

Dental School Catalog

2006-2008

University of Maryland

Baltimore

BALTIMORE COLLEGE OF DENTAL SURGERY

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VISION STATEMENT

The Baltimore College of Dental Surgery will build on its tradition as the world's first Dental School to become a full partner with the University of Maryland, Baltimore and the University of Maryland Medical System in achieving eminence in education, science and practice related to health, with a special emphasis on health of the oral-facial region. Embraced by and subscribing to the University and System visions, BCDS will be a leader for dentistry in:

- developing innovative educational offerings in dentistry and related disciplines;
- devising and adopting technological advances in dental education and practice;
- producing new basic and applied knowledge;
- preparing practitioner-scholars for leadership in the future;
- integrating service activities with the needs of the community;
- initiating programs that cross school, university, state and national boundaries;
- preparing practitioners and educators capable of functioning competently at the fullest breadth and depth of their professional areas of expertise; and
- influencing oral health care policies.

In living this vision, BCDS will achieve greater prominence through activities that bring recognition. Students will find excellent opportunity; faculty, unexcelled intellectual stimulation; and patients, high quality and caring treatment. The school's performance will exceed the expectations of its supporters. BCDS will continually contribute to the resolution of health-related problems which plague mankind, and through special concentration in the oral-facial region, improve the quality of life.

HISTORY

The Baltimore College of Dental Surgery, Dental School, University of Maryland has the distinction of being the first dental college in the world. Formal education to prepare students for the practice of dentistry originated in 1840 with its establishment. The chartering of the school by the General Assembly of Maryland on February 1, 1840 represented the culmination of the efforts of Dr. Horace H. Hayden and Dr. Chapin A. Harris, two physicians who recognized the need for systematic formal education as the foundation for a scientific and serviceable dental profession. Together, they played a major role in establishing and promoting formal dental education, and in the development of dentistry as a profession.

Convinced that support for a formal course in dental education would not come from a medical school faculty that had rejected the establishment of a department of dentistry, Dr. Hayden undertook the establishment of an independent dental college. Dr. Harris, an energetic and ambitious young man who had come to Baltimore in 1830 to study under Dr. Hayden, joined his mentor in the effort to found the college.

The Baltimore College of Dental Surgery soon became a model for other schools throughout America. This was due in no small part to BCDS's emphasis on sound knowledge of general medicine and the development of the skills needed in dentistry. The present Dental School evolved through a series of consolidations involving the Baltimore College of Dental Surgery, founded in 1840; Maryland Dental College, founded in 1873; the Dental Department of the University of Maryland, founded in 1882; and the Dental Department of the Baltimore Medical College, founded in 1895. The final consolidation took place in 1923, when the Baltimore College of Dental Surgery and the Dental Department of the University of Maryland were combined to create a distinct college of the University under state supervision and control. As part of the University of Maryland, the Dental School was incorporated into the University System of Maryland (USM), formed by Maryland's General Assembly in 1988. Hayden-Harris Hall, the school building erected in 1970 and renovated in 1990, was replaced by an entirely new facility that opened 2006.

PROGRAMS OF STUDY

The Dental School today strives to offer the finest programs of dental education in the world. Continuing efforts are made to provide educational and training experiences consistent with evolving concepts and advances in the delivery of dental, oral and maxillofacial health care.

All programs are accredited by the Commission on Dental Accreditation and have been granted the accreditation status of approval. The Commission is a specialized accrediting body recognized by the U.S. Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-4653 or at 211 East Chicago Ave., Chicago, IL 60611.

The Baltimore College of Dental Surgery, Dental School, University of Maryland continues to fulfill, through its graduates, the aspirations of its founders to provide scientifically trained professionals to serve the oral health care needs of society.

STUDENT BODY

Four hundred eighty students were enrolled in the predoctoral dental education program in the 2007-2008 academic year. The total enrollment of 635 also included 29 graduate, 75 dental hygiene, and 67 advanced dental education students.

The entering fall 2007 predoctoral class has a mean grade point average of 3.5. Of these, 51 percent are female; 35 percent are minorities. Dental School students represent a variety of undergraduate institutions across the country.

ADMINISTRATIVE OFFICES

Admissions and Career Advancement, Dr. Patricia Meehan, Assistant Dean of Admissions and Recruitment

The Office of Admissions and Career Advancement, under the direction of the assistant dean of admissions and recruitment, manages the admissions of students for all programs. Enrolled students and graduates are counseled regarding career advancement.

Clinical Operations Board, Dr. Harry Goodman, Chair
Dr. Ron Chenette, Director of Clinical Operations
Dr. Mark Brennan, Ombudsman for patient complaints

The Clinical Operations Board has overall responsibility for clinical patient care operations within the Dental School. It consists of dental professionals who are responsible for:

- Fostering a patient-centered approach to care within an educational setting
- Coordinating imaging services
- Supplying instruments and equipment through Central Sterilization and Central Materials Services
- Developing and implementing quality assurance
- Safeguarding patient information

Questions regarding the Dental School clinics may be directed to clinicinfo@dental.umaryland.edu.

Continuing Education, Dr. Kenny Hooper, Director

The Dental School is committed to the lifelong learning of oral health professionals in Maryland and neighboring states of the Mid-Atlantic Region. Continuing Dental Education for dentists and dental hygienists is among the missions of the Dental School, for today's many and frequent advances in science and technology impose a greater and sustaining need for timely accession of new information.

In order to fulfill its commitment to lifelong learning, the Dental School provides courses designed to meet the needs of dental and dental hygiene practitioners. Based upon research in the basic and clinical sciences, the Continuing Dental Education Program offers participants educational courses which reflect contemporary professional knowledge of direct benefit to the practice community. These courses are conducted in clinics, laboratories, and simulation facilities of the Dental School as well as other regional settings of convenience to course participants. In addition, future courses may be offered through such distance learning media as the Internet.

Curriculum and Academic Management, Dr. Carroll-Ann Trotman, Associate Dean of Academic Affairs

The Office of Curriculum and Academic Management manages curricular matters, registration, grades, student academic records and academic counseling. The office disseminates textbook lists, course offerings, clerkship offerings and guidelines, class schedules, examination schedules, and the academic calendar through the Web through the current students page at www.dental.umaryland.edu/studentinfo/default.asp. Records concerning counseling, progress reports, referrals, and disposition are maintained and serve as a resource of academic evaluation by the faculty and administration.

Dean's Faculty Enrichment Program, Warren M. Morganstein, DDS, MPH, Director

The mission of the Dean's Faculty Program is to enrich the University of Maryland Dental School through a large cadre of dedicated volunteers who contribute significantly to the school by playing an active and important part in the school's programs of education, research, service and development.

The Office of the Enrichment Program and Dean's Faculty administers the Dean's Faculty Program. This office provides the expertise and services that develop, sustain and ensure the success of the program.

Specific functions of this office include:

- Marketing the program
- Recruiting, screening and referring candidates
- Developing and administering benefits
- Orienting new volunteer faculty to the policies and practices of the school
- Ensuring volunteer faculty have the knowledge to perform their functions within the school through oversight and
- Facilitation of department sponsored calibration programs
- Hosting continuing education programs, study clubs and other development activities
- Developing and administering reward and recognition programs
- Serving as an ombudsman for issues and
- Removing barriers for the integration of volunteer faculty in the life of the School
- Ensuring volunteer faculty are involved in decision making, as appropriate, and are in the communication loop

The Office of the Enrichment Program and Dean's Faculty functions in a collaborative manner with the department chairs who are responsible for selection, assignment, calibration, performance assessment and integration of the volunteer faculty within their departments.

Finance, Institutional Operations and Planning, Dr. David George, Assistant Dean of Planning and Finance

This office has overall responsibility for management and oversight of the financial resources of the Dental School. Additionally, this office coordinates and processes payroll and benefits for School employees; maintains employee time and leave systems; assists administrative supervisors and faculty in the implementation of School, University, and USM personnel policies; and provides administrative support for faculty appointments, promotions and tenure processing, and faculty credentialing.

Information Technology

The Office of Information Technology (OIT) in partnership with UMB campus Center for Information Technology Services (CITS) provide and support all general administrative, research, academic and clinical computer systems for the Dental School.

The mission of the office is to deliver cost effective information services and solutions to students, patients, faculty and staff.

Student Affairs, Margaret B. Wilson, Associate Dean of Student Affairs

The office works with students throughout their years at the Dental School. Students who experience career, health, legal, employment, housing and other personal problems are counseled by the associate dean of student affairs or referred, as appropriate, to campus agencies or offices.

The associate dean serves as advisor to all student organizations and publications and also assists in the coordination of joint student-faculty programs. The Student Affairs Committee of the Faculty Council has the major responsibility for such programs.

Special Lectures

The Stephen E. and Jeffrey A. Kleiman Lectures in Dentistry and Medicine

As a tribute to the selection of careers in the health professions by his sons, Dr. Bernard S. Kleiman established this annual lecture program to alternate between the University of Maryland Dental School and the School of Medicine. Distinguished individuals are invited to lecture on topics pertinent and applicable to practicing dentists or physicians. The Kleiman Lecture alternates with the Jane Boswell Toomey and Lewis Cole Toomey Lecture as part of Student-Faculty Day activities.

The Jane Boswell Toomey and Lewis Cole Toomey, DDS Memorial Lecture

Endowed in 1982 by a major gift from the Toomey family, together with contributions by friends and associates of Dr. and Mrs. Toomey, this biennial lecture was initiated during the 1985-1986 academic year. The Toomey Lecture provides a forum for distinguished individuals to speak on timely dental research and clinical topics useful to dental professionals in practice and teaching. The lectures are open to all members of the dental community.

In addition to these annual lectures, there are three special lectures that are presented on a rotating basis. These include the **John E. Fogarty Memorial Lecture**, initially endowed by the Rhode Island Section of the Alumni Association of the Baltimore College of Dental Surgery, Dental School, University of Maryland, Inc.; **The J. Ben Robinson Memorial Lecture**, sponsored by the Maryland Section of the American College of Dentists; and the **Gardner Patrick Henry Foley Memorial Lecture**.

ORGANIZED RESEARCH CENTER ON PERSISTENT PAIN

The basic science and clinical research led by the University of Maryland Dental School is providing national leadership in the understanding of deep tissue persistent pain and its impact on diagnosis and treatment. A dedicated research team was created from the best researchers and clinicians from the University of Maryland Dental School and School of Medicine, VA Medical Center, and University of Maryland Medical Center. The program includes a major Program Project on Plasticity and Modulation in Models of Persistent Pain and the University of Maryland, Baltimore Research Center for Neuroendocrine Influences on Pain.

Basic science research, translational approaches, clinical trials, and the management of pain are at the center of this research. Research training programs with over 50 mentors are available to high school, college, graduate, dental, and medical students; postdoctoral fellows; and junior faculty desiring to enhance their research skills and portfolio.

STUDENT ORGANIZATIONS

The Student Dental Association (SDA) is the organizational structure of the student body. The association is presided over and governed by elected representatives from all classes and is represented in selected committees within the School. The organization participates in certain student/faculty activities and sponsors and directs all student social activities. It is responsible for the publication of the school's yearbook, The MIRROR, and is unique among dental student organizations in having formulated its own constitution and professional code of conduct.

The American Student Dental Association (ASDA) was established in February 1971, with the aid of the American Dental Association (ADA). Its primary purpose is to serve as a liaison between students and the ADA and its components. ASDA membership includes student membership in the ADA and a subscription to the Journal of the ADA and the ADA News.

Student American Dental Hygienists' Association (SADHA) members are involved in activities such as hosting guest speakers, conducting fund-raising projects, presenting table clinics, and maintaining liaison with the state and local organizations. They also participate in meetings and discussion groups on a regional and national level. Student representatives attend the annual meeting of the American Dental Hygienists' Association.

The Student National Dental Association (SNDA), Maryland chapter, was founded in 1973. The primary objective of this organization is to foster the recruitment, admission, development, and graduation of African-American dental and dental hygiene students. Among the activities in which the Maryland chapter is engaged are minority recruitment, tutoring, social and professional programs, and community and university relations.

The Academy of General Dentistry (AGD) is the second largest dental association in the world, with over 35,000 members throughout the U.S., Canada, and Puerto Rico. The AGD is exclusively dedicated to serving the needs and interests of the general dentist, and in advancing the value and excellence of general dentistry. The student AGD strives to do this by fostering learning opportunities with local dentists, providing material not normally included in the school curriculum, and by providing a social outlet for networking and discussion. Learn more by visiting www.agd.org or by calling 888-243-3368.

The American Association of Dental Research/Student Research Group was founded in 1987. The objectives of the local chapter are to promote student research in dentistry and its related disciplines, to promote the advancement of dental research and related aspects, and to further the aims and objectives of the American Association of Dental Research (AADR) and International Association of Dental Research (IADR) as they relate to student research. Membership is open to all dental and dental hygiene students expressing an interest in dental research. Past research experience is not a requirement for membership.

The American Dental Education Association (ADEA) promotes the advancement of dental education, research and service in all appropriately accredited institutions that offer programs for dental personnel. The association has three membership categories: institutional, individual, and student. Student members receive the Journal of Dental Education and the Dental Student News, published by the association. During the year, the local chapter conducts programs to promote the goals of this organization.

The Gamma Pi Delta Prosthodontic Honor Society, chartered in 1965, is an honorary student dental organization with scholarship and interest in the field of prosthetic dentistry as a basis for admission. The objective of the organization is the advancement of prosthetic dentistry through lectures, table clinics, and other academic activities that stimulate the creative interest of students and the profession in general.

The Gorgas Odontological Honorary Society was organized in 1916 as an honorary student dental society with scholarship as a basis for admission. The society was named after Dr. Ferdinand J. S. Gorgas, a pioneer in dental education, a teacher of many years' experience, and a major contributor to dental literature. It was with the idea of perpetuating his name that the society chose its title.

To be eligible for membership, a student must rank in the top one-third of the class, must have achieved and maintained a minimum grade point average of 3.00 in all combined courses, and must not have repeated for scholastic reasons any subject. Speakers prominent in the dental and medical fields are invited to address members at monthly meetings.

The Phi Chapter of Omicron Kappa Upsilon, a national honorary dental society, was chartered at the Baltimore College of Dental Surgery during the 1928-1929 academic year. Students whose rank for the entire course of study is among the highest 20 percent of the class are eligible. This high honor is conferred upon those graduating seniors who, in addition to scholarship, have demonstrated exemplary character traits and potential for future professional growth and attainment. The Academy of General Dentistry membership is open to all students in the Dental School. General dentists share extraordinary experiences in lecture/discussion programs of interest to all. Meetings are held several times a year after school hours.

The American Association of Women Dentists was founded nationally in 1921. The Maryland student chapter, founded in 1982, provides support and information locally to all dental students attending the Dental School. Lectures, group discussions, projects, and gatherings with practitioners and AAWD chapters from other dental schools form the basis of the group's activities.

The American Society of Dentistry for Children meets once a month and uses a lecture/discussion format to discuss subjects as varied as nutrition for children and nitrous oxide analgesia in private practice.

The Big Brother/Sister Program is a voluntary effort on the part of each member of the second-year dental student class to help and advise a member of the incoming first-year class. It is hoped that this assistance will continue through graduation of each class. The program is an official standing committee of the SDA.

The Dental Hygiene Big Brother/Big Sister Program is a voluntary effort on the part of each member of the senior class to help and advise a member of the junior class. It is hoped that this assistance will continue through graduation of each class.

The Christian Dental Association , a chapter of the Christian Medical Society, provides students with opportunities in the areas of community and world outreach programs. In addition to holding Bible study sessions and lectures, the group is forming a network between practicing Christian dentists and dental students.

The Hispanic Student Dental Association (HSDA) was organized to improve and promote the oral health of Hispanics living in the United States. Other goals include the recruitment and retention of Hispanic dental students, matching students in the Big Brother/Sister program for academic advancement and support, translating for patients who do not speak English, and organizing intra- and extramural activities. Students and faculty from all ethnic backgrounds are welcome to join. The Korean American Student Dental Association was established in 1993 to provide dental education to the non-English speaking Korean community and to help Korean dental students assimilate into the Dental School.

The University Student Government Association (USGA) is a growing team of professional and graduate students dedicated to making the University of Maryland “a more perfect union.” USGA was created to advocate on behalf of all University students.

Professional dental fraternities are Greek letter organizations of men and women bonded together by ritual. They are specialized fraternities that limit membership to selected graduates and students enrolled and satisfactorily pursuing courses in an accredited college of dentistry. They are not honorary fraternities or recognition societies that confer membership to recognize outstanding scholarship. Their aims are to promote the high ideals and standards of the profession, advance professional knowledge and welfare of members, and provide a medium through which members, with a common interest, can develop everlasting friendships. Representative chapters in the Dental School are **Alpha Omega**, founded in 1907, and **Psi Omega**, founded in 1892.

ALUMNI ASSOCIATION OF THE BALTIMORE COLLEGE OF DENTAL SURGERY, DENTAL SCHOOL, UNIVERSITY OF MARYLAND, INC.

The Alumni Association of the Baltimore College of Dental Surgery, Dental School, University of Maryland, Inc. represents more than 6,000 graduates of the Dental School. Alumni representatives from the DDS, Dental Hygiene, Advanced Dental Education, and Graduate programs are recruited to serve on the Alumni Association Board of Directors and committees.

The Association fosters and promotes the Dental School and its programs. To accomplish this goal, the Association seeks to

- Maintain the interest of the alumni in their Alma Mater
- Organize alumni gatherings where friendships may be renewed and perpetuated
- Inspire alumni to give of their time and financial support towards the needs of the Dental School
- Encourage alumni participation in School and Alumni Association sponsored continuing education offerings

- Maintain the traditions of the World's First Dental College

The annual meeting of the Alumni Association is held during Alumni Weekend. At this meeting, officers and members are elected to the Board of Directors.

The Alumni Association works closely with the School's Office of Development and Alumni Relations to plan activities across the country for alumni and friends. Local events allow alumni and friends the opportunity to interact with students and faculty.

If you are interested in becoming involved with the Association and their activities, please contact the Office of the Alumni Association at 410-706-7146 or alumni@dental.umaryland.edu.

Doctor of Dental Surgery Program

APPLICATION/ADMISSION

REQUIREMENTS FOR ADMISSION TO THE DENTAL PROGRAM

The Dental School seeks to enroll the highest caliber of students who will become exemplary health care professionals. To achieve this strategic objective, the Dental School has established admissions criteria that permit flexibility in choosing an undergraduate program while remaining discriminative with regard to scholastic achievement. Students are majoring in either science or non science disciplines, as well as individuals interested in career changes, are encouraged to apply. In addition, those individuals who are interested in changing their careers will receive careful consideration for admission. The admissions process strives to identify applicants who possess the ability to think critically and who have demonstrated independence and self-direction. In all respects, applicants must give every promise of becoming successful students and practitioners of the highest ethical standards.

Applicants should be able to demonstrate not only that they have participated in a challenging program in their respective disciplines, but also that it was supplemented by a broad selection of courses in the social sciences, humanities, and arts. Applicants should also be able to demonstrate the activities undertaken to investigate the dental profession. Additionally, experiences that develop manual dexterity are strongly recommended.

Although the completion of a bachelor's degree before dental school matriculation is strongly encouraged by the Committee on Dental Recruitment and Admissions, applicants who have successfully completed at least three academic years (90 credit hours) in an accredited university will be considered for admission.

No more than 60 of the minimum required credits will be accepted from a community college or junior college; these credits must have been validated by an accredited college of arts and sciences. All admission requirements must be completed by June 30 of the desired year of admission. Applicants must also present favorable recommendations from their respective predental committee or, if no such committee is available, from one faculty member each in the departments of biology and chemistry. Applicants will not be admitted with unabsolved conditions or unabsolved failures.

Requirements for admission are subject to change without prior notice, as the Committee on Dental Recruitment and Admissions reserves the right to modify the prerequisites when additional courses are necessary to improve an applicant's preparation for dental school. At the minimum, the undergraduate curriculum must include the following:

- 8 Semester Hours of General Biology (including laboratories)
- 8 Semester Hours of Inorganic Chemistry (including laboratories)
- 8 Semester Hours of Organic Chemistry (including laboratories)
- 8 Semester Hours of Physics (including laboratories)
- 3 Semester Hours of Biochemistry
- 6 Semester Hours of English Composition

Moreover, applicants are expected to achieve superior grades in these prerequisite courses, because these are the best predictors of dental student performance in the first two years of the dental curriculum.

A strong record of academic achievement is essential, and all applicants should present science and cumulative grade point averages (GPA) and Dental Admission Test (DAT) scores that exceed the national averages. All applicants are encouraged to take the Dental Admissions Test (DAT) no later than November of the year before admission. The final admission decision will be based on DAT scores, performance in previous academic programs, the quality of those programs, and personal factors as evidenced by letters of recommendation, extracurricular activities, and a personal interview.

Before applying to the Dental School, potential applicants should note the University of Maryland policy concerning prevention and management of student and employee infection with bloodborne pathogens, and the Dental School's technical standards for admission and matriculation. In addition, although the admissions process does not include questions concerning any prior criminal activity, individuals who may have a prior or subsequent conviction or nolo contendere plea for a felony may encounter denial or removal of licensure.

APPLICATION AND ACCEPTANCE PROCEDURES

Students are admitted only at the beginning of the fall semester in August. All applications, with the exception of transfer and advanced standing applications, are processed through the American Dental Education Association. The application service, AADSAS, will duplicate the transcript, calculate the grade point average for each applicant, and furnish pertinent information to the Dental School. Although the AADSAS application must be filed by all applicants before to January 1 of the desired year of admission, early filing of the application is strongly recommended. The Dental School also charges a separate application review fee of \$75, which should be submitted directly to the Office of Admissions at the same time the AADSAS application is submitted.

If the requirements for admission are fulfilled and preliminary admission criteria are met, the applicant will receive the Dental School's supplemental application form, which should be completed and mailed to the Dental School's Office of Admissions and Career Advancement. All applicants who merit consideration will be interviewed; however, a personal interview does not guarantee admission.

The Committee on Dental Recruitment and Admissions, composed of members of the faculty, students, and alumni, selects qualified applicants for admission based on the applicant's academic performance, DAT scores, faculty recommendations, and the personal interview. A deposit of \$500, to be credited toward tuition, must accompany an applicant's acceptance of an offer of admission. An additional \$500 deposit is due by April 1 to confirm intent to enroll. Admission is contingent on completion of all prerequisite coursework and continued satisfactory academic performance and behavior during the period between acceptance and enrollment.

ADMISSION WITH ADVANCED STANDING

Students *currently* enrolled in dental schools within the United States, as well as graduates of non U.S./non Canadian dental schools, may apply for admission with advanced standing. It should be noted, however, that such admissions occur very rarely because of limited space availability or incompatibility of curricula at different schools. Students admitted with advanced standing may be exempted from certain courses, based on skills assessment by the faculty.

POLICY FOR ADMISSION WITH ADVANCED STANDING

The University of Maryland Dental School does not have a specific program designed for candidates seeking admission to the DDS program with advanced standing. However, it may be possible for exceptionally talented graduates of a non-US/non-Canadian dental schools or dental students currently enrolled in US/Canadian dental schools, to gain admission to the University of Maryland's Doctor of Dental Surgery program, with advanced standing.

Candidates should be aware that the application process is complex, given the nature of assessing candidate's performance in different curricula at other institutions. Furthermore, all admissions considerations are contingent on space availability within the program.

This policy specifically addresses admissions requirements for two categories of candidates for admission with advanced standing:

- Transfer students
- Internationally trained dentists

Transfer Students

Eligibility

In order to be eligible for consideration for transfer, applicants must be currently enrolled in a US or Canadian dental school, and in good academic and professional standing. First consideration will be given to applicants whose personal circumstances compel them to transfer.

Application Process

Application for admission with advanced standing should be requested from the Office of Admissions. Completed applications should be returned no later than April 1, along with the following:

- a detailed letter describing the reason for the transfer request
- the \$350 application fee (payable to the University of Maryland Dental School)

- a letter from the Dean of the dental school, verifying that the student is *currently* enrolled and is in good academic and professional standing
- official undergraduate transcript
- DAT score report
- official dental school transcript
- National Board score report (where applicable)
- current dental school catalog

Preliminary Review

After required materials have been submitted and preliminarily reviewed, the Committee on Dental Recruitment and Admissions makes a determination regarding a personal interview. Candidates being seriously considered for admission are interviewed.

Review by Departments

Based on the outcome of the preliminary interview, candidates who are recommended for possible admission by the Committee on Dental Recruitment and Admissions are requested to provide copies of all course syllabi for courses completed and in progress at the current dental school. Dental School department chairs (or their designees) review the course syllabi and, if necessary, communicate directly with candidates when further clarification is needed. Department chairs/designees then provide the Office of Academic Affairs with the recommendations regarding placement within the curriculum.

Admissions and Placement Decisions

The Committee on Dental Recruitment and Admissions makes the final decision regarding admission. The Progression Committee develops specific recommendations regarding placement or modification to the student's curriculum or course requirements to accommodate individual needs. The Associate Dean for Academic Affairs notifies applicants regarding admission decisions and, if indicated, placement decisions. Space must be available within the projected class in order for an offer of admission to be extended.

Internationally Trained Dentists

Eligibility

In order to be eligible for admission with advanced standing as an internationally trained dentist, applicants must have successfully completed the DDS degree (or its equivalent). Additionally, candidates must have passed Parts I and II of the National Dental Board Examination.

Application Process

Applications for admission with advanced standing should be requested from the Office of Admissions. Completed applications should be returned no later than January 1, along with the following:

- a detailed letter describing the reason for seeking admission with advanced standing
- the \$350 application fee (payable to the University of Maryland Dental School)
- Official reports of National Board Part I and Part II scores
- Results of a TOEFL, if English is not the native language
- Clear, legible photocopies of the dental degree (DDS equivalent), course transcripts, and grades or examination scores, with certified English translations

- A course-by-course evaluation of academic credentials, performed by a recognized evaluation service
- Three letters of recommendation from former faculty members or recent professional contacts

Preliminary Review

After required materials have been submitted and preliminarily reviewed, the Committee on Dental Recruitment and Admissions makes a determination regarding a personal interview. Candidates being seriously considered for admission are interviewed by members of the Committee on Dental Recruitment and Admissions. After the preliminary interview, the Committee makes a determination whether the candidate should be invited to complete the comprehensive skills analysis, conducted by the departments. For candidates invited to continue with the application process, the fee for the skills assessment is \$2,000, payable on or before the date of the first departmental assessment.

Review by Departments

Candidates receive a list of Dental School department chairs (or designees) who meet with the candidates and conduct academic and preclinical skills assessments. The Dental School reserves the right to modify or waive all or part of the skills assessment, based on the backgrounds of individual candidates. Candidates contact the faculty directly to make arrangements for their evaluations. Department chairs/designees then provide to the Office of Academic Affairs recommendations regarding admission and, where appropriate, placement within the curriculum.

Admissions and Placement Decisions

The Committee on Dental Recruitment and Admissions makes the final decision regarding admission. The Progression Committees develop specific recommendations regarding placement or modification to the student's curriculum or course requirements to accommodate individual needs. The Assistant Dean of Admissions and Recruitment notifies applicants regarding admissions decisions and, if indicated, placement decisions. Space must be available within the projected class in order for an offer of admission to be extended.

READMISSION TO DENTAL SCHOOL PROGRAMS

Consequent to dismissal or withdrawal, readmission may be sought by reapplication to the Dental School. To initiate the readmission procedure, the former student shall submit a detailed letter, with supporting documents, to the Office of Admissions, requesting readmission to the Dental School. Students dismissed for violations of the Professional Code of Conduct are ineligible for readmission, unless substantial evidence of rehabilitation is provided. Determination of substantial evidence is within the School's sole discretion.

Once the letter of application has been processed by the Office of Admissions, the Committee on Dental Recruitment and Admissions, in consultation with the appropriate departments, the progression committee, and administrative and non-administrative faculty members within the Dental School, may consider the student for readmission. The process of consideration may include a careful review of the student's academic record, a study of the reasons for readmission, and assessment of the student's potential for academic progress in the future. Recommendations relative to the readmission will be referred to the Committee on Dental Recruitment and Admissions in conjunction with the Office of Admissions and Office of Academic Affairs for final decision and notification, including conditions for readmission, where appropriate. Decisions resulting from this policy are not subject to appeal.

COMBINED ARTS AND SCIENCES/DENTAL PROGRAM

Although the Dental School supports a coherent four year program of undergraduate education for most students, it recognizes that some individuals may be prepared to enter after three years. For eligible candidates, undergraduate programs within the University System of Maryland may offer a combined curriculum leading to the degrees of Bachelor of Science and Doctor of Dental Surgery. The preprofessional part of this curriculum is taken in an undergraduate college of arts and sciences within the University System of Maryland, and the preprofessional part at the Dental School in Baltimore. Students who have been approved for the combined program and who have completed the arts and sciences phase may, at the recommendation of the dean of the Dental School, be granted the degree of Bachelor of Science by the undergraduate college after completion of the student's first year in the Dental School. Further information and applications should be obtained from the office of admissions at the undergraduate institution.

ACADEMIC POLICIES AND PROGRAMS

GRADING SYSTEM

The following numerical range for standardized grades is used in the evaluation of student performance.

- A 90-100
- B 80-89
- C 70-79
- F below 70



A - Excellent: This grade signifies performance of the highest quality or exceptional achievement. It is recommended that this grade be awarded to those students with the highest degree of talent, skills, and knowledge, compared with the expected performance of students at that particular stage of development and training.

B - Good: This grade should be recorded for students who have demonstrated knowledge, talent, or skills significantly above the acceptable level, compared with the expected performance of students at that particular stage of development and training.

C - Satisfactory: This grade should be recorded for students who have demonstrated knowledge, talent, or skills at an acceptable level, compared with the expected performance of students at that particular stage of development and training.

E - Conditional Failure: This grade is used as a progress grade or as a temporary final grade to indicate that a student, who otherwise is progressing satisfactorily in a course, has failed to master limited segments of a course or some clinical procedures, but may achieve a satisfactory level of proficiency within a short time if allowed to do so based on overall academic performance. When the E grade is used as a temporary final grade, it counts in the grade point average calculation. If successful remediation occurs, the student will receive the final grade earned in the course, shown on the

permanent record along with the original E. An unresolved grade of E will result in a permanent grade of F.

F - Failure: Students who receive this grade exhibited unsatisfactory performance. This grade indicates that they have not achieved an acceptable level in skills and knowledge. As a result, they are not considered ready to advance to more complex work or to perform independently. When the failure has been absolved, the F grade will remain on the student's permanent record, but only the new grade will be used in computing the grade point average.

H - Honors: Elective clerkship courses are graded as honors when the student demonstrates excellence and advanced knowledge, skills and attitudes that exceed dental curriculum requirements in the dental specialty or practice area.

I - Incomplete: A student whose work in completed assignments is of acceptable quality but who, because of circumstances beyond the student's control (such as illness or disability), has been unable to complete course requirements, will receive a grade of Incomplete. When all requirements have been satisfied, the student will receive the final grade earned in the course. Except under extraordinary circumstances, an Incomplete may not be carried into the next academic year.

P - Pass: This grade signifies acceptable performance and satisfactory completion of course requirements.

WD - Withdraw: This grade indicates withdrawal during the first half of the course.

WP - Withdraw Pass or WF - Withdraw Fail: This grade denotes student performance to date when withdrawal occurs after the first half of the course.

Scholastic averages are computed on the basis of credits assigned to each course and the following numerical values for grades: A-4, B-3, C-2, E-0, F-0. The grade point average is the sum of the products of course credits and grade values, divided by the total number of course credits in that year of the curriculum.

ADVANCEMENT PROCESS

The Student Progression Committees review the performance of each student at the end of each semester. On the basis of progress and/or final grades, the committees determine one of the following actions for each student: unconditional advancement; conditional advancement; probationary advancement; repeat of the year; remediation of the year; or recommend academic dismissal to the Faculty Council, which approves all decisions pertaining to academic dismissal or graduation. Remediation or re-examination is not offered until the committees meet after the end of the academic year in May. A student may appeal any action of the progression committees or the Faculty Council by submission of a written request to the associate dean.

Students must achieve a 2.00 grade point average and passing grades in all courses to advance unconditionally to the next year. Second-year students must also successfully pass the Part I National Board Dental Examination for unconditional advancement to the third year.

*Class of 2011 and forward: Students must take Part I no later than October 1 of the second year of the dental curriculum. Re-examination, if necessary, must be completed no later than April 1. Students who do not pass Part I by the end of the second year of the dental curriculum will be permitted to begin didactic courses in the fall semester of the third year, but will not be advanced to the clinic. These students must pass Part I before the start of the year three spring semester or they will be dismissed. (See Policy for Limiting Enrollment Time and National Board Examination Eligibility.)

*Class of 2010: Students who do not pass Part I by the end of the second year of the dental curriculum will be permitted to begin didactic courses in the fall semester of the third year, but will not be advanced to the clinic. These students must pass Part I before the start of the year three spring semester or they will be dismissed. (See Policy for Limiting Enrollment Time and National Board Examination Eligibility.)

*Class of 2009: Students who have not passed Part I by the end of the third year of the dental curriculum will be permitted to take didactic courses in the fall semester of the fourth year, but will not be permitted to continue in clinic. These students must pass Part I before the start of the year four spring semester or they will be dismissed. (See Policy for Limiting Enrollment Time and National Board Examination Eligibility.)

**Approved by Faculty Council on November 15, 2007.*

In accordance with the attendance policy, students who do not meet published departmental/course standards for attendance may lose the opportunity for remediation. Students with a pattern of unexcused absences who receive one or more failing or deficient grades may be dismissed. Extenuating circumstances should be identified at the time the absence occurs, following procedures in the attendance policy, in order to be considered as a basis for appeal.

A student may be permitted to absolve deficiencies during the summer session, as recommended by the progression committees. Depending on the type of deficiencies involved, students may be required to register and pay a fee for the summer session. The progression committees may also permit students in Years I and II to repeat a failed basic science course at another institution during the summer session.

Conditional advancement may be assigned to 1) first- and second-year students with minor deficiencies who have not successfully completed remediation of deficient grades during the summer session; 2) second-year students who have not passed the Part I National Board Dental Examination; and 3) third-year students with minor clinical deficiencies who have not successfully completed all courses but who, in the judgment of the committee, should be afforded the opportunity to complete requirements from the third year while proceeding with fourth-year courses. Conditionally advanced students who fail the Part I National Board Dental Examination must meet the requirements of a remedial program approved by the Student Progression Committee before taking a re-examination.

Probationary advancement may be assigned to students with a final grade of F in one or more courses at the end of the academic year. Students on probation must remediate or repeat all courses in which there was a deficiency to a passing grade of C, achieve a minimum grade point average of 2.00, and must pass all courses taken during the probationary academic year. Failure to do so will result in dismissal from the dental program subject to discretionary review by the Faculty Council. In accordance with the Dental School Policy for Limiting Enrollment Time and National Board Examination Eligibility for

Predoctoral Dental Students, the maximum number of years to complete Year I and II courses is three years and the maximum number of years to complete Year III and IV courses is three years.

Students who fail one Year III course may be advanced conditionally on probation to Year IV where the schedule and curriculum permit repeat of the failed course while taking Year IV courses. In these circumstances, the following guidelines will be applied: attendance at the repeated course must take precedence where there is a scheduling conflict; coursework that could not be completed due to scheduling conflicts in the fall semester must be completed during the following fall semester; courses not affected by a scheduling conflict must be successfully completed in accordance with the probation policy.

Students with deficiencies too severe to be absolved during the summer session may be afforded the opportunity to repeat or remediate a specific year of the dental program. Repeat of the year entails repeating the year's work in its entirety. Remediation of the year provides students with the opportunity for exemption from courses or portions of courses at the discretion of the department chairs. During the remedial year students repeat failed courses and may also be required to repeat courses previously passed to maintain or enhance skills and/or knowledge. The grade on the repeated course, whether higher or lower than the original grade, replaces the original grade in the grade point average calculation. Students who are repeating or remediating any year of the dental program are placed on probation and are subject to the probationary guidelines noted above. If it is determined that a student is progressing so poorly that remediation will not bring him/her to a passing level, dismissal will be recommended to the Faculty Council.

Advancement Process August 2004

POLICY FOR APPEAL OF ADVANCEMENT DECISIONS

Appeals Process

The following guidelines have been established to review appeals of decisions made by the Progression Committees, or in cases of dismissal, decisions made by the Faculty Council. This mechanism will not be used to dispute the published advancement guidelines which have been approved by the Faculty Council.

1. A student wishing to appeal an advancement or dismissal decision must initiate the appeal process within 5 working days of receiving written notification from the Office of Academic Affairs regarding Advancement Committee decisions, or from the Dean regarding dismissal decisions made by the Faculty Council. In this written appeal, the student must present evidence of compelling additional information or extenuating circumstances not previously considered and the reason why the information was not previously presented. The written appeal must include: the decision the student is appealing; the specific basis for the appeal, including appropriate supporting documentation; and the academic status that the student is requesting. The student may present and prioritize more than one alternative.
2. The appeal, which must be submitted in writing to the Associate Dean for Academic Affairs, will be reviewed by a panel composed of the Associate Dean for Academic Affairs and the Chair of the Progression Committee.

3. The review panel will determine whether the student's written appeal meets the criteria outlined above. Should the panel determine that an appeal lacks the required evidence, the appeal will be denied. In these circumstances, there is no further appeal.
4. Should the panel determine that an appeal meets the required criteria outlined above, the panel will forward the appeal to the Progression Committee for its consideration.
5. The Progression Committee will meet within ten working days, when possible, of receiving the initial appeal request from the review panel.
6. The Committee will issue a written decision within five days of its meeting, when possible. The Committee's decision is final and there is no further appeal. The Committee's decision shall be forwarded to the Faculty Council for information.

POLICY FOR LIMITING ENROLLMENT TIME AND NATIONAL BOARD EXAMINATION ELIGIBILITY FOR PREDOCTORAL DENTAL STUDENTS

The maximum number of years to complete all dental courses and pass Part I and Part II of the National Board Dental Examinations will be six years.*

1. The maximum number of years to complete Year I and Year II courses will be three years. After completing the Year I curriculum, a student will have up to a maximum of three attempts within 15 months of eligibility to pass Part I of the National Boards. A student who does not pass Part I within 15 months of eligibility, regardless of the number of attempts, will be dismissed.
2. The maximum number of years to complete all Year III and Year IV clinical and didactic requirements will be three years. A student who fails Part II of the National Boards a total of three times during the first senior year and any remedial senior year will be dismissed.
3. Following completion of Year IV requirements, a student may be granted an additional seven months to pass Part II of the National Board Dental Examinations on a third and final attempt provided all the following criteria are met: (a) total time enrolled including the additional seven months will not exceed the six-year limit and (b) the student has had only two opportunities to take Part II.
4. Requests for exceptions to the above timetable because of interruptions caused by illness or leave of absence may be appealed to the Faculty Council.
5. A student may appeal any decision reached pursuant to this policy under the School's established academic appeal process.
6. This policy does not apply to students in combined degree programs.

*This policy is based on the current format and schedule of the National Board Dental Examinations. In the event there is a change in the format or schedule of the examinations, this policy will be revised.
Approved by the Faculty Council: November 15, 2007

PROGRAM FOR DENTAL STUDENTS WHO HAVE NOT SUCCESSFULLY COMPLETED PART II OF THE NATIONAL BOARD DENTAL EXAMINATION BY THE END OF THE SENIOR YEAR

In accordance with Dental School policy, successful completion of Part II of the National Board Dental Examination is a requirement for graduation. Following completion of Year IV requirements, a student

may be granted an additional seven months to pass Part II of the National Board Dental Examinations on a third and final attempt provided all the following criteria are met: (a) total time enrolled, including the additional seven months, will not exceed the six-year limit, and (b) the student has had only two opportunities to take Part II. A continuing student will register in, and pay tuition for, a program specifically designed to meet the student's needs as determined by the Clinical Progression Committee. The Committee will develop this program based on the department chairs' recommendations for student assignment to clinical programs in need of student services. Additionally, continuing students will be assigned patients who need comprehensive care and/or will participate in specific clinical and nonclinical activities to maintain their clinical knowledge and skills. Students will also be assigned an independent course of study to assist them in preparation for the board examination.

ATTENDANCE POLICY

The faculty and administration of the Dental School expect every student to attend all scheduled lectures, seminars, laboratory sessions, and clinic assignments, except in the event of illness or emergency. Course syllabi for each department and the Clinic Manual address specific departmental and clinical attendance policies and requirements, and delineate a policy for managing missed examinations, quizzes and other assignments. Students may lose the opportunity for remediation and/or re-examination if they do not meet published departmental/course standards for attendance.

Students who anticipate that they will be absent for planned events (e.g., religious holidays) should contact course directors to make arrangements in advance of the anticipated absence. Year III and Year IV dental students should also contact their general practice managers and directors of block assignments, if indicated.

In the event of an emergency or serious illness, students should contact course directors, general practice managers, and directors of block assignments, preferably before scheduled educational activities. If prior notice is not possible, contact should be made at the earliest opportunity. Course directors will determine the effect of the absence and the subsequent course of action.

Students who miss specific educational activities including, but not limited to, examinations, quizzes and block assignments, must complete an absence form, including an explanation for the absence. The student's signature on the form verifies that the explanation provided is accurate. The course director will review the absence form, make a determination regarding the appropriate course of action, and sign the absence form. Copies of the form will be provided for the student, the course director/department, and the Office of Academic Affairs. Student appeals of the final disposition must be made within five working days, and should be referred to the department chair. If a satisfactory resolution is not reached, the appeal should be forwarded to the office of the Associate Dean for Academic Affairs for a final disposition.

Students who anticipate a long-term absence (longer than five days) should directly contact the Associate Dean for Academic Affairs to discuss strategies for managing the impact of the absence on the educational program.

University of Maryland Dental School Competencies and Competency Examinations

As stated in its mission, the Dental School seeks to graduate exceptional oral health care professionals. Competency, the ability to demonstrate skill, knowledge, and attitude derived from specialized training and experience, is at the core of exceptional professionals. It relates to the treatment of the child, adolescent, adult, geriatric, and medically-compromised patient. At this Dental School, pre-doctoral dental students must demonstrate competency prior to graduation and entry into dental practice.

The following competency statements have been developed by the faculty of the University of Maryland Dental School. Together, they reflect the desired synthesis of educational outcomes of the biomedical, behavioral, and clinical curriculum of this Dental School. Prior to graduation, each student will have acquired knowledge, skills and values necessary to

- Utilize ethical reasoning in the practice of dentistry
- Communicate with and provide care for a diverse population of patients
- Utilize critical thinking and scientific knowledge in decision making processes involved in patient care
- Utilize principles of behavioral sciences for maintaining patient's oral health.
- Demonstrate self-assessment skills in maintaining competency
- Obtain informed consent for oral health therapies
- Assess a patient's medical, psychological and social history as it relates to dental treatment
- Secure a dental history that includes chief complaint, patient expectations, and past dental history
- Communicate effectively with other professionals regarding the care of patients
- Perform an exam of the hard and soft tissues of the head and neck
- Order, obtain, and interpret appropriate dental radiographs
- Assess the risk for and presence of caries and periodontal disease
- Formulate and present to a patient a primary treatment plan and alternative plans based on relevant findings and individual patient considerations
- Manage medical emergencies that occur in dental practice
- Manage acute pain or dental anxiety
- Manage odontogenic infections
- Develop and implement interceptive strategies to control and prevent dental caries and periodontal diseases in individual patients
- Provide non-surgical treatment for patients with periodontal diseases ranging from gingivitis to moderate periodontitis
- Restore missing or defective tooth structure to proper form, function and esthetics
- Replace missing teeth and surrounding oral tissues to proper form, function and esthetics
- Manage pulpal disease and related periradicular pathology
- Differentiate normal from altered oral soft tissues and determine the need for additional diagnostic information
- Perform minor alveolar and mucogingival surgery within the oral cavity
- Identify and manage space problems and simple malocclusions

Evaluate effectiveness of preventive, maintenance, and reparative therapies through assessment of treatment outcomes

Comply with regulations related to patient confidentiality, infection control, hazard communications, radiation safety and medical waste disposal

Evaluate different models of oral health care management and delivery

Utilize basic principles of practice management and have the skills to function as the leader of an oral health team

The educational opportunities and guided experiences of the pre-doctoral dental education program at the University of Maryland are designed to prepare the new graduate for entry into the profession of dentistry. Prior to graduation, pre-doctoral dental students are expected to demonstrate that they have attained competence. The Dental School employs specific exams to assure students meet the expectations articulated in the Maryland Competency Statements described above.

Competency exams are a formal didactic and/or practical examination, the requirements of which are standardized across the population of students being assessed. A competency exam assesses the knowledge, and/or skills, and/or values required to achieve a goal (or a set of goals) relative to the profession of dentistry and/or delivering oral health care. Each is graded according to written protocols. All competency exams must be successfully challenged prior to graduation. A competency exam may be any of the following:

- Case based report - standardized
- Demonstration - clinical performance
- Demonstration - simulated patient/typodont/laboratory
- Exam - oral case-based
- Exam - written (responding to e-files)
- Exam - written (case-based)
- Exam - written (testing didactic material)
- Presentation - oral
- Review of literature
- Review of patient clinical records

Students are apprised of competency exams and their requirements in one or more ways:

- Course syllabi contain descriptions of competency exams included in the course
- Faculty discuss with students competency exams on the first day of class
- Clinic Manual contains descriptions of the competencies
- GP managers distribute information about clinical competency examinations and grading to their students
- Each GP maintains clinical competency evaluation forms

The Competency Exam Manual is a compilation of the reference documents developed for each competency exam. It lists prerequisites, grading protocols, remediation, and other pertinent information. The Competency Exam Manual is located on Blackboard, the campus e-learning software platform.

REQUIREMENTS FOR GRADUATION

The Doctor of Dental Surgery degree is conferred on a candidate who has met the conditions specified below:

1. A candidate must have satisfied all requirements of the various departments.
2. A candidate must have acquired and demonstrate the knowledge, skills and values contained in the Dental School Competencies.
3. A candidate must pass all fourth-year courses and achieve a minimum 2.0 average in the fourth year.
4. The candidate must pass the Part II National Board Dental Examination.
5. The candidate must have satisfied all University obligations before graduation.
6. The candidate must be clear of all disciplinary matters.

GRADUATION DATES

Students who enter the DDS program at the University of Maryland Dental School are required to complete a minimum of four academic years at the School. The length of the program has been established to provide the students a comprehensive professional education. Graduation for students who complete the program within this prescribed period is in May. Students who fail to complete all requirements in May will be considered for graduation the following July, December, or May, as they are judged ready to do so.

THE DENTAL CURRICULUM

Year	Course #	Title	Fall	Spring	Total
D1	BSCI 511C	Cell and Molecular Biology	F/3		3
	BSCI 511M	Microbiology and Immunology	F/4		4
	BSCI 511V	Nutrition	F/1		
	BSCI 518A	Gross Anatomy	P/4	F/3	7
	BSCI 518C	Case Based Conferences	P/.5	F/.5	1
	BSCI 512N	Neuroscience		F/3	3
	BSCI 512P	Physiology		F/5	5
	BSCI 518C	Case Based Conferences	P/.5	F/.5	1
	DAPR 512	Diagnostics and Prevention		F/2	2
	EBDM 512	Principles of Scientific Evidence	F/2		2
	FOUN 511	Dental Anatomy and Occlusion	F/4		4
	FOUN 518A	Operative Dentistry	P/2	F/5.5	7.5
	GPAT 512	General Pathology		F/4	4
	OHCS 511	Perspectives in Oral Health Care Services	F/1		1
	PERI 511	Basic Science of Periodontal Disease	F/1		1
	PERI 518A	Periodontal Assessment & Instrumentation	P/.5	F/.5	1

	PROF 518	Professionalism I	P/2	F/1	3
	RADI 518	Radiology	P/1	F/.5	1.5
			23	26	49
D2	BHAV 528	Behavioral Dentistry	P/1	F/2	3
	BSCI 521A	Pain and Analgesia	F/1.5		1.5
	BSCI 521P	Pharmacology	F/5		5
	CARI 521	Cariology		F/1.5	1.5
	DANS 521	Dental Anesthesiology	F/2		2
	DRUG 522	Drug Abuse and Chemical Dependency		F/1	1
	DSUR 522	Essentials of Oral-Maxillofacial Surgery		F/1	1
	ENDO 522	Endodontics		F/3	3
	GERI 522	Geriatric Dentistry I		F/1	1
	GROW 521	Growth and Development	F/1		1
	IMPL 522	Preclinical Implant Rehabilitation		F/.5	.5
	OMED 521	Oral Medicine	F/2.5		2.5
	OPAT 528	Oral Pathology	P/1	F/2	3
	ORTH 522	Orthodontics		F/1	1
	PEDS 522	Pediatric Dentistry II		F/1	1
	PERI 528	Periodontics	P/1	F/1	2
	RADI 528	Radiology II	P/1	F/.5	1.5
	REST 522A	Operative Dentistry I		F/1	1
	REST 528	Fixed Prosthodontics	P/3	F/7	7
	REST 529A	Treatment and Management of the Edentulous Patient	F/3		3
	REST 529B	Partial Denture Prosthodontics		F/3	3
	TXPL 528	Treatment Planning I	P/1	F/1	2
			23	24.5	47.5
D3	DHPP 538P	Pediatric Dentistry III	P/3	F/3	6
	DSCP 538	Oral Medicine & Diagnostic Sciences	P/3	F/2	5
	DSUR 538	Advanced Topics in Oral-Maxillofacial Surgery	P/2	F/2	4
	DSUR 541	Selected Topics/Oral-Maxillofacial Surgery		F/1	1
	ENDO 538	Endodontics	P/2	F/1	3
	GERI 532	Geriatric Dentistry	F/1		1
	IMPL 531	Scientific Basis for Dental Implants	F/1		1
	IMPL 532	Clinical Foundations/Dental Implants		F/1	1

	ORTH 538	Orthodontics	P/1	F/1	2
#	PERI 538	Periodontics	P/5	F/5	10
	PROF 538	Profession/Professionalism III	P/1	F/1	2
	RADI 538	Radiology III	P/1	F/1	2
#	REST 538A	Operative Dentistry	P/3	F/3	6
#	REST 538B	Fixed Prosthodontics	P/3	F/3	6
#	REST 538C	Removable Prosthodontics	P/3	F/4	7
	SPTC 532	Special Patient Care		F/1	1
	TXPL 538	Treatment Planning II	P/1	F/1	2
			30	30	60
*	CCPM 538	Comprehensive Care/Practice Management III	F/4	F/4	8
D4	BSCI 541P	Advanced Dental Pharmacotherapeutics	F/1		1
	CSLX 548	Community Service Learning Experience	P/1	F/2	3
	DHPP 548P	Pediatric Dentistry IV	P/3	F/3	6
	DSCP 548	Oral Medicine & Diagnostic Sciences	P/2	F/1	3
	DSUR 548	Current Developments in Oral-Maxillofacial Surgery	P/2	F/2	4
	ENDO 541	Advanced Endodontics	F/1		1
	ENDO 548	Clinical Endodontics	P/1	F/1	2
	ORTH 548	Orthodontics	P/1	F/1	2
#	PERI 548	Periodontics	P/5	F/5	10
	PRAC 542	Practice Management		F/.5	.5
	RADI 548	Radiology IV	P/.5	F/.5	1
#	REST 548A	Operative Dentistry	P/2	F/3	5
#	REST 548B	Fixed Prosthodontics	P/5	F/5	10
#	REST 548C	Removable Prosthodontics	P/4	F/4	8
	SLCT 548	Selectives	P/1	F/1	2
	TXPL 548	Treatment Planning IV	P/1	F/1	2
			30.5	30	60.5
*	CCPM 548	Comprehensive Care/Practice Management IV	F/6	F/6	12

*General Practice Simulation - Credits in Selected Courses (#) are reduced for GPS Students.

F-Final Grade; P-Progress Grade. Year-long courses have progress grades in the fall semester. The spring final grade is applied to the credits for the fall and spring.

Curriculum requirements are subject to change without prior notice.

Year III Elective Course

PEDS 539, Pediatric Dentistry Elective, 6 Credits (3 Fall/3 Spring). This course allows selected Year III students to pursue further studies in pediatric dentistry specially designed to meet their needs and interests. Students devote a portion of their clinic time to this specialized program; the remaining clinic time is spent in the comprehensive treatment of patients in the regular program. The course includes clinical activities in the undergraduate and postgraduate clinics and didactic seminars. Enrichment activities include humanities seminars, public health experiences, and career planning.

Year IV Elective Courses

The elective clerkship allows selected students to pursue further studies in departmental activities specially designed to meet their needs and interests. Students devote a portion of their clinic time to these specialized programs; the remaining clinic time is spent in the comprehensive treatment of patients in the regular program. Clerkships are available in basic science and clinical disciplines, and several incorporate off-campus clinical experiences in various practice settings.

Course	Title	Fall Spring	
		Cr	Cr
BSCI 551	Research Clerkship I	10	
BSCI 552	Research Clerkship II		10
DAGD 552	Advanced General Dentistry Clerkship I		10
DSUR 551	Oral Surgery Clerkship I	10	
DSUR 552	Oral Surgery Clerkship II		10
GERI 551	Extramural Geriatric Clerkship I	10	
GERI 552	Extramural Geriatric Clerkship II		10
OMED 551	Oral Medicine Clerkship I	8	
OMED 552	Oral Medicine Clerkship II		8
ORTH 551	Orthodontics Clerkship I	2	
ORTH 552	Orthodontics Clerkship II		3
PEDS 551	Pediatric Dentistry Clerkship I	10	
PEDS 552	Pediatric Dentistry Clerkship II		10
PERI 551	Periodontics Clerkship I	10	
PERI 552	Periodontics Clerkship II		10
PROS 551	Prosthodontics Clerkship I	10	
PROS 552	Prosthodontics Clerkship II		10
SPTC 551	Special Patient Clerkship I	10	
SPTC 552	Special Patient Clerkship II		10
TMDC 551	TMD Clerkship I	4	

BHAV 528H. Behavioral Dentistry (3) Fall/Spring. This year-long course offers students an introduction to the application of behavioral principles to dental diagnosis and treatment. In the first semester the psychological management of human behavior, identifying and reducing stress, and the principles of effective communications are emphasized. The clinical relevance of each topic is stressed. In the second semester the behavioral, psychological and biological aspects of human nature are discussed and applied to patient care. The course addresses specific patient types (non-compliant, abused, psychologically impaired) and problems (chronic pain, infectious disease, high fear/phobia, noxious habits). Approaches to diagnosis and treatment of patients of all ages and diversity are emphasized

BSCI 518A. Gross Anatomy (7) Fall/Spring. The course in human anatomy is devoted to the study of the structure and function of the body using a regional approach with an emphasis on functional and clinical relevance. It includes the study of the organs and muscles with their relationships, arterial supply, venous and lymphatic drainage, and innervation. Principles of body structure and function are studied with particular emphasis on the head and neck and major organ systems. A strong effort is made to correlate anatomy with other courses in the basic and clinical sciences of the dental curriculum.

BSCI 511C. Cell and Molecular Biology (3) Fall. Fundamental and advanced concepts in modern cellular biology, molecular biology and genetics are presented. This is a cross-departmental course that prepares students for the other biomedical science courses in the curriculum and places an emphasis on molecular and human genetics. Topics covered include cellular structure and the roles of cell membranes in transport and signaling, replication and expression of genetic information, molecular biological technologies including genomics and proteomics, and principals of human genetics including the genetics of cancer, genetic tests and gene therapy.

BSCI 511M. Microbiology and Immunology (4) Spring. This course provides students with the fundamental principles of microbiology and immunology to understand the mechanisms of the production of disease by microorganisms and the means by which the host protects itself against them. The clinical immunology portion of the course as well as the case-based conferences are intended to prepare students to synthesize information as it relates to clinical care.

BSCI 511V. Nutrition (1) Fall. This course provides students with basic understanding of the principles of biochemistry and molecular biology. Nutritional guidelines for optimum human health at all stages of life, including dietary reference intakes (DRI), energy requirements and metabolism, and acceptable macronutrient distribution ranges are discussed. Other topics include the essential chemical structure, biochemistry, and metabolic functions of the macro- and micro-nutrients as well as some important non-nutrient components of foods, regulation of gene expression by specific nutrients, drug-nutrient interactions, nutritional immunology, brief review of impact of nutrition of oral health, and assessment of methods of nutritional status.

BSCI 512N. Neuroscience (3) Spring. The neuroscience course includes a study of neuronal activity and functions ranging from molecular events to neuronal circuitry and neurophysiology. The activities of the nervous system presented include: nociception, discriminative touch and proprioception, special senses, somatic motor control and higher cortical functions. Clinical correlations and therapies are discussed to illustrate the importance of understanding the basis of these functions of the nervous system.

BSCI 512P. Physiology (5) Spring. This course is designed specifically for dental students who have completed courses in biochemistry, histology, gross anatomy and neuroscience at the level appropriate for the DDS degree. Building upon this foundation, the physiology course prepares the developing clinician for courses in pharmacology, pathology, diagnosis, treatment planning and management of the medically compromised patient. An in-depth knowledge of normal function of major organ systems including cardiovascular, renal, respiratory, gastrointestinal and endocrine systems is our goal. The Case Based Conference program uses clinical examples of pathophysiology to demonstrate how clinicians apply their knowledge of physiology to the understanding of clinical diagnosis and treatment.

BSCI 518C, Case Based Conferences (1) Fall/Spring. This biomedical science course encourages the development of life-long learning skills and habits including use of the medical dictionary, the professional literature, health sciences library, and quality internet sites when researching biomedical and clinical questions. This course provides small group, student-centered learning that is supportive of Year I dental student presentations and discussions as an alternative method of learning (compared to the traditional faculty-centered lecture format).

BSCI 521A. Pain and Anesthesia (1.5) Fall 2007. This course instructs students on the anatomy, physiology and pharmacology underlying pain and analgesia. The first half of the course provides a fundamental understanding of the neurobiology of pain processing and analgesic mechanisms. The second half of the course addresses subject matter specific to pain and analgesia in the dental clinic.

BSCI 521P. Pharmacology (5) Spring. The first phase of instruction in pharmacology includes a thorough study of the basic concepts and principles of pharmacology. Emphasis is placed on the mechanisms of action, absorption, distribution, metabolism, and excretion of drugs; therapeutic indications; common adverse reactions; and drug interactions. All important classes of drugs used in dentistry and medicine are covered in sufficient detail to provide the student with an excellent preparation for entry into the clinic and for a second phase of training that teaches oral therapeutics, drug interactions, and pain and anxiety control through the participation in the Conjoint Sciences program and in various selective courses.

BSCI 541P. Dental Pharmacotherapeutics (1) Fall. This clinically-oriented dental pharmacology course provides updated information for Year IV students.

BSCI 551 and 552. Research Clerkship I and II (1-10 Fall/1-10 Spring). General Requirements: Interest good standing.

This clerkship is intended to provide students an opportunity to conduct research in biomedical sciences under the guidance of a faculty mentor. Selection of this clerkship requires mutual agreement between the interested student and BMS faculty and is subject to approval by the department.

CARI 521. Cariology (1.5) Spring. The course presents current evidence-based information about biological aspects of dental caries. A large part of the content involves basic microbial ecology of the oral cavity and microbial mechanisms of caries. Other topics are histopathology of enamel, dentin and root surface caries; chemistry and functions of saliva as they related to dental caries, and associations between saliva and oral structures, particularly teeth and dental plaque; history of fluorides in dentistry and their mechanisms against dental decay; dietary and nutritional aspects of caries and current research on caries susceptibility differences in human populations.

CCPM 538. Comprehensive Care and Practice Management III (4, 4) Fall/Spring. Year three students in the General Practice Simulation pilot program manage patient care and provide treatment that concentrates on patient needs while meeting or exceeding minimum required experiences for clinical progression. Attendance, clinical participation and productivity, case management, self-evaluation log, mentor interaction, and clinical educational experiences are tracked.

CCPM 548. Comprehensive Care and Practice Management IV (6, 6) Fall/Spring. Year four students in the General Practice Simulation pilot program manage patient care and provide treatment that concentrates on patient needs while meeting or exceeding minimum required experiences for graduation. Attendance, clinical participation and productivity, case management, self-evaluation log, mentor interaction, and clinical educational experiences are tracked.

CSLX 548. Community Service Learning (3) Fall/Spring. Service Learning is a three-week experience outside the Dental School for senior dental students. The purpose is to gain outside clinical experience while gaining an appreciation for cultural diversity and the oral health needs of underserved populations. The service learning experience can be fulfilled in several ways, such as working at community sites in Maryland treating underserved populations; working at specialty sites that prepare the student for postgraduate training; or working with health missions to foreign countries. Because of logistics, service learning experiences in foreign countries is two rather than three weeks. Service Learning includes both the clinical experience at the site, as well as completion of a report that evaluates the student's experience in clinical procedures and service learning models.

DAGD 552. Advanced General Dentistry Clerkship (10) Spring. Selected students are assigned full-time to the Advanced General Dentistry clinic in the spring semester. The clerkship is an innovative program that allows motivated students to develop beyond what the current four-year dental curriculum allows. Students are trained in advanced techniques - recent technologies in materials, patient and practice management; introduced to clinical research; prepare complex treatment plans; and perform a wide range of clinical procedures. The selected students will participate in the Advanced Education in General Dentistry curriculum.

DANS 521. Dental Anesthesiology (2) Fall. Students learn dental local anesthetic administration techniques and pain and anxiety control techniques.

DAPR 512. Diagnostics and Prevention (2) Spring. This multidisciplinary course integrates the department's diagnostic and preventive course offerings in endodontics, prosthodontics and operative dentistry. Information is provided on the diagnosis of dental caries, pulpal and periapical inflammation and dental (tooth) trauma; clinical assessment of the healthy TMJ; new diagnostic technologies for caries detection such as laser/light fluorescence and electrical conductance; assessment of caries risk; caries preventive therapies such as fluoride, antibacterial rinses, salivary stimulants and replacements. Simulation activities are provided in operative dentistry as well as clinical exercises in charting and diagnosis.

DHPP 538H. Business of Dental Practice (2) Spring. This course consists of 22 seminars designed to prepare students with the transitions from classroom to clinic and dental school to dental practice. The course consists of four multidisciplinary and interrelated sections that provide students with the necessary skills and knowledge to become productive and successful dental care practitioners. The sections include: 1) management and business insight to successfully begin as student clinicians; 2) basic understanding of legal principles, the judicial system, and legal obligations; 3) business skills to

develop a working business plan; and 4) information to successfully apply for postgraduate residency or specialty programs.

DHPP 538P. Pediatric Dentistry III (6) Fall/Spring. Students learn to provide comprehensive dental care for young patients while encouraging the development of a positive attitude toward dental care. The course includes diagnosis and treatment planning, preventive procedures including fluoride therapy and sealants, non-punitive patient management techniques, treatment of traumatic injuries to the primary and young permanent dentition, restorative procedures in primary teeth, pulpal therapy, and interceptive orthodontics.

DHPP 548H. Practice Administration (3*) Fall/Spring. Practice Administration is a ten-session seminar designed to enhance practice administration learning by focusing on the business and management phase of the transition from dental school to dental practice. The course is a capstone course designed to stimulate dialogue between dental students and guest practitioners who are willing to share their many years of real world practice. Practice Administration is a course designed to enhance practice administration learning by focusing on the fast changing practice, financial, social and legal environment.

DHPP 548P. Pediatric Dentistry IV (6*) Fall/Spring. Students focus on providing dental treatment to pediatric and adolescent patients. Clinical experience includes radiology, diagnosis and treatment planning, prevention, local anesthesia, restorative dentistry and basic behavior management techniques. Students assist or observe pediatric dental emergencies and advanced behavior management during a rotation in the postdoctoral pediatric dentistry clinic. Involvement in community outreach projects is encouraged.

DRUG 522. Drug Abuse and Chemical Dependency (1) Spring. Presented by basic and clinical science faculty, the course provides information on different types of street drugs, their complications, methods of intervention and treatment of the substance abusing patient. It introduces students to Twelve-Step programs, Al-anon, and the State Well-Being Committee.

DSCP 538. Oral Medicine and Diagnostic Sciences (5) Fall/Spring. This two-semester course has a didactic component and several clinical rotations. The didactic portion of the first semester deals with systemic diseases and their impact on dental treatment. This is reinforced with clinical rotations in patient admissions and urgent care clinics, where review of the medical history is a crucial step in the evaluation of the patient. The didactic portion of the second semester includes a section on temporomandibular disorders and a clinical review of oral lesions/disorders with emphasis on diagnosis and management.

DSCP 548. Oral Medicine and Diagnostic Sciences (3) Fall/Spring. This course is the clinical continuation of DSCP 538. It includes rotations in patient admissions, urgent care and clinic activities. Students complete biopsy/pathology on-line case reviews and receive laboratory experience.

DSUR 522. Essentials of Oral and Maxillofacial Surgery (1) Spring. The course provides readings and lecture material relating to the principles of exodontia and routine oral surgery. A review of inflammation and wound healing precedes instruction in the application of force with dental elevators and forceps to safely remove teeth. Concepts of conservation of attached gingiva and alveolar bone are emphasized. Surgical procedures for the preparation of the mouth for prosthodontic rehabilitation are

presented. Presurgical evaluation of the patient, selection of surgical procedure, instrumentation and technique, and development of properly designed mucoperosteal flaps with concomitant suturing technique are reviewed and illustrated with clinical examples.

DSUR 538. Advanced Topics in Oral-Maxillofacial Surgery (4) Fall/Spring. Lectures cover all phases of oral and maxillofacial surgery beyond topics presented in the Year I course. Material presented includes complications of oro-facial disease, odontogenic infection, maxillofacial trauma, maxillofacial growth and developmental deformities, and odontogenic and maxillofacial neoplasms. Emphasis is placed on the treatment and management of these conditions. New techniques for the management of dental and maxillofacial problems are included as they develop.

DSUR 541. Selected Topics in Oral-Maxillofacial Surgery (1) Fall. The didactic course consists of two components: Management of Medical Emergencies and Special Topics in Oral Maxillofacial Surgery. The Management of Medical Emergencies - Lectures include the recognition and management of seizures and drug related emergencies including overdose and allergy, altered levels of consciousness, unconsciousness, respiratory distress and obstruction, chest pain and cardiovascular collapse.

Special Topics in Oral Maxillofacial Surgery - Lectures and clinical case reports introduce the student to the extent and breadth of services provided by the Oral Maxillofacial Surgeon. Topics include: 1) Management and reconstruction of patients with craniofacial anomalies including cleft lip and palate, and craniofacial anomalies; 2) Reconstruction of both hard and soft tissues of the face that have been destroyed or injured as a result of trauma or ablative tumor surgery; 3) Surgical management of temporomandibular joint disorders; 4) Facial esthetic surgery.

DSUR 548. Current Developments in Oral-Maxillofacial Surgery (4) Fall/Spring. Students apply their knowledge of Oral-Maxillofacial Surgery in the treatment of patients.

DSUR 551 and DSUR 552. Oral Surgery Clerkship I and II (10 Fall/10 Spring). General Requirements: Satisfactory progress in all areas toward completion of graduation requirements; cumulative grade point average of 3.0 or higher and minimum of B grades in all Oral-Maxillofacial Surgery courses. Selected students are expected to participate in the clerkship in the fall and spring semesters of the senior year.

Experiences include advanced exodontias and dentoalveolar surgery; one month hospital OMS; participate in seminars on office oral surgery; perform oral surgery of increasing difficulty; attend rounds with the oral maxillofacial surgery residents at University of Maryland hospital; attend surgical orthodontic and implant conferences with the postgraduate students; and attend selected operating room cases at the University of Maryland Hospital.

EBDM 512. Principles of Scientific Evidence (2) Fall. The course provides the essential elements of the scientific method needed by dentists to critically evaluate the oral health literature and engage in evidence-based practice. Specifically, students will be taught how to access the dental literature via the HS/HSL and other internet sites. They will also learn to conduct a simple review of the literature. Research methods, study design categories, and basic statistical analysis will also be introduced.

ENDO 522. Endodontics (3) Spring. The course consists of lectures, assigned readings, and laboratory sessions. The primary objectives are to 1) introduce the Year II student to endodontics; 2) teach the

basic principles of performing endodontic therapy; and 3) introduce clinical aspects of diagnosis and management of the endodontic patient.

ENDO 538. Endodontics (4) Fall/Spring. Lectures expand on the basic material previously presented in Endo 522. Students are educated in the diagnosis, treatment and/or management of the endodontic patient through critical thinking and a logical approach. Cases are treated clinically, with the student demonstrating an acceptable level of competency in the non-surgical treatment of uncomplicated single rooted teeth by the completion of the third year.

ENDO 541. Endodontics (1) Fall. Advanced endodontic instruction is provided in the areas of management of traumatic injuries to the dentition, pulp and supporting structures. The students learn how to recognize the indications for surgical and complicated non-surgical root canal therapy and take appropriate action.

ENDO 548. Endodontics (4) Fall/Spring. Students gain competency in clinical endodontics with treatment of more complex multirooted cases.

FOUN 511. Dental Anatomy and Occlusion (4) Fall. The course provides students with instruction to develop fundamental knowledge and principles used to develop and recognize healthy dentition and occlusal function. A closely supervised clinical experience will be used to reinforce and augment occlusal concepts. Instruction includes lectures, seminars, laboratory exercises, and clinical simulation.

FOUN 518A, Operative Dentistry, (5.5) Fall/Spring. Students develop fundamental knowledge and principles used to restore damaged teeth and replace missing teeth. The preventive dimension of restorative care and treatment planning are emphasized. Limited but increasing clinical experience, with close faculty supervision, augments and reinforces the didactic foundation. Instruction includes lectures seminars, self-instructional programs, laboratory exercises, and clinical simulation.

GERI 522. Geriatric Dentistry II (1) Spring. The course provides an understanding of the multidisciplinary needs of older adults and the role dental professionals play in providing care to this population. With the ever-increasing population of older adults in the community, this course will address physical and psychological changes associated with aging as well as the identification and management of common oral conditions of the elderly.

GERI 532. Geriatric Dentistry III (2) Spring. This course will address clinical concerns when working with medically compromised older adults. Common oral conditions and their management will be discussed. Other topics include, but are not limited to the role of caregivers in providing daily oral care; identifying early signs of cognitive impairment; optimal oral health techniques; and the roles and responsibilities of oral health professionals.

GERI 551 and GERI 552. Extramural Geriatric Clerkship I and II (10 Fall/10 Spring). General Requirements: Interest in older adults and the medically compromised; satisfactory academic performance.

This clinically-based program provides selected students with opportunities to provide care to medically compromised and older adult institutionalized and non-institutionalized dental patients. Sites include

the Baltimore VA, Levindale Hebrew Geriatric Center and other long-term care facilities. A seminar series on related topics is also presented at the Dental School.

GPAT 512. General Pathology (4) Spring. General Pathology covers the morphologic, chemical and physiologic changes of basic disease processes and important specific diseases.

GROW 521. Growth and Development (1) Fall. The course includes general facial characteristics and the underlying developmental mechanisms that determine these characteristics. Students learn to describe the developmental changes that occur in the teeth and the mandible and maxilla during development of the occlusion; developmental changes that occur in the relationships between the teeth, and those that occur in the maxilla and mandible as an individual passes through the stages of development of occlusion; and factors involved in the etiology of malocclusion. Lectures provide instruction on identifying those factors that influence the development of occlusion, a system of classification of malocclusion, and the etiology of malocclusions in relation to a variety of factors.

IMPL 522. Preclinical Implant Rehabilitation (.5) Spring. This course is an introduction to dental implants at the preclinical level. It consists of a lecture series and simulated clinical exercises designed to prepare the student for patient care.

IMPL 531. Scientific Basis of Dental Implants (1) Fall. Course topics include restorative procedures for implants, implant biomechanics, treatment planning and diagnostic imaging. The departments of Oral-Maxillofacial Surgery, Periodontics and Restorative Dentistry are involved in teaching the course/

IMPL 532. Restoration of Dental Implants (2) Spring. Laboratory exercises cover implant placement, surgical guides for dental implants, and occlusal analysis and diagnostic wax-up. Lectures include current concepts for dental implants, esthetic challenges, treatment for partially edentulous patients and complex cases, and complications following implant treatment.

OHCS 511. Perspectives of Oral Health Care Services (1) Fall. This lecture course introduces Year I undergraduate dental students to the dental profession. Students are exposed to 1) concepts of health, illness, and prevention; 2) the oral health care team of professionals and paraprofessionals; 3) established and emerging modes of oral health care delivery; 4) oral health care needs, demands, and utilization; 5) dental public health; 6) the role of government in dentistry; 7) dentistry from an international and global perspective; 8) oral health promotion; and 9) health policy.

OMED 521. Oral Medicine (2.5 Fall). This course is designed to aid the student in evaluating the medical, psychological, physical and social status of new and returning patients. As such the student learns to interview and examine patients, analyze these data and determine the need for medical consultation as well as determine the need for additional diagnostic testing. The student has the opportunity to learn physical examination techniques appropriate for the diagnosis of soft and hard tissue pathology other than caries and the periodontal diseases. The course includes discussions of patient confidentiality, infectious hazard control and professional communication.

OMED 551 and OMED 552. Oral Medicine Clerkship I and II (8 Fall/8 Spring). General Requirements: Students must have satisfactory progress in all areas toward completion of graduation requirements, and interest in management of patients with oral diseases.

These elective courses provide selected senior students with clinical and laboratory/research opportunities. Clinical: Gain advanced clinical experience in the oral care of cancer patients (Greenebaum Cancer Center), diagnosis and management of oral lesions in the Oral Medicine clinic, and experiences at the Veterans Affairs Medical Center. Laboratory: Participate in research related to the management of medically compromised patients.

OPAT 528. Oral Pathology (1 Fall/1.5 Spring). Oral Pathology builds upon the basic sciences and general pathology. It includes a study of oral disorders and systemic disorders that cause changes in the head and neck. This is the clinical extension of general pathology.

ORTH 522. Orthodontics (1) Spring. This course provides the knowledge and skills necessary to recognize, analyze and document an established or developing malocclusion. Didactic and laboratory exercises provide a strong foundation for space maintenance and the delivery of limited orthodontic treatment. Specific laboratory projects include performing cephalometric and space analyses, fitting orthodontic bands and positioning and cementing brackets, fabricating a lingual arch and Hawley appliance. This course, in conjunction with the growth and development component of Conjoint Sciences, prepares the student for the clinical years.

ORTH 538. Orthodontics (2) Fall/Spring. This course includes comprehensive lecture, laboratory and clinical components. Lectures include clinical applications of growth and development, diagnosis and treatment planning, bi-mechanics of tooth movement, orthodontics materials as a fundamental underpinning for assessing and treating as part of comprehensive care. Students learn a variety of techniques for space and habit management, and limited corrective orthodontic procedures adjunctive to general practice. These are reinforced in a hands-on laboratory in which students correct tipped molars, minor crowding and spacing. Students are introduced to the basic concepts of management of complex malocclusions and craniofacial deformities and learn to assess case difficulty. In the clinic students provide orthodontic consultations on all pediatric patients and have an opportunity to treat patients requiring limited orthodontic correction through rotations in a clinic dedicated to that purpose. Students also rotate in the postgraduate clinic to gain familiarity with comprehensive orthodontic treatment. A clinical evaluation competency is required.

ORTH 548. Orthodontics (2) Fall/Spring. Students continue to provide orthodontic treatment as part of an adult and child patient's comprehensive dental care through required orthodontic consultations and clinical rotations. A clerkship experience is offered in orthodontics as well as a selective.

ORTH 551 and ORTH 551. Orthodontics Clerkship I and II (2 Fall/3 Spring). General Requirements: Grade point average > 3.2 and a sincere desire to know more about orthodontics and/or pursuing a career in clinical and/or academic orthodontics. Selected Year IV students are expected to participate in both fall and spring semesters.

Experiences include didactic seminars; clinical patient treatment; extramural and intramural rotations; postgraduate rotation; research. Students are exposed to the biomechanics of tooth movement, laboratory procedures including appliance construction and organizational dentistry. They participate in diagnosis and treatment planning via case presentations, and end the year with an orthodontic visit and celebratory dinner.

PEDS 522. Pediatric Dentistry II (1) Spring. This course introduces the dental student to the field of pediatric and adolescent dentistry. The course includes lectures on caries prevention, patient examination, data collection in clinic, rubber dam placement, and restorations. A laboratory component includes preparations in primary teeth for amalgam and composite restoration and for stainless steel crowns. Students apply sealants fluoride varnish and rubber dams in a preclinic session.

PEDS 539. Pediatric Dentistry Elective (6) Fall/Spring. Selected Year III students attend lunch time seminars, see patients in the Pediatric Dentistry clinic, attend selected department meetings, and participate in community activities.

PEDS 551 and PEDS 551. Pediatric Dentistry Clerkship I and II (10 Fall/10 Spring). General Requirements: Completion of Year III requirements, above average clinical activity, and strong interest in pediatric dentistry. Selected students are expected to participate in both fall and spring semesters.

The clerkship includes advanced clinical experiences (challenging healthy and handicapped patients); operating room experience; graduate seminars; preclinical teaching; case presentation; independent project.

PERI 511. Introduction to Periodontology (1) Fall. Predoctoral students in their first year are introduced to the anatomy and histology of the healthy periodontium. The course provides an overview of the clinical discipline of periodontics and its impact on systemic health. Didactic material forms a critical foundation for PERI 512 and is designed to prepare students to begin supervised periodontal maintenance visits on patients.

PERI 518A. Periodontal Assessment & Instrumentation (1) Fall/Spring. This course prepares the student for the treatment of a recall patient. The student learns basic skills for periodontal assessment and instrumentation for the treatment of gingivitis. Pre-clinical simulation and clinical exercises prepare the student for the use of a dental mirror, probe, scalers, and the skills required to perform prophylaxis.

PERI 528. Periodontics (2) Fall/Spring. This course reinforces material presented in PERI 518 and forms the foundation for patient treatment in periodontics. The course includes reinforcement of clinical skills introduced in PERI 518. Students treat classmates initially and later treat two periodontal maintenance patients. The following topics are taught in the clinical setting: periodontal data collection; plaque control instructions; periodontal instrumentation; infection control; polishing; and topical fluoride application. Oral cancer screening examinations are performed. Emphasis is placed on microbiology, immunology, diagnosis and treatment planning of periodontal diseases.

PERI 538. Periodontics (10) Fall/Spring. Students have didactic exposure to advanced periodontal procedures, including evidence-based therapy, impact of periodontal disease in the medically compromised patient, occlusal therapy, osseous grafts and guided tissue regeneration, periodontal plastic surgery, periodontal esthetic management and assessment of disease activity. Clinical activity involves the diagnosis and non-surgical periodontal management of mild/moderate adult periodontitis. Observation of periodontal surgeries is also anticipated.

PERI 548. Periodontics (10) Fall/Spring. Students continue to monitor and manage the periodontal status of their comprehensive patient care population. Experiences include assessment of initial therapy performed and determination of parameters for periodontal surgery. Surgical observations of their

patients and complex post-graduate cases are anticipated prior to performing a periodontal surgery. Each student performs a simple periodontal flap surgery. Another focus for this course is the co-therapy program with the senior dental hygiene students. This program mimics the private practice setting allowing interaction with dental hygiene students as co-therapists for the management of the initial therapy of two periodontitis cases.

PERI 551 and 551. Periodontics Clerkship I and II (10 Fall/10 Spring). General Requirements: Cumulative grade point average > 3.0 and minimum of B grade in periodontics 518, 528 and 538. Satisfactory progress toward graduation; three or more ATC's completed. Selected students are expected to participate in both fall and spring semesters.

The clerkship includes diagnosis and treatment of moderate to advanced periodontitis; surgical and non-surgical experience, including antimicrobial therapy, management of maintenance patients, clinical teaching, seminars and case presentations.

PRAC 542. Practice Management (.5) Spring. This seminar series provides dental students with many of the necessary skills needed to effectively respond to a fast-changing professional environment. The course is a three-session seminar designed to enhance practice administration learning by focusing on the transition from dental school to dental practice. The sessions have been crafted and integrated to provide students with substantive knowledge and material in the topics of business law, accounting, financial record-keeping, business planning, and practice transitions.

PROF 518. Profession/Professionalism I (3) Fall/Spring. Students learn foundational skills needed for entry into the dental profession, including the history and future of dentistry, health communication, and professional and ethical behavior. Topics also include an introduction to dentistry whereby students are exposed to the breadth and scope of careers in dentistry and obtain technical training in skills needed to function in the clinic, including: basic life support, patient confidentiality, and infection control. Didactic and interactive sessions will be reinforced with experiences as part of a clinic team.

PROF 538. Profession/Professionalism III (2) Fall/Spring. Students are recertified for BLS/CPR and receive instruction in dentistry and the law. In small group seminars, students discuss ethical dilemmas. They are required to achieve minimum attendance requirements, attend assigned clinical sessions and/or arrange for coverage of clinical assignments, if necessary. In academic and clinical settings students are expected to behave in a respectful, professional manner in their interactions with peers, patients, faculty and staff.

PROS 551 and PROS 552. Prosthodontics Clerkship I and II (10 Fall/10 Spring). General Requirements: Academic performance; demonstrated interest and ability in prosthodontics; interest and motivation in esthetic dentistry; recommendation of discipline supervisor. Selected students are expected to participate in both fall and spring semesters.

The clerkship includes demonstrations, seminars and clinic. The student is introduced to multiple fixed and removable prosthodontic procedures and techniques. Esthetic techniques including bonding all ceramic crowns, porcelain laminates, microabrasion and vital bleaching. There is an emphasis on esthetic evaluation. Implant restorations are treatment planned, surgery observed, and restorations completed.

RADI 518. Radiology (1.5) Fall/Spring. This preclinical course presents an overview of methods and technology used to image the oral and maxillofacial region. The lectures cover the following topics: an introduction to intraoral radiographic techniques; methods of capturing the image; radiation physics principles of radiation safety; biologic effects of ionizing radiation; and quality assurance.

RADI 528. Radiology II (1.5) Spring. The second year course in radiology presents an overview of methods and technology used to image and diagnose the oral and maxillofacial region. Lecture topics include principles of radiographic interpretation; evaluating the quality of images; imaging errors, appropriate viewing conditions, and the value of various radiographic examinations. Interpretive topics encompass developmental and environmental influences on the teeth and supporting structures, dental caries, periodontal disease, pulpal/periapical inflammation. The radiographic appearances of benign, malignant and traumatic disease of the oral and maxillofacial structures are presented.

RADI 538. Radiology III (2) Fall/Spring. Developing clinicians apply principles of imaging and radiation safety toward selecting and taking the most appropriate radiographic examination to make accurate diagnoses and formulate a patient-centered treatment plan. The principles of radiographic interpretation, image quality, appropriate viewing conditions, and the value of alternative radiographic views are emphasized. Students become proficient in intraoral and panoramic radiographic technique and in interpretive topics including developmental and environmental influences on the teeth and supporting structures, dental caries, periodontal disease and pulpal/periapical inflammation. Students make clinical judgments and effectively apply problem-solving skills in a clinical environment with patient contact. They explain to dental patients the principles of radiation safety, imaging technique and radiographic findings at the level appropriate for a knowledgeable healthcare professional.

RADI 548. Radiology IV (1) Fall/Spring. This course is the application of radiographic technique and interpretation in a clinical environment. Developing clinicians refine their skills while functioning as leaders in a clinical team applying principles of imaging and radiation safety toward selecting and taking the most appropriate radiographic examination to make accurate diagnoses and formulate a patient-centered treatment plan. Year IV students model the principles of radiographic interpretation, image quality, appropriate viewing conditions and the value of alternative radiographic views while directing Year II students in intraoral and panoramic radiographic technique and in interpretive topics.

REST 522A. Operative Dentistry I (1) Spring. Students receive didactic and clinical instruction in single tooth restorations. This course includes diagnosis, decision-making and treatment planning on single tooth restorations and the clinical placement of these restorative materials. Esthetics and esthetic bonding is also part of this course.

REST 528. Fixed Prosthodontics (7) Fall/Spring. The course establishes a basic understanding of fixed partial prosthodontics and develops the skills necessary to complete the treatment and laboratory procedures with predictable, consistent success. Principles involved in making both individual restorations and fixed partial dentures are taught. The course includes different types of preparations for teeth, the fabrication of temporary restorations, impression techniques, the construction of working casts of these preparations, and the fabrication of single restorations and fixed partial dentures.

REST 529A. Treatment and Management of the Edentulous Patient (3) Spring. The course is an introduction to the management of the edentulous patient. Topics include impression making, jaw relations, denture occlusion, immediate dentures and an introduction to dental implants. The format includes lectures, briefings, and laboratory simulations.

REST 529B. Removable Prosthodontics (3) Fall. The course provides didactic and laboratory instruction in the fabrication of removable partial denture prostheses. Course material includes classification and biomechanics, RPD components, surveying, design, mouth preparation, occlusion, master casts and laboratory work authorizations.

REST 538A. Operative Dentistry (7) Fall/Spring. The course in operative dentistry instructs students in the concepts of prevention, diagnosis, treatment planning and treatment for pathologies in teeth. Lecture format and online instruction include case studies of these conditions and the dental materials and techniques used to treat these conditions. One section of the course provides the current concepts in esthetic treatment with bleaching and bonded restorations for anterior and posterior teeth. Didactic instruction is then applied in clinical treatment of patients. Competencies in aspects of operative dentistry, diagnosis, and treatment are assessed with patient based examinations.

REST 538B. Fixed Prosthodontics (6) Fall/Spring. This course has both didactic and clinical components. The didactic portion is a continuation of REST 528 with emphasis on clinical application. In the clinical portion, students fabricate crowns, fixed partial dentures and other fixed prosthesis.

REST 538C. Removable Prosthodontics (7) Fall/Spring. The didactic portion of this course is a continuation of REST 529A and REST 529B with emphasis on clinical application. In the clinical portion, students fabricate complete dentures and partial dentures and other removable prosthesis.

REST 548A. Operative Dentistry (5*) Fall/Spring. This year IV course provides instruction in developing the skills and concepts previously learned. On a selected basis, students work in more advanced clinical techniques in esthetic and operative dentistry. Online materials are available to prepare students for these more advanced clinical techniques. Didactic instruction from the third year course and online course materials are applied in clinical treatment of patients. Competencies in aspects of operative dentistry, diagnosis, and treatment are assessed with patient based examinations.

REST 548B. Fixed Prosthodontics (10*) Fall/Spring. This Year IV course is a continuation of Year III Fixed Prosthodontics where students provide comprehensive care in the general practice clinics. Students not only complete single tooth crowns, but restore edentulous spans with either fixed partial dentures or single tooth implants. Competency is assessed with both simulation and patient based examinations.

REST 548C. Removable Prosthodontics (8*) Fall/Spring. This year IV course is a continuation of Year III Removable Prosthodontics where students provide comprehensive care in the general practice clinics. Students fabricate complete dentures, removable partial dentures and interim dentures. Competency is assessed with a patient based examination.

SLCT 548. Selectives (2) Fall/Spring. Students choose from a wide range of selective topics or attend Continuing Education courses for selective credit during their senior year.

SPTC 532. Special Patient Care (1) Spring. Lectures provide instruction on dental management of the patient with special needs.

SPTC 551 and 552. Special Patient Clerkship I and II (10 Fall/10 Spring). General Requirements: Demonstrated interest in treating handicapped patients; superior clinical skills; above average academic performance. Selected students are expected to participate in both fall and spring semesters.

The clerkship course includes an individually tailored clinical program providing care for special patients; significant surgery, prosthetics, and conscious sedation experiences available. A seminar series on related topics is also included.

TMDC 551 and 552. TMD Clerkship I and II (4 Fall/4 Spring). General Requirements: No clinical deficiencies; must be in the top one-half of the class academically; special interest in TMD (temporomandibular dysfunction) with some limited experience.

These elective courses provide selected students with an opportunity to work in the TMD clinic. TMD clerks treat and diagnose TMD patients and assist other students with their TMD patients.

TXPL 528. Treatment Planning II (1) Spring. Course topics include charting and documentation as related to periodontal disease, caries risk, esthetics, radiographic evaluation, decision making, and sequence of treatment.

TXPL 538. Treatment Planning III (6) Fall/Spring. This course includes a didactic portion and a clinical portion. Course topics include more complex dental and medical cases, treatment of urgent patient needs, and sequencing of complex treatment plans. The course covers work-ups, preparation, and presentation of oral diagnostic findings, prosthodontic aspects, and periodontal aspects of treatment plans.

TXPL 548. Treatment Planning IV (2) Fall/Spring. This course is a continuation of clinical treatment planning described in DCJS 538T.

Curriculum requirements are subject to change without prior notice.

DEPARTMENTS/PROGRAMS

CLERKSHIP PROGRAM

Elective clerkships allow selected fourth-year students to pursue further studies in departmental activities specially designed to meet their needs and interests. Students devote a portion of their clinic time to these specialized programs; the remaining clinic time is spent in the comprehensive treatment of patients in the regular program. Clerkships are available in basic science and clinical disciplines, and several incorporate off-campus clinical experiences in various practice settings.

CLINICAL DENTISTRY

The clinical education program is designed to fulfill competency-based criteria by providing each student with a broad background of clinical experience based on the philosophy of prevention and comprehensive patient care. Although the need for the treatment of existing disease is of paramount importance, the clinical program stresses long-term complete dental care founded on preventing the occurrence or recurrence of disease. Each student provides patient care in a general practice in a manner similar to practitioners in the community.

Clinical areas for predoctoral instruction are designated primarily for general practice teams. Clinical instruction is accomplished using dentist-managers, general dentists and specialists providing

interdepartmental instruction for the student, and the highest level of dental care for the patient. The clinical program functions year round to provide continuity of patient care.

CLINICAL SIMULATION

Director of Simulation Research: Gary Hack, DDS

Clinical simulation realistically prepares students for the performance of patient care procedures and is employed in both the undergraduate dental and dental hygiene curricula.

As a basis for their performance of finite psychomotor skills, students are introduced to the principles of human-centered ergonomics early in their first year. They learn to derive a posture, position, and process for practice in ways that enable the attainment of occupational health and peak performance without compromise of task, patient, or self. Students learn to perform dental procedures to high standards of precision, quality, and accountability on lifelike manikins in simulated and real practice settings, before treating patients. This is accomplished in the Dental School's state-of-the-art clinical simulation unit that replicates the features of a dental practice operatory, and the general practice clinics in which patients receive care. Professional skills and habits acquired in realistic clinical simulation ensure student ease, confidence, and competence in their later application to patient care.



BIOMEDICAL SCIENCES

BSCI 511C | BSCI 511M | BSCI 511V | BSCI 512N | BSCI 512P | BSCI 518A | BSCI 518C | BSCI 521A | BSCI 521P | DRUG 522 | BSCI 541P | SLCT 548 | BSCI 551 | BSCI 552

Professor and Chair: Ronald Dubner, DDS, PhD

The Department of Biomedical Sciences encompasses the breadth of basic research activities in the Dental School. Members of the department number over 100 faculty and staff. Diversified research interests include studies of model systems in neuroscience, cell biology, molecular biology, microbiology and infectious disease immunology. The department provides training at all levels: predoctoral basic science courses; a newly restructured graduate program (PhD, DDS-PhD, Master); postdoctoral, junior and mid-career faculty training; and summer research programs for high school, pre dental and premedical students.

DIAGNOSTIC SCIENCES AND PATHOLOGY

GPAT 512 | RADI 518 | OMED 521 | OPAT 528 | RADI 528 | DSCP 538 | DSCP 548 | OMED 551 | OMED 552 | RADI 538 | RADI 548

Associate Professor and Acting Chair: Bernard A. Levy, DDS, MSD

In addition to providing instruction in radiology, oral medicine, and diagnostic sciences for the predoctoral program, the department presents courses for graduate and postgraduate students and

offers programs leading to a certificate in Oral and Maxillofacial Pathology and/or a doctoral degree. Also, graduate training programs are offered in surgical, clinical, and experimental pathology. Research and graduate training are conducted in the pathobiology of cancer, connective tissues, stress proteins, developmental biology, dental management of medically compromised patients, prevention of infection in immunocompromised patients, evaluation of drugs to treat bacterial and fungal infections of the oral cavity and the role of viruses in cancer and its treatment.

ENDODONTICS, PROSTHODONTICS AND OPERATIVE DENTISTRY

DAPR 512 | ENDO 522 | FOUN 511 | FOUN 518A | REST 522A | REST 528 | REST 529A | REST 529B | ENDO 538 | IMPL 531 | IMPL 532 | REST 538A | REST 538B | REST 538C | ENDO 541 | ENDO 548 | REST 548A | REST 548B | REST 548C | PROS 551 | PROS 552

Associate Professor and Chair, Ashraf Fouad, DDS, MS

The department is responsible for major segments of the predoctoral dental curriculum encompassing endodontics, dental anatomy, occlusion, dental biomaterials, operative dentistry, and fixed and removable prosthodontics. The department also conducts a three-year certificate program in postgraduate endodontics and a three-year certificate program in postgraduate prosthodontics in which students are trained to manage and treat complex prosthodontic patients.

The department has an active research program including the areas of endodontic infections and their relationship to systemic disease, dental implants, dental materials, nanocomposites, calcium phosphates, regenerative biology, novel methods of controlling tooth sensitivity, evaluation of physical properties of numerous dental materials, and bioactive ceramics.



HEALTH PROMOTION AND POLICY

EBDM 512 | OHCS 511 | PROF 518 | BHAV 528 | CARI 521 | EBDM 521 | GERI 522 | PEDS 522 | TXPL 528 | GERI 532 | PROF 538 | SPTC 532 | DHPP 538P | TXPL 538 | CSLX 548 | DHPP 548P | TXPL 548 | GERI 551 | GERI 552 | PEDS 551 | PEDS 552 | SPTC 551 | SPTC 552

Professor and Chair: Norman Tinanoff, DDS, MS

In its teaching, research, and service activities, the Department of Health Promotion and Policy continually develops, evaluates, and disseminates information and methods to meet the needs of the providers and recipients of oral health care. The major areas of teaching responsibility are pediatric dentistry and behavioral sciences for the predoctoral dental program, dental hygiene at the bachelor's and master's levels, and postgraduate pediatric dentistry.

The department conducts research in dental materials, clinical trials, oral epidemiology, practice administration, quality assurance, behavioral sciences, orofacial pain, geriatric dentistry, oral health services, oral health policy, the study of dental caries in minority populations, effects of preventive

interventions on caries in infants and young children, nutrition and oral health, and the evaluation of therapeutic agents through clinical trials. (Add dental hygiene research)

ORAL AND MAXILLOFACIAL SURGERY

DANS 521 | DSUR 522 | DSUR 538 | DSUR 541 | DSUR 548 | DSUR 551 | DSUR 552

Professor and Chair: Robert A. Ord, DDS, MD, MS

The department provides instruction in the second, third and fourth years of the predoctoral program. A Year IV clerkship elective in Oral-Maxillofacial Surgery provides students an opportunity to perform more advanced dentoalveolar surgery and participate more fully in surgical care at the University of Maryland Medical Center. The postgraduate program in oral-maxillofacial surgery includes training at the University of Maryland Medical System and University of Maryland Dental School.

Research is conducted in chemoprevention of oral carcinoma and pain management techniques. The department is also involved in evaluation of analgesics for postsurgical pain control and tumor immunology.

ORTHODONTICS

GROW 521 | ORTH 522 | ORTH 538 | ORTH 548 | ORTH 551 | ORTH 552

Associate Professor and Acting Chair: Stuart D. Josell, DMD, M Dent Sc

Predocutorial instruction in orthodontics provides a strong foundation for delivery of limited orthodontic treatment as part of an adult and child patient's comprehensive dental care. Clerkship and other elective opportunities are available for those who wish to pursue additional course work and clinical experience. The postgraduate program prepares students for specialty certification by the American Board of Orthodontics.

The department conducts research in growth and development, experimental and diagnostic imaging, the biology of tooth movement, properties and biocompatibility of orthodontic materials, and the physiology of facial musculature.

PERIODONTICS

PERI 511 | PERI 518A | PERI 528 | PERI 538 | PERI 548 | PERI 551 | PERI 552

Associate Professor and Chair: Mark A. Reynolds, DDS, PhD

The department provides instruction in periodontics for predoctoral and postgraduate students. Interested students have the opportunity to choose from a broad range of additional experiences and research opportunities.

The department conducts research in regenerative therapy, microbial genetics, chemotherapeutic agents, periodontal pathogens, implantology, and biostatistics.

Dental Hygiene Programs

Associate Professor, Department of Health Promotion and Policy, and Dental Hygiene Program Director:
Jacquelyn Fried, RDH, MS

GENERAL INFORMATION

The Dental School offers both a Bachelor of Science and a Master of Science in Dental Hygiene. The baccalaureate degree can be earned in one of two educational programs: the Preprofessional/Professional Program and the Degree Completion Program. The objective of both baccalaureate programs is to develop in the students the knowledge, skills, attitudes, and values needed to assume positions of responsibility in a variety of health care, educational, research, and community settings. In addition, these programs are designed to provide a foundation for graduate study in dental hygiene or related disciplines.

The dental hygienist, as a member of the oral health care team, strives to improve oral health by providing preventive, therapeutic, and educational services to the public. Clinical dental hygiene services include assessing patients' general and oral health status, removing deposits and stains from teeth, taking dental X-rays, and applying fluorides and sealants. Educational and management services for individuals and/or groups may include tobacco use, prevention, and cessation; oral cancer screening; providing nutritional and oral hygiene counseling; conducting educational programs; and planning, implementing, and evaluating community oral health programs.

MISSION

The mission of the Baltimore College of Dental Surgery, Dental School, University of Maryland, Baltimore is to improve the quality of life in Maryland through education, research and service related to health, with special emphasis on improving dental, oral and craniofacial health.

In support of this mission, the Dental Hygiene Program educates future leaders in the profession by conducting undergraduate and graduate programs in dental hygiene. The Program provides continuing education for dental and dental hygiene professionals, conducts research relevant to dental hygiene education and practice, and disseminates this knowledge. The Program also provides high quality oral health care services to residents of Maryland and the region, and provides consultative and other services to governmental and private agencies, professional organizations and the community through the leadership and expertise of its faculty and contributions of its students. The Program endeavors to recruit, retain and develop high quality, productive faculty who accept responsibility for advancing knowledge in the field of dental hygiene. Faculty foster intellectualism and offer a professional education for dental hygiene students that embodies excellence and relevance. The faculty strives to prepare graduates who can provide dental hygiene services with competence in any setting in accordance with ethical codes of the profession and statutory provisions for dental hygiene practice.

EMPLOYMENT OPPORTUNITIES IN DENTAL HYGIENE

The majority of dental hygienists are employed in private dental offices. However, there are increasing opportunities for those with baccalaureate and graduate degrees in dental hygiene education; community, school, and public health programs; private and public institutions; armed forces; research; and other special areas of practice.

Current dental hygiene graduates working full-time can anticipate initial annual income of approximately \$50,000, depending on the geographic area, responsibilities, type of practice, and general economic conditions.

ACADEMIC POLICIES

Degree Requirements

1. A minimum of 120 credits* is required for graduation in the generic B.S. program (120 credits in the Degree Completion Program).
2. A cumulative grade point average of 2.0 is required for graduation.
3. A grade of C or better is required for all courses that provide didactic and/or clinical instruction required for the provision of dental hygiene clinical services. If a D or F is received, the course must be repeated with a C grade or better. Those courses for which a D grade is considered passing are DHYG 410, 420, 414, 416, 425, and 427.
4. A diploma application must be filed with the Director of Records and Registration, University of Maryland Baltimore before the stated deadline in order to receive the diploma at Commencement.
5. Students in the three year curriculum will have individualized schedules that will incorporate the Professional Curriculum courses in three academic years.

Academic Retention and Advancement

At the end of each semester, the Dental Hygiene Progression Committee meets to review the progress of each student. The committee is composed of members of the Dental School administration, dental and dental hygiene faculty. The Progression Committee utilizes the following policy guidelines in making their decisions.

General Guidelines

1. The Progression Committee may conditionally advance to the next semester students who are required to remediate or repeat a course or component.
2. When a student demonstrates continued unsatisfactory progress toward meeting course or degree requirements, the Progression Committee may recommend to Faculty Council that the student repeat courses or be dismissed. See Academic Probation below.
3. Students may appeal actions of the Progression Committee and the Faculty Council by writing to the Dean of the Dental School stating their justification for the appeal. The Dean may request the

Progression Committee to reconsider its decisions and recommendation.

4. All preprofessional courses must be completed by the end of the first summer session prior to enrolling in the program. It is the student's responsibility to ensure that all preprofessional course credits have been properly transferred and recorded on their UMB transcript.
5. Degree Completion students must ensure that off-campus course transcripts are sent to UMB and properly recorded on their UMB transcript. They must also ensure that all transfer credits are recorded on their UMB transcript.

Repeating a Course and NM Grades

1. All clinically related dental hygiene courses must be passed with a C grade or better. Information related to the grading criteria for each course is stated in the course syllabus that is distributed at the onset of the course.
2. Any clinical related course or major component of a course for which a grade of D or F is received must be repeated. In the Oral Biology course, each unit or component must be passed with a C grade or better in order to receive a passing grade in the course. If a student fails two or more components of Oral Biology, the entire course must be repeated.
3. When a student receives a course grade of D or F and repeats the entire course, the original grade remains on the transcript. An "E" is put beside it to indicate that the course has been repeated and the grade is excluded. The course name and grade appear again on the transcript under the semester in which the course was repeated, with the newer grade reflected in the overall grade point average. When a student repeats a course, a grade of C or better must be attained.
4. A course may be repeated once. If a course is not passed (C or better) the second time, the student will not be able to continue in the program.
5. Tuition payment is required for any repeated course.
6. NM grade: If a "NM" (no mark) is entered when students have not completed all course requirements (e.g. course extends beyond due date for grade submission, missing exam or assignment), all course work must be completed and a course grade must be entered by the end of the semester following the NM entry. All NM entries that remain on the grade record after that time will be changed to an F (failing) grade. This policy does not apply when a student fails a course and needs to retake it in a subsequent semester.

A NM in a clinical course may result from incompleting competencies. If these competencies are not completed by mid-term of the following semester, the NM will be converted to an "F".

Remediation

1. Remediation may be provided to enable students to master course content in a component or entire course. The course faculty will identify specific areas for remediation.
2. Students may be permitted to remediate without alteration to their schedule, providing the remediation can be accomplished concurrently with the student's course load.
3. A specific schedule for completion of remediation will be developed. A copy of the remediation plan will be given to the division director, course coordinator, faculty and student. A copy of the plan will be placed in the student's departmental file.

4. Original exam and/or assignment grades will be used to calculate the course grade.

Special Scheduling

1. Students who are required to repeat one or more courses may be placed on a modified curriculum plan. This plan will be based on appropriate course sequencing for clinical and didactic courses.
2. Students on modified curriculum plans may require additional semesters to complete the program.

Academic Probation

A student earning a semester GPA below a 2.0 or receiving a course grade of a D or an F will be placed on academic probation for the following semester. The Progression Committee and Faculty Council may recommend that a student who is on academic probation for two semesters be dismissed from the Dental Hygiene Program.

Students who are not making satisfactory academic progress may be subject to reduction of financial aid. Policies and procedures are available from the Director of Financial Aid.

Policy for Appeal of Advancement Decisions

Appeals Process

The following guidelines have been established to review appeals of decisions made by the Dental Hygiene Progression Committee, or in cases of dismissal, decisions made by the Faculty Council. This mechanism will not be used to dispute the published advancement guidelines which have been approved by the Faculty Council.

1. A student wishing to appeal an advancement or dismissal decision must initiate the appeal process within 5 working days of receiving written notification from the Office of Academic Affairs regarding Progression Committee decisions, or from the Dean regarding dismissal decisions made by the Faculty Council. In this written appeal, the student must present evidence of compelling additional information or extenuating circumstances not previously considered and the reason why the information was not previously presented. The written appeal must include: the decision the student is appealing; the specific basis for the appeal, including appropriate supporting documentation; and the academic status that the student is requesting. The student may present and prioritize more than one alternative.
2. The appeal, which must be submitted in writing to the Associate Dean for Academic Affairs, will be reviewed by a panel composed of the Associate Dean for Academic Affairs and the Chair of the Dental Hygiene Progression Committee.
3. The review panel will determine whether the student's written appeal meets the criteria outlined above. Should the panel determine that an appeal lacks the required evidence, the appeal will be denied. In these circumstances, there is no further appeal.
4. Should the panel determine that an appeal meets the required criteria outlined above, the panel will forward the appeal to the Progression Committee for its consideration.

5. The Dental Hygiene Progression Committee will meet within ten working days, when possible, of receiving the initial appeal request from the review panel.

6. The Committee will issue a written decision within five days of its meeting, when possible. The Committee's decision is final and there is no further appeal. The Committee's decision shall be forwarded to the Faculty Council for information.

Attendance

1. Students are expected to be in all assigned clinics whether or not a patient is scheduled. If a student does not have a patient, options for volunteer blocks are described in the clinical course outlines.
2. It is the student's responsibility to notify the Division of Dental Hygiene office, 410-706-7773, when he/she will not be able to attend a class or clinic. The student must contact patients and cancel appointments as soon as he/she knows he/she will be unable to attend a clinic session.
3. Students are required to complete an absence form (available from the DHYG Administrative Assistant, Room 2102 for all absences and schedule make up of work missed.
4. Course specific attendance policies are described in each course syllabus.

Registration

Students must register for coursework each semester in order to maintain degree candidacy. The Dental School Office of Academic Affairs distributes specific information about registration prior to registration dates.

Those students who advance register and subsequently decide not to attend must notify both the Dental Hygiene Program and the Office of Academic Affairs prior to the first day of classes.

If the Office of Academic Affairs has not been notified by 4:30 p.m. of the last day before classes begin, it is assumed that the student plans to attend and the student assumes financial obligations for that semester.

Students may advance-register on-line through the Student User Friendly System (SURFS). After classes begin, students who wish to add/drop or withdraw must follow the university procedures and should contact the Dental Hygiene Office to initiate the process. Students who are registered for classes at other USM campuses must also follow the add/drop and withdrawal procedures at those campuses.

Students will be exempt from campus-sponsored health insurance if they present proof of comparable coverage to the Office of Student and Employee Health once each year. If such proof is not received by the Office of Student and Employee Health, the student will be required to pay for the student policy.

Students who take courses at other USM campuses while enrolled in the Dental Hygiene Program must register at both UMB and the other campus. Inter-campus registration forms may be obtained from the Office of Academic Affairs.

All courses taken at other institutions that are to be used toward graduation requirements must be documented via official transcripts submitted to the Office of the Registrar. Each student must assume responsibility for submitting all necessary transcripts.

Tuition and Fee Payment Policy

UMB's tuition and fees policy stipulates that all tuition and fees are due and payable on or before the due date stipulated on the bill issued by the Office of Student Accounting. Any student who does not make payment to the Cashier's Office by the due date may be denied class attendance.

Students will not be permitted to register (advance or arena registration) if they have outstanding bills. Students who are not officially registered may not be permitted to attend any classes or clinics.

Withdrawal

Should a student desire or be compelled to withdraw from the School at any time, she/he must:

1. arrange an appointment to meet with the Department Chair and Program Director;
2. write a brief letter to the Department Chair and Program Director explaining the reason for withdrawal;
3. secure a withdrawal form from the Department Chair and obtain the appropriate signature from the Associate Dean for Academic Affairs, Dean's Office, Dental School; and
4. submit the signed withdrawal form to the Office of Academic Affairs, Dental School.

Readmission to the Dental Hygiene Program

Subsequent to dismissal or withdrawal for academic deficiencies, with extenuating circumstances, readmission may be sought by reapplication to the Dental Hygiene Program. In order to initiate the readmission procedure, the former student shall submit a letter, with supporting documents, (current application, etc.) indicating the reasons for reconsideration, to the Office of Admissions and Career Advancement, requesting readmission to the Dental Hygiene Program. Students dismissed for violations of the Professional Code of Conduct are ineligible for readmission.

Once the letter of application has been processed by the Office of Admission and Career Advancement, the Committee on Dental Hygiene Recruitment and Admissions will consider the student for readmission. The process of reconsideration will or may include a careful review of the student's academic record, a study of the reasons for readmission, an assessment of the student's potential for academic progress in the future, and consultation with the appropriate departments, the advancement committee, and administrative and non-administrative faculty members within the Dental School. Recommendations relative to the readmission will be referred to the Committee on Dental Hygiene Recruitment and Admissions in conjunction with the Office of Admissions and Career Advancement for final decision and notification, including conditions for readmission, where appropriate. Decisions resulting from due process of this policy are not subject to appeal.

Grading Policies

Clinical Grading Criteria

The computer grading program is designed to reflect the following grade definitions:

Evaluation Criteria: Clinical grading is based on the following scale

H (Honors) - Represents a high level of performance with difficult cases – no improvements necessary

P (Pass) - Represents acceptable to high level performance with minimally to moderately complex cases – minimal to no improvements necessary.

F (Fail) - Represents unacceptable level of performance, significant improvements are necessary

Classroom Grading Criteria

The criteria that will be utilized to determine a grade will be specified in each course syllabus. Most courses use the following scale:

Numerical grades are entered for clinical competencies. The scale is as follows:

GRADING SCALE

A	93-100
B	84-92
C	75-83
D	66-74
F	below 66

Grades at the Time of Withdrawal

The following grades are used when students withdraw after the beginning of the course:

WD - Withdraw: This grade indicates withdrawal during the first half of the course.

WP - Withdraw Pass or WF - Withdraw Fail: This grade denotes student performance to date when withdrawal occurs after the first half of the course.

DENTAL HYGIENE PROGRAMS

PREPROFESSIONAL/PROFESSIONAL BACCALAUREATE PROGRAM

This program consists of two main parts: a two-year preprofessional curriculum at one of the University of Maryland campuses or at another accredited college, community college or university, and a two- or three-year professional curriculum at the Dental School, University of Maryland.

TWO-YEAR PREPROFESSIONAL CURRICULUM

A listing of the courses and credit hour requirements for the preprofessional curriculum follows. These courses provide a foundation in basic sciences, social sciences, and general education. Students are encouraged to contact with the dental hygiene advisor each semester to ensure appropriate course scheduling.

Notes	Courses	Credits
	English Composition	6
*	Inorganic Chemistry	4
*	Organic Chemistry	4
	General Biology	4
	General Psychology	3
	General Sociology	3
	Public Speaking	3
*	Human Anatomy and Physiology I, II	8
*	Microbiology	4
	Principles of Nutrition	3
**	Humanities	6
***	Social Sciences	6
	Statistics	3
	Electives	3
		60
* These courses must include a laboratory and meet the requirements for science majors. Survey or terminal courses for nonscience majors are not acceptable for transfer.		
** Humanities: Courses must be selected from the following areas: literature, philosophy, history, fine arts, speech, math, or language.		
*** Social Sciences: General psychology and sociology are required; the remaining six credits should be selected from courses in psychology, sociology, computer science, government and politics, or anthropology.		

APPLICATION AND ADMISSION PROCEDURES

High school students who wish to enroll in the preprofessional curriculum should request applications directly from the admissions office of any of the University of Maryland campuses or any accredited college, community college, or university.

It is recommended that those preparing for a baccalaureate degree in dental hygiene pursue an

academic program in high school that includes courses in biology, chemistry, algebra, and social sciences. Applicants should note the University of Maryland policy concerning prevention and management of student and employee infection with bloodborne pathogens, page 00, and the Dental School's technical standards for admission and matriculation, page 00. In addition, individuals who have a prior or subsequent conviction or nolo contendere plea for a felony may encounter denial or removal of licensure to practice dental hygiene after graduation.

TWO- AND THREE-YEAR PROFESSIONAL CURRICULA

TWO-YEAR PROFESSIONAL CURRICULUM

The professional curriculum includes clinical and didactic courses in the Dental School. Throughout these two years, dental hygiene students work concurrently with dental students to provide patient care.

During the first year, students expand on their preprofessional basic science knowledge as it pertains to dental hygiene practice. In both laboratory and clinical settings, the students begin to develop the skills, knowledge and judgment necessary to collect data for patient treatment; assess each patient's oral health status; and select and provide preventive, therapeutic, and educational services based on the individual needs of the patient.

During the second year, students demonstrate increasing proficiency and self-direction in assessing patients' oral health status, planning and providing clinical services and identifying the need for consultation and referral. To enrich their educational experiences, students provide educational and/or clinical services in Dental School specialty clinics and a variety of community settings, such as hospitals; schools; and facilities for the handicapped, chronically ill, and aged. Dental hygiene students also have an opportunity to work with dental students as primary providers for the physically disabled, mentally handicapped, and individuals with serious medical conditions or infectious diseases. Senior students also take courses in education, research, and management that enable them to develop fundamental skills that are necessary for various career options within the profession.

		Semester 1
Junior Year		Credit
DHYG 311	Prevention and Control of Oral Disease I	6
DHYG 312	Oral Biology	5
DHYG 313	Education and Treatment Planning Strategies	2
DHYG 314	Periodontics for the Dental Hygienist I	2
DHYG 316	*Oral Radiology	1
		16

*This course extends into the January winter session

Junior Year		Semester 2
		Credit
DHYG 321	Prevention and Control of Oral Disease II	5
DHYG 323	Care and Management of the Special Patient	2
DHYG 324	Methods and Materials in Dentistry	2
DHYG 326	Oral Radiology II	1
DHYG 327	Periodontics for the Dental Hygienist II	2
DHYG 328	Oral Pathology	2
DPHR 325	General Pharmacology and Therapeutics	3
		17

Senior Year		Semester 1
		Credit
DHYG 322	Community Oral Health	3
DHYG 411	Advanced Clinical Practice I	5
DHYG 412	Perspectives of Dental Hygiene Practice	3
DHYG 413	Community Service Learning I	2
DHYG 416	Introduction to Oral Health Research	3
		16

Senior Year		Semester 2
		Credit
DHYG 414	Educational Program Development	2
DHYG 425	Issues in Health Care Delivery	2
DHYG 421	Advanced Clinical Practice II	5
DHYG 427	Health Care Management	2
		11

THREE-YEAR PROFESSIONAL CURRICULUM OPTION

Although most students complete the professional curriculum in two years as outlined, a three-year professional curriculum option is offered. This three-year plan is a modification in the sequence and number of professional courses taken each semester. This curriculum can be an attractive option for students who may wish to lighten their academic load due to family or work commitments. Students admitted to this curriculum must have the recommendation of the program advisor and approval of the admissions committee. Students enrolled in this curriculum may not have full-time status for one or more semesters of the program. This may influence their eligibility for financial aid and student insurance discounts.

APPLICATION AND ADMISSION PROCEDURES

College students enrolled in the preprofessional curriculum should communicate regularly with the dental hygiene advisor at the Dental School to ensure that the courses selected satisfy the degree requirements. After completion of two semesters of the preprofessional curriculum, students may request an application from the Office of Admissions and Career Development, 650 West Baltimore St., Room 6402, University of Maryland, Baltimore, MD 21201. Applications for the Baltimore campus should be received no later than April 1 before the fall semester for which the student wishes to enroll.

A minimum grade point average of 2.3 in the preprofessional curriculum is required, and preference will be given to those students who have high scholastic averages, especially in science courses. A science grade point average of 3.0 is generally encouraged for acceptance.

Enrollment at another University of Maryland campus or completion of the preprofessional curriculum does not guarantee admission to the professional curriculum at the Dental School. Enrollment in the dental hygiene program is limited.

Students who are offered admission will be required to send a deposit of \$200 with a letter of intent to enroll. This deposit will be credited toward tuition at registration, but will not be refunded in the event of failure to enroll.

PROJECTED AVERAGE EXPENDITURES

In addition to the expenses of tuition and fees listed on the Student Accounts pages, junior dental hygiene students should estimate spending \$1,500 on instrument service, uniforms, and supplies and \$600 on textbooks. Senior dental hygiene students should estimate spending \$1,100 on instrument service and supplies, \$300 on textbooks and \$600 on regional and national board examination fees. Field experiences in both the junior and senior years may entail additional costs for travel and/or parking at sites outside the Dental School.

GRADUATION REQUIREMENTS

Candidates for the Bachelor of Science degree in dental hygiene must complete the preprofessional and the professional curricula as outlined. Students must achieve a cumulative grade point average of 2.0, complete a total of 122 credits, and satisfy all financial obligations to the University to be eligible for graduation.

NATIONAL AND REGIONAL BOARD EXAMINATIONS

Clinical and comprehensive written examinations are given in the spring of the senior year. Successful completion of these exams is necessary to obtain a license to practice dental hygiene.

COURSES

DHYG 311. Prevention and Control of Oral Disease I (6). The study of the morphologic characteristics and physiologic relationships of teeth and supporting structures; and the basic foundation for clinical dental hygiene practice are presented in lectures, class discussions and audiovisual presentations.

Simulation and clinical experiences provide the opportunity for practical application of the principles and procedures for the identification, prevention, and control of oral diseases.

DHYG 312. Oral Biology (5). The study of embryology and histology; anatomy and physiology; and microbiology with emphasis on the head, neck, and oral cavity are presented in lecture and audiovisual format. In 2007-08 this course will be replaced by the following three courses: **DHYG 312A. Head and Neck Anatomy (2).** This on-line course presents the basic concepts and structures of head and neck anatomy. Emphasis is placed on those subjects relevant to clinical practice. Specifically, the student utilizes the knowledge and understanding of this subject matter within the clinical environment. **DHYG 312H Oral Histology & Embryology (1.5).** This on-line course presents material through the technological medium, Blackboard, that allows students to progress at their own pace through a series of modules. It includes a detailed presentation of head and neck histology in addition to a review of basic histology. The subject matter includes a review of basic tissues; the embryologic development of the face and oral cavity; odontogenesis; tooth enamel, dentin, cementum and pulp; periodontal ligament and alveolus, and tooth eruption and shedding of primary teeth. **DHYG 312M. Microbiology (1.5).** As most oral diseases have microbiological etiologies, it is important that the dental hygienist understand how they develop, how the oral microorganisms cause tissue disruption, and how to best manage the diseases. This module begins with general ecological principles involving oral microorganisms, dental plaque and other oral biofilms and continues with prevalent oral diseases, dental caries and periodontal diseases.

DHYG 313. Education and Treatment Planning Strategies (2). The study of the elements of human behavior, principles of learning, methods of teaching, and principles of communication as they relate to teaching oral health care to individuals and groups. Classroom discussions, small group activities, and clinical experiences provide opportunities to apply these topics.

DHYG 314. Periodontics for the Dental Hygienist I (2). The study of the etiology, diagnosis, and pathogenesis of periodontal diseases, as well as the anatomy and morphology of the tooth root and surrounding supportive structures are presented in lecture and discussion sessions.

DHYG 316. Oral Radiology I (1) and DHYG 326 Oral Radiology II (1). By means of lecture, laboratory, and clinical activities, the students are introduced to the science of ionizing radiation; the production and effects of X-rays; and the various techniques of oral roentgenography. Students gain experience exposing, processing, mounting, assessing the diagnostic quality of and interpreting radiographs. The rationale and practices to ensure radiation safety are stressed throughout the course.

DHYG 321. Prevention and Control of Oral Diseases II (5). The study of principles and procedures for the prevention of oral diseases, including dental health education, oral hygiene measures, dietary control of dental disease, use of fluorides, sealants, and the oral prophylaxis are presented in lecture, discussion, and clinical sessions.

DHYG 322. Community Oral Health (3). Methods of determining community oral health status, identifying barriers to optimum health, and selecting appropriate interventions are presented concurrently with community program planning activities. The course emphasizes the role of the dental hygienist in community oral health.

DHYG 323. Care and Management of the Special Patient (2). Through classroom discussion, reading assignments, and independent study, students develop an understanding of the care and management of special patients for whom routine care may be complicated by age or complex health factors.

DHYG 324. Methods and Materials in Dentistry (2). An introduction to the science of dental materials, including the composition and utilization of dental materials as they apply to clinical dental hygiene procedures, dental assisting, and patient education, is presented in lecture, class discussion, and laboratory format.

DHYG 327. Periodontics for the Dental Hygienist II (2). The study of the diseases of the periodontium focusing on the management, therapeutics, and prevention of periodontal diseases is presented through lecture and classroom discussion.

DPHR 325. General Pharmacology and Oral Therapeutics (3). The study of drugs and their use in the treatment, diagnosis, and prevention of disease; the absorption, distribution, metabolism, excretion, and mechanism of action of drugs; and drug interactions, rationale for use, indications, and contraindications are presented through Internet and class discussion. Emphasis is placed on the relevance of this information to providing patient care.

DHYG 328. Oral Pathology (2). This is a lecture, clinical pathologic conference format course. The course includes an overview of general pathology, emphasizing the main features of various forms of disease. The diagnostic process and the recognition of numerous head and neck disorders follow the overview.

DHYG 411-421. Advanced Clinical Practice I and II (5-5). Clinical experiences in principles and procedures of dental hygiene practice are provided in general practice clinics through both recall and co-therapy treatment programs with dental students. Students may participate in alternative practice settings through block assignments to dental specialty clinics within the School. Students prepare and present a case presentation in the spring semester. Honors sections of DHYG 411 and 421 are offered for selected students.

The honors section of DHYG 411 begins the summer before the senior year and is designed to prepare students for patient treatment in the postgraduate periodontal clinic. During the summer, honors students treat patients under the supervision of a dental hygiene graduate student and attend weekly seminars on clinical dental hygiene issues. Students utilize concepts discussed in seminar while in summer clinic and have the potential to fulfill fall requirements. At the conclusion of the summer session, students are scheduled in the postgraduate periodontal clinical on a bi-weekly basis where they are exposed to clinical experiences beyond what is available in the generic course.

Students in the honors section of DHYG 421 continue in the postgraduate periodontal clinic on a bi-weekly basis. They work closely with a dental hygiene faculty member and periodontal residents on complex cases from initial therapy through the maintenance phase of treatment. In addition to gaining experience and fulfilling DHYG 421 requirements, students enrolled in the honors section experience the role of dental hygiene educator by mentoring junior dental hygiene students in clinic. The honors program incorporates multiple levels of education from the junior dental hygiene student to the postgraduate resident while exposing honors students to various dental hygiene career options prior to graduation.

DHYG 412. Perspectives of Dental Hygiene Practice (3). Students can explore advanced principles and skills of dental hygiene practice. The primary focus of the course is divided into three major units: pain control, advanced periodontics, including implants, and oral-facial pain. Also included in the course is an introduction to intra-oral photography and case documentation. The emphasis of this course is to broaden the student's perspective of dental hygiene practice as it exists across the country.

DHYG 413-423. Community Service Learning I and II (2-2). The externship program provides opportunities for senior students to select experiences beyond those given within the Dental School setting. The selection of a community site is based on the student's interests and career goals. Sites include well-baby clinics, prenatal clinics, community health centers, nursing homes, senior citizen centers, facilities for the handicapped, hospitals, military clinics and schools, day care centers, public health departments, and research centers. (DHYG 423 is optional.)

DHYG 414. Educational Program Development (2). Students explore various ways in which effective instructional skills may contribute to a career in dental hygiene. Learning experiences are designed to enable the student to develop these skills and to project their application in such areas as public school systems, community health programs, higher education, and consumer education.

DHYG 416. Introduction to Oral Health Research (3).

This course is designed to acquaint students with research methodology and its application to the dental hygiene profession. Emphasis is placed on heightening student awareness of the need for dental hygiene research, developing student capabilities to identify research problems, and design and execute meaningful research studies, and enabling students to accurately appraise the quality of research reports.



DHYG 418 or 428 Practicum (1-4); DHYG 424. Special Topics (1). Students pursue in-depth topics of special interest. The program of study is designed by each student and approved by faculty before the beginning of the course. The study program may relate to an area of interest in clinical dental hygiene, education, management or research and may consist of special reading assignments, reports, conferences, and possibly clinic, laboratory, or extramural experience. (Optional)

DHYG 425. Issues in Health Care Delivery (2). Students examine and analyze the issues that affect the broad spectrum of health care delivery. Topics include ethics and professional responsibility, inequities in health care delivery, and health care legislation. Students present table clinics or research posters on timely oral health topics or deliver reports on women's health issues.

DHYG 427. Health Care Management (2). Students are introduced to skills essential for effective management in their personal and professional roles. Areas of emphasis include the dental team environment, managerial planning and decision-making, fiscal issues, career planning, resumes, and interviewing. Management principles are applied to a variety of oral health care delivery settings.

DEGREE COMPLETION BACCALAUREATE PROGRAM

The degree completion program provides the opportunity for registered dental hygienists who hold a certificate or associate degree to pursue studies leading to a Bachelor of Science degree in dental hygiene. The curriculum is designed in two phases of full- or part-time study to meet each individual's academic, clinical, and career interests.

PROGRAM REQUIREMENTS

Phase I: General Requirements. Phase I consists of the student's previous dental hygiene courses and general course requirements, totaling 90 semester credits. General course requirements for the baccalaureate degree may be taken at any one of the three University of Maryland campuses (College Park, Baltimore County, or Eastern Shore) or at another accredited college or university. The courses required are the same as those listed in the Preprofessional Program freshman and sophomore years, except only one chemistry and one anatomy/physiology course is required. Transfer credits are granted for general requirements and dental hygiene courses from an accredited program. To obtain transfer credit, students must attain a grade of C or better in all courses taken at an institution outside the University System of Maryland. Consultation with the degree completion program director regarding transfer courses is recommended.

Phase II: Degree Completion Requirements. The degree completion program at the Dental School consists of two core seminars totaling four credit hours (DHYG 410, 420); senior level didactic courses, totaling 12 credit hours (DHYG 412, 414, 416, 424 [optional], 425, and 427); two hours of practicum courses (DHYG 418-428); and 12 credit hours of approved academic electives, generally taken at another campus of the University of Maryland. Additional variable credit practicum courses may be taken for elective credit.

CURRICULUM PLANNING

Registered dental hygienists should submit to the degree completion program director transcripts from their dental hygiene program and all other institutions attended, so that transfer credits may be evaluated and a program developed to satisfy remaining requirements. Students should meet regularly with the advisor to ensure appropriate course scheduling in Phase I.

APPLICATION AND ADMISSION PROCEDURES

In addition to meeting the general course requirements, the student applying for admission to the degree completion program at the Dental School must:

1. Be a graduate of an accredited dental hygiene program.
2. Be licensed in at least one state.
3. Have a minimum grade point average of 2.5.

Applications for admission may be obtained from the Office of Admissions and Career Development, Dental School, University of Maryland, 650 West Baltimore St., Room 6402, Baltimore, MD 21201. Applications should be received no later than June 1 before the fall semester for which the student wishes to enroll.

Enrollment at another University of Maryland campus does not guarantee admission to the degree completion program at the Dental School. Enrollment in the degree completion program is limited.

Students who are offered admission will be required to send a deposit of \$200 with a letter of intent to enroll. This deposit will be credited toward tuition at registration, but will not be refunded in the event of failure to enroll.

STUDENT EXPENSES

Tuition and fees are listed on the Web at <http://www.fincsvc.umaryland.edu/sa/images/alliedhealth.pdf>. The charges for instrument service, supplies, and uniforms are not applicable for degree completion students. Textbook costs would be considerably lower than listed.

GRADUATION REQUIREMENTS

One hundred twenty (120) semester credit hours are required for the Bachelor of Science degree in the degree completion dental hygiene program. The last 30 credit hours toward the baccalaureate degree must be taken at the University of Maryland. Courses not offered at the Dental School may be taken at another University of Maryland campus.

COURSES

[DHYG 412](#), [DHYG 414](#), [DHYG 416](#), [DHYG 424](#), [DHYG 425](#), and [DHYG 427](#) .

DHYG 410-420. Seminar in Dental Hygiene (3-1) (degree completion only). Reinforcement, updating and expansion of dental hygiene professional skills, knowledge, and attitudes. Topic areas that are explored through seminar, laboratory, and extramural formats include dental public health, preventive dentistry, process of dental hygiene care and options for dental hygiene practice. Emphasis is placed on developing oral and written communication skills necessary for the dental hygienist in a variety of health care, educational, research or community settings.

DHYG 418-428. Dental Hygiene Practicum (1-4/1-4)*. Individually designed didactic and/or clinical experiences in a special area of dental hygiene clinical practice, teaching, community dental health, or research.

*Elective variable credit course that requires approval of degree completion program director.

Advanced Education Programs

APPLICATION/ADMISSION

All applicants for specialty and residency programs must hold the DDS, DMD, or equivalent degree, and must give evidence of high scholastic achievement. All programs require a supplemental application, official transcripts of undergraduate and dental school coursework and three letters of recommendation. Requirements regarding National Board examinations vary by program. Applicants who are not citizens or permanent residents of the United States must present evidence of mastering English as a foreign language (a minimum score of 550 on the TOEFL examination is required), and must

provide evidence of financial support for their studies. Further, graduates of non-U.S./non-Canadian dental schools may be required to furnish a translation and evaluation, in English, of their academic record by a certified agency. Individual specialty training programs may impose additional requirements as indicated within their program descriptions.

Applications to the programs in advanced education in general dentistry, oral and maxillofacial surgery, orthodontics and pediatric dentistry must be made through the Postdoctoral Application Support Service (PASS). Applications to programs in endodontics, orthodontics, periodontics and prosthodontics should be made directly to the Dental School. Applications for the program in oral and maxillofacial pathology are submitted to the graduate school.

To be interviewed and considered for admission to an advanced education program in general dentistry, oral and maxillofacial surgery, orthodontics and pediatric dentistry, applicants must participate in the National Matching Service.

The endodontics, periodontics, and prosthodontics programs do not participate in the National Matching Service and make offers directly to applicants.

Students intending to pursue a Master of Science or Doctor of Philosophy degree must submit a separate application to the Graduate School.

The application deadlines vary by program.

Before applying to the Dental School, potential applicants should note the University of Maryland policy concerning prevention and management of student and employee infection with bloodborne pathogens and the Dental School's technical standards for admission and matriculation. In addition, although the admissions process does not include questions concerning any prior criminal activity, individuals who may have had a prior or subsequent conviction or nolo contendere plea for a felony may encounter denial or removal of licensure.

All requests for applications and additional information pertaining to specialty and residency programs should be directed to

Advanced Dental Education Programs
Office of Admissions and Career Advancement, Rm. 6407
Baltimore College of Dental Surgery
Dental School, University of Maryland
650 West Baltimore Street
Baltimore, MD 21201

The Dental School's Web home page provides current information about all programs and admissions requirements.

All requests for applications or information pertaining to the graduate programs should be directed to

University of Maryland Graduate School Baltimore
621 West Lombard Street, Room 336

Baltimore, MD 21201

SPECIALTY PROGRAMS

GENERAL INFORMATION

Advanced Specialty Education certificate programs are designed to provide successful candidates eligibility for examination by the appropriate specialty boards. Programs of 24 months each are offered in endodontics and pediatric dentistry. The programs in orthodontics, periodontics, prosthodontics, and oral and maxillofacial pathology are 36 months' duration; and the oral and maxillofacial surgery residency/MD program extends over a period of six years.

Qualified applicants for advanced specialty education programs may seek dual enrollment as candidates in combined certificate/degree programs. Successful candidates receive a certificate in a clinical specialty from the Dental School and a Master of Science in Biomedical Sciences or the PhD in Biomedical Sciences or Oral and Maxillofacial Pathology from the University of Maryland Graduate School. All programs are accredited by the Commission on Dental Accreditation, the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education.

FACILITIES

All specialty programs except oral and maxillofacial surgery use individual operatories on the third floor of the Dental School in an area designated Advanced Specialty Clinics. Programs provide conference rooms for students and maintain appropriate laboratory and research facilities. Students have access to the Health Sciences and Human Services Library on the campus as well as the National Library of Medicine in Bethesda, Md. Also available within the Dental School is an Independent Learning Center where students may use materials in a variety of media. The program in oral and maxillofacial surgery is based in the University of Maryland Medical Center, a large metropolitan teaching hospital adjacent to the Dental School.

FINANCIAL SUPPORT

Stipends for postgraduate candidates may be available on a limited basis. Information regarding the extent of these stipends can be obtained by writing to individual program directors.

REQUIREMENTS FOR CERTIFICATION

A certificate of training is awarded to candidates who have satisfied all requirements of the program and have paid all debts to the University. Selected students in joint certificate and graduate programs who enter into a training agreement are required to complete the requirements of both programs before a certificate is awarded.

ACADEMIC STANDARDS FOR CERTIFICATION

In the evaluation of postgraduate student performance, the following letter grades are used:



- A, B, C passing
- F failing
- I incomplete

Students must maintain an overall B average. A course in which a grade of less than B is received may be repeated at the discretion of the department. The grade in the repeated course, whether it is higher or lower than the original grade, replaces the original grade. All failing and incomplete grades must be removed before a certificate is conferred. A course with an incomplete grade does not have to be repeated, but the requirements of the course must be satisfied before a certificate is conferred. Further, students must demonstrate clinical competency in all areas of patient management and treatment. Any student who fails to meet these academic standards in a given semester may not be permitted to continue in the program.

ENDODONTICS

Objectives

- To provide the endodontic resident with an in-depth background in the basic sciences as related to the discipline and practice of endodontics.
- To provide the resident with appropriate clinical experiences that will result in proficiency in the practice of endodontics.
- To develop the skills necessary for the graduate to become competent in the area of research.
- To inform residents of the necessity and advantages of participation in organized dentistry.
- To develop the knowledge base for graduates to become diplomates of the American Board of Endodontics.
- To prepare residents to seek a career in the private practice of endodontics, research, and/or endodontic education.

Scope of Training

The program integrates both biological and clinical sciences. Lectures, seminars, and literature reviews cover diagnosis, treatment planning, treatment objectives, and a variety of topics related to endodontics and to dentistry in general. Students attend professional meetings and continuing education courses held within the University and in the Baltimore-Washington area.

The heaviest concentration of basic science material is in the first year of study. During that year, the student is expected to choose a research topic and to write a protocol for presentation to the faculty and other graduate students. The results of this research are presented at a special seminar in the last semester of study and, if possible, at a national meeting. Interspersed with the basic science courses are a variety of clinical courses supervised by trained specialists from a variety of backgrounds.

The second year and third years emphasize clinical endodontics including conventional treatment, retreatment, management of emergencies, endodontics and surgery. Residents devote a significant

amount of time and effort to complete their research projects. Also, appropriate time is devoted to clinical teaching during this year.

Site of Training

The major training site is at the Dental School, including the Special Patient Clinic. However, rotations at the Veterans Affairs Medical Center are also included in the Endodontic program.

Number of Positions

Three

Faculty

Full-Time Faculty:

Ashraf F. Fouad, BDS, DDS, MS, Head, Department of of Endodontics, Prosthodontics and Operative Dentistry; Diplomate, American Board of Endodontics; Director, Postgraduate Endodontics

Priya Chand, BDS, MS, Dental School Assistant Professor

M. Lamar Hicks, DDS, MS, Clinical Professor

George T.-J. Huang, DDS, MDS, DSc, Associate Professor

Part-Time Faculty:

Ali Behnia, DDS

Lina Jarboe, DDS

Stanley Klein, DDS

Sunia Lessing, DDS

Mao Lin, DMD, MS

Fernando Meza, DMD

Julian Moiseiwitsch, BDS, PhD

Frederick J. Quarantillo, DDS, MS

Glenn Shermer, DDS

Howard E. Schunick, DDS

Brad Trattner, DDS

Special Admission Guidelines

- High scholastic achievement.
- Clinical experience weighted heavily.
- A personal interview is desirable.

Length of Program

36 months - certificate with master's degree

Curriculum

Year I	Credits
ENDO 558A Graduate Conjoint Seminar	2
ENDO 567A Emergencies in Endodontics	9
ENDO 567B Advanced Case Analysis	2
ENDO 568A Fundamentals of Endodontics	2
ENDO 568B Treatment Planning Seminar	4
ENDO 569A Clinical Endodontics	42
ENDO 569B Endodontic Techniques	3
ENDO 578B Research in Endodontics	6
ENDO 588A Biological Basis of Endodontic Therapy	6
ENDO 589L Topical Literature Review	6
ENDO 598A Current Endodontic Literature	6
ENDO 599A Special Topics	1
DBMS 605 Scientific Method/Writing/Ethics	1
DBMS 608 Intro to OCBS	1
DBMS 618 Special Problems in DBMS/Microbiology	1
DBMS 618 Special Topics in Immunology	1
DBMS 625 Mammalian Oral Histology and Embryology	2
DBMS 628 Head and Neck Anatomy	2
DBMS 633 Anatomy Temporomandibular Joint	1
DBMS 636 Pharmacology of Anesthetic Drugs	3
DBMS 638 Biostatistics	3
DBMS 636 Pharmacology of Anesthetic Drugs	3
DBMS 642 Nociception, Pain, and Analgesia	2
DBMS 656 Dental Toxicology/Therapeutics	2
DPAT 612 Oral Pathology Problems	2
DPAT 613 Oral Pathology Problems	2
DSUR 569B Physical Diagnosis	4
Year II	Credits
ENDO 558C Graduate Conjoint Seminar	2
ENDO 567D Advanced Case Analysis	2
ENDO 568C Clinical Emergencies in Endodontics	12

ENDO 568D	Treatment Planning Seminar	4
ENDO 569C	Advanced Clinical Endodontics	36
ENDO 569D	Pedagogical Techniques in Endodontics	2
ENDO 578D	Research in Endodontics	6
ENDO 588C	Biological Basis of Endodontic Therapy	6
ENDO 589M	Topical Literature Review	6
ENDO 598C	Current Endodontic Literature	6
ENDO 599	Special Topics	1

Year III

ENDO 558E	Graduate Conjoint Seminar	2
ENDO 567E	Advanced Case Analysis	2
ENDO 568E	Treatment Planning Seminar	4
ENDO 569E	Advanced Clinical Endodontics	36
ENDO 577E	Pedagogical Techniques in Endodontics	2
ENDO 578E	Research in Endodontics	6
ENDO 588E	Biological Basis of Endodontic Therapy	6
ENDO 589E	Topical Literature Review	6
ENDO 598E	Current Endodontic Literature	6

ORAL AND MAXILLOFACIAL SURGERY

Objectives

- To prepare individuals for a career in the specialty of oral and maxillofacial surgery.
- To fulfill educational requirements for specialty certification by the American Board of Oral and Maxillofacial Surgery.
- To fulfill the requirements for specialty training of the Commission on Dental Accreditation.
- To fulfill fellowship requirements set forth by the American Association of Oral and Maxillofacial Surgeons.
- To fulfill the educational requirements for the MD degree and licensure.
- To fulfill the educational requirements for general surgery internship program completion.

Scope of Training

During the first year, students enter residency training in oral and maxillofacial surgery at the University of Maryland Medical System and University of Maryland Dental School. Students participate in clinical exodontia procedures and other dentoalveolar surgery. They attend patient rounds, oral pathology seminars, a course in physical diagnosis with the second-year medical students, combined surgical-

orthodontic conferences, implant conferences, and they are assigned a two-month, off-service rotation with the Department of Anesthesiology at the University of Maryland Medical System.

During the second and third years of the residency, the oral and maxillofacial surgery residents will enter the University of Maryland School of Medicine at the level of the third year of medical school. The residents are required to pass the U.S. Medical Licensing Examination (USMLE) Step I before entering medical school. The residents are undergraduate medical students for the next two years (third and fourth year of medical school). At the end of the third year of the program the trainees will graduate with an MD degree after they have successfully achieved all medical school requirements.

In the fourth year of residency, the resident will enter a one-year internship in general surgery at the University of Maryland School of Medicine. This one-year period of training will qualify the resident to obtain medical licensure in most states. During this period, the trainee will gain experience in both general medical management of the surgical patient and in principles of general surgery with rotations in trauma surgery, plastic surgery, neurosurgery, and surgical intensive care.

The fifth year of the residency program is at University of Maryland Medical System and the Dental School. Graduate instruction in head and neck anatomy, advanced oral pathology, pharmacology, physiology, and microbiology is required. Fifth-year residents perform complex ambulatory surgery in the surgery clinics of the Dental School and University of Maryland Medical Center. In addition, fifth-year residents are introduced to major maxillofacial surgery procedures in the operating room. Trainees attend all departmental conferences and receive advanced instruction in oral and maxillofacial surgery. Research is considered an important factor, and all trainees are required to participate in a research project during the fifth year, suitable for presentation at the American Association of Oral & Maxillofacial Surgeons annual meeting and eventual publication. Fifth-year residents generally attend at least one regional conference of interest to oral and maxillofacial surgery.

The sixth year of residency is at the University of Maryland Medical System, the Shock Trauma Center and affiliated hospitals. The chief residents are responsible for the direction of the surgical team on their service and for the care of hospitalized patients. The chief resident functions as first assistant for all of the operating room surgical procedures performed during the year. During this year, residents participate in all conferences held by the department and continue their research projects.

Site of Training

During the course of the program, students will rotate through training sites at the Dental School, University of Maryland Medical System, Shock Trauma Center, and the intramural faculty practice. Optional off-service rotation to other institutions in the United States will be considered on an individual basis.

Facilities

Training sites are all fully equipped for the performance of both routine and complex oral and maxillofacial surgical assessment and management.

Number of Positions

Two residency positions per year

Full-Time Faculty

Robert A. Ord, DDS, MD, FRCS, FACS, *Chair, Diplomate, American Board of Oral-Maxillofacial Surgeons*

John F. Caccamese, DMD, MD, *Program Director, Diplomate, American Board of Oral-Maxillofacial Surgeons*

Stewart A. Bergman, DDS, MS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Domenick P. Coletti, DDS, MD, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Richard Nessif, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Andrew Salama, DDS, MD, *Board Eligible, American Board of Oral-Maxillofacial Surgeons*

Cornelius J. Sullivan, DMD, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Part-Time Faculty

Steven Ashman, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Ziad Batrouni, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Larry Bryant, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Vincent DiFabio, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

John Emmett, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Gerald Gaston, DDS, PhD, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Paul German, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Katherine Hashimoto, DDS

Julius Hyatt, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Bryan Keegan, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Irving Raksin, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Saul Schweber, DDS, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Cornelius Sullivan, DMD, *Diplomate, American Board of Oral-Maxillofacial Surgeons*

Special Admission Guidelines

- Applicants should rank in the upper 20 percent of their dental class.
- Letter of recommendation from dental school chairperson of oral and maxillofacial surgery.
- A formal interview is required before acceptance of candidates.
- In accordance with University of Maryland School of Medicine policy, applicants to the combined OMS-MD program must be U.S. citizens.

Length of Program

Six years (72 months), including two years at the University of Maryland School of Medicine, and one year in general surgery internship at the University of Maryland Medical System.

Curriculum

Year I	Credits
DSUR 568A Oral and Maxillofacial Surgical Rounds	18
DSUR 568B Operating Room Advanced Oral and Maxillofacial Surgery	30
DSUR 569A Oral and Maxillofacial Surgical Grand Rounds	2
DSUR 569B Physical Diagnosis	4
DSUR 578A Patient Care Record Keeping Review	7
DSUR 579A Current Literature Review	3
DSUR 588A Orthognathic Surgery Seminar	3
DSUR 589A Special Topics Seminar	3
DSUR 598A Clinical Oral and Maxillofacial Surgery	30
DSUR 601 Clinical Anesthesiology	6
DSUR 609 Special Problems	4
DSUR 631 Craniofacial I	2
DSUR 799 Research (MS candidates only)	2
DPAT 612 Special Problems in Oral Pathology	2
DPAT 613 Special Problems in Oral Pathology	2

Years II-III

School of Medicine Clinical Rotations

Year IV

Residency Training in General Surgery

Year V	Credits
DSUR 568C Oral and Maxillofacial Surgical Rounds	18
DSUR 569C Oral and Maxillofacial Surgical Grand Rounds	2
DSUR 578C Patient Care and Record Keeping	7
DSUR 579C Current Literature Review	3
DSUR 588C Orthognathic Surgery Seminar	3
DSUR 589C Special Topics Seminar	3
DSUR 598C Advanced Clinical Oral and Maxillofacial Surgery	18

DSUR 605	Surgical Anatomy	2
DSUR 609	Special Problems	4
DANA 628	Advanced Head and Neck Anatomy	4
DOCB 618	Special Problems in OCBS/Microbiology	2
DPAT 616	Pathology of Oral Lesions	3
DPAT 617	Pathology of Oral Lesions II	3
DOCB 636	Pharmacology of Anesthetic Drugs	3
Year VI		Credits
DSUR 568E	Oral and Maxillofacial Surgical Rounds	18
DSUR 568F	Operating Room Advanced Oral and Maxillofacial Surgery	30
DSUR 569E	Oral and Maxillofacial Surgical Grand Rounds	2
DSUR 578E	Patient Care Record Keeping Review	7
DSUR 579E	Current Literature Review	3
DSUR 588E	Orthognathic Surgery Seminar	3
DSUR 589E	Special Topics Seminar	3
DSUR 568G	Oral and Maxillofacial Surgical Rounds	18
DSUR 568H	Operating Room Advanced Oral and Maxillofacial Surgery	30
DSUR 569G	Oral and Maxillofacial Surgical Grand Rounds	2
DSUR 578G	Patient Care Record Keeping Review	7
DSUR 579G	Current Literature Review	3
DSUR 588G	Orthognathic Surgery Seminar	3
DSUR 589G	Special Topics Seminar	3
DSUR 609	Special Problems	4

ORAL AND MAXILLOFACIAL PATHOLOGY

Refer to graduate programs.

ORTHODONTICS

Objectives

- To prepare students for a career as an orthodontist in clinical practice and/or academics.
- To allow individuals to obtain substantial experience in clinical care, teaching and research.
- To fulfill the educational requirements for specialty certification by the American Board of Orthodontics.

Scope of Training

Students gain experience in the treatment of patients with all types of dentofacial deformities. A broad mastery of alternative techniques with different variations of the Edgewise appliance is emphasized, along with modern forms of removable appliances. Treatment is provided for adults, adolescents, and children. Students also provide orthodontic treatment in complex rehabilitation cases in coordination with graduate students in prosthodontics, periodontics, endodontics, and pediatric dentistry. Surgical orthognathic cases are treated in conjunction with oral and maxillofacial surgery residents at the University of Maryland Medical System.

Through an extensive series of lectures, seminars, and case conferences, a comprehensive didactic background in relevant basic sciences and clinical orthodontics is provided. Each student, working with faculty supervisors chosen from the Dental School and University, must complete an original research project. While pursuing a certificate in orthodontics, students are enrolled in a Master of Science degree program in biomedical sciences. Courses taken for the master's degree also satisfy some certificate requirements. Students also serve as instructors in the predoctoral didactic, pre-clinical and clinical programs.

Site of Training

Most of the clinical and didactic program takes place within the Dental School. The clinical program is conducted in a modern, eighteen chair clinic. Off-campus experiences include attendance at the craniofacial anomalies clinic at James Lawrence Kernan Hospital and The Johns Hopkins Hospital. The program brings in guest lecturers, and students attend continuing education courses sponsored by the Maryland State Society of Orthodontics, The Middle Atlantic Society of Orthodontists, and the American Association of Orthodontists

Number of Positions

Four

Faculty

Stuart D. Josell, DMD, M Dent Sc, *Chair, Postgraduate Program Director*

William M. Davidson, DMD, PhD, *Diplomate, American Board of Orthodontics*

Byron Bonebreak, DDS

Ronald S. Branoff, DDS, MSD

T. Scott Jenkins, DDS

Marston Jones, DDS

Morton Katz, DDS, *Diplomate, American Board of Orthodontics*

Martin Lang, DDS

Phillip S. Markin, DDS, MS, *Diplomate, American Board of Orthodontics*

Frederick G. Preis, DDS, *Diplomate, American Board of Orthodontics*

Constance G. Rubler, DDS, MS, *Diplomate, American Board of Orthodontics*

Viney Saini, DDS, *Diplomate, American Board of Orthodontics*

Robert T. Scott, DDS, *Diplomate, American Board of Orthodontics*
 Steven M. Siegel, DMD
 Elizabeth Spannhake, *Diplomate, American Board of Orthodontics*
 Maureen Stone, PhD
 Edgar Sweren, DDS, *Diplomate, American Board of Orthodontics*
 Alan S. Weisberg, DDS, *Diplomate, American Board of Orthodontics*
 Robert E. Williams, DMD, MS, *Diplomate, American Board of Orthodontics*

Length of Program

Three years

Curriculum

Year I	Credits
ORTH 567A Treatment Planning Seminar	1
ORTH 568A Diagnosis	4
ORTH 569A Clinic	29
ORTH 576A Typodont	1
ORTH 577A Laboratory Technique	1
ORTH 578A Case Presentation Seminar	3
ORTH 579A Research	7
ORTH 586A Literature Review	1
ORTH 587A Mixed Dentition	2
ORTH 588 Biomechanics	2
ORTH 589A Technique Seminars	11
ORTH 597A Ortho-Surgery Seminar	2
ORTH 598A Applied Teaching	3
PEDS 598A Development of Dentition	2
DBMS 618 Special Topics in Microbiology	2
DBMS 633 Anatomy Temporomandibular Joint	1
DBMS 638 Biostatistics	3
DBMS 619 OCBS Seminar	1
DPAT 612 Special Problems in Oral Pathology	1
Year II	Credits
ORTH 568C Cleft Palate Clinic	4
ORTH 569C Clinic	32

ORTH 578C	Case Presentation Seminars	3
ORTH 579C	Research	9
PERI 579B	Adult Tooth Movement	3
ORTH 586C	Literature Review	1
ORTH 589C	Technique Seminars	5
ORTH 597C	Ortho-Surgery Seminar	2
ORTH 598C	Applied Teaching	5
DBMS 618	Special Topics in Anatomy (Sec 02)	1
DBMS 618	Special Topics in Physiology (Sec 06)	1
DBMS 628	Advanced Head & Neck Anatomy	2
DBMS 642	Nociception/Pain Analgesia	2
DOCB 799	MS Research	2
	Graduate Electives	3

Year III		Credits
ORTH 569E	Clinic	20
ORTH 578E	Case Presentation Seminar	3
ORTH 579E	Research	15
ORTH 586E	Literature Review	1
ORTH 587C	Practice Management	2
ORTH 597E	Ortho-Surgery Seminar	2
ORTH 598E	Applied Teaching	15
DBMS 618	Special Topics in Physiology (Sec 06)	1
DBMS 799	MS Research	4

PEDIATRIC DENTISTRY

Objectives

- To prepare individuals for careers in patient care, public health, or academics.
- To develop clinical skills in treating normal children with advanced dental needs, as well as growth and development or handicapping conditions.
- To prepare individuals to practice effectively in the hospital environment.
- To fulfill the educational requirements for specialty certification by the American Board of Pediatric Dentistry.

Scope of Training

Academic course work occupies approximately 20 percent of the postdoctoral students' time and includes case conferences, research methods, orthodontic diagnosis, laboratory technique, literature review, oral pathology, general anesthesia rotation, pediatrics rotation, applied teaching, etc. The residency is based at the Dental School and the University Hospital, with additional experience at Kernan Hospital. Residents provide comprehensive dental care to their assigned patients as well as have emergency rotations. Residents also participate in conferences with the interdisciplinary medical staffs. Each student is required to complete a research project and prepare two documented cases similar to that required for Board certification. The resident receives a certificate and meets the eligibility requirements for the American Board of Pediatric Dentistry. This program combined with a Master's degree, requiring an additional year, is intended for the clinician who wishes to pursue a career as a teacher/researcher.

Site of Training

The primary site of training is the Dental School. Other sites include the University of Maryland, Johns Hopkins and Kernan Hospital.

Facilities

In addition to using the individual private operatories in the Dental School, each postdoctoral student is assigned approximately 20 percent of their time to Kernan's Hospital. The University Hospital and Kernan Hospital are used for rehabilitative dental care to patients receiving general anesthetics.

Number of Positions

Five

Faculty

Norman Tinanoff, DDS, MS, *Chair*

Jillian A. Easton, BDS, MS, *Program Director, Diplomate, American Board of Pediatric Dentistry*

Ronald Abrams, DMD, MS

Ronald Ackerman, DDS

Sophia Balis, DDS

James Coll, DMD, MS, *Diplomate, American Board of Pediatric Dentistry*

B. Casey Crafton, DDS, MS, JD, *Diplomate, American Board of Pediatric Dentistry*

Edward Ginsberg, DDS, *Diplomate, American Board of Pediatric Dentistry*

Harold Goodman, DMD, MPH

Stuart Josell, DMD, M Dent Sc

Suzan Miller, DDS

Glenn Minah, DDS, MS, PhD

David Owen, DDS, AM

Earle Schulz, DDS, MS, *Diplomate, American Board of Pediatric Dentistry* (Dental Director, Kernan Hospital)

Clemencia Vargas, DDS, PhD

Alejandra Villasenor, DDS

Maria Rosa Watson, DDS, MPH, MS, DPH

Special Admission Guidelines

- Documentation of scholastic achievement and motivation
- Recommendations from individuals well acquainted with the candidate
- Professional experience
- Personal interview

Length of Program

Two years (3 years for Master's degree)

Curriculum

Year I	Credits
PEDS 567A Pediatric Dentistry Orientation	4
PEDS 568A Research Methodology	3
PEDS 569A Research	3
PEDS 578A Case Conference Seminar	4
PEDS 579A Special Topics Seminar	6
PEDS 589A Clinical Pedodontics	36
PEDS 598A Development of the Dentition	2
ORTH 567A Treatment Planning Seminar	1
ORTH 568A Diagnosis (Data Base)	4
ORTH 586A Literature Review	2
DBMS 619 Special Topics in OCBS/Microbiology	1
DBMS 625 Mammalian Oral Histology and Embryology	2
DBMS 638 Biostatistics	3
DBMS 656 Dental Toxicology	2
DPAT 612 Special Problems/Oral Pathology	2
DPAT 613 Special Problems/Oral Pathology	2

Year II	Credits
PEDS 568D General Anesthesia	4
PEDS 569C Research	7
PEDS 578C Case Conference Seminar	4
PEDS 579C Special Topics Seminar	3
PEDS 588C Literature Review Seminar	4
PEDS 589C Clinical Pedodontics	40
PEDS 598C Applied Teaching	2

PERIODONTICS

Objectives

- Graduate clinicians who demonstrate proficiency with the diagnosis, treatment planning, and comprehensive treatment of periodontal diseases and dental implants.
- Graduate clinicians who demonstrate proficiency with the management and the long-term supportive therapy of periodontal and implant patients.
- Provide graduates with a strong foundation in the scientific basis for specialty practice in periodontics, with particular emphasis on the critical use of current literature and knowledge.
- Prepare clinicians to become Diplomates of the American Board of Periodontology.
- Provide graduates with a foundation in the basic sciences sufficient to understand current literature and evaluate future advances relevant to the clinical practice of periodontics.
- Prepare clinicians to work in cooperation with general practitioners and other health care specialists in the delivery of optimal comprehensive dental care.
- Graduate clinicians who discover, preserve, and disseminate knowledge as well as contribute to the profession, education, and society.

Scope of Training

The advanced dental education program in Periodontics is designed to train residents in all facets of periodontology and to prepare them to become Diplomates of the American Board of Periodontology. The program is based in a core curriculum of traditional periodontics that includes training in all aspects of diagnosis, prognosis, and treatment planning. Residents become proficient in all currently accepted modalities of surgical and non-surgical therapy. The program provides a strong foundation in the scientific basis for specialty practice in periodontics, with particular emphasis on the critical use of current literature and knowledge. Diversity in the training of faculty exposes each resident to various concepts of conventional surgical and non-surgical therapy. Residents gain experience in managing a periodontal maintenance program. Extensive training is provided in implantology which includes surgical preparation of the implant site and placement of implants. Clinical experiences also include contemporary bone regeneration techniques for alveolar ridge and maxillary sinus augmentation. Postgraduate students receive in-depth instruction in all areas of conscious sedation and gain

experience in the administration of conscious sedation, including clinical exposure to intravenous sedation.

Residents receive experience in treating patients with all categories of periodontal diseases, particularly those patients with advanced stages of the diseases. Clinical training in oral medicine includes periodontal treatment of older adults and medically compromised patients as well as the management of non-plaque related periodontal diseases and disorders. Lectures, seminars, and conferences are held in diagnosis, prognosis, and treatment planning, surgical techniques, periodontal maintenance, implantology, and practice management. Seminars are conducted with other specialties to interrelate all fields of dentistry and medicine; with guest consultants who are experts in their field; and with postdoctoral students in periodontics from other teaching institutions. During assignments at the Baltimore Veterans Affairs Medical Center, residents learn diagnostic methods in laboratory medicine. Residents lecture and provide clinical supervision to pre-doctoral dental students. The preparation and documentation of cases suitable for submission to the American Board of Periodontology is a requirement for graduation from the program.

Residents also must apply and register as graduate students in the Master of Science program in Biomedical Sciences through the Graduate School, University of Maryland, Baltimore. Graduate coursework completed as part of the specialty program fulfills course requirements for this degree program. Residents are required to conduct a research project and to complete a thesis in partial fulfillment of the requirements for the M.S degree and specialty program. Graduates of the periodontics program receive a certificate in Periodontics and the M.S. in Biomedical Sciences.

The Baltimore-Washington area is rich in institutions for clinical and basic science expertise, and residents are given opportunities to interact with these valuable resources.

Site of Training

The major site of training is the Dental School. Coursework also is taken at the Veterans Affairs Medical Center.

Number of Positions

Three

Faculty

Mark A. Reynolds, DDS, PhD, Chair, *Program Director, Diplomate, American Board of Periodontology*

Mary Beth Aichelmann-Reidy, DDS, *Diplomate, American Board of Periodontology*

Grishondra Branch-Mays, DDS, MS, *Diplomate, American Board of Periodontology*

Sylvan Feldman, DDS, *Diplomate, American Board of Periodontology*

Bryan Fitzgerald, DDS, *Diplomate, American Board of Periodontology*

John C. Gunsolley, DDS, MS, *Diplomate, American Board of Periodontology*

Lawrence Halpert, DDS

Daniel Karlin, DDS, *Diplomate, American Board of Periodontology*

James Kassolis, DDS, *Diplomate, American Board of Periodontology*
 Barbara Lesco, DDS
 Marvin Leventer, DDS, *Diplomate, American Dental Board of Anesthesiology*
 Sarah Park, DDS, MS, *Diplomate, American Board of Periodontology*
 Peter Passero, DDS
 Bradley Phillips, DMD, *Diplomate, American Board of Periodontology*
 Paul Rosen, DMD, MS, *Diplomate, American Board of Periodontology*
 Robert Sachs, DDS, MS, *Diplomate, American Board of Periodontology*
 Arnold Sindler, DDS
 John K. Spitznagel Jr., DDS, PhD
 Dennis Winson, DDS, *Diplomate, American Board of Periodontology*
 Karl Zeren, DDS, *Diplomate, American Board of Periodontology*
 Robert Zupnik, DDS, MSD, *Diplomate, American Board of Periodontology*

Special Admission Guidelines

- Applicants must have passed Parts I and II National Board Dental Examinations, with an average score of 85 or higher considered competitive.
- Applicants should rank in the upper 20 percent of their dental class.
- An interview is required before acceptance of candidates.

Length of Program

Three years (36 months)

Curriculum

Year I	Credits
PERI 567A Intraoral Photography	1
PERI 568A Diagnosis, Prognosis and Treatment Planning	4
PERI 568B Conjoint Seminars (Implantology)	5
PERI 569B Principles of Occlusion	2
PERI 578A Literature Review	12
PERI 579A Surgical Techniques	6
PERI 579B Adult Tooth Movement	3
PERI 588A Clinic	33
PERI 588B Introduction to Periodontal Therapy and Molecular Biology	3

PERI 589A	Research Methodology	2
DBMS 628	Advanced Head & Neck Anatomy	3
DBMS 625	Mammalian Oral Histology and Embryology	2
DBMS 633	Anatomy Temporomandibular Joint	1
DBMS 638	Biostatistics	3
DBMS 618	Special Topics in OCBS/Microbiology	1
DBMS 622	Immunology and Oral Diseases	3
DPAT 612	Oral Pathology Problems	2
DPAT 613	Oral Pathology Problems	2
DBMS 656	Dental Toxicology	2
DBMS 799	Research	1

Year II

Credits

PERI 568C	Diagnosis, Prognosis and Treatment Planning	4
PERI 568D	Conjoint Seminars (Implantology)	2
PERI 569D	Practice Management	2
PERI 578C	Literature Review	12
PERI 579C	Surgical Techniques	6
PERI 588C	Clinic	31
PERI 598C	Applied Teaching	6
PERI 589D	Conscious Sedation	4
DPAT 616	Advanced Histopathology	3
DPAT 617	Advanced Histopathology	3
DBMS 799	Research	2
DSUR 569	Physical Diagnosis	2
	Laboratory Medicine	

Year III

Credits

PERI 568C	Diagnosis, Prognosis and Treatment Planning	4
PERI 568D	Conjoint Seminars (Implantology)	2
PERI 578E	Literature Review	12
PERI 579C	Surgical Techniques	6
PERI 588E	Clinic	20
DOCB 799	Research	3
	Clinical Pathologic Conferences	
	Anesthesiology Rotation (2005)	

PROSTHODONTICS

Objectives

- To provide a historical perspective of prosthodontics in a manner that will permit and encourage the student to make objective evaluations.
- To provide a comprehensive background of those biologic and allied sciences relevant to diagnosis, planning, and treatment of routine and complex prosthodontic problems.
- To provide clinical treatment experiences in the various aspects of prosthodontics with emphasis upon attainment of skills and judgment in treating complex problems.
- To prepare the candidate for examination by the American Board of Prosthodontics.
- To prepare the candidate for teaching at predoctoral or postgraduate levels.

Scope of Training

Students are trained to manage and treat complex prosthodontic patients, to include implants, maxillofacial, fixed, and removable cases. Lectures, seminars and conferences are held in basic biologic sciences and allied dental sciences related to prosthodontics. Postgraduate students gain experience in teaching as they provide clinical instruction to predoctoral dental students. Training in research methodology is an integral part of the program and culminates as each candidate conducts and presents a research project. A master of science degree is available and encouraged.

Site of Training

Major site of training is the Dental School.

Number of Positions

Three

Faculty

Ashraf Fouad, BDS, DDS, MS, *Chair, Department of Endodontics, Prosthodontics, and Operative Dentistry*

Carl F. Driscoll, DMD, *Program Director, Diplomate, American Board of Prosthodontics*

Marvin L. Baer, DDS, MS, *Diplomate, American Board of Prosthodontics*

Ngoc Chu, DDS

Richard Grisius, DDS, MA, *Diplomate, American Board of Prosthodontics*

Juan Loza, BDS, PhD, *Diplomate, American Board of Prosthodontics*

Radi Masri, BDS, MS, *Diplomate of the American Board of Prosthodontics*

Youssef Obeid, DDS

Flavio H. Rasetto, BDS, MS, *Diplomate, American Board of Prosthodontics*

Michael T. Singer, DDS, MS, *Diplomate, American Board of Prosthodontics*

Michael J. Tabacco, DDS, MS, *Diplomate, American Board of Prosthodontics*

Special Admission Guidelines

- Students must have acceptable scholastic achievement at the predoctoral level.
- Clinical experience is preferred.
- A personal interview is required.
- References are required.

Length of Program

Three years

Curriculum

Year I	Credits
PROS 567A Instructional Methodology	1
PROS 568A Clinical Prosthodontics	32
PROS 569A Literature Review Seminar	6
PROS 578A Treatment Planning Seminar	4
PROS 579A Applied Teaching in Removable Prosthodontics	4
PROS 587A Research	1
PROS 598A Advanced Dental Materials	2
PERI 568B Conjoint Seminars	1
DBMS 608 Introduction to OCBS	2
DBMS 618 Special Topics in OCBS/Microbiology	1
DBMS 625 Mammalian Oral Histology and Embryology	2
DBMS 628 Advanced Head and Neck Anatomy	3
DBMS 633 Anatomy Temporomandibular Joint	1
DBMS 638 Biostatistics	3
DBMS 614 Physiology of Aging	2
DBMS 656 Dental Toxicology/Therapeutics	2
DPAT 612 Oral Pathology Problems	2
DPAT 613 Oral Pathology Problems	2
DBMS 642 Nociception, Pain & Analgesia	2
Year II	Credits
PROS 568C Clinical Prosthodontics	56
PROS 569C Literature Review Seminar	6

PROS 578C Treatment Planning Seminar	4
PROS 579C Applied Teaching in Removable Prosthodontics	4
PROS 588C Research	2
PROS 589C Applied Teaching in Fixed Restorative	4
PROS 597C Board Case Presentation	1
PERI 568D Conjoint Seminars	1
DBMS 631 Oral Motor Function	2
Year III	Credits
PROS 568D Advanced Clinical Prosthodontics	48
PROS 569D Literature Review Seminar	4
PROS 570D Applied Sciences Related to Implant Prosthodontics	4
PROS 578D Treatment Planning Seminar	4

ADVANCED EDUCATION IN GENERAL DENTISTRY RESIDENCY

General Information

Advanced Education in General Dentistry is a one-year residency program with an optional second year of Dental School-based advanced study and practice; a two-year comprehensive program of advanced study with joint matriculation in the Master of Science in Oral Biology program. A PhD program in conjunction with the department of oral and craniofacial biological sciences may also be combined with the Advanced Education in General Dentistry program.

Facilities

The Advanced Education in General Dentistry program operates within the Dental School in its own clinic facility specially designed to include treatment areas as well as associated support areas.

Financial Support

Advanced Education in General Dentistry (AEGD) residents receive graduate medical education (GME) support through a contract with York Hospital, York, PA. In the event GME support is discontinued, the students will receive a stipend from the Dental School. The Dental School waives tuition and fees for courses taken toward the AEGD certificate program; however, students who are simultaneously enrolled in a Masters or PhD program pay for graduate-level courses.

Requirements for Certification

A certificate is awarded to candidates who have satisfied all requirements of the program and have paid all debts to the University. Selected students in joint certificate and graduate programs who enter into a training agreement are required to complete the requirements of both programs before a certificate is awarded.

Academic Standards for Certification

In the evaluation of student performance, the following grades are used:

- H honors - superior
- P pass - satisfactory
- F fail - unsatisfactory
- I incomplete

Students must demonstrate competency in all clinical and nonclinical areas of the program. Any student who fails to do so may not be permitted to continue in the program.

Objectives

- To provide a clinical environment that will improve and reinforce clinical skills and knowledge in the practice of comprehensive general dentistry.
- To provide an opportunity to participate in the management of a simulated private group practice.
- To train the student, under the direction of an attending staff of general dentists and specialists, to prepare complex treatment plans and perform a wide range of clinical procedures.
- To provide experience in patient, personnel, and practice management.

Scope of Training: One-Year Program

The clinical experiences for each student incorporate a broad range of clinical cases and are designed to match specific needs and interests. Faculty assign patients on the basis of type and complexity of treatment required. Students assume the responsibility for total patient treatment and learn to serve as principal coordinator when specialist care is required.

The Advanced Education in General Dentistry environment simulates a private group practice and is one in which students are exposed to new techniques and concepts in patient care. This atmosphere is enhanced by ongoing clinical research in materials and devices, and the clinical treatment of Advanced Education in General Dentistry patients by attending faculty. Chairside dental auxiliaries, full-time hygienists, receptionist/clerks, and financial personnel facilitate the efficient delivery of services.

While students spend 80 percent of their time in the Advanced General Dentistry clinic practice facility, the remaining 20 percent is devoted to seminars that cover all dental specialties. These seminars are presented by senior faculty of the Dental School and private practitioners, as well as by the Advanced Education in General Dentistry faculty. Each student prepares and presents case reports and conducts literature review seminars.

First-year students can apply for an optional second year of training that continues and expands the postgraduate program's clinical and didactic components. Second-year students manage increasingly complex comprehensive care cases, including the placement and restoration of dental implants, and participate in the regular seminar series. In conjunction with the program director, these students also develop an in-depth seminar and literature review program to meet their individual interests and

objectives. Second-year students may also be provided an opportunity to pursue areas of individual clinical and/or didactic concentration one-half day per week; e.g., conscious sedation, special patient care, oral surgery. These additional experiences must be approved by the program director.

Number of Positions: One-Year Program

16

Scope of Training: Two-Year Program

This program pursues the one-year objectives while the curriculum is centered around matriculation in the Master of Science in Oral Biology program offered within the Dental School. The intent is to direct potential careers into education/research, advanced general or specialty practice. At the same time, students treat increasingly more difficult comprehensive care patients, increase their level of independent clinical activity, and improve practice management skills.

Research required for thesis development is usually conducted in a clinical or laboratory setting and offers a wide selection of interest areas such as ongoing materials studies based in restorative and esthetic dentistry, special patients, geriatrics, TMD, and implantology. Additional opportunities may be specifically tailored to provide experiences at extramural training sites, and experience in preclinical and clinical teaching areas may be provided. An additional six months to one year may be necessary beyond the 24-month program to ensure completion of all requirements for the Master of Science in Oral Biology. For those interested, a PhD program is available contingent on acceptance by the program and the Graduate School. Contact the program director if you desire to be considered for this program.

Number of Positions: Two-Year Program

One or two

Site of Training

The Advanced General Dentistry clinic is located on the ground floor of the Dental School. This clinical facility consists of 38 units and all associated support areas such as reception, X-ray, and laboratory and contains state-of-the-art equipment such as a CO2 laser, digital radiography, and air abrasion unit.

Faculty

Douglas M. Barnes, DDS, MS, Director
James C. Gingell, DDS, MS, Associate Director
David L. George, DDS, Assistant Director
Erika Adachi, DDS, MS
Jeffrey Behar, DDS
Mark Choe, DDS
Bryan Fitzgerald, DDS
John Savukinas, DDS
Keith Schmidt, DDS

Nahid Shahry, DDS
Leo V. Trail, DDS, MS

Curriculum - 2006-07

Year I		Credits
DAGD 568A	General Practice Seminar	10
DAGD 569A	Clinical Dental Practice	56
DAGD 578A	Physical Evaluation/Oral Diagnosis	4
DAGD 579A	Special Topics	3
Year II		
DAGD 568B	General Practice Seminar	2
DAGD 569B	Clinical Dental Practice	56

Curriculum - 2007-2008

Year I		Credits
DAGD 568A	General Practice Seminar	10
DAGD 569A	Clinical Dental Practice	56
DAGD 577A	Case Conference Seminar	6
DAGD 567A	Literature Review	2
Year II		
DAGD 568B	General Practice Seminar	2
DAGD 569B	Clinical Dental Practice	56
DAGD 578B	Case Conference Seminar	4
DAGD 579B	Literature Review	2

GRADUATE PROGRAMS

GENERAL INFORMATION

Graduate programs leading to the Doctor of Philosophy (PhD) and Master of Science (MS) degrees are offered as follows:

Biomedical Sciences (PhD; DDS/PhD; Dental Postgraduate Certificate/MS-PhD)

Dental Hygiene (MS)

Oral and Maxillofacial Pathology (MS; PhD)

Special admissions requirements are noted for each graduate program. Persons who meet these requirements may apply for admission to the Graduate School through an online application form at <http://graduate.umaryland.edu/admissions/instructions.html>.

DOCTOR OF PHILOSOPHY IN BIOMEDICAL SCIENCE

The Department of Biomedical Sciences is part of the greater campus community and interacts with graduate programs in the biological and related sciences throughout the University of Maryland System. Students are trained as molecular and cell biologists, neuroscientists, and microbiologists. Since its inception, the program has made significant progress in graduate training, has obtained several major training grants from the National Institutes of Health, and has produced graduates who have taken postdoctoral and teaching positions at prestigious institutions.

The primary graduate program of the department is the PhD degree in biomedical sciences. From the standpoint of general policies and requirement, the program is organized in parallel fashion to other successful doctoral programs on campus. This organization facilitates participation in other campus interdepartmental and interdisciplinary programs (e.g. Neuroscience Program). The PhD degree may be completed with a focus in one of the three research tracks. The major tracks within the department reflect the composition of the basic science faculty and include: molecular and cell biology, infectious diseases and immunology, and neuroscience. The principal goals of scholarly activities within the PhD program are to increase the knowledge of the students and prepare them to become independent researchers.

Core Curriculum

All students, regardless of their degree objectives, are required to follow a small but important interdisciplinary core curriculum. The core is designed to insure that all students are given a firm grounding in scientific methods and experimental design and introduce them to ethical issues in the conduct of science. In addition the core provides students with an opportunity to familiarize themselves with research opportunities in the department. The core courses include:

Course		Credits
DBMS 608	Introduction to Biomedical Sciences	1
DBMS 605	The Scientific Method, Scientific Writing, and Ethics	1
DBMS 638	*Biostatistics	3

*Depending upon the research track selected by the student, this requirement may be met by taking either NACS 630 Fundamentals of Biostatistics (Neuroscience track) or PREV 620 Principles of Biostatistics (Molecular and Cell Biology Track).

In addition to the core courses, all students in the PhD program are required to take four credit hours of seminar and an additional 12 credit hours of dissertation research. Students in the MS program are required to complete 6 hours of thesis research. Additional credit hours to meet the requirements for the PhD and the MS degree vary within each track. More information about course requirements may be found in the track description

Upon completion of courses, students either take preliminary examinations for admission to candidacy for the PhD degree or complete their MS thesis research. After successful completion of the preliminary examinations and admission to candidacy, PhD and combined degree students direct their efforts toward research and thesis preparation.

Research Tracks

Infectious Disease and Immunology

The campus-wide affiliations of members of this track are Graduate-School-based programs in microbiology, biochemistry, and molecular biology. In addition to the 6-hour core, students are required to take Advanced General Microbiology (DBMS 650 and 651), 4 credit hours of seminar, and 12 credits of dissertation research. Additional courses will be defined by the faculty affiliated with the infectious disease and immunology track. Additional elective courses may be selected from the Graduate Catalog with the recommendation of the student's academic or research advisor. The IDI track includes facilities for electron microscopy and provide research opportunities in areas such as molecular pathogenesis, regulation of gene expression, biofilm formation and bacteriophages.

Molecular and Cell Biology

The campus-wide affiliations of faculty members in this track include Graduate-School-based programs in physiology, biochemistry, molecular and cell biology, and pharmacology. In addition to the 6-hour core, the student is required to take Introduction to Biochemistry and Molecular Biology (MBIC 608), Fundamentals of Molecular Biology (MMCB602), Fundamentals of Cell Biology (MMCB601), 4 credit hours of seminar, and 12 credits of dissertation research. The molecular and cell biology track provides a range of molecular and cell biology research areas, and includes preparative ultracentrifugation, gene cloning and sequencing, and a modern animal care facility. Research in this track is also supported by a campus Biopolymer Laboratory that provides peptide and oligonucleotide synthesis and nucleic acid and peptide sequencing. Students in this track have access to state-of-the-art computer facilities and a comprehensive Health Sciences Library.

Neuroscience

Faculty affiliations in the neuroscience track are primarily through the campus-wide Neuroscience Program which consists of over 100 faculty. The neuroscience track of the department offers a broad-based training program in Integrative Neuroscience. Participating faculty have well-funded research laboratories. A major focus of research in this is the study of sensory processing including pain, touch, and proprioception. Others are pursuing studies of sensorimotor integration, motor control systems, and higher cognitive processes. Anatomical, physiological, behavioral, and molecular techniques are employed to gain a better understanding of how the nervous system processes changes in environmental stimuli, and how they affect behavior. For students with a clinical orientation, there are laboratories for psychophysical studies and assessment of treatment modalities for pain relief in humans. Faculty employ immunocytochemistry, in situ hybridization, electron microscopy, computer image processing, and other contemporary methodologies. Their areas of research expertise relate to the functional and developmental morphology of the oral region and to brain processes underlying sensation and motor control. Students are required to take Introduction to Neuroscience (NACS 641), 4 credit of seminar, and 12 credits of dissertation research. Additional required courses will be defined by

the faculty affiliated with the Neuroscience Track. Elective course work may be taken from the other tracks or other appropriate 600 or 700 level courses in the Graduate School with the approval of the student's academic or research advisor.

Courses

DBMS 604. Current Trends in Cellular and Molecular Biology of Oral Tissues (1). Presentations by students, faculty members, and guest speakers consist of original research work and related issues and trends in molecular biology research of oral tissues. The course emphasizes new methods in molecular and cell biology.

DBMS 605. Scientific Method, Writing, and Ethics (1). Lectures cover the scientific method, including the relationship of empirical vs. rational approaches. The course emphasizes the formulation of hypothesis and experimental design and critical review of literature. The course also includes ethical issues and writing styles for scientific papers and research grant proposals.

DBMS 606. General Dental Pharmacology and Therapeutics (3). The course covers material presented to predoctoral dental students and emphasizes general pharmacologic principles and drugs used in dental practice. Students complete a summer research project or term paper.

DBMS 607. Advanced Dental Pharmacology and Therapeutics (3). Students complete a summer research project or term paper. With DBMS 606, the course provides necessary and sufficient information for neuroscience track students with a focus in pharmacology.
Prerequisite: DBMS 606.

DBMS 608. Introduction to Biomedical Sciences-Dental School (1-2). Student are provided an overview of the department's three research tracks, and the teaching, research focus, and interests of faculty members. Offered fall semester, two one-hour sessions per week.

DBMS 610. General Biochemistry (5). This advanced and comprehensive coverage of modern biochemistry serves as a prerequisite for DBIC 612, 613, 614, 616, and 708, and biochemistry courses in other university components.

DBMS 611. Principles of Mammalian Physiology (6). This course focuses on ideas of human physiology. Topics include cardiovascular, respiratory, gastrointestinal, nervous, renal, and endocrine systems; didactic method and seminar methods of instruction; and research aspects of physiology. Offered spring semester.

DBMS 612. Human Neuroanatomy (3). Lectures cover macroscopic and microscopic study of the basic functional organization of the nervous system, including ultrastructure of neurons, synaptic organization of neuronal systems, and organization of the spinal cord and brain.
Cross-listed: MANA and NACS 612.

DBMS 613. Biochemistry of Lipids and Membranes (3). This course emphasizes chemistry and metabolism of lipids in membranes. Topics include serum lipoproteins, lipid methodology, eicosanoids, liposomes, fat-soluble vitamins, protein-solubilizing detergents, cholesterol, and atherosclerosis.
Prerequisite: DBMS 610 or equivalent.

DBMS 614. Physiology of Aging (2). This course for graduate students in health professions and others with an interest in gerontology focuses on cell biology, metabolic processes, cardiovascular, and neurobiological aspects of aging. Lectures include the pathophysiological basis for health problems of older adults. Students study alterations at the cell, organ, and system levels to provide the basis for clinical management of common health problems. Offered spring semester.

Prerequisite: DBMS 611 or MPHY 600, or equivalent.

DBMS 615. Nutrition and Metabolism (2). Lectures focus on nutrition and its relationship to energy metabolism. Topics include the different classes of nutrients, energy metabolism (dealing with the use of energy-containing major nutrients), metabolic interrelationships of nutrients, and the role of nutrition involved with various conditions.

DBMS 616. Biochemistry of Carbohydrates (3). Students are instructed in the structure and function of the carbohydrates and their pathways of biosynthesis and degradation, with emphasis on metabolic control and regulation. Covers both normal and abnormal metabolism.

Prerequisite: DBIC 611 or equivalent.

DBMS 618. Special Topics in DBMS (1). This course is offered in several sections that provide students research and educational opportunities in both the traditional biomedical disciplines and in several emerging areas of the “new biology.” Small groups of students and graduate faculty arrange the offerings. Areas of specialization include anatomy, biochemistry, microbiology, pharmacology, physiology, neuroscience, immunology, molecular and cell biology, molecular endocrinology, and mineralized tissues.

DBMS 619. DBMS Seminar (1). Presenting seminars and participating in discussions is an important part of graduate education. Attendance at departmental seminars is a program requirement. The multidisciplinary program provides students and faculty the opportunity to learn about research across the curriculum. Students must present one seminar each year. Students register for and earn 1 credit hour in the semester that they present. Students must earn at least 4 credits with a minimum grade of B for graduation.

DBMS 620. Biological Aspects of Dental Caries (2). This course provides current evidence-based information about biological aspects of dental caries. Basic microbial ecology of the oral cavity and microbial mechanisms of caries are presented. Other topics include histopathology of enamel, dentin, and root surface caries; chemistry and functions of saliva as they relate to dental caries; and associations between saliva and oral structures.

DBMS 621. Advanced Dental Microbiology (4). Intended for graduate students of oral microbiology, this course is supplemented with library readings and advanced laboratory experimentation. Offered fall semester. Four lecture hours each week with some laboratory experience.

DBMS 622. Immunology and Oral Disease (3). Basic immunologic principles, clinical immunology, and immunologic studies of oral diseases are topics of this course. Offered spring semester.

DBMS 623. Human Histology (6). Detailed studies of cells, tissues, and organ-systems of the human body are treated with emphasis on recent advances in this field of study.

DBMS 624. Microbiology of the Periodontium (2). The role of microorganisms in periodontal tissues and the factors that influence the development of disease processes are presented. Offered spring semester in alternate years.

DBMS 625. Mammalian Oral Histology and Emryology (2). Developing and definitive oral and paraoral structures are presented, with special emphasis on recent advances in this field of study.

DBMS 628. Advanced Head and Neck Anatomy (2-4). Students are given a working knowledge of the functional anatomy of the head and neck through detailed dissection and lectures.

***DBMS 630. Experimental Virology (4).** The course emphasizes experimental techniques used to study the physical, chemical, and biological properties of viruses, and the molecular basis of virus-cell interactions. Topics include techniques used to purify and characterize viruses, fractionation procedures, and methods used to study the synthesis of viral components. Offered fall semester in alternate years. Two lectures and two laboratory periods per week deal with the molecular biology of viruses. Prerequisite: a course in general virology or equivalent.

DBMS 631. Oral Motor Function (2). Biomedical sciences students receive an updated, in-depth presentation of mandibular function and neuromuscular control mechanisms involved in mastication, swallowing, and speech. Lectures and student presentations cover the morphology, physiology, pharmacology, and pathology of structures required for oral motility. Emphasis is on the clinical relevance of basic science information. Prerequisite: DBMS 611 or equivalent.

DBMS 633. The Anatomy of the Temporomandibular Joint (1). Students learn about developmental, microscopic, and gross anatomic features of the temporomandibular joint through lectures and seminars by the Department of Anatomy and Neurobiology and clinical disciplines.

DBMS 634. Viral Oncology (2). The course includes a study of oncogenic viruses responsible for neoplasms in animals and their use as models to study the possible role of viruses in certain human cancers. Topics include tumor classification, experimental tumor production, theories of carcinogenesis, properties of normal and transformed cells, oncogenic DNA viruses, and oncogenic RNA viruses. Offered spring semester in alternate years. Prerequisite: DBMS 651 or equivalent virology course.

***DBMS 635. Bacterial Genetics (4).** This course covers induction, expression, and selection of mutants; molecular basis of mutations; transfer of genetic information by transformation, transduction, and conjugation; complementation and recombination in phage and bacteria; plasmids; and recombinant DNA. Offered first semester, alternate years. Two lectures and two laboratory periods per week deal with the genetics of bacteria and bacterial viruses. Cross-listed: MMIC 636.

DBMS 636. Pharmacology of Anesthetic Drugs (3). Students learn basic pharmacologic aspects of general and local anesthetic drugs and drugs used for pain control. Topics include theories on the mechanism of action, structure-activity relationships, physiological effects of these agents, and drug interactions and clinical aspects.

DBMS 638. Biostatistics (1-3). Students are introduced to research design and statistics as they apply to dentistry to allow students to evaluate literature in their fields and work cooperatively with a statistician on research projects.

DBMS 641. Introduction to Neuroscience (4). This required course is for students interested in doing doctoral dissertation research in neurosciences. While the course provides an overview of the field, its emphasis is on mastery of core ideas, assessed through quizzes, problem sets, and examinations. Lectures, taught by a small group of faculty members from several departments, cover a comprehensive textbook of neurosciences.

Prerequisites: basic biology, chemistry, and physics.

Cross-listed: MANA/NACS/MPET/MPHY 641.

DBMS 642. Nociception, Pain, and Analgesia (2). The course emphasizes the nervous system mechanisms responsible for nociception, pain, and the alleviation of pain. Classical and current research in the neuroanatomy, neurochemistry, and neurophysiology of pain relate to clinical observations, pain syndromes, and mechanisms of analgesic drugs. Material is most relevant for dental, medical, and nursing graduate students. Offered fall semester.

Prerequisite: DBMS 611 or equivalent.

DBMS 643. The Neurobiology of Nociception, Pain (2). Designed for neuroscience graduate students in all health disciplines, this course focuses on the basic science and research aspects of nociception and pain. Topics include the neuroanatomy, neurophysiology, neuropharmacology, and the psychophysics of nociception and pain. Weekly, two-hour class meetings consist of student presentations and group discussions, based on a reading list provided by the faculty. Offered spring, every other year.

Prerequisite: MANA/NACS/MPET/MPHY 641.

Cross-listed: NACS 643.

DBMS 650. Advanced General Microbiology (4). Required of all students enrolled in the microbiology and immunology program, this fall-semester course covers structure and functional relationship, growth and nutrition, metabolism, macromolecular synthesis of proteins and nucleic acids, microbial taxonomy, ecology, mycology, and introduction to oral microbiology. Two lectures and two three-hour laboratory periods per week.

DBMS 651. Advanced General Microbiology II (4). Lectures include immunology, genetics, virology, Mycoplasma, rickettsiae, Chlamydia, stalk and gliding bacteria, photosynthetic bacteria, and spirochetes. Offered spring semester. Two lectures and two three-hour laboratory periods a week.

Prerequisite: DMIC 650.

***DBMS 653. Techniques in Microscopy (4).** Students learn techniques used to prepare biological material for examination with light and electron microscopes. The course covers theory of light and electron optics. Students use some techniques to help solve problems that may require a microscope in individual research projects. Offered fall semester, alternate years. Two lectures and two three-hour laboratory periods per week.

DBMS 656. Dental Toxicology and Therapeutics (2). Students receive instruction and training in dental pharmacology, therapeutics, and toxicology to anticipate potential hazards in treatment procedures that use new drugs, chemicals, and prosthetic materials.

DBMS 709. Nonthesis Master's Research (1-6)
DBMS 799. Master's Thesis Research (1-12)
DBMS 899. Doctoral Dissertation Research (1-12)

****A permission slip from the program director or instructor is necessary to enroll in this course***

Admission and Application Procedures

Applicants to the Department of Biomedical Sciences, Dental School graduate program must fulfill minimum requirements for admission to the University of Maryland Graduate School, Baltimore and meet the additional criteria described below. The minimum grade point average (GPA) for unconditional admission to the Graduate School is a "B" average, or a 3.0 on a 4.0 scale, for an undergraduate student who has completed a program of study resulting in the award of a baccalaureate degree from a regionally accredited college or university. A strong background in biological science is essential; typical students will have completed courses in general biology, physics, and chemistry. All students are required to take the Graduate Record Examination (GRE) and earn a combined score of at least 1800. Combined degree applicants may substitute the GRE scores with DAT or MCAT scores.\

International students must attain a minimum TOEFL score of 600 on the paper examination and a minimum of 250 on the computer based examination. Tests of written English skills are strongly recommended.

Application information for the Graduate School and an online application form may be downloaded from the Internet at <http://graduate.umaryland.edu/admissions.html>. Applicants should designate the four letter code DBMS on the application.

To request an application contact: Graduate School of University of Maryland Baltimore, Lombard Building, 511 West Lombard Street, Baltimore, MD 21201

A complete application package includes: 1) A completed application form submitted to the Graduate School with the required nonrefundable application fee; 2) A letter of intent (statement of the academic objective and goals); 3) Official transcripts from each college attended; 4) Letters of recommendation (these may be sent directly to the Department of Biomedical Sciences, 666 W. Baltimore St., Room 5-A-12, Baltimore, MD 21201)

Applications may include other supporting materials if so desired. Although there is no formal deadline for application, admissions are made on a rolling basis and it is in the best interest for competitive students to apply for the limited number of positions as soon as possible. Once an application is received and processed by the Graduate School, it is forwarded to the Department of Biomedical Sciences. The Graduate Studies Committee evaluates the application, interviews the student when possible, and then develops an admission recommendation. The committee submits its recommendation to the Graduate School Admissions Office. The Graduate School then notifies the applicant of the decision.

Financial Assistance

All applicants to the PhD program are automatically considered for financial support. U.S. citizens and permanent residents are eligible to receive financial support from the department's NIH training grant or from a graduate research assistantship. International students are eligible for the graduate research assistantship. Successful applicants will receive a regionally competitive stipend and tuition. In addition, individual health insurance and student fees are paid by the department.

Students accepted into the combined DDS/PhD program will receive the same benefits as the PhD student for the first five years of the program and will be eligible for additional support for the remainder of the program.

COMBINED DOCTOR OF DENTAL SURGERY AND DOCTOR OF PHILOSOPHY

Developed in response to the strong demand by universities, hospitals and laboratories for biomedical researchers in the oral health arena, the DDS/PhD program prepares outstanding clinical and basic biomedical scientists who are thoroughly versed in the science underlying clinical practice and capable of identifying and addressing significant problems in oral health. Students complete the dental program's predoctoral requirements with the addition of graduate level basic science training, progressing through doctoral degree candidacy and doctoral dissertation. Upon completion of all predoctoral and graduate requirements, students receive the DDS and PhD degrees simultaneously.

Length of Program

Although designed as a seven-year program, exceptional students can complete the program in six years.

Curriculum

In years one and two, DDS/PhD students complete the dental program's preclinical requirements with the addition of graduate level basic science courses, weekly research seminars, biostatistics and laboratory rotations. In years three to five, students complete elective coursework tailored to a selected research area, progressing through doctoral degree candidacy and doctoral dissertation. The student's dental preclinical skills are reassessed in the spring semester of year five, followed by appropriate training before the return to the dental program in years six and seven.

Academic Advisers

Upon admission, a student is assigned to a program oversight committee codirected by a clinical mentor and a basic science mentor. The student meets regularly with the committee for guidance and evaluation throughout the program.

Admissions Requirements

- Applicants must be first admitted to the DDS program at the Baltimore College of Dental Surgery, Dental School, University of Maryland.
- After admission to the dental program, the student should send a letter of interest in the combined DDS/PhD program to: Dr. Norman Capra, Director of Biomedical Sciences Graduate Studies, University of Maryland Dental School, Department of Biomedical Sciences, 666 W. Baltimore St., Room 5-A-12, Baltimore, MD 21201.

- Students may enter the combined program during the first year, second year, or before beginning the third year of the dental program.

Financial Assistance

Students enrolled in the program receive financial support from the training program in biomedical sciences for at least five years of the seven-year program. Other funding opportunities exist for supporting students for the full program. Students are also encouraged to apply for individual DDS/PhD fellowships from the National Institutes of Health. In addition, short-term NIH dental student training grants are available for research conducted the summer before entering dental school.

MASTER OF SCIENCE IN BIOMEDICAL SCIENCES

The Master of Science in Biomedical Sciences program is designed for dentists who wish to pursue a master’s degree combining graduate education with a postgraduate certificate program (endodontics, orthodontics, pediatric dentistry, periodontics, prosthodontics, or advanced education in general dentistry). The program provides an interdisciplinary graduate foundation in the biological and clinical sciences to prepare for careers in dental research, dental education, the practice of dentistry or a dental specialty.

Length of Program

Students should be able to complete the requirements of the Master of Science and certificate programs within three years. An option to study for the PhD degree in combination with specialty training may be arranged for highly motivated individuals

Curriculum

Although lecture courses comprise most of the curriculum, many of the basic science courses include a laboratory component. A significant portion of the program is devoted to the design and completion of a thesis research project, which is a requirement of the program. Students have the opportunity to select research advisors from several disciplines and research topics from many basic and clinical sciences. Students are required to have a minimum of 30 semester hours in courses acceptable for credit toward a graduate degree, as follows:

Core curriculum:	Credits
DBMS 608 Introduction to Biological Sciences	1
DBMS 605 Scientific Writing and Ethics	1
DBMS 638 Biostatistics (or equivalent)	3
Credits in courses approved by postgraduate program director (of this number 12 credits must be in courses numbered 600 or higher)	19
DBMS 799 Thesis research	6
Total	30

All students must maintain a 3.0 (B) or better academic average. Each student will be required to write a thesis based on the master's research and to defend it orally.

Academic Advisors

Students enrolled in the Master of Science program will have their respective specialty program director as their academic advisor.

Site and Facilities

The primary training site is the Dental School, University of Maryland. Courses and research opportunities are available in oral pathology and the disciplines of anatomy, biochemistry, microbiology, pharmacology, physiology, molecular biology, and neurophysiology, which are included in the department of oral and craniofacial biological sciences. Laboratory space and equipment are readily available for student training. Facilities are also available at other schools of the University of Maryland as well as the University of Maryland Baltimore County and College Park campuses.

Admission Requirements

- Dental postgraduate trainees must apply and be formally accepted into the Masters program by the Advanced Dental Education and the DBMS Graduate Studies Committee.
- Applicants must be concurrently enrolled in a dental specialty program at the Dental School and the University of Maryland Graduate School.

Applications for the specialty certificate programs may be obtained by contacting the Office of Admissions and Career Advancement, Baltimore College of Dental Surgery, Dental School, University of Maryland, 666 W. Baltimore St., Baltimore, MD 21201. Application information for the Master of Science in Biomedical Sciences program may be obtained from the University of Maryland Graduate School, 515 W. Lombard St., Baltimore, MD 21201.

Additional information about graduate studies at the University of Maryland, Baltimore is available by visiting www.graduate.umaryland.edu.

MASTER OF SCIENCE IN DENTAL HYGIENE

The Master of Science degree program in dental hygiene is an innovative program designed to prepare dental hygienists to assume positions of responsibility beyond those assumed by the graduate of a baccalaureate program and to provide a foundation for doctoral level study. The program is student-centered, individualized and flexible. The faculty is committed to facilitating the development of professionals who are competent to pursue careers in teaching, research, administration/management or public/community health. Self-evaluation, self-direction, and critical thinking are encouraged throughout the program. Students have the opportunity to share their experiences, knowledge and skills, work cooperatively with colleagues, and explore a variety of resources to help them reach their maximum potential as health care professionals.

Program concentrations include education, management and community/institutional health. Students in the community/institutional health concentration may choose to focus on acute/hospital care or

chronic/geriatric care. Within each concentration, practical career-oriented applications of knowledge and theory are emphasized.

The Curriculum

Full-time students can expect to complete the graduate program in approximately 18 months. Part-time students usually complete the program in 24 to 36 months. All students must complete a total of 30 semester credits to graduate. Under the guidance of a thesis advisor and committee, students design and conduct original research for a total of six credits.

Dental Hygiene Core Requirements	Thesis
Educational Program Development	3
Health Care Management	3
Literature Review and Evaluation for Dental Hygienists	3
Research Design, Methodology and Statistics	6
Area of Concentration Practicum	3
Master's Thesis/Research (thesis option)	6
Electives	6
Total	30

Core Courses

DHYG 414. Educational Program Development (3). In this course, students explore various ways in which effective instructional skills may contribute to a career in dental hygiene. Learning experiences are designed to enable the student to develop these skills and to project their application in such areas as public school systems, community health programs, higher education and consumer education.

DHYG 427. Health Care Management (3). Students are introduced to skills essential for effective management in their personal and professional roles. Areas of emphasis include the dental team environment, managerial planning and decision-making, fiscal issues, career planning, resumes, and interviewing. Management principles are applied to a variety of oral health care delivery settings.

DHYG 601. Seminar: Literature Review and Evaluation for Dental Hygienists (3). Students gain appreciation for the literature as the knowledge base for dental hygiene theory and practice in a changing environment. Participants analyze issues and identify research questions relevant to dental hygiene education and practice.

DHYG 799. Master's Thesis Research (6).

Research Design, Methodology and Statistics (6). Several options are available for these courses.

Practicum Options (based on concentration selected)

DHYG 618. Effective Clinical Teaching Credits (2-3). Through independent study, seminar, and clinical experience, the beginning dental hygiene clinical teacher will identify, analyze, and develop the skills

and attitudes necessary for successful clinical instruction. This course must be taken concurrently with a clinical teaching practicum.

DHYG 619. Teaching Practicum (2-4). Graduate students, working with a faculty advisor, gain experience teaching in didactic, clinical, and/or laboratory settings. An analytical approach to teaching effectiveness is emphasized. Placements in junior colleges, baccalaureate programs, elementary or secondary schools, or the Dental School are arranged according to each student's career goals.

DHYG 629. Health Care Management Practicum (2-4). In cooperation with a faculty advisor, graduate students observe and participate in the administrative activities of a health care program. Placements are arranged to support the student's career goals.

DHYG 639. Advanced Clinical Practice Practicum (2-4). Graduate students work with a faculty advisor to gain knowledge and experience in an advanced clinical area of dental hygiene practice, such as nutritional analysis and counseling, periodontics, or orthodontics.

Elective Offerings

Electives may be chosen from the courses offered by the schools and departments at any of the University of Maryland or University System campuses.

Electives that apply to the concentrations of teaching, management and community/institutional health must be approved by the student's faculty advisor before registration.

Expenses and Financial Assistance

See the Student Accounts Web page at <http://www.fincsvu.umaryland.edu/sa/tuition.cfm> for tuition and fees. Financial aid, in the form of loans, grants, and work study, is awarded on the basis of demonstrated need. A limited number of part-time graduate teaching positions may be available through the department, and University fellowships may be available from the Graduate School. Scholarships are also available from the American Dental Hygienists' Association Institute for Oral Health. Part-time employment opportunities for dental hygiene practice are excellent in the community.

Admission and Application Procedures

Admission to graduate study is the exclusive responsibility of the University of Maryland Graduate School. The minimum standard for admission is a B average, or 3.0 on a 4.0 scale, as an undergraduate student in a program of study leading to a baccalaureate degree with a major in dental hygiene. Students who fail to meet these minimum requirements may be admitted to graduate study as provisional students. Applicants must be graduates of an accredited dental hygiene program and possess a baccalaureate degree in dental hygiene or a related field. A personal interview with the program director is strongly recommended.

Three copies of the application for admission, three letters of recommendation and two sets of official transcripts from each college or university attended must be received by the University of Maryland Graduate School by April 1 for admission in the fall semester and by October 1 for admission in the spring semester.

For more information about the Master of Science degree program in dental hygiene visit the Dental School's web site at www.dental.umaryland.edu/admissions/hygieneMS.asp.

DOCTOR OF PHILOSOPHY IN ORAL AND MAXILLOFACIAL PATHOLOGY

Objectives

- To prepare individuals for an academic career in the discipline of clinical and experimental oral pathology.
- To fulfill educational requirements for specialty certification by the American Board of Oral Pathology.

Scope of Training

In this unique program, which is one of only 14 nationally accredited programs, students receive experience and training in surgical oral pathology, clinical oral pathology, and the basic sciences. An extensive series of lectures, seminars, and case conferences are conducted to provide a comprehensive curriculum that meets the requirements both for American Board certification and the confirmation of a graduate degree from the University of Maryland Graduate School.

A faculty advisor is assigned to guide each candidate through the didactic curriculum and research thesis. Research interests of the faculty include connective tissue, bone, stress proteins, retroviruses, and epidemiology of oral disease.

Site of Training

Most clinical training is conducted within the department of oral and maxillofacial pathology of the University of Maryland Dental School. Didactic courses are taken in various schools on the University of Maryland campus and at the Baltimore County campus. Electives and special courses may also be taken at the University of Maryland College Park campus or at The Johns Hopkins University. All of the above sites, as well as the National Institutes of Health, the National Library of Medicine and the Armed Forces Institute of Pathology in the Washington area, may serve as resources for the development and completion of the research thesis.

Number of Positions

No limit

Faculty

John J. Sauk, DDS, MS, Chair, *Diplomate, American Board of Oral and Maxillofacial Pathology*

Nikolaos Nikitakis, DDS, PhD, *Program Director, American Board of Oral and Maxillofacial Pathology*

Russell L. Corio, DDS, MS, *Diplomate, American Board of Oral and Maxillofacial Pathology*

Ross Couwenhoven, DDS, PhD

Bernard A. Levy, DDS, MS, *Diplomate, American Board of Oral and Maxillofacial Pathology*

Robert S. Redman, DDS, MSD, PhD, *Diplomate, American Board of Oral and Maxillofacial Pathology*

Length of Program

PhD, four years

Special Requirements

DDS, DMD, or equivalent degree

Curriculum

DPAT 612, 613. Special Problems in Oral Pathology (2,2) Two hours lecture per week. A comprehensive review of oral and maxillofacial pathology.

DPAT 614, 615. Methods in Histopathology (4,4) Two four-hour laboratory periods each week. The laboratory methods used in preparing pathologic tissues for microscopic examination.

DPAT 616, 617. Advanced Histopathology of Oral Lesions (3,3) One hour of lecture and four hours of laboratory each week. The study of common, uncommon and rare lesions of the head and neck.

DPAT 618. Seminar (1) One period each week. Recent advances in oral pathology.

The prerequisite for all courses cited above is a basic course in pathology. Approved electives will supplement these courses until the credit requirements of the program are met.

DPAT 899 Doctoral Dissertation Research (1-12)

CONTINUING EDUCATION

The Dental School is committed to the lifelong learning of oral health professionals in Maryland and neighboring states of the Mid-Atlantic Region. Continuing Dental Education for dentists and dental hygienists is among the missions of the Dental School, for today's many and frequent advances in science and technology impose a greater and sustaining need for timely accession of new information.

In order to fulfill its commitment to lifelong learning, the Dental School provides courses designed to meet the needs of dental and dental hygiene practitioners. Based upon research in the basic and clinical sciences, the Continuing Dental Education Program offers participants educational courses which reflect contemporary professional knowledge of direct benefit to the practice community. These courses are conducted in clinics, laboratories, and simulation facilities of the Dental School as well as other regional settings of convenience to course participants. In addition, future courses may be offered through such distance learning media as the Internet.

POLICY STATEMENTS

UNIVERSITY OF MARYLAND POLICY EXCERPTS

No provision shall be construed as a contract between any applicant or student and the University of Maryland. The University reserves the right to change any admission or advancement requirement at

any time. The University further reserves the right to ask a student to withdraw at any time when it is considered to be in the best interest of the University. Admission and curriculum requirements are subject to change without prior notice.

The University publishes policies and procedures in the Student Answer Book, distributed to enrolled students each fall. Call the Office of Student Services at 410 706 7117/7714 (Voice/TTD) to request a copy.

The Rules and Regulations section of the Student Answer Book contains the following policies and others :

- Eligibility to Register
- Immunization Policy
- Position on Acts of Violence and Extremism that are Racially, Ethnically, Religiously, or Politically Motivated
- Faculty, Student, and Institutional Rights and Responsibilities for Academic Integrity
- Scheduling of Academic Assignments on Dates of Religious Observance
- Service to those with Infectious Diseases
- Student Residency Classification for Admission, Tuition, and Charge Differential Purposes
- Policy on Smoking
- Student Right to Know and Campus Security Act

MATRICULATION POLICIES

EQUAL OPPORTUNITY

In educational programs, the University and the Dental School do not discriminate on the basis of race, color, religion, age, ancestry or national origin, gender, sexual orientation, physical or mental disability, marital status or veteran status. Exceptions are as allowed by law, for example, due to bona fide occupational qualifications or lack of reasonable accommodations for disabilities.

UNIVERSITY OF MARYLAND POLICY CONCERNING PREVENTION AND MANAGEMENT OF STUDENT AND EMPLOYEE INFECTION WITH BLOODBORNE PATHOGENS

The Dental School fully subscribes to the University of Maryland Policy Concerning Prevention and Management of Student and Employee Infection with Bloodborne Pathogens, which became effective July 1, 1994. All enrolled students receive a copy of this policy statement as part of their matriculation documents. Individuals seriously considering applying to any of the Dental School's programs should request a copy of the policy from the Office of Admissions and Student Affairs or should view the policy on the Web at <http://www.umaryland.edu/hrpolicies/section6/t61100Asa.html>.

Section 6, Admissions and Hiring Practices, of the policy statement states: "Inquiries about infection with HBV, HCV or HIV will not be made of prospective University of Maryland Personnel. Neither admission nor employment will be denied any otherwise qualified individual on the basis of infection with Bloodborne Pathogens. However, limitations on the training and professional activities which may result from infection with Bloodborne Pathogens will be communicated to prospective students and employees." (See Next section.)

Section 7, Advice on Risks and Limitations, states: "...Applicants who are infected with Bloodborne Pathogens are not required to identify themselves to the University. Advice to applicants will be provided in a general form available to all applicants. If infection with a specific Bloodborne Pathogen (e.g., HBV) could prevent a person from completing the curriculum or subsequently practicing the intended profession as a result of scientifically established contagion risk, this information will be included in the general information which the school distributes to applicants." Although information concerning applicants' status regarding bloodborne pathogens is not a part of the admissions process, status of infection could adversely affect individuals' ability to complete their education or their ability to obtain future professional licensure. Applicants are specifically advised that the Dental School does not admit individuals who have had prior infection with the Hepatitis B virus or Hepatitis C virus that has left them chronic carriers of the virus. These individuals must consider alternative career pathways.

All candidates for enrollment are strongly encouraged to know their status and to seek professional advice if they have questions. The dean of the Dental School has appointed an ombudsman or advocate to whom any applicant, student, or employee can go in confidence for advice on policies and procedures related to infection with bloodborne pathogens and on the implications of testing and disclosure for enrollment or employment status. Individuals with specific questions or concerns are urged to seek advice from the Dental School's ombudsman.

Section 9, Immunizations Against HBV, states: "Students enrolling in academic programs that will involve participating in invasive or exposure-prone procedures must be vaccinated against HBV at their own expense. Students may be vaccinated at Student and Employee Health. Those who were immunized prior to enrollment must provide evidence of immunization to the enrolling school."

Doctor of Dental Surgery and Bachelor of Science in Dental Hygiene Applicants

Although students are strongly encouraged to complete the three-shot Hepatitis B immunization series before matriculation, entering students who have not been appropriately immunized against HBV will receive their first vaccination during Dental School orientation through Student and Employee Health. The second and third vaccinations will occur at one- and six-month intervals, respectively. Students may not participate in clinical or other activities in which they may be placed at occupational risk until at least one month after the second in the series of HBV immunizations. Failure to complete the series in a timely manner could result in delayed progress through the curriculum or dismissal from enrollment.

Advanced Dental Education Applicants

It is anticipated that most applicants for Advanced Dental Education programs will have received the full three-shot series of HBV immunizations as predoctoral students. For those individuals who have not completed the HBV immunization series, Dental School policy requires that all Advanced Dental Education applicants considering enrollment should begin the three-shot HBV immunization series no later than May 1 of the year of matriculation. As a condition of enrollment, students must provide documentation that they received the first in the series no later than May 1 and the second no later than June 1. Those individuals may receive their third immunization through Student and Employee Health at the appropriate time after enrollment at the Dental School.

TREATMENT PARTICIPATION POLICY

As a part of the educational process, dental and dental hygiene students will be required from time to time to satisfactorily participate in diagnostic, therapeutic, and nontherapeutic oral health care services. Each student will be required to participate as a caregiver and as the patient. This requirement is disclosed before admission. By enrolling, each student consents to this requirement. Student patients may be provided care by any assigned student or faculty member. All personal health care information provided to the School by a student patient is confidential in nature, will be treated with the confidentiality accorded a patient record under Maryland health care laws and School policy, and will be used only in connection with delivery of oral health care services. Exceptions to this required participation in educational activities may be warranted in extraordinary circumstances, such as a high risk to the student-patient or to the provider associated with the delivery of treatment. Applicants or students with concerns about such situations should contact the chair of the Clinical Operations Board, who has the authority to determine when exceptions will be granted.

TECHNICAL STANDARDS FOR ADMISSION AND MATRICULATION

Admission to the Dental School is open to all qualified individuals and in accordance with the 1973 Vocational Rehabilitation Act (29 U.S.C. §701 et seq.) and the Americans with Disabilities Act (42 U.S.C. §12101 et seq.).

Dental education requires that the accumulation of scientific knowledge be accompanied by the simultaneous acquisition of skills and professional attitudes and behaviors essential to the profession. Students require cognitive, behavioral, technical, and social skills to negotiate the curricula. The Dental School is mindful of the unique nature of dental curricula. It is the responsibility of the Dental School's admissions committees to select candidates who are qualified to complete the required training. As part of the education process, students in all of the School's clinical programs are required to provide treatment for patients and practice techniques with student-partners. Students are required to serve as patients for their classmates in performing such diagnostic and reversible procedures as local anesthesia administration, sealant placement, and oral prophylaxis. The Dental School has the responsibility of ensuring timely and safe treatment of all patients during these processes.

With these principles in mind, students must be able to meet the following technical standards, without accommodation, or with reasonable accommodation. The use of a trained intermediary is not acceptable in clinical situations. A student's judgment and skill may not be mediated by reliance on someone else's power of selection and observation, or clinical ability.

Observation

A student must be able to acquire defined levels of required information and skills as presented through demonstrations and experiences in the basic, behavioral, and dental sciences. A student must be able to observe patients accurately, at a distance and close at hand, and observe and appreciate verbal as well as nonverbal communications when assessing a patient's oral and craniofacial conditions and providing treatment. Observation necessitates functional use of the sense of vision and other sensory modalities.

A student must be able to:

- Observe a patient accurately, with or without standard instrumentation.
- Acquire information for written documents.

- Visualize information presented in images from paper, film, slides, computer displays, and video.
- Interpret X-rays or other graphic images.

Communication

A student must be able to communicate effectively and sensitively with patients; convey or exchange information at a level allowing the development of a health history; identify problems presented; explain alternative solutions; and give directions during treatment and after treatment. Communication includes at a minimum, speaking, reading, and writing. Students must be able to communicate effectively and efficiently in spoken and written English with all members of the health care team and the patient.

A student must be able to:

- Speak, understand spoken words, and observe patients by sight to elicit information, describe changes in appearance, and perceive changes in nonverbal communications;
- Obtain a health history and other pertinent information from patients;
- Read and apply appropriate information and instructions contained in requisitions, notes, and patient charts;
- Understand and apply clinical instructions given by others;
- Communicate efficiently and effectively in oral and/or written form with patients, families of patients, and all members of the health care team, during both emergencies and non-emergency situations.

Sensory and Motor Coordination and Function

A student must have sufficient motor function to execute movements reasonably required to provide general care and emergency treatment for patients. Such actions require coordination of both gross and fine muscular movements and equilibrium. A student must have functional use of the senses of touch and vision.

A student must be able to:

- Perform palpation and other diagnostic and therapeutic maneuvers.
- Perform basic laboratory procedures and work with standard laboratory materials.
- Reach and manipulate equipment to all positions in order to control the operating environment.
- Execute motor movements required to provide general and emergency care, including activating the emergency medical system.

Intellectual, Conceptual, Integrative, and Quantitative Abilities

A student must be able to measure, calculate, reason, analyze, integrate and synthesize. Problem solving, a critical skill demanded of oral health practitioners, requires all of these intellectual abilities. A

student must be able to perform these problem solving skills in a timely fashion and comprehend three-dimensional relationships and understand the spatial relationships of structures.

Behavioral and Social

A student must possess the physiological and psychological stamina required for full utilization of intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and treatment of patients, and the development of mature, sensitive, and effective relationships with patients. A student must be able to interact with faculty and colleagues, use good judgment, and engage in the exchanging of ideas. A student must be able to accept and give constructive criticism.

A student must be able to:

- Adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in the clinical problems of patients.
- Display compassion, integrity, and concern for others.

Other Requirements

A student must provide evidence of immunization or immunity for each of the following diseases:

1. hepatitis B
2. measles
3. mumps
4. rubella
5. varicella (chickenpox)
6. tetanus/diphtheria, within the past 10 years

Acceptable evidence is a written document signed by a licensed health care professional that specifies the dates of immunization, medical test results that demonstrate the student's immunity, or a document that specifies the date the student had the disease. In addition, each student must provide the results of tuberculosis screening that has been performed within 12 months of the date of the student's enrollment. Screening must show a negative PPD test or, if the PPD is positive, a negative chest X-ray report. (See <http://graduate.umaryland.edu/student/sab/rules.html#other> for more information.) The admission of a student who is chronically infected with hepatitis B virus will be considered on a case-by-case basis after consultation with a panel of experts in infectious diseases. This panel will consider the hepatitis B antigen status, the health of the student, and decide what, if any, restrictions and monitoring are necessary for the student during their training in dentistry or dental hygiene.

Applicants with Disabilities

The Dental School will provide reasonable accommodation in the admissions process for applicants with disabilities. An applicant is not disqualified from consideration due to a disability. Although the Dental School may not inquire whether an applicant has a disability before making an admissions decision, an applicant may disclose during the admission process a disability for which he or she wishes accommodation during the admissions process or upon admission. If this disclosure occurs, the Dental

School may request that the applicant provide documentation of the disability. The admissions committee will consider the applicant based on the published criteria for admission of all applicants. An applicant who discloses a disability and requests accommodation in the admission process will be required to submit, in writing, the request for accommodation and pertinent supporting documentation. This pertinent information will include a history of accommodations granted previously in other educational programs and references who can discuss the experience of the student in other educational settings. Requests for accommodation should be initiated with the Director of Student Support Services.

The Dental School may require additional medical or other verification of disabilities and proof of information presented concerning accommodations. Such proof may include demonstration of assisted physical abilities. The School may require independent medical examinations or testing to verify claimed disabilities, determine the extent and effects of disabilities, and assess the utility of accommodations. Technical and medical consultations from resources within the University and external to the University may be obtained. Costs of independent medical examinations, testing, technical and medical consultations required by the Dental School will be borne by the Dental School.

The Dental School's Administrative Advisory Committee will make a determination as to the reasonableness of the accommodations that the applicant has requested or will determine alternative reasonable accommodations that the Dental School may offer.

Enrolled Students with Disabilities

A student who discloses a disability and requests accommodation will be required to submit, in writing, the request for accommodation and pertinent supporting documentation. The pertinent information will include documentation of the disability, by an appropriately credentialed professional. If available, documentation should also include history of accommodations granted previously in other educational programs and references who can discuss the experience of the student in other educational settings. Requests for accommodation should be initiated with the Director of Student Support Services.

The Dental School may require additional medical or other verification of disabilities and proof of information presented concerning accommodations. Such proof may include demonstration of assisted physical abilities. The School may require independent medical examinations or testing to verify claimed disabilities, determine the extent and effects of disabilities, and assess the utility of accommodations. Technical and medical consultations from resources within the University and external to the University may be obtained. Costs of independent medical examinations, testing, technical and medical consultations required by the Dental School will be borne by the Dental School.

The Dental School's Administrative Advisory Committee will make a determination as to whether the student can perform the essential functions of the educational program, taking into account the accommodations that the student has requested or alternative reasonable accommodation that the Dental School would offer. Costs of reasonable accommodation will be borne by the Dental School from its resources or other funds available to it.

The Dental School will provide reasonable accommodations, but is not required to make, nor will it make, modifications that would fundamentally alter the nature of the educational program or provide auxiliary aids that present an undue burden to the Dental School. The student must be able to perform all of the technical standards with or without reasonable accommodations to matriculate or continue in the program.

Approved by Faculty Council: November 20, 2001

REGISTRATION PROCEDURES

To attend classes, students in all programs except Oral and Maxillofacial Surgery are required to register each term in accordance with current registration procedures. Fees are due and payable on the dates specified for registration. Registration is not completed until all financial obligations are satisfied. Students who do not complete their registration and pay tuition and all fees will not be permitted to attend classes. A fee will be charged for late registration.

Although the University regularly mails bills to advance-registered students, it cannot assume responsibility for their receipt. If any student does not receive a bill before the beginning of a semester in which he/she has advance registered, it is the student's responsibility to contact the registrar's office or cashier's office during normal business hours.

All checks and money orders should be made payable to the University of Maryland for the exact amount of the actual bill.

No diploma, certificate or transcript of record will be issued to a student who has not made satisfactory settlement of his or her University account.

DETERMINATION OF IN-STATE STATUS

An initial determination of in-state status for admission, tuition and charge-differential purposes will be made by the University at the time a student's application for admission is under consideration. The determination made at that time, and any determination made thereafter, shall prevail in each semester until the determination is successfully challenged.

Students classified as in-state for admission, tuition and charge-differential purposes are responsible for notifying the Office of the Registrar, in writing, within 15 days of any change in their circumstances that might in any way affect their classification at the University.

The determination of in-state status for admission, tuition and charge-differential purposes is the responsibility of the campus Office of the Registrar. A student may request a reevaluation of this status by filing a petition. The University's policy is available through the Office of the Registrar.

WITHDRAWAL AND REFUND OF FEES

Students who want to withdraw from the School at any time during the academic year are required to file a letter of resignation with the dean. After completing Dental School check-out procedures as verified on the withdrawal form, the student must obtain an application for withdrawal form bearing the proper signatures, which must be filed with the registrar's office. The student must have no outstanding obligations to the School or the University and must return the student identification card. The date used in computing refunds is the date on which the application for withdrawal is approved by the dean's office.

Students officially withdrawing from the school will be refunded appropriate academic fees based on a percent of attendance. Refund schedules are available from the Office of Student Accounts.

If the above procedures are not completed, the student will not be entitled to honorable withdrawal and will forfeit the right to any refunds that would otherwise be given. The Dental School may also place a hold on the student's record to withhold transcripts and certifications.

TRANSCRIPT OF RECORD

Students and alumni may secure transcripts of their University of Maryland record from the registrar's office. There is no charge for this service. A request for transcripts must be made in writing and should be made at least five days in advance of the date when the records are actually needed. Transcripts are issued in turn as requests are received. No transcript will be furnished to any student or alumnus whose financial obligations to the University have not been satisfied.

DIPLOMA APPLICATION

Degree requirements vary according to the University of Maryland school or program in which a student is registered. However, each degree candidate must file a formal application for diploma with the registrar's office at the beginning of the term in which the student expects to graduate. This must be done by the end of the third week of the semester or the second week of the summer session.

A student who does not graduate on the originally expected date must reapply for graduation by the appropriate deadline.

STUDENT HEALTH REQUIREMENTS

All students are required to have the campus-sponsored student health and hospitalization insurance or its equivalent. Detailed information regarding the provisions of the student policy the University offers may be obtained from Student and Employee Health. At the time of registration each year, students must either purchase the student coverage or produce certified proof of equivalent coverage. If proof of comparable insurance is not received at Student and Employee Health by September 15, the student will be required to pay for the student policy for that semester.

Students are required to document their immunity to childhood diseases, including measles, mumps, rubella and chicken pox. Information regarding specific requirements will be distributed to each student. Since hepatitis B is an occupational risk for health care providers, all enrolling dental students are also required to undergo immunization against hepatitis B. Vaccine cost is included in the student fees.

STUDENT JUDICIAL POLICY

I. Statement of Ethical Principles, Practices, and Behaviors

This Policy specifies ethical and behavioral principles for students and faculty enrolled in Dental School academic programs, and also describes processes to be used for complaints of violations of this Policy. This Policy applies to students in the DDS and Bachelor of Dental Hygiene programs and to the following Advanced Dental Education certificate programs: Advanced Education in General Dentistry (AEGD), Endodontics, Orthodontics, Pediatric Dentistry, Periodontics, and Prosthodontics.

Students enrolled only in M.S. or Ph.D. programs are subject to the policies of the Graduate School. Students enrolled simultaneously in a graduate program and another program specified above are subject to this Policy. Oral & Maxillofacial Surgery residents are not included but rather are subject to policies of the University of Maryland Medical System.

Listed below are examples of principles and behaviors that the academic community of the Dental School, consisting of both faculty and students, considers valid. No such statement can ever be complete, nor can it be construed as a comprehensive code of professional conduct. Rather, it is intended as a guide to live by for those who are a part of the academic community.

A. Each member of this community is obliged to carry out his or her designated responsibilities within the rules and governance structure adopted and agreed to by the community as a whole.

B. Faculty and students should be concerned with their own competence and strive to improve themselves in the integration and transmission of knowledge.

C. In contributing to the information base of the sciences-whether orally or by written communication, students and faculty should present data, interpretations of data, and other facets of scholarly discovery with honesty and integrity.

D. Professional relations among all members of the community should be marked by civility. Thus, scholarly contributions should be acknowledged, slanderous comments and acts should be expunged, and each person should recognize and facilitate the contributions of others to this community.

E. Each member of the community, when acting as an evaluator of any other member, should recognize unprofessional personal bias and eliminate its effect on the evaluation.

F. The validity of evaluation shall not be compromised by any departure from the published and/or generally understood rules of conduct. Thus, all manner of cheating on examinations or the presentation of work assumed to be one's own but done by another are unacceptable behaviors.

G. An individual may challenge or refuse to comply with a directive whose implementation would not be in keeping with generally held ethical principles.

H. Students should seek consultation and supervision whenever their care of a patient may be compromised because of lack of knowledge and/or experience.

I. Students and faculty must merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

J. All patients should be treated with dignity and respect.

K. An individual or group of individuals should not abuse their power by extending it beyond its defined or generally accepted limits.

L. To the extent practical, sanctions for violations of these principles shall affect only individuals found to have committed the violations and shall not affect other persons.

II. Professional Code of Conduct

This academic community has interrelated responsibilities of producing and disseminating new scientific knowledge, teaching, caring for patients, and educating individuals to carry on these same functions. In carrying out these responsibilities, the academic community needs rules to guide the maintenance of high standards. These standards must be nurtured by individuals with a developed sense of honor, integrity, and intellectual honesty. It is incumbent upon the academic community to provide an environment that fosters these attributes in students and faculty members.

It is important that faculty and students in a health profession realize that in our society the health practitioner functions mainly on the basis of self-discipline, rather than on imposed regulation, and receives a high degree of public confidence and trust. By accepting a Professional Code of Conduct, which represents this trust, the faculty member and student demonstrate the desire to be fully prepared for the obligation to the dental profession and to the people served. As is traditionally expected of all health professionals, faculty members and students will demonstrate the highest standards of integrity at all times. Faculty and students are expected at all times to conduct themselves in accordance with all codes, rules, and regulations of the Dental School.

III. Student Offenses of the Professional Code of Conduct

The following behaviors, while not all inclusive, are student offenses of the Professional Code of Conduct:

A. Unprofessional Conduct. Including, but not limited to, all forms of conduct that fail to meet the standards of the dental profession as found in the ADA Code of Ethics, use of abusive language or behavior, sexual harassment, disruption of class or any other school activity, violations of patient confidentiality provisions of HIPAA, unethical treatment of patients, failure to report observed violations of the Code of Conduct, and/or violation of the Dental School dress code or other Dental School policies.

B. Academic Misconduct. All forms of student academic misconduct including, but not limited to, plagiarism, cheating on examinations, violation of examination procedures, and submitting work for evaluation that is not one's own effort.

C. Dishonesty. Including knowingly furnishing false information through forgery, alteration, or misuse of documents or records with intent to deceive; presenting written or oral statements known to be false; loaning, transferring, altering or otherwise misusing University identification materials; signing the Judicial Policy Statement when violations were either committed or observed and unreported, as specified.

D. Theft or Destruction of Property. Including unauthorized possession or receiving of property that does not belong to the individual, such as instruments and books, or destruction of property not belonging to the individual.

E. Forcible entry into University facilities.

F. Being present in the Dental School building without permission when the building is closed.

G. Intentional infliction or threat of bodily harm.

H. Possession of illegal drugs or weapons.

I. Aiding or Abetting. Including conspiring with or knowingly aiding or abetting another person to engage in any unacceptable activity.

J. Providing patient treatment without faculty supervision

K. Violation of any codes, rules, and regulations of the Dental School, including clinical policies and protocols in the Student Clinic Manual.

L. Event-related misconduct on campus or off-campus, which is misconduct related to any University sponsored event that results in harm to persons or property or otherwise poses a threat to the stability of the campus or campus community.

IV. Student Judicial Board

The Judicial Board is the official body to consider and act upon student infractions against the Professional Code of Conduct. This body is a standing committee of the Faculty Council. The Judicial Board shall consist of seven (7) students and seven (7) faculty members. The faculty members shall be appointed by the Dean with the approval of the Executive Board but should not include the faculty advisor to the Student Dental Association nor faculty members on the Student Affairs Committee. The student members shall consist of one (1) second year Advanced Dental Education student, the four (4) Dental Class Vice Presidents, the Senior Class Dental Hygiene Secretary, and the Vice President of the Student Dental Association, who will serve as student Co-Chair. A faculty member will be elected by the Judicial Board to serve as the faculty Co-Chair.

A quorum, consisting of fifty percent or more of the student members as well as fifty percent or more of the faculty members of the Judicial Board, shall be necessary for a hearing. A faculty or student member who is directly involved in a particular case being heard or who has a personal relationship with the accused or accuser(s) shall be automatically excused from the hearing and consideration of the matter.

V. Procedures for Making a Complaint

These procedures should give reasonable assurance of fairness and due process and keep intact the responsibilities and prerogatives of the Dean of the Dental School (hereafter known as "the Dean") and the faculty. It is expected that Judicial Board matters will be conducted with a high degree of discretion and that every effort will be made to limit knowledge of pending proceedings to those who are directly involved in them.

A. Students and faculty must report violations of the Code of Conduct. If a student, faculty member or administrator observes an infraction of the Professional Code of Conduct, a complaint shall be reported in writing to one of the Judicial Board Co-Chairs. This letter shall state the facts surrounding the infraction.

B. When the commission of an alleged infraction is first observed, the student's activity should not be interfered with unless its continuation jeopardizes the safety of the student, or others, or University property, or unless such interference serves to prevent an infraction.

C. If a student or faculty member is unclear about whether or how to proceed with a complaint, he or she should contact one of the Judicial Board Co-Chairs. The Judicial Board cannot institute a complaint as a body but members of the Board, as individuals, shall initiate a complaint if they observe infractions.

D. Alleged infractions must be reported in written form to one of the Co-Chairs of the Judicial Board within five (5) school days of their discovery, if feasible.

E. The Co-Chairs of the Judicial Board will inform the Dean that a case has been referred to the Board.

F. A pending action of the Board shall not prevent the student continuing in the academic program unless extraordinary circumstances exist. A student may be suspended from the School or from engaging in various school activities to protect his physical or emotional safety and well-being, or the safety of others. This emergency authority shall be vested in the Dean.

G. The Dean shall be advised immediately if an alleged infraction could be a violation of federal, state, or local laws. The Dean shall determine if the proper authorities need to be notified of the allegation.

VI. Hearing Procedures

A. Upon the receipt of a written complaint by either of the Co-Chairs, the Co-Chairs of the Judicial Board:

(1) will notify the accused student within three (3) school days, if feasible;

(2) will conduct a pre-hearing investigation of the alleged infraction, within five (5) school days of receiving the complaint, if feasible, to include interviews of the person (s) bringing the allegation(s) to the Board's attention, and the accused student in order to determine if the matter comes under the jurisdiction of the Judicial Board and if there is sufficient evidence to proceed;

(3) may recommend to the full Board that the matter be dismissed, the issues narrowed, a confession be considered, or a more thorough investigation be conducted. A meeting of the Judicial Board will then be held promptly to review the information obtained from the pre-hearing investigation and to agree or disagree with the conclusions of the Co-Chairs, by a confidential vote of two-thirds of a quorum of the Judicial Board present and voting; and/or

(4) may conclude to proceed to a formal Judicial Board hearing. In that case, a formal Judicial Board hearing will be scheduled and the Dean will be informed of the alleged infraction.

B. Depending upon the academic calendar, as well as the particular class year in which the student is enrolled, the Judicial Board shall meet within fifteen (15) school days following the receipt of the complaint to hold a hearing. The accused student shall receive a minimum of four (4) school days notice of this hearing date.

C. Proceedings of the Judicial Board hearing are to be confidential and are not to be discussed outside the hearing.

D. The Co-Chairs shall determine a procedural sequence appropriate to each case. Usually the student Co-Chair conducts the hearing, while the faculty Co-Chair is responsible for maintaining the records. The Judicial Board Co-Chairs rule on procedural decisions.

E. The Board may summon and question the accused student and any witnesses it deems necessary or relevant to the case.

F. Two-thirds of the Judicial Board present at the hearing must find that the accused student has committed the infraction. The standard of proof is based upon a preponderance of the evidence, i.e., whether it is more probable than not that the accused student committed the alleged infraction.

G. The Judicial Board Co-Chairs shall submit the findings of fact, the decision and, if having found that the student committed the infraction, a sanction recommended by the Board to the Dean in writing and without undue delay, along with all documents and records considered in the matter. A dissenting opinion may be submitted and filed by any Board member, if desired. The Dean may not change the decision, but he/she is not bound by the recommendations as to sanction(s).

H. The Co-Chairs of the Judicial Board will meet with the accused student and present the findings of the Board in writing as promptly as possible. The Judicial Board's finding is final, subject to the student's right of appeal. However, the Judicial Board's recommendation for sanction, if any, is subject to the Dean's Review (Section IX. below.)

I. The Co-Chairs of the Board may grant reasonable extensions of the time limits specified for this procedure. Time limits are established in order to ensure orderly operations of the student judicial process. Good faith departures will not invalidate Judicial Board determinations.

VII. Procedures and Safeguards for Students

A Dental School student accused of an infraction of the Professional Code of Conduct has the following rights under the Dental School's Student Judicial Policy:

A. The student will receive written notification from the Judicial Board stating the alleged infraction of the Professional Code of Conduct. A copy of the complaint received by the Board will also be made available to the student. Additionally, a copy of the Student Judicial Policy will be provided to the student.

B. The student will be notified in writing of the time, place, and date of the hearing.

C. While the student has the right to be present at the hearing, he or she may elect not to appear and the hearing will be held in his/her absence. Also the student has the right to remain silent.

D. A written response to the specific complaint set out in the notice letter may be submitted by the student to a Co-Chair at least two (2) full school days prior to the hearing.

E. The hearing will be closed to the public. All proceedings and decisions will be considered confidential. The student may be represented by a non-legal advisor of his or her choice. In instances where criminal charges may be pending or under investigation, the student may have an attorney present. This person may only act in an advisory capacity to the student and may not address the Board or examine or cross-examine witnesses. In such instances, the complainant may elect to have an attorney present in the same capacity described above. The Judicial Board may, at its option, have University Counsel or an Assistant Attorney General present or available to provide procedural guidance.

F. No member of the Judicial Board may hold a law degree.

G. The evidence against the student will be presented in the student's presence, and the student will be permitted to speak and to question any witnesses presenting evidence at the hearing unless the student elects not to appear at the hearing.

H. Evidence may be oral or written, but must be limited to issues raised in the written complaint. Hearsay evidence is admissible only if corroborated. The Co-Chairs will exclude any irrelevant or unduly repetitive evidence. If the alleged infraction involves allegations of discrimination or sexual harassment, the panel may hear testimony or receive documents from the University of Maryland, Baltimore, Office of Human Resource Services.

I. Any witnesses to be called by the student must be made known to a Co-Chair no less than two (2) full school days in advance of the hearing. Similarly, the Board will notify the student in writing of any witnesses it intends to call at the hearing.

J. All Board decisions will be based only on evidence presented before the Board.

K. The student will be permitted to provide the Board with supporting oral and/or written information, and to make opening and closing statements.

L. The student does not have the right to be present during deliberations of the Board.

M. The Board hearing, exclusive of deliberations, shall be recorded and made available to the student upon request, within a reasonable period of time, at the student's expense. Accidental erasures or poor quality of the tape-recording or failure of tape-recording equipment will not invalidate Board determinations.

N. The student and complainant will receive written notification of the Board's decision and any recommended sanction(s) from the Co-Chairs of the Judicial Board and subsequent notification regarding applicable sanction(s) from the Dean.

O. The faculty Co-Chair will make regular reports of the Judicial Board's activities to the Faculty Council, Faculty Assembly and the student body, but no student names or classes will be disclosed. This summary is for the sole purpose of reporting Judicial Board activity.

VIII. Guidelines for Sanctions

Punishment for infractions of this Code should reflect the nature of the act. Any violation of this Code may potentially result in expulsion from the Dental School. Once found to have committed any violation of this Code, the student will be placed on disciplinary probation for the remainder of his or her stay at the Dental School. This does not preclude any other disciplinary action imposed by the Dean. A student found to have committed any second violation of this policy or to have failed to conform to sanctions imposed by prior Judicial Board proceedings may be immediately expelled from the Dental School. Each case should be considered individually, and sanctions for specific infractions should be based upon the circumstances involved. Students dismissed for violations of the Professional Code of Conduct are ineligible for readmission unless substantial evidence of rehabilitation is provided. Substantial evidence is within the School's sole discretion.

A student found guilty of Event-related Misconduct (not including offensive speech at on-campus or off-campus events) shall be subject to presumptive dismissal. Presumptive dismissal may be either suspension for a fixed period of time or expulsion. A finding of "event related misconduct" shall be noted on the student's transcript. To avoid dismissal, a student must demonstrate specific mitigating or extenuating circumstances that persuade the final decision-maker that a lesser penalty is appropriate. If dismissal is not the recommended penalty, the mitigating or extenuating circumstances must be enumerated in the written recommendation to the Dean and in the Dean's sanction decision.

IX. Dean's Review

A. Notification of the Board's decision and recommendations will be communicated to the Dean, in writing, within five (5) school days of the hearing.

B. In the Dean's review phase, he or she will review the Judicial Board's decision to determine whether the evidence warrants the recommended sanction(s). The Dean may not change the findings but he/she is not bound by the recommendations as to sanction(s). The Dean will notify the student and the Judicial Board in writing and without undue delay of the final sanction(s), if any. If the Dean altered the Board's recommended sanction(s), he/she shall inform the Board in writing of the rationale for the change.

C. If three (3) school days have passed since the notification of sanction(s) is received by the student and an appeal has not been filed, the Dean may direct the Registrar to enter the appropriate notations on the student's educational record.

X. Appeals

A. Students found responsible for misconduct shall have the right to appeal the Judicial Board's finding to the Dean only on the basis of: (1) failure of the accused to receive due process and/or (2) newly available evidence. Said appeal must be in writing and received by the Dean's office no later than three (3) school days after the student has received the notification of the final sanction or sanctions, if any, from the Dean.

B. The sanction or sanctions imposed by the Dean will not be implemented while an appeal is pending.

C. In making the determination as to whether to order a new hearing, the Dean may seek advice from any individuals of his/her choosing but the Co-Chairs should always receive a copy of the appeal and be given an opportunity to respond, in writing.

D. If the Dean determines that there was, in fact, significant failure of due process, he/she shall order a new hearing and stipulate whether the same Board members or a different group shall preside.

(1) If a different group is stipulated, the Dean shall appoint an ad hoc panel which will then conduct a hearing according to the rules set out in this Policy.

(2) If a new hearing is ordered, one Board member (selected by the Board) who served at the original hearing shall participate in the new hearing and discussion but shall not vote.

E. If the Dean determines that the newly available evidence could, in principle, lead to a different finding or different sanctions, he/she shall order a new hearing.

(1) Unless the Dean decides otherwise, the same Board who reached the earlier conclusion shall preside at the new hearing. The composition of the group can be varied if unavailability of particular members would compromise an early resolution of the case.

(2) If a new hearing is ordered and the Dean stipulates that it is to be conducted by an ad hoc panel, one member who served at the original hearing shall participate in the new hearing and discussion, but shall not vote.

XI. Final Action

If an Appeal is not requested or allowed, the results of the Dean's review become final and any sanction or sanctions are implemented. The Dean may direct the Registrar to enter appropriate notations in the student's educational record.

XII. Implementation of the Student Judicial Policy

For the purpose of implementing the Professional Code of Conduct and the Student Judicial Policy, a copy of this policy will be sent to each student along with the letter of admission to the Dental School. Students will be advised that enrollment in Dental School is contingent upon the understanding and acceptance of the tenets contained in this Student Judicial Policy and Professional Code of Conduct. All incoming dental and dental hygiene students and students in Advanced Dental Education programs included in this policy will be examined on this policy as part of their orientation activities and will sign the Judicial Policy statement (Appendix 1). It will be the responsibility of the Judicial Board Co-Chairs to design, proctor, and evaluate the results of this examination as well as to remediate any deficiencies. Until the examination is successfully completed, a student will not be allowed to attend class or clinic. At the beginning of each academic year, each dental and dental hygiene class and Advanced Dental Education students covered by this policy will be addressed by the Co-Chairs of the Judicial Board in order to reinforce adherence to the Professional Code of Conduct and Student Judicial Policy.

Department chairs or directors of instructional divisions will review the Judicial Policy with the members of their department at the beginning of each academic year. Upon request the faculty Co-chair will be available to assist in this regard.

All examinations should include examination instructions (Appendix 2) and the Code of Conduct Statement (Appendix 3). Furthermore, for uniformity of examination protocols, instructors will have the

students sit in every other seat during examinations and faculty members will proctor examinations and be present to answer only those questions that require clarification for the entire class.

Approved by Dental School Faculty Council: April 8, 2003
Approved by University Counsel: May 29, 2003
Approved by Office of the Attorney General: May 29, 2003
Approved by Dean: June 16, 2003
Approved by President: June 19, 2003

Revised by University Counsel, approved by Faculty Council: May 9, 2006

Appendix 1. Code of Conduct to be signed by all incoming students.

Professional Code of Conduct

The Dental School's Professional Code of Conduct is based on the highest standards of integrity and self-discipline, rather than on imposed regulations. I have read the code and understand it. I will not violate any policies of this Code. I accept my duty to report any violations of the Code to the Judicial Board of the Dental School.

Signed

Date

Print Name

Appendix 2. Examination instructions that can be attached to examinations.

In keeping with the dental profession's responsibility for self-regulation and self-discipline, the following guidelines should be followed during examinations.

- A. Upon distribution of the examination, all conversation among students should cease until the end of the examination period.
- B. Notes, textbooks, cell phones, and electronic devices are prohibited in the examination area.
- C. Examinations must represent the student's own efforts.
- D. An instructor will remain in the immediate examination area to answer questions that require clarification to the entire class.
- E. If a student must leave the room, examination papers MUST remain turned down and in the examination room.
- F. Examinations must be completed and turned in by the end of the specified examination period.

Appendix 3. Code of Conduct to be put on examination forms and students will sign after each examination.

Professional Code of Conduct

The Dental School's Professional Code of Conduct is based on the highest standards of integrity and self-discipline, rather than on imposed regulations. I have read the code and understand it. I have not violated any policies of this Code and I have not observed violations by others. I accept my duty to report any violations of the Code to the Judicial Board of the Dental School.

DRESS REGULATIONS

It is the responsibility of all students, faculty, and staff to maintain personal dress and cleanliness that is consistent with professional patient care and MOSH regulations. Enforcement of these regulations is the responsibility of everyone: faculty, staff and students. The General Practice Managers will monitor third and fourth year students for appropriate attire in the General Practices.

PATIENT TREATMENT AREAS:

1. Informal attire such as denim jeans and shorts are not permitted. Clean athletic shoes may only be worn with scrub attire.
2. All students will wear white clinic coats or disposable gowns, provided by the school, during patient treatment. Selection of the coat or gown is based on the procedure being performed. Clinic coats/gowns will be worn in all patient care areas. A clean coat or gown will be worn each day; it will be changed should it become visibly stained or contaminated during the clinic session. Clinic coats should not be worn outside the building.
3. Surgical scrub attire may be worn while providing patient care, as long as a clean white clinic coat and/or disposable gown is worn over the scrubs. Scrubs in solid, dark colors (blues, greens with the exception of navy blue which is reserved for faculty) will be purchased and maintained by the individual. If a t-shirt is worn underneath the scrub shirt, the t-shirt should be white, and its sleeve length should not extend below the sleeve length of the scrub top. Individuals choosing to wear scrubs for patient treatment may either change at school prior to patient treatment or arrive and leave the building in scrub attire.
4. If scrub attire is not worn in the clinic setting, men and women will wear attire appropriate for a professional environment. Men should wear clean, neat slacks and a collared shirt with a necktie. Women who choose to wear skirts, split skirts or dress shorts should select items with a length no shorter than two inches above the knee. Open toed shoes should not be worn in patient treatment areas.
5. Combination scrubs: Students may wear a dark solid-colored scrub top tucked into neat slacks with a belt and dress shoes. Female students may wear dark solid-colored scrub bottoms with a short-sleeved, solid colored fitted top and athletic shoes.

6. Rings and wristwatches which may potentially penetrate the glove should not be worn when providing patient treatment. Earrings should be either studs, hoops or dangles which hang no longer than one inch below the ear.
7. An individual's hair style should prevent hair from contacting patients, instruments, or equipment. Hair should be clean and neatly groomed. Hair longer than chin/shoulder length should be worn away from the clinician's face.
8. Fingernails should be clean, short (no longer than the fingertip) and well-manicured. Light-colored fingernail polish may be worn.

CLASSROOM/LABORATORY ATTIRE

1. Men and women may wear appropriate scrub attire as described for patient treatment areas, in #3 and #5 above.
2. If scrub attire is not worn, men and women will wear attire appropriate for a professional environment. Men should wear clean, neat slacks and a collared shirt or turtleneck. Women who choose to wear skirts, split skirts or dress shorts should select items with a length no shorter than two inches above the knee.
3. Faded, torn or tattered denim jeans should not be worn in the classroom or laboratory. Dark blue or colored denim jeans would be acceptable attire for the classroom or laboratory, but may not be worn into clinical areas.
4. Appropriate dress or dress casual shoes should be worn. Athletic shoes may be worn only with scrubs. Open-toed shoes are not acceptable in laboratory or clinical settings.
5. T-shirts with logos should not be worn in the Dental School.
6. Hats of a non-religious nature should not be worn in the Dental School.
7. Lab coats should be worn in anatomy and preclinical labs, and in the Clinical Simulation Unit (CSU).

Revised and approved by the Student Affairs Committee: May 7, 2001

Approved by Faculty Council: May 14, 2001

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

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