.

HEWB 123. Facial Growth (.5)
Introduction to the normal growth and development of the human face from embryology to adult.

HEWB 125. Heart and Lungs in Health (1)
This course provides students with the understanding of the structural and functional relationships of the cardiovascular and respiratory systems. The integrated approach serves as a foundation for understanding the health and well-being of these systems.

COURSE DESCRIPTIONS (INQU)

INQU 101. Orientation to Small Group Learning (.5)
This module provides a framework for small group learning and independent study emphasizing the use of evidence and academic resources.

INQU 103. Integration Conference (.5)
This bi-weekly conference integrates basic science principles and clinical principles to further define the role that science plays in clinical practice. Examples from basic science and clinical science research will be related to functional applications in dental care.

COURSE DESCRIPTIONS (LDRS)

LDRS 111. Health, Science and Society (3)
This intensive sequence concerning health and society provides a context for students to view their professional education based on the mission of the profession: "to protect and improve the oral health of individuals and the society." This course introduces students to epidemiology, biostatistics, creation and evaluation of scientific evidence, and evidence-based practice. This course also gives students an introduction to small group learning.

COURSE DESCRIPTIONS (MAHE)

MAHE 141. Preventive Periodontics (1)
A laboratory lecture and clinical course in basic procedures including scaling, polishing, instruction in home care, and a system of instrumentation for thorough prophylaxis in preparation for clinical treatment. An understanding of the formation, composition, and relation of dental plaque to the occurrence and prevention of periodontal disease. Emphasis on periodontal health and recognition of early disease condition.

MAHE 143. Preventive Periodontics Clinic (.5)
Companion clinical component to MAHE 141. Clinical application of methods for the prevention and maintenance of periodontal health in patients. The importance of patient education, motivation, and cooperation in present methods of prevention and plaque control.

MAHE 145. ACE: Outreach Preventive Dentistry (1.5)
This ACE introduces the student to professional patient interaction and evaluation in a simulated environment. Students will develop interview techniques, learn patient appraisal skills, and techniques for communicating effectively in a health care environment. Students will experience patient interviews and assessment in a simulated environment with live patients.

COURSE DESCRIPTIONS (REHE)

REHE 151. Dental Anatomy (3)
Descriptive anatomy of masticatory structures with emphasis on deciduous and permanent teeth and the temporomandibular-mandibular movements, and the fundamental concepts of the functional relationships between the dentition and the temporomandibular joint. Lectures on comparative anatomy and variations in tooth morphology.

REHE 153. Dental Anatomy Laboratory (.5)
Companion preclinical component to REHE 151. Laboratory exercises and assignments include drawings, waxups, tooth identification, and use of semi-adjustable articulator.

REHE 155. DentSim Laboratory (1)
This course covers the criteria, techniques and practice of preparing 'ideal/standard' operative preparations. The restorative procedures will be performed on typodont teeth mounted in a computer assisted simulator (DentSim).