7-1-2017

2017/2018 University of the Pacific Arthur A. Dugoni School of Dentistry Catalog

University of the Pacific

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VISION, MISSION, AND VALUES

Vision

Leading the improvement of health by advancing oral health.

Mission

- Prepare oral healthcare providers for scientifically based practice
- Define new standards for education
- Provide patient-centered care
- Discover and disseminate knowledge
- Actualize individual potential
- Develop and promote policies addressing the needs of society

Core Values

These core values characterize the School of Dentistry and define its distinctive identity:

- Humanism: dignity, integrity, and responsibility
- Innovation: willingness to take calculated risks
- Leadership: modeling, inspiring, and mobilizing
- Reflection: using facts and outcomes for continuous improvement
- Stewardship: responsible use and management of resources
- Collaboration: partnering for the common good
- Philanthropy: investing time, talent and assets

Clinic Mission Statement

The mission of the school's clinics is to provide patient-centered, evidence-based, quality oral healthcare in a humanistic educational environment.

The goal of the clinic mission statement is to focus faculty, staff, and students on the delivery of excellent patient care. In all clinical interactions we will strive to provide excellent care to our patients and excellent educational experiences for our students. At those times when we must make a choice between patient care and teaching effectiveness, patient care will take precedence.

There are four parts to the mission statement. *Patient-centered care* means being prompt, efficient, responsible, engaging, focused, and adaptable, among other things. The private practice model is the patient care model to which we aspire. *Evidence-based decision making* involves the use of scientific evidence to help make treatment decisions. It is used in conjunction with individual patient values to determine the best course of action for each patient. *Quality oral healthcare* involves providing treatment to our patients that meets community standards of care in all disciplines. It means providing that care to patients of varying needs and expectations. *Humanistic education* is based on honest communication of clear expectations along with positive support for diligent effort.

Faculty and staff must be models of the profession's highest standards. Students are expected to set equally high standards for their behavior. The educational environment will be intellectually stimulating, progressive in scope, outcomes-focused, and competency-based.

RESERVATION OF POWERS

The School of Dentistry reserves the right to modify or change the curriculum, admission standards, course content, degree requirements, regulations, policies, procedures, tuition, and fees at any time without prior notice and effective immediately. Such changes or modifications will be posted in the online catalog, the source of the most current catalog information. Students who join a subsequent cohort for any reason are governed by the policies, requirements, and curriculum of the catalog in effect at the time of re-entry.

The information in this catalog is not to be regarded as creating an express or implied agreement between the student (or applicant) and the school, nor does its content limit the academic and administrative discretion of the school's administration.

HISTORY AND EDUCATIONAL GOALS

One of the world's most distinctive metropolitan centers, San Francisco has been the home of the School of Dentistry since its incorporation in 1896 as the College of Physicians and Surgeons. The school has been recognized since its inception as a major resource for dental education in the Western states.

- In 1962 the College of Physicians and Surgeons joined the University of the Pacific.
- In 1967 an eight-story building was completed for the teaching of clinical dentistry and for conducting dental research.
- In 1996 the school opened a state-of-the art preclinical simulation laboratory combining the latest in educational technology with a simulated patient experience.
- In 2002 three new state-of-the-art classrooms were completed.
- In 2003 a new Health Science Center was opened on the Stockton campus combining facilities for dentistry, dental hygiene, physical therapy, and speech pathology.
- In 2004 the university named the dental school in honor of its long-standing dean, Dr. Arthur A. Dugoni.
- In 2011 the school was awarded the prestigious Gies Award for Vision by the American Dental Education Association.
- In 2014 the dental school moved to a completely renovated and updated facility in downtown San Francisco, setting the pace for new and better methods of educating students and providing care to patients.
- In 2015 the dental school became the first school in California and in the United States to have students be licensured through a portfolio exam process.

The Alumni Association provided a twelve operatory dental clinic which has served as the school's major extended campus in southern Alameda County since 1973. The clinic currently serves as the clinic site for the school's Advanced Education in General Dentistry residency program.

ACCREDITATION

The University of the Pacific is fully accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC). The dental educational programs are fully accredited by the Commission on Dental Accreditation (CODA). The School of Dentistry is a member of the American Dental Education Association (ADEA).

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

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

CURRICULUM

Units of Credit

One unit of credit is awarded for ten hours of lecture or seminar, twenty hours of laboratory or clinic, or thirty hours of independent study per term. In the predoctoral programs (DDS and IDS), students are assigned to comprehensive care clinics for approximately 500 hours during the second year and 1,000 hours during the third, in addition to specialty clinic rotations. Units of credit are assigned in the comprehensive care clinical disciplines in proportion to the amount of time students spend providing specific types of care for assigned patterns.

Full-time enrollment in the predoctoral programs at the School of Dentistry (DDS and IDS) is defined as 16 or more units per term. Full-time enrollment in the graduate residency programs in orthodontics and endodontics is defined as 20 or more units per term. For the graduate certificate programs in Advanced Education in General Dentistry and Oral and Maxillofacial Surgery, full-time enrollment is defined as 16 or more units per term.

Personalized Instructional Program

Beginning with the DDS class of 2020 and IDS class of 2019, successful completion of a Personalized Instructional Program (PIP) is required for graduation. Thisis reflected on the transcript as a stand-alone course (SL 999) with comments indicating customized detail. Unit values will vary based upon contact hours.

Doctor of Dental Surgery (DDS)

Biomedical, preclinical, and clinical science subjects are integrated and combined with applied behavioral sciences in a program to prepare graduates to provide excellent quality dental care to the public and to enter a changing world that will require them to be critical thinkers and lifelong learners. The 36-month curriculum leading to the degree of Doctor of Dental Surgery begins in July and is divided into twelve quarters, each consisting of ten weeks of instruction, one week of examinations, and a vacation period of varying length (between one and four weeks).

Integrated biomedical science instruction in human anatomy, biochemistry, physiology, pharmacology, and microbiology is offered over the first eight quarters, followed by multidisciplinary presentations of basic science foundations for clinical topics such as the importance of saliva, tissue aging, nutrition, and infection control. Throughout the curriculum, students learn to apply basic science knowledge to clinical problems. Integrated preclinical instruction in direct and indirect restorative dentistry and dental anatomy is concentrated in the first four quarters with students learning to work from a seated position in a modern preclinical simulation laboratory and with a chair-side assistant in conjunction with pediatric dental practice. Preclinical instruction in removable prosthodontics, occlusion, and implants is offered in quarters 5-7. Clinical work with patients is initiated in the fourth quarter.

The school is a pioneer in competency-based education, an approach that replaces the traditional system of clinical requirements with experiences that ensure graduates possess the knowledge, skills, and values needed to begin the independent practice of general dentistry. Pacific is also known for its humanistic approach to dental education, stressing the dignity of each individual and his or her value as a person.

The Clinical Practice Strand of the Helix curriculum supports comprehensive patient care which is based on the concept of private dental practice where the student assumes responsibility for assigned patients' overall treatment, consultation, and referral for specialty care. Second-year students practice clinical dentistry approximately 15 hours per week and third year students practice approximately 33 hours per week. Students learn to provide comprehensive dental care under the direction of a team of clinical faculty led by the Group Practice Leader (GPL). The GPL is responsible for mentoring students and ensuring they are receiving adequate clinical experiences to ensure competency upon graduation. In the second year, students treat patients in a discipline-based model where they are supervised by trained and calibrated faculty in specific clinical disciplines, including oral diagnosis and treatment planning, periodontics, endodontics, restorative dentistry, and removable prosthodontics. In the third year, students treat patients in a generalist model, where they provide all care for their patients under faculty supervision. Faculty to student ratio in the clinic 1:5.

The second- and third-year class is divided alphabetically into eight group practices. There are approximately twenty second-year and twenty third-year students in each group practice, which is managed by the GPL, who has overall responsibility for the care of patients by all students and faculty in the group practice. Specialists in endodontics manage complex cases in a specified area of the clinic, including test cases. Periodontists manage most periodontal procedures.

There are four discipline exceptions to the comprehensive care model: oral and maxillofacial surgery, pediatric dentistry, oral medicine/facial pain, and radiology. Students are assigned to rotations for two to three weeks in each of these disciplines, except for the oral medicine/facial pain rotations which are one day each. In orthodontics, students participate with faculty and orthodontic residents in adjunctive orthodontic care and in oral development clinics. Third-year students also rotate through the Special Care Clinic where they treat perinatal patients, dental-phobic patients, and patients with developmental disabilities. In addition, each student provides care in the hospital operating room on patients with specific health issues, including liver transplant patients.

Advanced clinical dentistry and evaluation of new developments and topics that involve several disciplines are learned in the third year in conjunction with patient care. Second- and third- year students participate in patient care at extramural sites located in numerous treatment facilities around the Bay Area, including acute care hospitals, community clinics, and skilled nursing facilities. At extramural clinic sites, students are taught by Pacific faculty in conditions that more closely resemble private practice, and typically treat 4-6 patients per day. Rotations occur at a number of different times, including weekdays during the academic year, weekends, and vacation periods. Students typically find these experiences to be valuable, teaching them how to provide excellent patient care in a condensed time frame. Students may elect to participate in externships to specialty programs during academic break periods, most often the four-week summer break.

Behavioral science aspects of ethics, communication, human resource and practice management, and dental jurisprudence are integrated across the curriculum. Epidemiology and demography of the older population, basic processes of aging, and dental management of hospitalized patients, geriatric patients, and those with the most common disabling conditions are studied during the third year.

Students are counseled individually with regard to establishing a practice and applying for postgraduate education. A weekend conference in the senior year acquaints students with opportunities for postgraduate education and with alumni views of the realities of dental practice.

International Dental Studies Program (IDS)

Preclinical, and clinical science subjects are integrated and combined with applied behavioral sciences and biomedical science in a program to prepare graduates to provide high quality dental care to the public and to enter a changing world that will require them to be critical thinkers and lifelong learners. The 24-month curriculum leading to the degree of Doctor of Dental Surgery begins in July and is divided into eight quarters, each consisting of ten weeks of instruction, one week of examinations, and a vacation period of varying length (between one and four weeks). Students in the IDS program are held to the same competency standards as their peers in the DDS program.

Integrated preclinical instruction is concentrated in the first three quarters with students learning to work from a seated position in a modern preclinical simulation laboratory and with a chair-side assistant in conjunction with pediatric dental practice. Clinical work with patients is initiated in the second quarter.

The school is a pioneer in competency-based education, an approach that replaces the traditional system of clinical requirements with experiences that ensure graduates possess the skills, understanding, and professional values needed for the independent practice of general dentistry. Pacific is also known for its humanistic approach to dental education, stressing the dignity of each individual and his or her value as a person.

The Clinical Practice Strand of the Helix curriculum supports comprehensive patient care which is based on the concept of private dental practice where the student assumes responsibility for assigned patients' overall treatment, consultation, and referral for specialty care. First-year IDS students begin seeing patients in the second quarter, and practice clinical dentistry approximately 15 hours per week by the conclusion of the first year. Second-year IDS students practice approximately 33 hours per week. Students learn to provide comprehensive dental care under the direction of a team of clinical faculty led by the Group Practice Leader (GPL). The GPL is responsible for mentoring students and ensuring they are receiving adequate clinical experiences to ensure competency upon graduation. In the second year, students treat patients in a discipline-based model where they are supervised by trained and calibrated faculty in specific clinical disciplines, including oral diagnosis and treatment planning, periodontics, endodontics, restorative dentistry, and removable prosthodontics. In the third year, students treat patients in a generalist model, where they provide all care for their patients under faculty supervision. Faculty to student ratio in the clinic 1:5.

There are four discipline exceptions to the comprehensive care model: oral and maxillofacial surgery, pediatric dentistry, oral medicine/facial pain, and radiology. Students are assigned to rotations for two to three weeks in each of these disciplines, except for the oral medicine/facial pain rotations which are one day each. In orthodontics, students participate with faculty and orthodontic residents in adjunctive orthodontic care and in oral development clinics. Second-year students also rotate through the Special Care Clinic where they treat perinatal patients, dental-phobic patients, and patients with developmental disabilities. In addition, each student provides care in the hospital operating room on patients with specific health issues, including liver transplant patients.

Advanced clinical dentistry and evaluation of new developments and topics that involve several disciplines are learned in the second year in conjunction with patient care. Second-year IDS students participate in patient care at extramural sites in numerous treatment facilities around the Bay Area, including acute care hospitals, community clinics, and skilled nursing facilities. At extramural clinic sites, students are taught by Pacific faculty in conditions that more closely resemble private practice and typically treat 4-6 patients per day. Rotations at these sites occur at a number of different times, including weekdays during the academic year, weekends, and vacation periods. Students typically find these experiences to be highly educational, teaching them how to provide excellent patient care in a more condensed time frame. IDS students can elect to participate in externships to specialty programs during academic break periods, most often the four-week summer break.

Behavioral science aspects of ethics, communication, human resource and practice management, and dental jurisprudence are integrated throughout the curriculum. Epidemiology and demography of the older population, basic processes of aging, and dental management of hospitalized patients, geriatric patients, and those with the most common disabling conditions are studied during the final year.

Students are counseled individually with regard to establishing a practice and applying for postgraduate education. A weekend conference acquaints IDS students with opportunities for postgraduate education and with alumni views of the realities of dental practice.

Endodontology

Endodontic residents participate in a comprehensive 27-month program designed to provide in-depth clinical training in endodontics, supported by a solid foundation of coursework in the biologic principles that uphold the specialty. In addition to a curriculum that nurtures the clinician-scientist, the program offers clinical experiences with an extensive patient demographic supported by the School of Dentistry and a community dental clinic that is part of an expansive health care network in the East San Francisco Bay Area. Each resident will also engage in an investigative project and complete an acceptable thesis to qualify for the Master of Science in Dentistry degree. The thesis is typically submitted for publication in scientific journals. Classes begin each July. Residents are scheduled for classroom and clinical instruction five full days (and some evenings) per week and full participation is required.

The graduate program in endodontology is fully accredited by the Commission on Dental Accreditation.

More information on the program, including admissions requirements, curriculum and schedule, graduation and certification requirements are available here (http://dental.pacific.edu/academic-programs/residency-and-graduate-programs/advanced-education-program-in-endodontology).

Orthodontics

Pacific's orthodontics residency program, instituted in 1971, is fully accredited by the Commission on Dental Accreditation, and is recognized for educational eligibility by the American Board of Orthodontics. The program's courses prepare the resident to provide excellent treatment based on contemporary biologic orthodontic principles.

Faculty members foster the humanistic atmosphere with informal professional relationships and mutual respect with the residents. Clinical instruction and practice are conducted in the orthodontic clinic.

Residents treat an entire range of orthodontic problems during seven half-day clinics per week including instruction in general orthodontics, mixed dentition treatment, surgical orthodontics, mini-implants, and Invisalign. Adult patients constitute about one-fourth of a resident's case load. Each resident starts approximately 50 new patients and is transferred approximately 60-80 existing patients. Fixed appliance treatment employs the edgewise technique although instruction permits a wide latitude of clinical variation based on patient needs and faculty supervision.

Each resident engages in an investigative project and must complete an acceptable thesis to qualify for the Master of Science in Dentistry degree.

Residents are scheduled for didactic and clinical instruction five full days per week and full participation is required. While there is no prohibition of weekend private dental practice, residents' commitments during the program seriously limit this opportunity.

More information on the program, including admissions requirements, curriculum and schedule, graduation and certification requirements is available here (http://dental.pacific.edu/academic-programs/residency-and-graduate-programs/graduate-orthodontics-program).

Oral and Maxillofacial Surgery Residency Program

The sponsoring Institutions for the Oral and Maxillofacial Surgery Residency program are the University of the Pacific, Arthur A. Dugoni School of Dentistry and the Alameda Health System/Highland Hospital. Residents receive a thorough foundation in the basic biomedical sciences, including anatomy, pathology, pharmacology, and physiology.

The residency is 48 months in length, and is divided into 34 months of oral and maxillofacial surgery, 2 months of internal medicine, 5 months of anesthesia (2 months of adult anesthesia and 1 month of pediatric anesthesia), 5 months of surgery (2 months of general surgery, 2 months of trauma surgery and 1 month of SICU), and 2 months of plastic surgery/oral pathology. There are several hospitals and clinics utilized for clinical training. The main hospital and training site is Alameda Health System/Highland Hospital, and the University of the Pacific Arthur A. Dugoni School of Dentistry. Affiliated hospitals include University of California San Francisco's Benioff Children's Hospital Oakland and Kaiser Hospital in Oakland.

Training is rigorous and includes experience in:

- Adult and pediatric conscious sedation and general anesthesia
- Dentoalveolar surgery and implant surgery
- Complex maxillofacial trauma of adult and pediatric population
- Maxillofacial reconstructive surgery
- Orthognathic surgery
- Oral and maxillofacial pathology
- Cleft surgeries
- Facial cosmetic surgery
- Temporomandibular joint surgery

Stipend

Residents receive salaries from PGY1 to PGY4.

Admission Requirements and Application

To apply to the program, a candidate requires an undergraduate degree, transcripts showing a DDS or DMD degree, a completed PASS application, National Board of Medical Examiners (NBME) Comprehensive Basic Science Examination (CBSE) score, and three letters of recommendation. University of the Pacific/Highland participates in the National Matching Service. Please see the Alameda Health System webpage (http://www.highlandahs.org/health-professionals/residencies-and-fellowships/oral-and-maxillofacial-surgery/admission) for complete admission requirements.

For more information please contact:

Rachelle Surdilla
OMS Program Coordinator
Division of Oral and Maxillofacial Surgery
University of the Pacific/Alameda Health System - Highland Hospital
1411 East 31st Street

Oakland, CA 94602
Phone: (510) 437-4101
Email: rsurdilla@alamedahealthsystem.org

Advanced Education in General Dentistry

The University of the Pacific, Arthur A. Dugoni School of Dentistry houses its Advanced Education in General Dentistry (AEGD) residency program in Union City, approximately 35 miles southeast of San Francisco.

The AEGD program is a one-year accredited postgraduate residency in general dentistry with an optional second year. The core of the program involves advanced clinical treatment of patients requiring comprehensive general dental care to healthy as well as medically compromised patients. Rotations are strategically set for additional training in geriatrics, pediatrics, hospital dentistry, implant restorations and dental emergencies. The AEGD program has an emphasis in minimally invasive and prevention based dentistry such as CAMBRA (CAries Management By Risk Assessment). We feature CAD/CAM restorations, complex implant restoration, Invisalign, and Cone Beam technology. There is an all-encompassing seminar series which covers all dental specialties and participation in rotations at community clinics and in a hospital setting.

The start date for the program is July 1. Residents have time off during the school's winter break and 10 days leave that can be scheduled with the approval of the program director.

Applicants must show record they have graduated from North American dental school. There is no tuition to participate in the program; residents receive an educational stipend. The program uses the American Dental Education Association's PASS application to receive application materials. For further information on the Pacific AEGD program application process, please click here (http://dental.pacific.edu/academic-programs/residency-and-graduate-programs/advanced-education-in-general-dentistry/application-process). To learn more about the Union City Dental Care Center, please click here (http://www.unioncitydentalcare.com).

International General Dentist Educator Program

In this five-year program, the first two years consist of participation in the AEGD program, and the remaining three years consist of attaining a Master's or doctoral degree in professional education and leadership from the University's Benerd School of Education.

The clinical residency and graduate program for international general dentists is a dual-track program consisting of clinical and didactic education. The clinical track is mainly intended to prepare the candidate for a career in patient care and clinical education. The didactic track and teaching practicum are mainly intended to prepare the candidate for a full-time career in dental academia. However, each track may have overlapping features in terms of purpose.

Clinical education is provided under a two-year residency program leading to a clinical certificate upon completion of both years one and two. Didactic education is provided under the two-year graduate program leading to a Master's in Education. The final year of the program will consist of completing the thesis project if not completed in the previous year, and teaching practicum in didactic, pre-clinical, and clinical education of doctoral students. Please click here (http://www.dental.pacific.edu/Academic_Programs/International_General_Dentist_Educator_Program.html) for more information about this program.

Dental Hygiene Program

The Study of Dental Hygiene

The dental hygiene course of study is an undergraduate, upper division professional program where students learn to provide preventive clinical care for patients with emphasis on recognition, treatment, and prevention of oral diseases. In addition to performing a variety of preventive and therapeutic functions, the dental hygienist also has a major role in counseling and educating patients, community groups, and other health professionals. The curriculum helps students build the educational, communication, and clinical skills necessary to work in co-therapy with the dental team.

Facilities

The dental hygiene program is located at University of the Pacific's San Francisco campus, along with other dental programs offered at the Arthur A. Dugoni School of Dentistry. The program's connection to the school's San Francisco-based dental clinics and programs allows for enhanced interprofessional collaboration in the field of oral healthcare; opportunities for dental hygiene students to learn alongside other dental students in the DDS, IDS and residency programs; and a large base of patients who utilize the school's clinics. The San Francisco campus is a state-of-the-art facility located in the South of Market (SoMa) district and is highly accessible by all major forms of public transportation, including BART and Muni.

Admission Requirements

Admission to the Dental Hygiene Program is competitive and based on merit. Students who have completed program prerequisites (at Pacific or another learning institution) will apply via the American Dental Education Association's Centralized Application Service (DHCAS). After review of completed applications, the Office of Admissions will invite qualified candidates to participate in interviews on the San Francisco campus. In addition to a personal interview, applicants are invited to meet informally with current students and tour the campus. Admission will be based on the combination of application information and interview.

Students may apply as freshmen to a pre-dental hygiene pathway presented on the university's main campus in Stockton. Prerequisite coursework may be completed through learning experiences with the general undergraduate student population. Students in the pre-dental hygiene pathway will

be guaranteed an interview for the upper division professional dental hygiene program if they maintain at least a 2.7 GPA. Students who have already earned a bachelor degree are welcome to apply and should follow the admission process for transfer students.

Please click here (http://www.pacific.edu/Admission/Undergraduate/Applying/Dental-Hygiene.html) to see detailed admissions information.

Program Description

The Baccalaureate Dental Hygiene program is a professional program presented in an accelerated year-round format, including summer and culminating with the bachelor of science in dental hygiene degree. Transfer program entrants, with prerequisites fulfilled, complete the final four semesters of professional coursework which begins every year in January.

Program applicants must complete prerequisite general education courses either at Pacific or another institution to provide a strong science background and a broad base in the humanities. The prerequisites are designed to strengthen dental hygiene science and clinical practice.

The professional portion of the program is a highly-structured four consecutive semesters of upper division coursework that includes both didactic and clinical experience. This portion of the program is presented by the Arthur A. Dugoni School of Dentistry Dental Hygiene Program on the Stockton campus until January 2017, when it will then be offered on the San Francisco campus.

Dental Hygiene Licensure

Completion of the program enables graduates to take national and regional or state licensure examinations. For California examination information contact:

Dental Hygiene Committee of California
2005 Evergreen Street., Suite 1050
Sacramento, CA 95815
http://www.dhcc.ca.gov/

(916) 263-1978 or (916) 263-1978

General Education Curriculum

Dental hygiene prerequisites consist of general education courses providing a strong science background and a broad base in the humanities.

Please click here (http://catalog.pacific.edu/general/arthuradugonischoolofdentistry/dentalhygiene) to see more about the general education requirements in this program.

Dental Hygiene Curriculum

Professional training is undertaken in four consecutive semesters following prerequisites. The curriculum provides students with the knowledge of oral health and disease as a basis for assuming responsibility to assess, plan, implement and evaluate dental hygiene services for both the individual patient and community oral health programs.

Please click here (http://catalog.pacific.edu/general/arthuradugonischoolofdentistry/dentalhygiene) to see more about the professional training requirements in this program.

UNDERGRADUATE PROGRAMS

Degrees Offered

Bachelor of Science

Majors Offered

Dental Hygiene (BS)

(Undergraduate and Pharmacy)

All students are urged to read these general regulations carefully. Failure to be familiar with this section does not excuse a student from the obligation to comply with all the described regulations.

Although every effort has been made to ensure the accuracy of this catalog, students are advised that the information contained in it is subject to change. They should therefore consult the Registration Information section of the Office of the Registrar web page for any term to relate these regulations to calendar dates. The University reserves the right to revise its regulations and programs in accord with sound academic standards and requirements.

University of the Pacific's Four-Year Guarantee

The purpose of the Four-Year Graduation Guarantee ("Guarantee") is to facilitate a student's goal to graduate in four years with a Bachelors degree. To be eligible for the Guarantee, a student must satisfy each of the following conditions:

1. Declare and be admitted to a major by the beginning of the sophomore year by filing a Change of Program form. You may change majors if, at the time you make a change, you can still meet the requirements of the new major and graduate within four calendar years.

2. Remain in good academic standing (2.00 GPA - major and institutional) at the University.

3. Complete 32 semester hours of units each year for four years as required by the college and major, and meet all degree progress checkpoints.

4. Meet with your faculty advisor prior to registration each term to review your course plan and monitor progress.

5. Register for courses within **two days** of the assigned early registration appointment. Enroll in available courses needed for the program of study; accept any available section that can be accommodated in your course schedule. Sole exceptions: Students who are on Study Abroad or off campus participating in a full-time co-op may require a few additional days to register.

6. Make timely annual application for all necessary financial assistance, to avoid registration problems.

7. Apply for graduation by the stated deadline published in the academic and/or term calendars.

8. Monitor your own progress toward degree using the electronic degree check audit system (DegreeWorks) and ROAR (Roam On Line Articulation Reports) regarding transfer work to help you stay on track.

9. Notify faculty advisor if unable to register for a required course needed in the major or for graduation.

•**Special exclusions:** Five year programs and students following individualized learning programs.

If the student satisfies all of the foregoing conditions, but is unable to graduate due to unavailability of a course, the University will offer one of the following remedies:

1. Enable the student to graduate in four years by substituting a different course or an independent study assignment, as determined by the department and the college offering the student's major.

2. Allow the unavailability of the course to delay the student from graduating in four years, in which case the University will waive Pacific tuition and mandatory fees in order for the student to graduate within the next academic year.

The University may choose, in its sole discretion, which of the two foregoing remedies it will offer the student under this Guarantee, and the remedy chosen by the University will be the student's sole remedy under this Guarantee. The University is under no obligation to provide one of the foregoing remedies unless the student submits a written request for an accommodation to the Provost prior to beginning of classes in the last term of the student's four year plan.

Academic Residence Requirement

The minimum residence requirement for a bachelor's degree program requires 32 out of the last 40 units to be earned in residence at University of the Pacific. This means once a student has reached 40 units less than what is required for his/her degree only 8 more units may be accepted from a four year accredited institution. Additional community college or four year institution courses satisfy content requirements only and do not apply to the minimum units required for the degree. Example: If 124 units are required for the degree once a student has reached 84 units, only 8 more units can

transfer in (from a four year accredited institution). If 128 units are required for the degree once a student has reached 88 units, only 8 more units can transfer in.

Normally these 32 units must be taken on the Stockton campus, but study in Pacific-affiliated programs elsewhere in the United States or abroad may count toward the residency requirement if the student has taken at least 32 units on the Stockton campus at the time of graduation.

The school or college from which the student is to graduate may stipulate that the units in residence must include certain specific requirements in the major program and/or a certain minimum of units within the school or department of the major.

Academic Standing

At the end of each semester, an undergraduate or professional pharmacy student's academic standing is designated as one of the following: good standing, good standing with warning, probation, subject to disqualification (temporary status) or disqualification. The criteria for these academic standings are based upon a combination of the cumulative Pacific GPA and the term GPA and vary according to a student's classification. Unless admitted on probation, a student is in good standing during the first semester of attendance. Students who are subject to disqualification are reviewed by an appropriate committee and are either disqualified from further enrollment at the University or are allowed to continue for the next semester on probation. The criteria for the different academic standings are outlined below:

Good Standing:

- term GPA of 2.00 or higher and a cumulative Pacific GPA of 2.00 or higher

Good Standing with Warning:

- term GPA below 2.00 and a cumulative Pacific GPA of 2.00 or higher.

Probation:

If prior semester is 'Good Standing':

- Freshman-Junior: term GPA is below 2.00 and cumulative Pacific GPA below 2.00

If prior semester is 'Good Standing with Warning or 'Probation':

- Freshman: term GPA is below 2.00 and cumulative Pacific GPA between 1.50 and 1.99
- Sophomores: term GPA below 2.00 and cumulative Pacific GPA between 1.80 and 1.99
- Juniors: term GPA below 2.00 and cumulative Pacific GPA between 1.95 and 1.99
- All undergraduates: term GPA of 2.00 or higher and cumulative Pacific GPA below 2.00

Subject to Disqualification (temporary status):

If prior semester is 'Good Standing':

- Seniors: term GPA below 2.00 and cumulative Pacific GPA below 2.00

If prior semester is 'Good Standing with Warning' or 'Probation':

- Freshmen: term GPA below 2.00 and cumulative Pacific GPA below 1.50
- Sophomores: term GPA below 2.00 and cumulative Pacific GPA below 1.80
- Juniors: term GPA below 2.00 and cumulative Pacific GPA below 1.95
- Seniors: term GPA below 2.00 and cumulative Pacific GPA below 2.00

Disqualified:

Each school determines whether a student subject to disqualification is disqualified. If not disqualified, a student subject to disqualification is placed on probation for the following term. If disqualified, a student is not allowed to register for further study at the University during a regular term while disqualified, but may attend the "open enrollment" summer sessions.

A student who has been disqualified may appeal immediately for reconsideration and possible reinstatement on probation within the same school or college or in another school or college of the University. A disqualified student who has been out of the University for one semester or more, excluding summer terms, may apply for readmission to the University through the Office of Admission. If readmitted, such a student enters on probation and needs to make up the earlier deficiency in order to attain good academic standing.

Acquisition of Graduate Credit as an Undergraduate

Undergraduates can open a graduate transcript (i.e., receive credit in graduate-level courses while an undergraduate) if they meet all of the following conditions. The undergraduate student must:

- be within 9 units of completing the baccalaureate degree.

- be in the last two semesters of the baccalaureate degree at University of the Pacific.
- submit the completed *Evaluation of Degree Requirements* form to the Office of the Registrar prior to the last day to add classes. This must be submitted before or with the *Graduate Credit as Undergraduate* application. (This serves as permission by the undergraduate advisor for the student to take graduate-level coursework.
- be admitted into a graduate or credential program and receive approval of the *Application to Receive Graduate Credit as an Undergraduate Student* by the Office of the Registrar before the last day to add classes of the last semester as an undergraduate.

Additional regulations for receiving graduate credit as an undergraduate are as follows:

- Coursework will not count for graduate credit if the student fails to complete the baccalaureate degree by the second semester of taking graduate credit.
- Students who do not complete the baccalaureate degree by the second semester when graduate courses are taken will not be admitted into the graduate program and cannot take additional graduate course work until the baccalaureate degree has been awarded.
- The total number of graduate credits for the semester cannot exceed the maximum *graduate* course load of the department providing graduate coursework. This includes coursework taken at other schools.
- No more than 12 units (16 units for student teachers can be transferred from an undergraduate transcript into a graduate degree program.Graduate credit will only be granted for upper division (100 numbered) courses.
- Undergraduate students cannot register in graduate-only courses (numbered 200 an above) unless this petition is approved by the Office of the Registrar **prior** to registration.
- The tuition rate for the entire semester is at the undergraduate rate.
- Units cannot be retroactively transferred from an undergraduate to a graduate program. (The approval must be obtained prior to the beginning of the last day to add classes of the last semester.)
- Graduate courses completed under this agreement will not be recorded by the Registrar as graduate coursework until the baccalaureate degree has been completed and matriculation into the graduate program has commenced. Grades from these courses will not be counted in the undergraduate grade point average (*unless the baccalaureate degree is not completed)*.
- There is no guarantee that graduate units earned as an undergraduate will transfer to or be counted as post-baccalaureate units by other universities or school districts.
- Students are not classified as graduate students until they register for courses and complete a term that begins after receiving the baccalaureate degree.

Auditing a Class

Auditing of a course is an option that allows exposure to a course with no course credit awarded. To audit a course, approval must be granted by both the instructor and the chair of the department in which the course is offered via an add/drop form. Auditing is not available in participation courses such as applied music, physical education, art courses of an applied nature, etc. Students auditing a course must pay an auditing fee. Courses taken through auditing may not subsequently be converted to a course credit or grade. The student must indicate at the time of registration if they wish to audit a course, and pay the appropriate fee. An audited course and grade AU (Audit) may not be used to fulfill or waive any degree requirements. An AW (Audit Withdrawal) grade will be assigned for withdrawals.

Cancellation

If you are a newly admitted and confirmed student and do not wish to attend Pacific for a semester and instruction has not yet begun, you must formally request a cancellation of your registration from the university. To cancel your registration (prior to the start of the term) contact the Office of Admission. If you are a continuing student and need to drop your last class after the add/drop deadline you must visit the Office of the Registrar and obtain a date of notification recorded on the Withdrawal form. The notification date is your official withdrawal date used by Financial Aid in the Return of Title IV Aid calculation and the effective date used by Student Accounts for tuition refunds.

Catalog Expiration and Requirements Policy

The catalog lists requirements for active degrees offered by the university. Each catalog goes into effect at the beginning of the fall term the academic year of issue. It expires at the end of summer session the seventh academic year after publication for students maintaining attendance. Advisors and other university employees are available to help, but students have final responsibility for satisfying degree requirements for graduation.

Students are held to program requirements (general education and major/minor) in effect at the time of first enrollment. Students who change their program/major are held to degree requirements in effect at the time of the change of program. Students may, using a Change of Program form, elect to graduate under degree requirements specified in subsequent catalogs; under no circumstances are the requirements from an earlier catalog applied.

Change of Address

All students must notify the Office of the Registrar immediately of any change in their addresses or those of their parents or guardians. The University assumes no responsibility for materials sent through the mail not received.

Change of Program Objective

A student who has been admitted to one degree program and who later desires to change to another degree, major, concentration, or subsequent catalog must submit an approved Change of Program form with the Office of the Registrar.

Class Attendance

Students are expected to attend classes regularly. Specific attendance policies are determined and provided by individual instructors in their course syllabus at the beginning of the semester.

Class Standing

Undergraduate students are designated freshmen, sophomores, juniors or seniors by the number of units which have been completed toward graduation as follows:

1 – 27.99 units designates a freshman.

28 – 55.99 units designates a sophomore.

56 – 91.99 units designates a junior.

92 – up units designates a senior.

Post Baccalaureate

Other students are classified as Undergraduate Unclassified. See the Undergraduate Unclassified section of this catalog.

Commencement

Commencement exercises to honor students who have earned baccalaureate and professional pharmacy degrees are held each year in May. Students who have earned their degrees in the previous Fall or Summer terms are welcome to participate.

Undergraduate students who have not completed all their degree requirements may participate in commencement if they have accumulated 92 units by the end of the Fall semester prior to May commencement. Students with deficiencies who plan to participate in the May commencement ceremony must apply for graduation by the April deadline.

Course Loads

Fall and Spring Semesters (Undergradaute and Professional Pharmacy students)

Full Time: 12 or more units a semester

Half Time: 6 -11.9 units a semester

Less than Half Time: 5.9 or less a semester

Twelve units constitute a minimum full-time program of studies during a semester for the regular undergraduate and first professional level student and is the minimum required for participation in intercollegiate activities. If a student registers for fewer than 12 units or drops below 12 units financial aid may be reduced. (Students who are less than half-time are not eligible for financial aid.)

The maximum study load during a semester for undergraduates without special permission is 18 units and 19 units for first professional level students. Students who wish to enroll for units in excess of the maximum study load must petition their school/college in advance. Approval is based to a great extent upon the student's past academic record and results in additional tuition charges. If a student is approved to take courses concurrently at another institution, the units at Pacific and the other institution may not exceed 18 units during Fall and Spring or 8 units during each Summer Sessions.

Minimum and maximum study loads for graduate students are defined in the Graduate Catalog.

Course Numbering System

Undergraduate Courses:

Lower Division courses. Courses, numbered 001 – 099, are primarily designed for freshmen and sophomores.

Upper Division courses. Courses, numbered 100 – 199, are typically open to students who have met the necessary prerequisites as indicated in the catalog course description. These courses are designed primarily for juniors and seniors but exceptions may be appropriate for qualified sophomores.

Graduate Courses:

Courses numbered 200 – 399 are primarily designated for graduate students. 300 and above are primarily for students admitted to a doctoral program.

Courses numbered in the 9000 series are used for specific professional development courses that are graduate level, non-degree courses in the Center for Professional and Continuing Education.

Prerequisites

Prerequisites for courses are listed in each course description; the responsibility for meeting these requirements rests on the student. The instructor, chair or dean's office may request that a student who has not completed the prerequisites be dropped from the course.

Variable Unit Courses

Some course numbers are used to describe specific types of courses, as follows:

- 087/187/287 – Internship study. Work experience conducted off campus, under the supervision of a non-full time Pacific faculty member.
- 089/189/289 – Practicum. Work experience conducted on campus, under the direction of a faculty member.
- 092/192/292 – Cooperative education. Work experience on a full-time or part-time basis. The Cooperative Education Program in each school or college differs in unit allowance. See the appropriate school for unit specifics in the general catalog.
- 093/193/293/393 – Special Topics. Departments may offer, on occasion, special topic courses. Courses may reflect the current research of the instructor or the needs and interests of a group of students. Detailed descriptions can be obtained from the chair in which the courses are being offered.
- 191/291/391 – Independent Study
- 195/295/395 – Seminar. Undergraduate/Graduate/doctoral
- 197/297/397 – Independent Research.

Graduate/Doctoral

- 299 – Master's Thesis
- 399 – Doctoral Dissertation

Note: These numbering standards are general standards and reflect current practice among most units. Some units may have exceptions to these. Students should check for these within their majors for individual unit standards that may differ from these general numbering standards.

Credit by Examination

An undergraduate student in good standing and currently enrolled for four or more units may "challenge" by examination certain courses offered in the current term by the University. Departments have the right to designate which of their courses are appropriate for credit by examination. This policy is subject to the following restrictions:

1. A student may challenge a course covering material in which, because of independent study since high school graduation, or because of work at another college or university which was not accepted for transfer credit, the student feels prepared. It is the responsibility of the student to explain how the material was mastered.
2. A student who wishes to challenge a course should not expect the instructor of the course to provide assistance beyond an explanation of the scope of the examination.
3. A student who wishes to challenge a course may not attend the class meetings of the course.
4. A student may not receive credit by examination in the semester in which the student intends to receive his or her baccalaureate degree.
5. A student may not get credit by examination for a course which the student has already audited or failed with a grade of F or NC.
6. A student may not get credit by examination for a course in a structured sequence if the student has received credit for a higher level course in the sequence.
7. Credit earned by a challenge examination may not be used to meet the University residency requirement.

A student pursues the credit by examination option must obtain a Credit by Examination form from the Office of the Registrar and pay the scheduled $50.00 service fee (non-refundable).

Successful completion of the examination is then recorded on the transcript with a grade of pass and is made a part of the student's academic record in the term in which the examination is requested. Students who pass the exam are charged an additional $200.00 for the course credit. Such credit is not considered to generate an overload.

Credit Limitations

Undergraduate students can apply a combined total of eight units of ACTY 002-049 General Activity, ACTY 050-099 - Intercollegiate Sports and THEA 005 in the Theatre Arts Department toward graduation. Up to 8 units of activity and intercollegiate sports classes may count toward the COP breadth requirement.

A total of no more than 20 units may be applied toward a degree from any or all of the following: courses taken in accredited correspondence schools, extension correspondence schools, extension courses, and/or courses taken credit by examination. None of these credits, except extension courses taken at the University, is accepted during the term in which the student is completing requirements for graduation in this University.

A total of no more than 30 units of coursework in business administration may be applied toward a degree, except in the case of students majoring in business administration.

A total of no more than 28 units may be applied towards a degree from Advanced Placement (AP), International Baccalaureate (IB), DANTES and/or CLEP tests.

Cross Listed Courses

A cross-listed course is one that carries credit in more than one department or program.

Dean's Honor Roll

Each undergraduate student currently enrolled in the University who achieves a 3.5 grade point average or above at the close of a term in which twelve or more units of letter-graded (A through F) work have been completed is designated as being on the Dean's Honor Roll for that term. A notation is indicated on the student's academic record of this achievement.

Degree Types

Second Bachelor's Degree (consecutively or concurrent):

Second Bachelor's degrees are awarded under the following conditions:

1. The student does complete 32 units beyond those required for the degree that has the highest credit requirement. These units must be completed in residence at Pacific.
2. The student does complete all specific requirements of both programs (both general educations and majors).
3. Both degrees must be completed at the same time under the same catalog requirements when earned concurrently.

Multiple Majors:

Students may obtain a baccalaureate degree with multiple majors by completing the requirements for all majors under the same catalog requirements. Majors may consist of departmental majors, interdepartmental majors or majors in different schools. Multiple majors are recorded on the student's permanent record, but only one degree is awarded. The degree is issued by the student's primary declared school.

Diplomas

Diplomas are not awarded at Commencement but are available approximately three to four months afterward. Diplomas are mailed to the permanent address on file. Diplomas are not issued if you have outstanding financial obligations to the University. Diplomas left unclaimed are destroyed after five years. Students must re-order and pay for new or replacement diplomas.

The student's diploma lists the degree, the school/college, and, if applicable, major and academic honors. The official academic transcript also lists the major(s), concentration(s) minor(s) and academic honors. Graduation dates posted on the diploma coincide with the last day of the semester. Degrees are posted Fall, Spring and Summer I, II and III. The official graduation date reflects the completion of all academic requirements for the degree and not necessarily the last term of enrollment.

Enrollment Verification

Students who need enrollment verification from the Office of the Registrar must be registered in the term to be verified. Students should print enrollment verifications by logging onto insidePacific, then selecting the National Student Clearinghouse (NSC) Link and print Enrollment verification. Students can also obtain their good student standing certificate here.

Final Examinations

Students are required to take all scheduled exams. Matters of grading and testing procedures are the responsibility of individual instructors. If the instructor chooses to give a final examination, it must be scheduled during the time specified by the University Registrar for the final examination for that course. No student is allowed to take a final examination before the scheduled time.

Grade Point Average

The Pacific grade point average is determined by adding the total quality points and by dividing the resultant sum by the total number of quality hours. As a general rule, the ratio is based on the number of letter graded units completed; e.g., if a student repeats a course both courses will be considered in the overall grade point average.

Grading Policies

Symbols and Definitions:

Undergraduate and first professional level students are assigned grades in keeping with the following provisions. (Grading policies for graduate students are defined in the Graduate Catalog.)

Symbol	GPA	Definition
A	4.0	Outstanding work, highly meritorious
A-	3.7	
B+	3.3	
B	3.0	Very good but not outstanding
B-	2.7	
C+	2.3	
C	2.0	Satisfactory
C-	1.7	
D+	1.3	
D	1.0	Barely passing but counts toward graduation
F	0.0	Failure. Grade count in the grade point average must be repeated with a satisfactory grade to receive credit toward graduation. Also, an F is a default grade given when an instructor does not report a grade.
AU/AW		Audit/Audit Withdrawal
I		Incomplete work is work not complete due to extenuating and hardship circumstances which prevent the completion of the work assigned within the regular time of the term. Each incomplete grade assigned must be accompanied with a contract statement agreed to by both instructor and student as to: a.) what work remains to be completed, b.) how it is to be evaluated, and c.) a time indicated for completion within but no later than the following deadlines: for fall semester, by July 1 following; for spring semester, by November 1 following; for summer term, by January 1 following. If work is not completed within these stipulated times, the instructor can indicate a grade in lieu of the F/NC which automatically would be imposed with failure to complete the work. All incompletes must be made up before the last day of the semester in which the student intends to graduate.
N		Deferred grading
NC		No credit recognition. Represents unsatisfactory work under pass/no credit option. It is not assignable in the Conservatory of Music.
NG		No credit recognition. Represents unsatisfactory work under pass/no credit option. It is not assignable in the Conservatory of Music.
P		Passing work on the pass/no credit system. P grade is approved only for certain courses and programs of a college or school. Beginning Fall 2016, the University requires a minimum of C- or better to pass a course with a 'Pass/No Credit Grading Option'.
W		Authorized withdrawal from courses after the prescribed period.

Graduation Requirements for Bachelor's Degrees

Candidates for undergraduate degrees must adhere to all of the University's regulations. In particular they must have:

1. Completed the major requirements specified by the school/college/department with a minimum grade point average of 2.0. At least 16 units of the major requirements must be completed at Pacific;
2. Completed a minimum of 30 units in general education including Pacific Seminars 1, 2 and 3 and a path of six or nine courses as specified by the school or college (transfer students should refer to the General Education section for GE requirements);
3. Met Fundamental skills requirements;
4. Achieved a grade point average of at least 2.0 on all letter-graded work completed at Pacific. On non-letter-graded work, the faculty will determine the equivalency;
5. Fulfilled the minimum residence requirement of 32 out of the last 40 semester units prior to receiving the degree; and
6. Accumulated the appropriate number of program units specified by the particular school or college.

Filing for Graduation

Application for Graduation: An Application for Graduation must be filed with the Office of the Registrar as an indication of intent to graduate at a specific term by the April deadline. For undergraduate students, it should be filed upon completion of 92 units (senior standing) and for professional pharmacy students who expect to fulfill degree requirements during the next academic year. This allows time for a review of studies completed and to enable the students to enroll for any requirements not yet completed.

Degree Check: After a student files their Application for Graduation both the program and Office of the Registrar check for the fulfillment of course and GPA requirements, i.e. university wide, major, department, college/school, general education.

Honors at Graduation

University wide honors at graduation for undergraduates and professional pharmacy are awarded on the following criteria. The student must have completed a minimum of 54 letter-graded units at Pacific and will be based on the student's final overall institutional (Pacific) grade point average. The requirements are: Cum Laude (honors) 3.5, Magna Cum Laude (high honors) 3.7, and Summa Cum Laude (Highest Honors) 3.9.

Because Commencement occurs prior to spring semester grading, the commencement program indicates honors as of fall semester grades. The student must have completed a minimum of 36 letter graded units at Pacific at this time. Actual honors confirmed, as shown on diplomas and transcripts, is determined once all coursework has been completed and graded.

Major

A major represents the area of study a student has chosen to pursue for a degree. Students who have not chosen a major are designated as 'exploratory'. A student who decides to change a major or to declare one must submit an approved Change of Program form with the Office of the Registrar. Course and unit requirements for each of the majors offered are in the department's section of the General Catalog.

Minor

A minor represents a prescribed group of courses in a subject area other than the major. A minor is not required for a degree, but may be elected to strengthen preparation in areas related to the major. To earn a minor a minimum of five courses and 20 units and a minor GPA of 2.00 is required. At least a minimum of 10 units must be taken at Pacific. Course requirements for each of the minors offered are in the department's section of the General Catalog. Students who wish to have a minor posted to their academic record must submit an approved Change of Program form with the Office of the Registrar.

Official Grades

Official grades are available to students via insidePacific approximately two weeks after the end of the term. Unofficial grades are available on insidePacific after the end of the faculty grade deadline. The grades posted at that time are merely an indication of grades submitted, and grades still missing. They do not show a GPA, or academic standing.

Pass/No Credit Grading System

Depending upon the regulation of a particular college or school, students may request to receive pass or no credit grades rather than the traditional letter grades. This is available to encourage enrollments in courses outside the student's area of major or specialization and thus to help broaden the student's general education.

Normally this freedom is limited to one course per student per term and does not include courses within a student's major field. Students must submit an approved Add/Drop form to the Office of the Registrar prior to the add/drop deadline. Beginning Fall 2016, the University requires a minimum grade of C- or better to pass a course with a 'Pass/No Credit Grading Option'.

Regression Rule

Students who complete coursework at an intermediate or advanced level without first completing the lower level introductory courses may not then go back and take the lower level courses for credit. This rule applies primarily to coursework in mathematics, the sciences, and foreign language. It may also apply in other departments in which there is a clear content sequence between courses.

Returning to Pacific

After Cancellation

New Students: If new students cancel their registration and wish to attend Pacific in a future term, they must submit a new application for admission. Previous admission status has no bearing on the decision for admission in the future.

Continuing Students: If continuing students cancel their registration, have been gone from the university for two or more consecutive semesters (excluding summer) and wish to attend Pacific in a future term, they must submit an Application for Return to Active Status (Re-admission), available through the Office of Admission.

After Withdrawal: If students completely withdrew from the University and wish to return in a future semester, they must submit an Application for Return to Active Status(Re-admission).

Registration

Registration is the means by which an individual officially becomes a student at Pacific. Registrants are further identified by school/college of the University, degree status, classification and major.

All students must complete registration activity by the add/drop or withdrawal dates published in the University Academic Calendar and Term Calendars (http://www.pacific.edu/About-Pacific/AdministrationOffices/Office-of-the-Registrar/Calendars/Academic-Calendar.html). Students are held accountable to complete every course for which they are registered.

Additional registration activity past these deadlines must be requested by the student and approved through a petition. Petitions may include a service fee. Petitions are normally approved only if it can be shown that the request is warranted due to some special situation or hardship. Approved late withdrawals appear on the student's transcript with the notation "W" but do not count in the units earned or in the GPA.

Registration - Individualized Study

Individualized study courses are designed for special educational needs which are not met by the available curriculum. Students must submit and approved Individualized Study Request form with the Office of the Registrar. *Note: Students on academic probation may not register for Individualized Study. Unclassified students must obtain special permission from the school/college dean's office of which the course is housed.*

Repetition of a Course

In order to repeat a course at the undergraduate or first professional (PharmD) level, students must have received a C- or lower the first time the class was taken. Once a course is completed (with a grade of C or higher) the student may not repeat any prerequisites for that course. The grading option, when repeating a course, must be the same as the one used originally. Any given course can be repeated one time only. Fundamental Skills courses are exempt from the one time repeat rule.

Students must have both a 2.00 cumulative Pacific GPA and a 2.00 major/minor/program Pacific GPA to graduate. Prior to Fall Semester 2015, the grades received for courses repeated were averaged. Beginning Fall Semester 2015, the best institutional grade attempted when repeating a course is used to calculate the cumulative Pacific GPA and the major/minor/program GPA. Both the initial and subsequent repeat grade will remain on the academic record.

Students may exercise their grade replacement rights up to a maximum of the first three repeated courses, while enrolled in undergraduate degree programs at Pacific. Any additional course repeats will be 'grade averaged' for the cumulative Pacific GPA and the major/minor/program GPA. Basic skills are exempt from the three times rule.

A student's Major/Minor/Program GPA is calculated in the following manner:

- When multiple courses can be used to complete a particular requirement, the course with the best grade will be used in the calculation.
- Transfer/Test articulated work will not be used in the calculation.

Additionally for Major and Minor GPA calculations:

- Only courses currently completing the requirements up to the total number of units required for that particular major or minor are used.
- Successfully completed major and minor courses in excess of what is required to complete it are not used in the calculation.

Transcripts

Upon request by the student to the Office of the Registrar, an official transcript of his or her academic record is issued to whomever he or she designates provided that all financial obligations to the University are in order. A service fee per transcript is charged for processing the record. Students can request a transcript online, in person or by mail.

Official transcripts from other institutions become the property of the University and are not reissued or copied for distribution to other institutions. Copies of transcripts of work completed at other institutions must be obtained from the originating institution.

Transfer College Credit Limitations

The complete Transfer Credit Policy can be found on the Office of the Registrar website (http://www.pacific.edu/About-Pacific/AdministrationOffices/Office-of-the-Registrar/Undergraduate-Transfer-Credit-Policy.html).

Units are granted in chronological order of when courses were taken. The maximum number of combined units acceptable from community colleges is 70 semester units. After a student has a total of 70 units, including those from Pacific, those accepted in transfer, AP, IB, or CLEP exam scores and additional lower level military course work, no additional units can be earned and applied to the minimum units required for graduation. Once a student has reached 40 units less than what is required for his/her degree, only 8 more units may be accepted from a four year institution. Courses taken after these limits are reached do not have to be repeated at Pacific since the content of the course may fulfill a requirement, even though no units are allowed in transfer.

Courses that a student takes at other colleges or universities in programs not affiliated with Pacific are not counted in the student's cumulative grade point average.

A current student who is working toward a degree at Pacific and who wants to take a course or courses at another college or university must obtain approval prior to enrolling in such courses. In addition, students must be approved by the deans designee of their school/college to take units at other institutions if those outside units, when combined with Pacific courses in a semester, exceed 18 units.

The Transfer Course Approval form is available on the Office of the Registrar's web site and must be completed to obtain the necessary approval to transfer course units back to Pacific. It is the student's responsibility to have an official transcript sent to the Office of Admission once courses are completed.

Undergraduate Unclassified Students

Undergraduate Unclassified students, who do not hold a Bachelor's degree, may complete up to 27.9 units prior to being required to formally apply for admission to the university. Upon admittance to the university, resident and transfer coursework will be evaluated.

U.S. Military Mobilization:

All students who are called to active duty must start the process by providing a copy of the military summons to the Office of the Registrar's Veterans Affairs (VA) Coordinator, Knoles Hall, first floor, 209-946-2135. Cancellations processed during the first twelve weeks receive a 100% refund and all course sections are dropped before the student leaves for active duty. It is essential that a copy of the military summons be delivered to the Office of the Registrar before departure from campus. This ensures that classes are dropped and that grades of 'F' are not issued.

Students called to active duty toward the end of the semester, who are short submitting final papers or cannot take final examinations, are entitled to receive Incompletes (I) for the semester. Arrangements to receive Incompletes must be made with each instructor and copies of the military summons must be left with the Office of the Registrar. Students receiving Incompletes under these conditions are given four semesters to complete the work and remove the marks of 'I'. If the work is not completed during this special four semester period, the marks of I are automatically converted to marks of W. If the military service period extends beyond the special four semester period, students can file an Academic Regulations Committee (ARC) petition for extension of this special incomplete time period.

Students who leave the University for U.S. military service and follow the procedures outlined above are eligible to re-enroll as returning students. Returning students must file a 'Return to Active Status' application with the Office of Admission. Returning students who have questions about Veterans Affairs benefits should contact the VA Coordinator in the Office of the Registrar at 209-946-2135.

Withdrawal From a Semester or the University

Students who intend to completely withdraw from a semester or from the university have to initiate the process in the Office of the Registrar. The withdrawal date used by Financial Aid for the Return of Title IV Aid calculation and the effective date used by Student Accounts for tuition refunds are based on the date of your notification to the Office of the Registrar. If a student intends to withdraw from a semester after the last day to withdraw, it must be approved by the Academic Regulations Committee. Courses the student was registered for after the last day to drop appear on that student's transcript with the notation "W" but do not count in the units earned or in the calculation of the grade point average. If a student only withdraws from a semester, he/she has one more semester to keep his/her continuing active status. If the students has completely withdrawn from the University, he/she must file a Return to Active Status application with the Office of Admission.

An official withdrawal from the University is the termination of rights and privileges offered to currently enrolled students which includes, but not limited to, early registration.

Applies to the Dental Hygiene Undergraduate Program on the San Francisco campus.

The University of the Pacific is an independent institution. On the Stockton campus, each student is charged tuition that covers about three-fourths of the cost of services furnished by the University. The balance of these costs is met by income from endowment and by gifts from regents, parents, alumni, and other friends who are interested in the type of education this institution provides.

Overall Costs for the School Year

The annual expenses for a student at the University of the Pacific depends upon a variety of factors. Tuition and fees are the same for students regardless of their state or country of residence. Basic expenses are as follows:

Type	Cost
Tuition (1) per academic year 2017-2018, enrolled in 12 to 18 units in each semester	$45,786
Wellness Center	$280
ASUOP Student Fee	$200
Activity & Recreation Fee	$80
Room and Board	$13,356
Total per academic year	$59,702
School of Pharmacy and Health Sciences Annual Tuition (Eleven-month program, three terms)	$73,716

[1] Arthur A. Dugoni School of Dentistry and McGeorge School of Law tuition and fee schedules are available by contacting those campuses.

There are other fees and charges unique to certain programs. These fees or charges may be determined by contacting Student Accounts or the University office that administers those programs or activities in which the student intends to enroll or engage.

Expenses for books and supplies, special fees, and personal expenses usually average approximately $5,094 annually.

The University reserves the right to change fees, modify its services or change its programs at any time and without prior notice.

Tuition – Undergraduate Students (per semester)

All schools except Pharmacy and Health Sciences

Type	Cost
Full-time (12 to 18 units)	$22,893
Part-time (.5 to 8.5 units) per unit	$1,579
Part-time (9 to 11.5 units) per unit	$1,991
Excess units above 18 units, per unit	$1,579
Engineering Co-op (full-time) Admitted prior to Fall 2016 tuition rate	$11,446
Engineering Co-op (full-time) Admitted Fall 2016 tuition rate	$5,724

Tuition – School of Pharmacy and Health Sciences (per term)

Type	Cost
Full-time (12 to 19 units)	$24,572
Part-time (.5 to 8.5 units) per unit	$1,694
Part-time (9 to 11.5 units) per unit	$2,136
Excess units above 19 units, per unit	$1,694
Pharmacy Clerkship Rotation (full-time)	$24,572
Pharmacy Technology Fee	$330
Pharmacy Professional Fee (1)	$325
Physical Therapy Fee	$150

[1] Required of all students enrolled in the professional program with 12 units or more.

Tuition – Graduate Students (per semester)

Type	Cost
All schools (16 to 18 units) plus applicable fees	$22,893
All schools (.5 to 15.5 units) per unit, plus applicable fees	$1,430
Excess units above 18 units, per unit	$1,430
Physical Therapy (12 to 18 units), plus applicable fees (Fall, Spring, Summer Terms)	$22,893
Physical Therapy (1 to 11.5 units)	$1,430

General Fees (per semester)

Student Health Insurance Plan $1,596

Required for all students taking 9 or more units and for all international students with an F-1 Visa taking .5 units or more. It is optional for students enrolled in .5 to 8.5 units. The Student Health Insurance can be waived with proof of own health insurance if provided by the deadline and if the coverage meets University requirements.

Wellness Center Fee $140

This fee is required for all students residing in University housing; and for all other students, both graduate and undergraduate, taking 9 units or more. It is optional for students enrolled in .5 to 8.5 units.

ASUOP Student Fee $100

This fee is required for all undergraduate students residing in University housing and all undergraduates taking 9 units or more. It is optional for students enrolled in .5 to 8.5 units.

ASUOP Graduate Student Fee $30

This fee is required for all graduate students and doctoral candidates taking 8.5 units or more. It is optional for students enrolled in .5 to 8.0 units.

Activity & Recreation Fee $40

This fee is required for all students taking 9 units or more.

Course Audit Fee, per class $50

Instructor permission is required. Auditing is not available in participation courses such as applied music, physical education, art courses of an applied nature, etc. The student must indicate a desire to audit the course at the time of registration.

Engineering/Computer Science Fee $150

This fee is required for all students enrolled in the School of Engineering and Computer Science. Students are exempt from the fee while enrolled full time in the off-campus cooperative education program.

Business School Fee $20

This fee is required for all Business Majors.

Conservatory Fee $250

This fee is required for all Conservatory Majors.

Practice Room Fee $10

This fee is required for all Conservatory Majors.

Applied Music Fees

Private lesson[1] fees vary by instrument and are based upon length of lesson. Fees range from $70 to $375. Please check with the Conservatory to determine appropriate charges. Applied music lessons must be arranged through the Conservatory Office.

[1] Private lessons and applied class lessons for non-music majors are available only if faculty loads permit and must be arranged through the Conservatory Office.

Special Fees

(Partial List)

Type	Cost
Transcript Fee	$5
Matriculation Fee	$100
Petition Fee	$25
Non-refundable, Credit by Exam Fee	$50
Additional fee for successful Credit By Exam results	$200

Undergraduate Confirmation Deposit

A deposit of $70 is required for all new students once notification of acceptance to the University has been received. The deposit is applied toward the student's tuition and is nonrefundable after May 1.

Housing Deposit

A deposit of $200 is required for all new students who apply to reside in campus housing. This should be paid once notification of acceptance to the University has been received. The deposit is applied towards the student's housing charges and is nonrefundable after May 1.

Financial Responsibility

Registration, when accepted by the University of the Pacific, constitutes a financial agreement between the student and the University. Registration is considered complete when the bill has been settled. Tuition, fees and other charges the student incurs including but not limited to, housing, meal plans, and bookstore charges are added to the student account and are considered a loan for an educational benefit.

When you register for courses with the University of the Pacific, you are responsible for all "charges" as they become due. The charges include but are not limited to tuition, fees, room and board, meal plans, Laptop Agreement, bookstore charges and library charges (herein "charges"). These charges are for your educational benefit and if you fail to satisfy your financial obligation to the University you will not be provided any benefits from the University. The benefits which may be terminated include but are not limited to, course registration, housing and meal plans, transcripts and diplomas. Any outstanding charges due on your student account will be transferred to a Student Note Loan balance with the Student Loan Department, of the University of the Pacific for servicing. This Student Note Loan balance is subject to daily interest, late fees, collection fees, credit bureau reporting and any legal fees or costs associated with any bankruptcy. Failure to pay these charges when due will result in loss of housing, suspension of meal plans, termination of enrolled student status and will result in being denied access to the deferred payment plan options. It is your responsibility to ensure

that all financial aid is properly credited to your account. The University reserves the right to increase their fees and charges. Registration constitutes my agreement to all the forgoing terms and conditions.

You agree, in order for us to service your account or to collect any amounts you may owe, we may contact you by telephone at any telephone number associated with your account, including wireless telephone numbers, which could result in charges to you. We may also contact you by sending text messages or e-mails, using any e-mail address you provide to us. Methods of contact may include using pre-recorded/artificial voice messages and/or use of an automatic dialing device, as applicable. I have read this disclosure and agree that the University of the Pacific or its appointed agents may contact me as described above.

In order to receive a bill that includes tuition and fees prior to the payment deadline, you must early register for courses. Please note that students with delinquent accounts are not permitted to register. It is the students' responsibility to pay by the deadline, regardless of receiving a statement. Students can obtain their current account balance by logging into *insidePacific*. The University sends monthly electronic billing statements. Students receive a monthly email notifying them that their statement is ready for viewing. This statement notification email is also sent to any Authorized Users that the student establishes. Authorized Users do not have access to any other student information through this site. The billing statement can be printed from the computers located in the lobby of the Finance Center or by a request to the Student Accounts Office.

All electronic correspondence is sent to the student's u.pacific.edu email address.

A dispute of any charge on your student account must be submitted in writing to the Student Accounts Office within sixty days from the date of billing. If you fail to comply within the sixty day time period, you may forfeit your rights to dispute the charge in the future.

Payment of Bills

Tuition, fees, and room and board, if applicable, are due in full by the payment deadline. The payment deadlines are August 1st for the fall semester and January 1st for the spring semester for general students. Payment deadline information for other programs is available online on the Student Business Services website located at go.pacific.edu/studentaccounts. Any outstanding balances from prior semesters must be paid in full as well as the current semester payment, by the deadline. Students who have not yet registered can estimate their payment amount by utilizing the Calculation Worksheets available at the Student Business Services website. Payments for the intended enrollment must be made by the deadline, even if the student has not completed their course registration. Late fees will be assessed for payments received after the deadline. Failure to complete financial obligations can result in the cancellation of registration.

The University offers two payment options. The first is payment in full of all charges, less any applicable financial aid, by the deadline. The second option is a four month payment plan. The Monthly Plan requires a 25% down payment in addition to a $75 non-refundable, deferred fee per semester. Those who utilize the monthly payment plan must enroll ***online*** through *insidePacific* by the payment deadline. In order for a parent or guardian to enroll in the monthly payment plan, their student must officially establish them as an Authorized User. Subsequent monthly payments are due by the first of the month.

International students may **not** utilize the monthly payment plan. Payment in full is required by the payment deadline.

It is the student's responsibility to ensure that all financial aid is properly credited to his/her account.

Payments can be made by cash, paper check, money order, cashiers check, and electronic checks. Payments must be received by the deadline; postmarks are not acceptable. Payments by check or cash can be made in person at the Cashiers Office, located in the Finance Center. If making payment by mail, please send check or money order to the attention of Student Accounts. Please include the student's university identification number or send a copy of the statement, which can be downloaded and printed, in order to ensure proper payment application.

Students who have not paid in full, completed all financial aid requirements and/or enrolled in the monthly payment plan by the payment deadline, are assessed a $150 late payment fee. A late fee of $50 is assessed for any payments made after the due date.

Failure to make payments as agreed can result in the University of the Pacific canceling all financial arrangements, a student's registration, and denying all University services.

Any payment on the student account that is returned by a financial institution for any reason can lead to cancellation of registration. If registration is cancelled for the semester, the student will not receive credit for those courses. A returned payment fee of $25 is assessed for the first returned payment. Any payment returned subsequently is assessed a $35 returned payment fee. After two (2) returned payments, the University can suspend both electronic and paper check writing privileges and institute collection and/or legal actions against the payer. The student's account is then placed on a finance hold thus preventing the student from receiving any services from the University.

The University requires that all accounts be paid in full by the end of the semester. Any account that remains delinquent is transferred to the Student Loan Department for servicing. Once the account is transferred, the Student Account Note or balance is subject but not limited to, principal, interest, late charges, collection fees, credit bureau reporting, and any legal fees associated with the collection of the debt. In accordance with California state law, all unpaid balances accrue 10% interest, per annum, on the balance remaining on the date of transfer. Students are responsible for all fees associated in the collection of the debt. A student with a balance due to the University is not allowed any benefits from the University including but not limited to, registration for courses, copies of transcripts or diplomas, and utilization of University housing and meals, until the balance is paid in full. In addition, all institutional loans or other loans guaranteed by the Federal Government must be in good (current) standing and exit interviews completed prior to the release of diploma or transcripts.

If payments exceed charges on a student account, the account is said to have a credit balance. Credit balances are to be returned to the student based upon the method of payment. The student account is not to be used as a means for cash advances or payments to third parties. Upon request, credit balances resulting from cash payments will be refunded to the student. A credit balance that results from a check payment is refunded after 14 business days. Credit balances that result from *refundable* student loans and scholarships are also refunded upon request. All financial aid must be disbursed on the student account before a refund is processed. Refunds are issued on a weekly basis.

Refund of Tuition and Fees

The following refund schedule pertains only to tuition charges and is applicable when the student drops below full time enrollment or **officially withdraws** from the University. Students who intend to withdraw must notify the Office of the Registrar.

Refunds are based upon a percentage of calendar days. Calendar days of a semester may vary from semester to semester. For exact dates, please refer to the Student Accounts website or contact their office.

Notification and withdrawal before classes begin – No charge.

First day of classes until last day to add – $150 clerical charge.

After 50% of calendar days no refund, 100% penalty.

Fees are non-refundable after the last day to add courses for the semester.

Housing and meal plan charges are refunded on a prorated basis as determined by the Office of Residential Life & Housing. Refunds are based upon per diem charges and actual approved check out date.

If the student reducing units or withdrawing from the University is a financial aid recipient, the student's financial aid award may be adjusted according to federal and state regulations and University policy. If the student has received more federal financial aid dollars than earned, the unearned aid must be returned to the federal financial aid program or programs from which it was paid. The funds remaining on the student account after federal financial aid is returned might not cover all the charges on the account. Any remaining balance is owed to the University and is due and payable immediately. The Financial Aid Office can provide additional information related to changes in financial aid awards.

For More Information: go.pacific.edu/calendars (http://go.pacific.edu/calendars)

Fall 2017

(All Schools and Colleges except Pharmacy, Law and Dental)

Description	Date(s)
Orientation and Registration	
Graduate Student	(Registration) June 14 and (Orientation) August 25
Session 1 (Freshmen)	June 20 - 21
Session 2 (Freshmen)	June 23 - 24
Transfer Student Orientation	August 21 - 22
International Student Orientation	August 21 - 22
Session 3 (Freshmen)	August 23 - 24
Payment Deadline for Fall 2017	August 1
Classes Begin	August 28
# Registration	August 28
Labor Day Holiday	September 4
# Last Day to Add Classes	September 8
# Last Day for Pass/No Credit or Letter Grade Option	September 8
# Last day to drop classes without record of enrollment	September 8
Deadline for Application for Graduation Fall 2017 (Graduate)	September 8
Census Date	October 1
Fall Student Break	October 6
Spring 2018 Schedule of Classes available Online	October 9
* Advising for Spring 2018 Registration for continuing students	October 16 - November 3
Last Day for Pro-Rated Refund	October 19
Homecoming (classes in session)	October 20 - 22
Last day to Withdraw	October 30
* Early Registration Appointments begin date for continuing students Spring 2018	October 30
Thanksgiving Break	November 22 - 24

Classes Resume	November 27
Classes End	December 8
Final Examination Period	December 11 - 15
Deadline for Application for Graduation Spring 2018/Summer 2018 (Graduate)	December 15
Deadline to file Petition to Walk in May 2018 Commencement (Summer 2018 Graduate)	December 15

Spring 2018

(All Schools and Colleges except Pharmacy, Law and Dental)

Description	Date(s)
Payment Deadline for Spring 2018	January 1
International Student Orientation	January 9 - 10
New Student/Transfer Orientation and Registration	January 9 - 10
Graduate Student Orientation	January 12
Martin Luther King Jr. Holiday	January 15
Classes Begin	January 16
# Registration	January 16
# Last Day to Add Classes	January 26
# Last Day for Pass/No Credit or Letter Grade Option	January 26
# Last day to drop classes without record or enrollment	January 26
President's Day Holiday	February 19
Census Date	March 1
Last Day for Pro-Rated Refund	March 9
Summer 2018/Fall 2018 Schedule of Classes Available Online	March 12
Spring Break	March 12 - 16
Classes resume	March 19
* Advising for Summer 2018/Fall 2018 for continuing students	March 19 - April 6
Last day to withdraw	March 29
* Summer 2018 registration opens for continuing students (no appointments)	April 2
* Early Registration Appointments begin date for continuing students - Fall 2018	April 2
Deadline for Application for Graduation Fall 2018/Spring 2019/Summer 2019 (Undergraduate)	April 6
Classes End	May 1
Study Day	May 2
Final Examination Period	May 3 - 9
Commencement	May 12

Advisers should arrange to be available on this day.

* Limited to Currently enrolled students.

School of Pharmacy and Health Sciences including Physician Assistants

Pharmacy Fall 2017

Description	Date(s)
Early Registration Fall 2017 - Incoming 1st year students	June 14 - September 8
Early Registration Fall 2017 - Incoming graduate students	June 14 - September 8
Payment deadline for Fall 2017	August 1
Advanced Pharmacy Practice Experiences	August 14 - December 15
Orientation	August 23 - 25
Classes Begin	August 28
# Registration	August 28
Labor Day Holiday	September 4
# Last Day to Add Classes	September 8
# Last Day to Drop Classes without record of enrollment	September 8
Census Date	October 1
Pharmacy Spring 2018 Schedule of Classes Available Online	October 9

Midterm Exams	October 9 - 13
Last Day for Pro-rated refund	October 16
* Advising for Pharmacy Spring 2018	October 16 - 20
* Early Registration Pharmacy Spring 2018	October 22 - January 19
Last Day to Withdraw	October 30
Thanksgiving Break	November 22 - 24
Classes End	December 1
Final Examination Period	December 4 - 8

Pharmacy Spring 2018

Description	Date(s)
Payment deadline for Pharmacy Spring 2018	December 1
Deadline for Application for Graduation Spring 2018/Summer 2018 (Graduate)	December 15
Classes Begin	January 8
# Registration	January 8
Advanced Pharmacy Practice Experiences	January 8 - May 11
Martin Luther King Jr. Holiday	January 15
# Last Day to Add Classes	January 19
# Last Day to Drop Classes without record of enrollment	January 19
Midterm Exams	February 12 - 16
President's Day Holiday	February 19
Pharmacy Summer 2018 Schedule of Classes Available Online	February 19
Last Day for Pro-Rated Refund	February 23
* Advising for Pharmacy Summer 2018	February 26 - March 2
Census Date	March 1
Last day to Withdraw	March 5
* Early Registration for Pharmacy Summer 2018	March 5 - May 4
Classes End	April 4
Deadline for Application for Graduation Fall 2018/Spring 2019/Summer 2019 (Professional)	April 6
Final Examination Period	April 6 - 12

Pharmacy Summer 2018

Description	Date(s)
Payment deadline for Pharmacy Summer 2018	April 1
Deadline for Application for Graduation Fall 2018/Spring 2019/Summer 2019 (Professional)	April 6
Classes Begin	April 23
# Registration	April 23
# Last Day to Add Classes	May 4
# Last Day to Drop Classes without record of enrollment	May 4
Commencement	May 19
Pharmacy Fall 2018 Schedule of Classes Available Online	May 21
* Advising for Pharmacy Fall 2018	May 29 - June 8
Memorial Day Holiday	May 28
Midterm Exams	June 4 - 8
Last Day for Pro-Rated Refund	June 12
Census Date	September 1
* Early Registration for Pharmacy Fall 2018	June 13 - September 7
Early registration Pharmacy Fall 2018 - Incoming 1st year students	June 13 - September 7
Early registration Pharmacy Fall 2018 - Incoming graduate students	June 13 - September 7
Last Day to Withdraw	June 22
Fourth of July Holiday Observed	July 4
Classes End	July 24
Final Examination Period	July 26 - August 1

Dental Hygiene

Mission

The mission of the University of the Pacific Baccalaureate Dental Hygiene program is consistent with the mission and educational goals of the dental school.

The dental hygiene program will:

- Educate individuals who, upon completion of the program, will be professionally competent to provide quality dental hygiene care in an evolving profession
- Provide patient-centered, quality care in an efficient clinical model that demonstrates the highest standards of service achievable
- Provide opportunities for community-based, experiential learning

The program and its graduates will be distinguished by the following attributes:

- Continuous enhancement through professional development
- Humanistic values that respect the dignity of each individual and foster the potential for growth in all of us
- Application of theory and data for continuous improvement
- Leadership in addressing the challenges facing the profession of dental hygiene, education, and our communities

The Study of Dental Hygiene

The dental hygiene course of study is a professional program where students learn to provide preventive clinical care for patients with emphasis on recognition, treatment, and prevention of oral diseases. In addition to performing a variety of preventive and therapeutic functions, the dental hygienist also has a major role in counseling and educating patients, community groups, and other health professionals. The curriculum helps students build the educational, communication, and clinical skills necessary to work in co-therapy with the dental team.

Admission Requirements

Admission to the Dental Hygiene Program is competitive and based on merit. Students may apply either as a freshman student, doing prerequisite coursework at Pacific, or as a transfer student, completing prerequisites at another institution. After review of the completed application, the Office of Admissions will invite qualified candidates to participate in interviews on campus. In addition to a personal interview, applicants are invited to take part in orientation and financial aid seminars, meet informally with current students, and tour the campus. Admission will be based on the combination of application information and interview.

Please click here (http://www.pacific.edu/Admission/Undergraduate/Applying/Dental-Hygiene.html) to see detailed admissions information.

Recommended Courses

Course	Years
English	4
Fine Arts/Performing Arts	1
Foreign Language (one)	2
Social Science	2
Mathematics*	4
Laboratory Sciences**	3
Academic Electives***	1

* Suggested math sequence for science majors (including dental hygiene): algebra, geometry, algebra II, trigonometry or calculus.

** Physics, biology and chemistry are recommended for dental hygiene applicants.

*** Academic elective courses should be advanced foreign languages, mathematics, laboratory science or other solid college preparatory courses.

GPA: Special emphasis is placed on coursework selected, the grades achieved in those courses, and the cumulative grade point average.

SAT or ACT Exams: The Admissions Committee reviews the results of the student's SAT or ACT scores.

Essay: An essay may be required of University applicants.

Recommendation: One academic recommendation on official letterhead is required. It should be from a science instructor, counselor or advisor. Additional letters of evaluation from health care professionals are recommended.

Dental Experience: Job shadowing, employment or dental office observation are expected so that the applicant is familiar with the role of the practicing dental hygienist.

Extracurricular Activities: Other factors considered (but not required) in selecting the class include community service and involvement and volunteer activities.

Transfer Student Application:

Transfer application deadline for entry into the program is August 1 for the following spring semester. Applicants are notified by December 1. SAT or ACT exam scores are NOT required.

Sixty-four units of lower division college courses that are Pacific transferable and include the following prerequisites or equivalents are required:

- General Biology and lab (2 semesters or 3 quarters) must articulate to Pacific /BIOL 061
- General Chemistry and lab (2 semsters or 3 quarters) must articulate to Pacific CHEM 025/CHEM 027
- Microbiology (minimum of one 3 unit semester course or one 4 unit quarter class).The course may articulate to Pacific BIOL 145 but other microbiolgy courses are accepted.
- General (Introductory) Psychology (minimum of one 3 unit semester course or one 4 unit quarter class) must articulate to Pacific PSYC 031
- Introductory Sociology (minimum of one 3 unit semester course or one 4 unit quarter class) must articulate to Pacific SOCI 051
- Mathematics (statistics) (minimum of one 3 unit semester course or one 4 unit quarter class) must articulate to Pacific MATH 035 or MATH 037
- English Composition (minimum of one 3 unit semester course or one 4 unit quarter class) must articulate to Pacific ENGL 025
- Communication (Speech) (minimum of one 3 unit semester course or one 4 unit quarter class) must articulate to Pacific COMM 027
- Anatomy and Physiology (one semester or 2 quarters) must articulate to Pacific BIOL 111
- Organic Chemistry (one semester or 1 quarter/ no lab required). The course may articulate to Pacific CHEM 033 or but other courses are acceptable.
- One course that must articulate with Pacific General Education Category I-C Societies and Cultures Outside the United States
- One course that must articulate with Pacific General Education Category II–B Fundamental Concerns
- One course that must articulate with Pacific General Education Category II–C Practice and Perspectives in the Visual and Performing Arts or another II-B

Health Requirements:

Prior to entry into the professional portion of the program (final 4 semesters), health requirements must be met and documentation submitted to the University's Cowell Wellness Center as follows:

- Medical Examination: Following acceptance for admission, students submit the University's "Entrance History and Physical," form signed by a physician which confirms that a medical examination was completed within 3 months of the date of matriculation into the professional portion of the Dental Hygiene program.
- Measles, Rubella (German Measles), and Mumps: Students provide documentation of presence of positive titres. Documented vaccination with two dose series MMR given one month apart with live attenuated measles and rubella virus is adequate. A history of measles and rubella as childhood diseases is not sufficient.
- Tuberculosis: Students submit the report of a two-step PPD tuberculosis skin test done within 3 months of entering professional program. With a history of tuberculosis OR a positive skin test, students submit the physician's report of a chest X-ray taken within the year prior to matriculation. Chest X-rays may be required at intervals, and suppressive medication may be recommended.
- Hepatitis B: Every student is required to submit documented proof of presence of antibodies to the Hepatitis B virus or to complete the Hepatitis B three-dose vaccination series and Hepatitis B antigen test at least one month after completion of series. It is recommended that this be done prior to matriculation; in all cases, however, it must be done before a student is allowed to treat patients which occurs in the first month of the program. If a student does not have documented proof of having antibodies to this virus, the vaccination series is available at the school for a fee.
- Tetanus Diphtheria Vaccination is required within past 10 years.
- Varivax (Chicken Pox) Students provide documentation of 2 dose vaccination series or presence of titer if history of having chicken pox.

Inquiries about health requirements and supporting documentation are handled through the University's Cowell Wellness Center (209) 946-2315.

Program Description

The bachelor of science degree in dental hygiene is a professional program presented in an accelerated year-round format of eight semesters including summer sessions. Students accepted into the program as freshmen complete all sessions with the University. Transfer level program entrants, with prerequisites fulfilled, complete the final four semesters of professional coursework only.

Program applicants must complete prerequisite general education courses either at Pacific or another institution to provide a strong science background, and a broad base in the humanities. The prerequisites are designed to strengthen dental hygiene science and clinical practice. Students undertake this portion of their course work, in the College of the Pacific, with the general undergraduate student population on the main campus. The student must maintain a 2.7 GPA or better in lower division coursework to be considered for the professional portion of the program.

The professional portion of the program is a highly structured four consecutive semesters of upper division coursework that includes both didactic and clinical experience. This portion of the program is presented by the Arthur A. Dugoni School of Dentistry Dental Hygiene Program on the Stockton campus until January 2017, when it will then be offered on the San Francisco campus.

Dental Hygiene Licensure

Completion of the program enables graduates to take national and regional or state licensure examinations. For California examination information contact:

Dental Hygiene Committee of California
2005 Evergreen Street., Suite 1050
Sacramento, CA 95815
http://www.dhcc.ca.gov/
(916) 263-1978 or (916) 263-1978

Degree Requirements

General Education Curriculum

First Year

Semester 1		**Units**
BIOL 051	Principles of Biology	5
ENGL 025	English 25	4
PSYC 031	Introduction to Psychology	4
PACS 001	What is a Good Society	4
	Term Units	17
Semester 2		
BIOL 061	Principles of Biology	5
CHEM 025	General Chemistry	5
SOCI 051	Introduction to Sociology	4
PACS 002	Topical Seminar on a Good Society	4
	Term Units	18
Semester 3		
CHEM 027	General Chemistry	5
CHEM 033 or 035	Elements of Organic Chemistry (or Organic Chemistry Primer)	3
MATH 035 or 037	Elementary Statistical Inference (or Introduction to Statistics and Probability)	4
Elective		4
	Term Units	16
Semester 4		
General Education: (4 units) (Gen. Ed. II, section b or c, requirement fulfilled)		4
COMM 027	Public Speaking	3
BIOL 145	Microbiology	5
BIOL 111	Anatomy and Physiology	4
	Term Units	16

Total Unit: 67

Dental Hygiene Curriculum

DHYG 110	Oral Health Education	1
DHYG 111	Head and Neck Anatomy	2
DHYG 112	Dental Anatomy	2
DHYG 113	Oral Radiology Lecture	1
DHYG 114	Oral Histology and Embryology	2
DHYG 115	Dental Hygiene Practice	3
DHYG 116	Pre-Clinical Dental Hygiene	3
DHYG 118	Oral Radiology Lab	1
DHYG 120A	Periodontics I	0.25
DHYG 120B	Periodontics I	0.25
DHYG 120C	Periodontics I	0.25
DHYG 120D	Periodontics I	0.25

DHYG 121A	Pharmacology	1
DHYG 121B	Pharmacology	1
DHYG 121C	Pharmacology	1
DHYG 122A	Oral Pathology	1
DHYG 122B	Oral Pathology	1
DHYG 122C	Oral Pathology	1
DHYG 123A	Medical and Dental Emergencies I	0.5
DHYG 123B	Medical and Dental Emergencies I	0.5
DHYG 124A	Local Anesthesia/Pain Management	.66
DHYG 124B	Local Anesthesia/Pain Management	.67
DHYG 124C	Local Anesthesia/Pain Management	.67
DHYG 125A	Dental Hygiene Practice I	.66
DHYG 125B	Dental Hygiene Practice I	.67
DHYG 125C	Dental Hygiene Practice I	.67
DHYG 126A	Dental Hygiene Clinical Practice I	1.3
DHYG 126B	Dental Hygiene Clinical Practice I	1.3
DHYG 126C	Dental Hygiene Clinical Practice I	1.4
DHYG 130A	Periodontics II	0.5
DHYG 130B	Periodontics II	0.5
DHYG 131A	Community Oral Health and Research	1.3
DHYG 131B	Community Oral Health and Research	1.3
DHYG 131C	Community Oral Health and Research	1.4
DHYG 132A	Patient Management/Special Needs	1
DHYG 132B	Patient Management/Special Needs	1
DHYG 133	Medical and Dental Emergencies II	1
DHYG 134	Senior Project I	3
DHYG 135A	Dental Hygiene Practice II	1
DHYG 135B	Dental Hygiene Practice II	1
DHYG 136A	Dental Hygiene Clinical Practice II	3.5
DHYG 136B	Dental Hygiene Clinical Practice II	3.5
DHYG 141	Dental Materials	1
DHYG 142	Ethics and Jurisprudence	2
DHYG 144	Senior Project II	4
DHYG 145	Dental Hygiene Clinic III	2
DHYG 146	Dental Hygiene Clinic III	7
PACS 003	What is an Ethical Life?	3
Total Hours		70

Undergraduate Programs

DHYG 110. Oral Health Education. 1 Unit.
Students are introduced to principles and practices of prevention and control of dental disease. The course emphasizes oral health promotion, to include plaque control, patient education and behavior modification.

DHYG 111. Head and Neck Anatomy. 2 Units.
This course is designed to expand student knowledge of the anatomical structures of the head and neck. Students examine clinical correlations relevant for dental professionals.

DHYG 112. Dental Anatomy. 2 Units.
Students study dental terminology, tooth morphology and the relationship of teeth in form and function to each other and to supporting structures. Root morphology, hard tissue charting, occlusion and dental anomalies correlated to basic clinical applications.

DHYG 113. Oral Radiology Lecture. 1 Unit.
This course is designed to examine the fundamentals of dental radiography. Topics include history, principles, legal considerations, and radiation safety. Clinical applications include exposure technique, film processing, preparing and interpreting dental radiographs. Students learn how to correct technical errors.

DHYG 114. Oral Histology and Embryology. 2 Units.
This course offers lectures, clinical examples, classroom discussions and slide materials designed to help students develop a knowledge of oral histology and embryology that is applied to the clinical practice of dental hygiene.

DHYG 115. Dental Hygiene Practice. 3 Units.
Students are introduced to the contemporary role of the dental hygienist, the evolving profession of dental hygiene, and procedures and techniques that are utilized in the dental hygiene process of care. Emphasis is placed on development of a comprehensive medical and dental database and history, diagnostic tools, oral cancer examination, clinical systems and protocol, infection control, basic instrumentation and polishing, and patient communication.

DHYG 116. Pre-Clinical Dental Hygiene. 3 Units.
This course provides the opportunity for application of the information presented concurrently in DHYG 115. Students practice infection control, vital signs, oral cancer examination, instrumentation and other clinical skills using manikins and student partners.

DHYG 118. Oral Radiology Lab. 1 Unit.
Clinical applications of the concepts delivered in DHYG 113 take place during the laboratory experience. Content includes radiographic exposure technique, film processing, preparing and interpreting film and digital radiographs, and correcting of technical errors.

DHYG 120D. Periodontics I. 0.25 Units.
Students are introduced to periodontology. Emphasis is placed on etiology, histology and epidemiology, diagnosis and classification of periodontal disease. Principles of periodontal disease preventive therapy, treatment planning, reassessment and supportive periodontal therapy are also introduced. Students learn under which circumstances referral to periodontal specialty practices is appropriate. Prerequisite: DHYG 120C.

DHYG 120C. Periodontics I. 0.25 Units.
Students are introduced to periodontology. Emphasis is placed on etiology, histology and epidemiology, diagnosis and classification of periodontal disease. Principles of periodontal disease preventive therapy, treatment planning, reassessment and supportive periodontal therapy are also introduced. Students learn under which circumstances referral to periodontal specialty practices is appropriate. Prerequisite: DHYG 120B.

DHYG 120B. Periodontics I. 0.25 Units.
Students are introduced to periodontology. Emphasis is placed on etiology, histology and epidemiology, diagnosis and classification of periodontal disease. Principles of periodontal disease preventive therapy, treatment planning, reassessment and supportive periodontal therapy are also introduced. Students learn under which circumstances referral to periodontal specialty practices is appropriate. Prerequisite: DHYG 120A.

DHYG 120A. Periodontics I. 0.25 Units.
Students are introduced to periodontology. Emphasis is placed on etiology, histology and epidemiology, diagnosis and classification of periodontal disease. Principles of periodontal disease preventive therapy, treatment planning, reassessment and supportive periodontal therapy are also introduced. Students learn under which circumstances referral to periodontal specialty practices is appropriate. Prerequisite: Admission into the Baccalaureate Dental Hygiene program.

DHYG 121C. Pharmacology. 1 Unit.
This course is designed to classify and study therapeutic agents commonly encountered and/or utilized in the practice of dentistry. Students learn chemical and physical properties, therapeutic effects, methods of administration, dosage, contraindications and side effects of these agents. Prerequisite: DHYG 121B.

DHYG 121B. Pharmacology. 1 Unit.
This course is designed to classify and study therapeutic agents commonly encountered and/or utilized in the practice of dentistry. Students learn chemical and physical properties, therapeutic effects, methods of administration, dosage, contraindications and side effects of these agents. Prerequisite: DHYG 121A.

DHYG 121A. Pharmacology. 1 Unit.
This course is designed to classify and study therapeutic agents commonly encountered and/or utilized in the practice of dentistry. Students learn chemical and physical properties, therapeutic effects, methods of administration, dosage, contraindications and side effects of these agents.

DHYG 122C. Oral Pathology. 1 Unit.
Students study the etiology, pathogenesis, clinical and histogenic features of oral diseases. Students learn to recognize basic tissue and reaction and lesions that occur in the mouth, jaws, and neck and to formulate differential diagnosis of lesions seen in the practice of dentistry. Prerequisite: DHYG 122B.

DHYG 122B. Oral Pathology. 1 Unit.
Students study the etiology, pathogenesis, clinical and histogenic features of oral diseases. Students learn to recognize basic tissue and reaction and lesions that occur in the mouth, jaws, and neck and to formulate differential diagnosis of lesions seen in the practice of dentistry. Prerequisite: DHYG 122A.

DHYG 122A. Oral Pathology. 1 Unit.
Students study the etiology, pathogenesis, clinical and histogenic features of oral diseases. Students learn to recognize basic tissue and reaction and lesions that occur in the mouth, jaws, and neck and to formulate differential diagnosis of lesions seen in the practice of dentistry.

DHYG 123B. Medical and Dental Emergencies I. 0.5 Units.
Students learn basic methods of medical and dental emergency prevention and management in the dental office. Emphasis is on recognizing signs, symptoms, and treatment of the more common emergencies which may occur in the dental setting. Drugs and equipment that are utilized in the management of medical emergencies are outlined. Students are trained in Basic Life Support Systems (BLS). Prerequisite: DHYG 123A.

DHYG 123A. Medical and Dental Emergencies I. 0.5 Units.
Students learn basic methods of medical and dental emergency prevention and management in the dental office. Emphasis is on recognizing signs, symptoms, and treatment of the more common emergencies which may occur in the dental setting. Drugs and equipment that are utilized in the management of medical emergencies are outlined. Students are trained in Basic Life Support Systems (BLS).

DHYG 124C. Local Anesthesia/Pain Management. .67 Units.
Students examine comprehensive information and skills that provide comfortable dental treatment. Local anesthesia and nitrous oxide-oxygen administration are explained and practiced. Prerequisite: DHYG 124B.

DHYG 124B. Local Anesthesia/Pain Management. .67 Units.
Students examine comprehensive information and skills that provide comfortable dental treatment. Local anesthesia and nitrous oxide-oxygen administration are explained and practiced. Prerequisite: DHYG 124A.

DHYG 124A. Local Anesthesia/Pain Management. .66 Units.
Students examine comprehensive information and skills that provide comfortable dental treatment. Local anesthesia and nitrous oxide-oxygen administration are explained and practiced.

DHYG 125C. Dental Hygiene Practice I. .67 Units.
This lecture/lab course is designed to provide students lecture and lab experience in the dental hygiene process of care for child, adolescent, adult and geriatric patients. Promotion of oral health and wellness is stressed through lecture and case studies. The principles, rationale and application of sealants and glass ionomers, area specific curets, advanced fulcrums, piezo and magnetostrictive ultrasonic scaling, air-powder polishing and desensitizing products are discussed as well as cariology and fluoride delivery options. Skills learned are implemented in the clinical courses: DHYG 126A, DHYG 126B and DHYG 126C. Prerequisite: DHYG 125B.

DHYG 125B. Dental Hygiene Practice I. .67 Units.
This lecture/lab course is designed to provide students lecture and lab experience in the dental hygiene process of care for child, adolescent, adult and geriatric patients. Promotion of oral health and wellness is stressed through lecture and case studies. The principles, rationale and application of sealants and glass ionomers, area specific curets, advanced fulcrums, piezo and magnetostrictive ultrasonic scaling, air-powder polishing and desensitizing products are discussed as well as cariology and fluoride delivery options. Skills learned are implemented in the clinical courses: DHYG 126A, DHYG 126B and DHYG 126C. Prerequisite: DHYG 125A.

DHYG 125A. Dental Hygiene Practice I. .66 Units.
This lecture/lab course is designed to provide students lecture and lab experience in the dental hygiene process of care for child, adolescent, adult and geriatric patients. Promotion of oral health and wellness is stressed through lecture and case studies. The principles, rationale and application of sealants and glass ionomers, area specific curets, advanced fulcrums, piezo and magnetostrictive ultrasonic scaling, air-powder polishing and desensitizing products are discussed as well as cariology and fluoride delivery options. Skills learned are implemented in the clinical courses: DHYG 126A, DHYG 126B and DHYG 126C.

DHYG 126C. Dental Hygiene Clinical Practice I. 1.4 Unit.
This clinic course is designed to provide students beginning clinical experience in the treatment of child, adolescent, adult, and geriatric patients. Promotion of oral health and wellness is stressed through clinical experiences in: patient assessment, dental hygiene care treatment planning, case presentation and implementation and evaluation of treatment outcomes. The principles, rationale and application of sealants and glass ionomers, the use of ultrasonic scaling, area specific curets, advanced fulcrums, desensitizing products and other treatment modalities are implemented. Cariology considerations and additional fluoride delivery options are also discussed and implemented for patient care. Students integrate knowledge and skills developed in previous courses. Pertains to DHYG 126A, DHYG 126B, and DHYG 126C which implements the information learned in the concurrent courses: DHYG 125A, DHYG 125B and DHYG 125C. Prerequisite: DHYG 126B.

DHYG 126B. Dental Hygiene Clinical Practice I. 1.3 Unit.
This clinic course is designed to provide students beginning clinical experience in the treatment of child, adolescent, adult, and geriatric patients. Promotion of oral health and wellness is stressed through clinical experiences in: patient assessment, dental hygiene care treatment planning, case presentation and implementation and evaluation of treatment outcomes. The principles, rationale and application of sealants and glass ionomers, the use of ultrasonic scaling, area specific curets, advanced fulcrums, desensitizing products and other treatment modalities are implemented. Cariology considerations and additional fluoride delivery options are also discussed and implemented for patient care. Students integrate knowledge and skills developed in previous courses. Pertains to DHYG 126A, DHYG 126B, and DHYG 126C which implements the information learned in the concurrent courses: DHYG 125A, DHYG 125B and DHYG 125C. Prerequisite: DHYG 126A.

DHYG 126A. Dental Hygiene Clinical Practice I. 1.3 Unit.
This clinic course is designed to provide students beginning clinical experience in the treatment of child, adolescent, adult, and geriatric patients. Promotion of oral health and wellness is stressed through clinical experiences in: patient assessment, dental hygiene care treatment planning, case presentation and implementation and evaluation of treatment outcomes. The principles, rationale and application of sealants and glass ionomers, the use of ultrasonic scaling, area specific curets, advanced fulcrums, desensitizing products and other treatment modalities are implemented. Cariology considerations and additional fluoride delivery options are also discussed and implemented for patient care. Students integrate knowledge and skills developed in previous courses. Pertains to DHYG 126A, DHYG 126B, and DHYG 126C which implements the information learned in the concurrent courses: DHYG 125A, DHYG 125B and DHYG 125C.

DHYG 130B. Periodontics II. 0.5 Units.
This course is designed to enable students to enhance and develop knowledge and skills applicable in the treatment of patients with advanced periodontal disease. Concepts and treatment techniques of surgical and non-surgical periodontal therapy are stressed. Prerequisite: DHYG 130A.

DHYG 130A. Periodontics II. 0.5 Units.
This course is designed to enable students to enhance and develop knowledge and skills applicable in the treatment of patients with advanced periodontal disease. Concepts and treatment techniques of surgical and non-surgical periodontal therapy are stressed.

DHYG 131C. Community Oral Health and Research. 1.4 Unit.
This course is designed to enable students to examine the principles and practices of oral health in diverse public health settings. Emphasis is placed on the role of the dental hygienist as an innovator and educator in community dental health programs with consideration to needs assessment, research study utilization, biostatistic application, program planning, and results evaluation. The social and professional responsibility of the dental professional with regard to public promotion of oral health and access to care is examined. Students design and implement a community-based research project that culminates in a class presentation and may be submitted in to the professional association's table clinic competition. Prerequisite: DHYG 131B.

DHYG 131B. Community Oral Health and Research. 1.3 Unit.
This course is designed to enable students to examine the principles and practices of oral health in diverse public health settings. Emphasis is placed on the role of the dental hygienist as an innovator and educator in community dental health programs with consideration to needs assessment, research study utilization, biostatistic application, program planning, and results evaluation. The social and professional responsibility of the dental professional with regard to public promotion of oral health and access to care is examined. Students design and implement a community-based research project that culminates in a class presentation and may be submitted in to the professional association's table clinic competition. Prerequisite: DHYG 131A.

DHYG 131A. Community Oral Health and Research. 1.3 Unit.
This course is designed to enable students to examine the principles and practices of oral health in diverse public health settings. Emphasis is placed on the role of the dental hygienist as an innovator and educator in community dental health programs with consideration to needs assessment, research study utilization, biostatistic application, program planning, and results evaluation. The social and professional responsibility of the dental professional with regard to public promotion of oral health and access to care is examined. Students design and implement a community-based research project that culminates in a class presentation and may be submitted in to the professional association's table clinic competition.

DHYG 132B. Patient Management/Special Needs. 1 Unit.
This course is designed to enlighten the viewer to the world of people with special needs, the issues they face, the programs in place to help them, and dental treatment modalities. Prerequisite: DHYG 132A.

DHYG 132A. Patient Management/Special Needs. 1 Unit.
This course is designed to enlighten the viewer to the world of people with special needs, the issues they face, the programs in place to help them, and dental treatment modalities.

DHYG 133. Medical and Dental Emergencies II. 1 Unit.
This course provides a continuation of DHYG 123, Medical and Dental Emergencies I. Students review methods of medical and dental emergency prevention and management in the dental office. Emphasis is on recognizing signs, symptoms, and treatment of the more common emergencies which may occur in the dental setting. Drugs and equipment are utilized in the management of medical emergencies are outlined.

DHYG 134. Senior Project I. 3 Units.
This course is designed to provide students the opportunity for supervised practical application of previously studied theory in a variety of settings. Through outside agency affiliation, faculty assistance and mentorship, students choose a specific area of hygiene practice to explore in depth. Prerequisite: Admission into the Baccalaureate Dental Hygiene program.

DHYG 135B. Dental Hygiene Practice II. 1 Unit.
This lecture/ lab/ clinic course is designed to enable students to expand their experience in treatment of the periodontally involved patient. Students refine techniques for patient assessment, treatment planning, patient communication, full mouth scaling, and non-surgical periodontal treatment. Desensitization techniques, and pit and fissure sealants, are introduced. Utilization of radiographs, local anesthesia and nitrous oxide sedation in patient care is further developed. Students integrate knowledge and skills developed all previous course work to-date. Prerequisite: DHYG 135A.

DHYG 135A. Dental Hygiene Practice II. 1 Unit.
This lecture/ lab/ clinic course is designed to enable students to expand their experience in treatment of the periodontally involved patient. Students refine techniques for patient assessment, treatment planning, patient communication, full mouth scaling, and non-surgical periodontal treatment. Desensitization techniques, and pit and fissure sealants, are introduced. Utilization of radiographs, local anesthesia and nitrous oxide sedation in patient care is further developed. Students integrate knowledge and skills developed all previous course work to-date.

DHYG 136B. Dental Hygiene Clinical Practice II. 3.5 Units.
This lecture/ lab/ clinic course is designed to enable students to expand their experience in treatment of the periodontally involved patient. Students refine techniques for treatment planning, root planing, and non-surgical periodontal treatment. Desensitization techniques, and pit and tissue sealants, are introduced. Utilization of radiographs, local anesthesia and nitrous oxide sedation in patient care is further developed. Students integrate knowledge and skills developed in all previous course work to-date. Prerequisite: DHYG 136A.

DHYG 136A. Dental Hygiene Clinical Practice II. 3.5 Units.
This lecture/ lab/ clinic course is designed to enable students to expand their experience in treatment of the periodontally involved patient. Students refine techniques for treatment planning, root planing, and non-surgical periodontal treatment. Desensitization techniques, and pit and tissue sealants, are introduced. Utilization of radiographs, local anesthesia and nitrous oxide sedation in patient care is further developed. Students integrate knowledge and skills developed in all previous course work to-date.

DHYG 141. Dental Materials. 1 Unit.
This course is designed to examine structure and physical properties of dental materials utilized in the practice of dental hygiene. Emphasis on concepts and principles of clinical application.

DHYG 142. Ethics and Jurisprudence. 2 Units.
Students study ethical theories and issues related to the practice of dental hygiene and professionalism. A personal philosophy of professional conduct, continuous quality assurance and self-assessment is explored. Fundamental factors necessary to practice within existing regulatory frameworks are stressed.

DHYG 143. Biochemistry and Nutrition. 2 Units.
Students study basic principles of biochemistry and nutrition related to dentistry. Students complete patient dietary surveys and develop correctional nutritional plans.

DHYG 144. Senior Project II. 4 Units.
This course offers students the opportunity for supervised practical application of previously studied theory in a variety of settings. Through outside program affiliation, faculty assistance, and mentorship, students choose a specific area of dental hygiene practice to explore in depth.

DHYG 145. Dental Hygiene Clinic III. 2 Units.
This course offers advanced clinical experience in performing treatment for a variety of clinical patient cases. Students use local anesthesia, nitrous oxide, oral antimicrobials, and diet analysis. State Board Examination requirements and protocol, are reviewed and simulated through practical exercises. Identification of an appropriate patient for licensure examination is made. Students integrate knowledge and skills developed in all previous course work to-date.

DHYG 146. Dental Hygiene Clinic III. 7 Units.
This course is designed to provide advanced clinical experience in performing treatment for a variety of clinical patient cases. Students use local anesthesia, nitrous oxide, oral antimicrobials, and diet analysis. State Board Examination requirements and protocol, are reviewed and simulated through practical exercises. Identification of an appropriate patient for licensure examination is made. Prerequisite: Admission into the Baccalaureate Dental Hygiene program.

OTHER GRADUATE PROGRAMS

Programs Offered

Doctor of Audiology

Master of Arts in Food Studies

Master of Arts in Music Therapy

Master of Science in Data Science

Applies to non Dental Graduate programs on the San Francisco campus.

All graduate students are urged to read these general regulations carefully. Failure to be familiar with this section does not excuse a student from the obligation to comply with all the described regulations.

Although every effort has been made to ensure the accuracy of this catalog, students are advised that the information contained in it is subject to change. The University reserves the right to modify or change the curriculum, admission standards, course content, degree requirements, regulations, tuition or fees at any time without prior notice. The information in this catalog is not to be regarded as creating a binding contract between the student and the school.

Academic Standing

All graduate students are expected to make satisfactory progress toward the academic degree for which they were admitted. Also, graduate students are required to maintain a cumulative minimum grade point average (GPA) of 3.0 or higher in all courses listed in their graduate program plan of study and in all courses taken as a graduate student.

Students in a credential-only program must maintain a GPA of 2.5 and have a cumulative GPA of 2.5 or higher to clear their credential. Students in a basic teacher education credential only program who wish to do directed teaching in an internship must maintain a 3.0 GPA.

At the end of each semester a graduate student's academic standing is determined to be one of the following:

- good standing
- good standing with warning
- probation
- subject to disqualification (temporary status)
- disqualification.

The criteria for these academic standings are based upon a combination of cumulative Pacific GPA and the term GPA. Criteria for the different academic standings are outlined below:

Good Standing:

- Term GPA of 3.0 or higher and a cumulative Pacific GPA of 3.0 or higher

Good Standing with Warning:

- Term GPA below 3.0 and a cumulative Pacific GPA of 3.0 or higher

Probation:

Any graduate student who has completed six (6) or more course units of study and has a Pacific cumulative GPA below 3.0 is placed on academic probation. Students on academic probation who fail to raise their Pacific cumulative grade point average to 3.0 at the end of the probationary semester are subject to disqualification from their Graduate program. Students who are subject to disqualification are reviewed by an appropriate committee and are either disqualified from further enrollment at the University or are allowed to continue for the next semester on probation.

If prior semester is Good Standing**,** or Good Standing with Warning

- Term GPA below 3.0 and cumulative Pacific GPA is 3.0 or below

Subject to Disqualification (Temporary Status):

If prior semester is Probation:

- Term GPA below 3.0 and cumulative Pacific GPA is 3.0 or below

Disqualified:

Each school determines whether a student subject to disqualification will be disqualified. If they are not disqualified, the student subject to disqualification is then put on probation for the following term. If they are disqualified, a student is not allowed to register for further study at the University.

A student who has been disqualified may appeal immediately for reconsideration and possible reinstatement on probation, within the same school. A disqualified student who has been out of the university for one semester or more may apply for readmission to the university through the Office of Graduate Studies. If readmitted, such a student enters on probation and would need to make up the earlier deficiency in order to attain good academic standing.

Any graduate student who receives more than two C grades or lower will have their academic progress reviewed by the department and the Office of Graduate Studies and they may be dismissed from their Graduate program.

In addition to maintaining a 3.0 average, graduate students must make satisfactory progress in their degree programs. Students are expected to make continual progress toward completing course requirements and any required research, qualifying examinations, thesis or dissertation writing, and all other University or Departmental requirements. Failure to make satisfactory progress can result in dismissal from the Graduate program. Students who wish to appeal a disqualification must submit a written petition to the Dean of Research and Graduate Studies.

Other academic and non-academic reasons can result in a student's dismissal from a graduate program. Refer to the Honor Code in Tiger Lore, and any program-specific guidelines.

Classification of Graduate Students

Full: All students admitted with full graduate standing. Students are advanced from this classification to candidacy for advanced degrees upon formal notification from department.

Conditional Admission: Students may be admitted to some of the graduate programs on a conditional admission basis, with a cumulative GPA from 2.65 to 2.99 (on a 4.0 scale), provided they show evidence that they excel in graduate studies. Such evidence may include: (1) satisfactory scores on a GRE Test; (2) satisfactory work at another graduate school; or (3) outstanding professional experience that demonstrates the ability to handle academic work in the major area. They must earn grades of B or higher in all coursework and maintain a minimum cumulative GPA of 3.0 or higher in the first 12 credits they register for during the first two semesters at which time they may be listed as full standing graduate students. Failing to achieve this GPA will result in the dismissal of the student from Pacific. See the Admission section of this catalog for additional information on this classification.

Credential: Students admitted to do post-baccalaureate work that leads toward an initial teaching credential, specialist instruction credential or services credential.

Clinical Competency

Many of the graduate programs offered at the University include experiential coursework. Prior to taking a course that includes an experiential component; students are required to demonstrate that they have the necessary skills, aptitude and competencies to successfully complete the course. Faculty of departments that offer experiential courses have the discretion of denying enrollment in these courses to students evaluated as not possessing the necessary clinical competencies. Procedures used to assess clinical competency vary across programs. Students may obtain additional information from their Graduate Program Director.

Students who do not demonstrate adequate clinical and experiential competency can be dismissed from a degree program, regardless of academic standing.

Course Loads

- Full Time: 8 or more units a semester
- Half Time: 7 to 4 units a semester
- Less than Half Time: 3 to 1 units a semester

Standard registration loads:

- Master's degree program: 16 units per year
- Doctoral degree program: 12 units per year

Course overloads must be approved by the Graduate Program Director.

Students with teaching or other assistantships should check with their department for specific guidelines concerning unit requirements. Conditionally admitted students are not eligible for assistantships.

Credit Limitations

All courses countable for graduate degree credit must be either specifically graduate degree courses (200 or 300 level) or, where allowable, advanced undergraduate courses (100 level). NO coursework under the 100 level may be used for graduate credit. In those departments where courses are shown double-listed (e.g. BIOL 147 (http://catalog.pacific.edu/graduate/academicregulations)/BIOL 247 (http://catalog.pacific.edu/graduate/academicregulations)), graduate students ordinarily register for graduate credit (e.g. BIOL 247 (http://catalog.pacific.edu/graduate/academicregulations)). If attending the undergraduate section, graduate students are required to perform extra work at the graduate level beyond that required for undergraduates.

Courses not applicable in graduate degrees:

- Lower division undergraduate courses (001-099)
- Courses in which a grade of C- or lower were received. Courses that receive a C- or lower must be repeated
- Extension courses
- Courses for the improvement of English language skills of foreign students'
- Directed teaching or prerequisite courses for directed teaching except for the Master of Education degree or the Master of Arts in Special Education degree.
- Physical education activity courses.
- Unclassified Status: No more than 12 units, no matter when they are earned, can be transferred from an "Unclassified" transcript into a graduate program

Double-Listed Courses

In order to differentiate graduate and undergraduate responsibilities in double-listed courses (100/200 levels), there must be specifically contracted additional work for the graduate courses.

Grade Point Average/Grading Policy

The Pacific grade point average is determined by adding the total quality points and by dividing the resultant sum by the total number of quality hours. As a general rule, the ratio is based on the number of letter graded units completed; e.g., if a student repeats a course both courses are considered in the grade point average.

Students must maintain a minimum GPA of 3.0 or above in all work taken as a graduate student at the University of the Pacific. A student at the graduate level may receive only two C grades during their work towards a degree. Grades below a C are unacceptable for courses in a graduate program. (See Academic Standing in section above).

Letter grades are ordinarily assigned for graduate courses, unless otherwise approved by Academic Affairs.

Graduate students must receive a letter grade in any undergraduate course which is part of a course plan for a graduate degree, even though those classes (below 100 level) will not count towards their graduate degree. Petition for exception to this regulation must be approved by the Graduate Dean upon recommendation by the student's advisor.

Grading Policies

Symbols and Definitions

Graduate students are assigned grades in keeping with the following provisions.

Symbol	GPA	Definition
A	4.0	Exemplary
A-	3.7	
B+	3.3	
B	3.0	Satisfactory
B-	2.7	
C+	2.3	
C	2.0	Marginal
C-	1.7	
D+	1.3	

D	1.0	Unsatisfactory
F	0.0	Failing
I		Incomplete work due to extenuating and hardship circumstances which prevent the completion of the work assigned within the regular time of the term. Each incomplete grade assigned must be accompanied with a contract statement agreed to by both instructor and student as to: a) What work remains to be completed, b) How it is to be evaluated, and c) A time indicated for completion within by no later than the following deadlines: for fall semester, by July 1 following; for spring semester, by November 1 following; for summer term, by January 1 following. If work is not completed within these stipulated times, the instructor can indicate a grade in lieu of the F/NC which automatically would be imposed with failure to complete the work. All incompletes must be made up before the last day of the semester in which the student intends to graduate.

Symbol	GPA	Definition
N		Deferred grading for thesis, dissertation or research work.
NC		No credit recognition. Represents unsatisfactory work under pass/no credit option.
NG		No Grade Received from the Instructor. Please contact the instructor.
P		Passing work on the pass/no credit system. Approved only for certain courses and program of a college or school. Note: Research for thesis or dissertation the department may determine whether letter grades or pass/no credit grades are to be given. In seminar or comparable courses, letter grades or pass/no credit may be used.
W		Authorized withdrawal from courses after the prescribed period.

Repeating of Courses and Grade Replacement Policy

For courses in which the grade earned is C- or lower, the units are counted in a student's degree program, and -- if required for the degree -- must be repeated. Some departments or programs have established higher grading standards which must be met by students in those programs. All grades earned in courses taken as a graduate student at the University are counted in the cumulative GPA.

Only courses with grades of "C-" or lower can be repeated. Once a course is completed with a grade of C or higher, the graduate student cannot repeat that course or any prerequisites for the course. When a course is repeated, grades from both the original and repeated attempt appear in the official records and transcripts. A course can only be repeated once. Grades are averaged when courses are repeated; thus, the Pacific grade point average does reflect the two grades averaged.

Acquisition of Graduate Credit as an Undergraduate

Undergraduates can open a graduate transcript (i.e., receive credit in graduate-level courses while an undergraduate) if they meet all of the following conditions. The undergraduate student must:

- be within 9 units of completing the baccalaureate degree.
- be in the last two semesters of the baccalaureate degree at University of the Pacific.
- submit the completed *Evaluation of Degree Requirements* form to the Office of the Registrar prior to the last day to add classes. This must be submitted before or with the *Graduate Credit as Undergraduate* application. (This serves as permission by the undergraduate advisor for the student to take graduate-level coursework.
- be admitted into a graduate or credential program and receive approval of the *Application to Receive Graduate Credit as an Undergraduate Student* by the Office of the Registrar before the last day to add classes of the last semester as an undergraduate.

Additional regulations for receiving graduate credit as an undergraduate are as follows:

- Coursework will not count for graduate credit if the student fails to complete the baccalaureate degree by the second semester of taking graduate credit.
- Students who do not complete the baccalaureate degree by the second semester when graduate courses are taken will not be admitted into the graduate program and cannot take additional graduate course work until the baccalaureate degree has been awarded.
- The total number of graduate credits for the semester cannot exceed the maximum *graduate* course load of the department providing graduate coursework. This includes coursework taken at other schools.
- No more than 12 units (16 units for student teachers can be transferred from an undergraduate transcript into a graduate degree program.Graduate credit will only be granted for upper division (100 numbered) courses.
- Undergraduate students cannot register in graduate-only courses (numbered 200 an above) unless this petition is approved by the Office of the Registrar **prior** to registration.
- The tuition rate for the entire semester is at the undergraduate rate.
- Units cannot be retroactively transferred from an undergraduate to a graduate program. (The approval must be obtained prior to the beginning of the last day to add classes of the last semester.)
- Graduate courses completed under this agreement will not be recorded by the Registrar as graduate coursework until the baccalaureate degree has been completed and matriculation into the graduate program has commenced. Grades from these courses will not be counted in the undergraduate grade point average (*unless the baccalaureate degree is not completed)*.

- There is no guarantee that graduate units earned as an undergraduate will transfer to or be counted as post-baccalaureate units by other universities or school districts.
- Students are not classified as graduate students until they register for courses and complete a term that begins after receiving the baccalaureate degree.

Transfer Credit

Work done in other regionally accredited institutions of higher education since completion of the baccalaureate is considered and evaluated, but not more than 6 of the required units may be transferred, and they must be regular on-campus advanced courses, countable by that institution toward its graduate degrees, and have been completed with a grade of B- or better. Some departments set higher standards and these are identified in individual program descriptions.

Grade points earned in those courses are not counted in the student's Pacific grade point average.

Courses must be filed on the Request to Transfer Course Work Done In Other Institutions form and must be approved by the Director of the Graduate Programs and the Office of the Registrar.

Unclassified Graduate Students

Graduate Unclassified students may complete up to 12 units (16 units for student teachers) prior to being required to formally apply for admission to the university. Upon acceptance to the university, resident and transfer coursework are evaluated by school/department for applicability to degree.

Registration

Registration is the means by which an individual officially becomes a student at Pacific. Registrants are further identified by school/college of the University, degree status, classification and major.

All students must register by the last day to add or drop. Students are held accountable to complete every course for which they register. If it is necessary to add or drop a course, the student must complete the appropriate registration transaction by the last day such activity is allowed as published in the University Calendar (http://www.pacific.edu/About-Pacific/AdministrationOffices/Office-of-the-Registrar/Calendars/Academic-Calendar.html).

After the add/drop deadline dates has passed (but prior to the end of the term) requests to add or drop courses must be made by special petition to the student's respective school/college.

Requests to add or drop courses after the term must be made to the Academic Regulations Committee (ARC). In either case, petitions are normally approved only if it can be shown that the request is warranted due to some special situation or hardship. Courses which a student is allowed to drop after the deadline appear on the student's transcript with the notation "W" but do not count in the units earned or in the calculation of the grade point average.

Any petitions approved after the deadline dates are subject to a service fee. Tuition and fee refunds are based on the date a withdraw form is initiated in the Office of the Registrar.

Continuous Registration

All graduate students in graduate degree or credential programs must satisfy the Continuous Registration Policy for each of the school terms defined for the student's program from admission until all degree requirements are met or their status as a degree or credential student is terminated. This includes students who are completing preliminary or final examinations, or presenting terminal projects; and applies to students regardless of location. If degree or credential requirements are completed between terms, the student must have been registered during the preceding term.

Continuous registration is intended for students who have completed all of their required coursework. The Continuous Registration Policy can be met by registering for GRAD 200 (through Inside Pacific (https://insidepacific.pacific.edu/cp/home/displaylogin)) at least one semester per academic year (Fall or Spring, except for MAIR students who must register for either Spring or Summer).

There is no limit to the number of times a student can sign up for GRAD 200; however, Pacific's years-to-degree policy must be met.

Students enrolled in may utilize library facilities, but are not entitled to: 1.) the use of other University facilities; 2.) receive a fellowship, assistantship, or financial aid; or, 3.) take course work of any kind at the University of the Pacific. Students should also be aware that registration in Grad 200 may cause existing student loans to come due.

Failure to Meet Continuous Registration Requirements

A graduate student who fails to meet the continuous registration requirements and has a break in registration will be inactivated. Students in good academic standing who were inactivated from a program may petition for readmission by the program and Graduate Studies by submitting a $50 reinstatement fee and the Petition for Readmission by the posted deadlines.

After 12 months or more of being inactivated, students who wish to re-enter a program must complete an entirely new application process with the appropriate fees and documentation. A decision to readmit a former student are to include a statement by the admitting degree program of which courses previously taken can be applied to the new program of study.

Registration - Individualized Study

To register for an Individualized Study (Independent Study course, Internships, or Practicum) obtain and submit an approved Individualized Study Request form to the Office of the Registrar. Students and faculty complete a written contract that specifies the nature of the work to be undertaken and the method of evaluation. The individualized study form must have proper approval within the unit and be filed with the Office of the Registrar. Independent study courses may not be taken in the same term that a regular course is offered in that subject.

Requirements for the Master's degree

1. The requirements of a candidate for these degrees in any semester or summer session must be approved by the chair of the major department as to courses and amount of load.
2. The candidate must maintain a minimum GPA of 3.0 or above in all work taken as a graduate student, either at the University of the Pacific or any other institution. See the Grading Policy section and or Academic Standing.
3. Satisfactory completion of a minimum of 30 or 32 units of (graduate) work, depending on requirements of program.
4. The passing of a department examination that covers the major field (date to be fixed by department chair) where applicable.

(See department section for more information).

Requirements for the Doctor of Education Degree

1. There must be the equivalent of at least three years of successful graduate study in accredited colleges and universities, including at least two full years of work at the University.
2. Students must fulfill the doctoral residency requirement. Advancement to Doctoral Candidacy, for students admitted after Spring 2008, is dependent upon full admission to the EdD program, satisfactory completion of a program of study, and successful completion of Applied Inquiry III.
3. Approval of the dissertation, which includes a final oral examination to determine to the satisfaction of the candidate's committee whether the stage of scholarly advancement and research ability demanded for final recommendation for the doctorate has been reached.
4. All requirements for the Doctor of Education degree must be completed within five years from the date of advancement to Doctoral Candidacy and within nine years after the first day of the semester of enrollment in EdD coursework at Pacific following admission to the EdD program.

Advanced students interested in applying for the Doctor of Education program should consult the department chair of the proposed major.

(See department section for more information).

Requirements for the Doctor of Philosophy Degree

Course of Study: The course of study to be pursued for the PhD degree is arranged with students by their advisor. Work in other departments is planned according to the needs of the individual student. See department section for further information.

Grade Point Average: Expected to complete work with at least a 3.0 GPA in all courses. Students judged by their major department to have unsatisfactory records are reviewed by the their department, which may take action to terminate their continuation.

Mastery of the field of study: Students must show competence in their discipline by means of qualifying examinations or scholarly papers before advancement to candidacy for the degree (requirements vary by degree program at least one year prior to the date on which degree candidates expect to present themselves for the degree).

Admission to Candidacy: Students when they have completed satisfactorily the following requirements: at least 45 credit hours or course equivalents beyond the bachelor's degree; satisfied the language/research skills requirement; completed the qualifying examinations or scholarly papers; and received formal approval for admission to candidacy by the student's advisory committee and major department.

Presentation of an acceptable Dissertation: In order to be acceptable, the doctoral dissertation must be (1) a significant contribution to the advancement of knowledge or (2) a work of original and primary research.

Passing of a final oral examination: When the dissertation is completed, candidates present themselves for the final examination to an examining committee which consists of the candidate's advisor (who shall act as chair) and such other examiners as the advisor shall approve. Members outside of the University of the Pacific will require approval by Graduate Studies. The committee does include at least one person who is not a member of the department directly concerned.

The examination is oral and deals intensively with the field of specialization in which the candidate's dissertation falls, though it need not be confined to the subject matter of the dissertation. In order to be considered satisfactory, the report of the examining committee must be unanimously favorable.

(See department section for more information).

Residence and Time Limits

The period of residence involves students in a total commitment to their graduate program.

Completion of a minimum of one academic year of "residence work": i.e., the candidate must be registered for at least 4 units per semester for two semesters. Two summer sessions of at least 4 units each are considered the equivalent of one-half year of residence.

All requirements for a master's degree must be completed within a period of not more than seven years. Students who fail to meet all requirements within this period have to reapply to the program.

All requirements for the Doctor of Education degree must be completed within five years from the date of advancement to Doctoral Candidacy and within nine years after the first day of the semester of enrollment in EdD coursework at Pacific following Provisional Admission to the EdD program.

All requirements for the PhD degree must be completed within seven years from the date of entrance into the degree program at this University, and within three years from the date of advancement to candidacy.

A student who works for the PhD degree is required to spend at least three years of work devoted only to graduate study and investigation under proper supervision—or the equivalent thereof in part-time work—for the completion of the residence requirement. If part-time work is done elsewhere other than at the University of the Pacific, such work is subject to the approval of the Committee on Graduate Studies. At least 30 units, in addition to the dissertation, must be completed at this University.

In the PhD program in Pharmaceutical and Chemical Sciences, two consecutive semesters of residence are required after the master's degree or after one year of graduate work when the master's degree is not taken. A minimum of 9 units or two courses of work must be taken during each semester of residence. In the PhD program in School Psychology, the residency requirements can be met by taking 18 units of coursework within 12 calendar months.

Courses taken ten or more years prior to the comprehensive examination (PhD program) or final examination (Masters Programs) do not apply towards the graduate degree and must be repeated to satisfy the degree requirements. Requests for variances are made to and evaluated by the major department, which subsequently recommends to the Office of Graduate Studies what credit for previous coursework should be permitted. Final approval is granted by the Dean of Research and Graduate Studies.

To readmit to a program, a student must have attained an average grade of 3.0 both in the major department and in all work taken as a graduate student. A student must submit a readmit application and be accepted into a Graduate program and work with their current advisor to outline remaining requirements. This new program must be completed within a period of four years. No further extension is permitted.

Thesis or Dissertation Committee

This section outlines the general Graduate Studies requirements for thesis or dissertation committees. Units and colleges may adopt additional program-specific criteria and guidelines.

Thesis or dissertation chair: Faculty must hold a degree equivalent to the degree being sought or have demonstrated expertise to serve as a thesis or dissertation chair. Faculty members without supervisory experience must serve for at least one year as a co#chair with an experienced advisor before they may be recommended to independently supervise thesis or dissertation research. Exceptions to this policy must be approved by the college or school dean.

Thesis or dissertation committee: The Thesis or Dissertation Committee is composed of a Chair and a minimum of 1 (thesis) or 2 (dissertation) other committee members. The number of committee members depends on the degree objective. All members of the committee must hold degrees equivalent to the degree being sought or have demonstrated expertise. The committee member(s) may be selected from within the student's school or college, from another school or college, or from another institution or organization with recognized expertise in the field or industry.

It is recommended that the committee be formed after a student selects a chair for his/her research and the faculty member agrees to chair. The student, in consultation with the chair, is responsible for contacting potential members of the committee, inviting members to serve, and completing the Masters' Thesis Committee form or the Doctoral Dissertation Committee form. Upon the approval of thesis or dissertation advisor, department chair, and college or school dean, the form will be forwarded to the Graduate Studies. Committee members from outside the University of the Pacific must be approved by Graduate Studies.

The responsibilities of the thesis or dissertation committee members are:

1) Providing the student with guidance in his/her thesis or dissertation research, and

2) Monitoring the student's research progress of his/her thesis or dissertation research.

In order to fulfill the above responsibilities, the committee may hold at least one meeting prior to a thesis or dissertation defense for the thesis or dissertation proposal presentation. Subsequent meeting(s) may be held for progress reports.

Thesis and Dissertations

The Office of Graduate Studies makes available to faculty and graduate degree candidates instructions for the preparation of theses and dissertations. The instructions are to be applied to all theses and dissertations submitted at University of the Pacific. Theses and dissertations must be submitted by the deadline dates published in the Academic calendar.

Graduate programs have specific courses that must be taken for work on a thesis or dissertation. These courses are numbered 299 (Master's Thesis) and 399 (Dissertation), the grade is given on a Pass/No Credit basis.

Commencement

Master's degree students who are near completion of degree requirements can participate in the May commencement exercises under specific conditions. All of the following four conditions must be met before the Dean of Research and Graduate Studies can approve the petition.

- A completed Petition to Participate in Graduation Ceremonies has been filed in the Office of Graduate Studies by the Spring semester deadline* for filing the Application for Graduation form. This petition must be signed by the student's Advisor and Academic Dean (or Graduate Program Director if appropriate).
- All degree requirements will be met before the end of the summer session of the same year. An approved plan of study that specifies all degree requirements will be completed in time and must be on file in the Office of Graduate Studies before the Spring semester deadline for filing the Application for Graduation form.*
- The Masters degree oral examination which includes thesis defense or written examination (where applicable), will be successfully completed by the Spring semester deadline for Written/Oral Exam — Thesis/Dissertation Defense.**
- The student is in good academic standing. On a case-by-case basis, special consideration is given for international students who complete degree requirements after the Fall semester of the same calendar year. Approved CAPP Evaluations must be on file by the Spring semester deadline* and the student must state they are unable to return to campus to participate in ceremonies in the Spring following degree completion.

Doctoral degree students are ineligible to participate in graduation ceremonies until all degree requirements are met and the final dissertation has been approved by the Graduate School. However, on a case-by-case basis, special consideration will be given for international students and domestic doctoral students who will complete degree requirements by the end of the Fall semester of the same calendar year. Approved programs of study must be on file by the Spring semester deadline, and the student's Graduate Program Director must also approve of the request.

Withdrawal from a Semester or the University

Students who intend to completely withdraw from a semester or from the university have to initiate the process in the Office of the Registrar. The withdrawal date used by Financial Aid for Return in the return of Title IV Aid calculation and the effective date used by Student Accounts for tuition refunds are based on the date of your notification to the Office of the Registrar. If a student intends to withdraw from a semester after the last day to withdraw, it must be approved by the Academic Regulations Committee. Courses the student was registered for after the last day to drop appear on that student's transcript with the notation "W" but do not count in the units earned or in the calculation of the grade point average. If a student only withdraws from a semester, he/she has one more semester to keep his/her continuing active status. If the student has completely withdrawn from the University, he/she must submit a new application for admission, and file a request for Petition for Reinstatement Form (with a $50 fee) available on the Office of the Registrar web site. The deadline is August 1st for Fall admission or December 1st for Spring admissions.

An official withdrawal from the University is the termination of rights and privileges offered to currently enrolled students which includes, but not limited to, early registration.

Applies to non Dental Graduate programs on the San Francisco campus.

The University of the Pacific is an independent institution. On the Stockton campus, each student is charged tuition that covers about three-fourths of the cost of services furnished by the University. The balance of these costs is met by income from endowment and by gifts from regents, parents, alumni, and other friends who are interested in the type of education this institution provides.

Overall Costs for the School Year

The annual expenses for a student at the University of the Pacific depends upon a variety of factors. Tuition and fees are the same for students regardless of their state or country of residence. Basic expenses are as follows:

Type	Cost
Tuition (1) per academic year 2017-2018, enrolled in 12 to 18 units in each semester	$45,786
Wellness Center	$280
ASUOP Student Fee	$200
Activity & Recreation Fee	$80
Room and Board	$13,356
Total per academic year	$59,702

School of Pharmacy and Health Sciences Annual Tuition (Eleven-month program, three terms)	$73,716

[1] Arthur A. Dugoni School of Dentistry and McGeorge School of Law tuition and fee schedules are available by contacting those campuses.

There are other fees and charges unique to certain programs. These fees or charges may be determined by contacting Student Accounts or the University office that administers those programs or activities in which the student intends to enroll or engage.

Expenses for books and supplies, special fees, and personal expenses usually average approximately $5,094 annually.

The University reserves the right to change fees, modify its services or change its programs at any time and without prior notice.

Tuition – Undergraduate Students (per semester)

All schools except Pharmacy and Health Sciences

Type	Cost
Full-time (12 to 18 units)	$22,893
Part-time (.5 to 8.5 units) per unit	$1,579
Part-time (9 to 11.5 units) per unit	$1,991
Excess units above 18 units, per unit	$1,579
Engineering Co-op (full-time) Admitted prior to Fall 2016 tuition rate	$11,446
Engineering Co-op (full-time) Admitted Fall 2016 tuition rate	$5,724

Tuition – School of Pharmacy and Health Sciences (per term)

Type	Cost
Full-time (12 to 19 units)	$24,572
Part-time (.5 to 8.5 units) per unit	$1,694
Part-time (9 to 11.5 units) per unit	$2,136
Excess units above 19 units, per unit	$1,694
Pharmacy Clerkship Rotation (full-time)	$24,572
Pharmacy Technology Fee	$330
Pharmacy Professional Fee (1)	$325
Physical Therapy Fee	$150

[1] Required of all students enrolled in the professional program with 12 units or more.

Tuition – Graduate Students (per semester)

Type	Cost
All schools (16 to 18 units) plus applicable fees	$22,893
All schools (.5 to 15.5 units) per unit, plus applicable fees	$1,430
Excess units above 18 units, per unit	$1,430
Physical Therapy (12 to 18 units), plus applicable fees (Fall, Spring, Summer Terms)	$22,893
Physical Therapy (1 to 11.5 units)	$1,430

General Fees (per semester)

Student Health Insurance Plan $1,596

Required for all students taking 9 or more units and for all international students with an F-1 Visa taking .5 units or more. It is optional for students enrolled in .5 to 8.5 units. The Student Health Insurance can be waived with proof of own health insurance if provided by the deadline and if the coverage meets University requirements.

Wellness Center Fee $140

This fee is required for all students residing in University housing; and for all other students, both graduate and undergraduate, taking 9 units or more. It is optional for students enrolled in .5 to 8.5 units.

ASUOP Student Fee $100

This fee is required for all undergraduate students residing in University housing and all undergraduates taking 9 units or more. It is optional for students enrolled in .5 to 8.5 units.

ASUOP Graduate Student Fee $30

This fee is required for all graduate students and doctoral candidates taking 8.5 units or more. It is optional for students enrolled in .5 to 8.0 units.

Activity & Recreation Fee $40

This fee is required for all students taking 9 units or more.

Course Audit Fee, per class $50

Instructor permission is required. Auditing is not available in participation courses such as applied music, physical education, art courses of an applied nature, etc. The student must indicate a desire to audit the course at the time of registration.

Engineering/Computer Science Fee $150

This fee is required for all students enrolled in the School of Engineering and Computer Science. Students are exempt from the fee while enrolled full time in the off-campus cooperative education program.

Business School Fee $20

This fee is required for all Business Majors.

Conservatory Fee $250

This fee is required for all Conservatory Majors.

Practice Room Fee $10

This fee is required for all Conservatory Majors.

Applied Music Fees

Private lesson[1] fees vary by instrument and are based upon length of lesson. Fees range from $70 to $375. Please check with the Conservatory to determine appropriate charges. Applied music lessons must be arranged through the Conservatory Office.

[1] Private lessons and applied class lessons for non-music majors are available only if faculty loads permit and must be arranged through the Conservatory Office.

Special Fees

(Partial List)

Type	Cost
Transcript Fee	$5
Matriculation Fee	$100
Petition Fee	$25
Non-refundable, Credit by Exam Fee	$50
Additional fee for successful Credit By Exam results	$200

Undergraduate Confirmation Deposit

A deposit of $70 is required for all new students once notification of acceptance to the University has been received. The deposit is applied toward the student's tuition and is nonrefundable after May 1.

Housing Deposit

A deposit of $200 is required for all new students who apply to reside in campus housing. This should be paid once notification of acceptance to the University has been received. The deposit is applied towards the student's housing charges and is nonrefundable after May 1.

Financial Responsibility

Registration, when accepted by the University of the Pacific, constitutes a financial agreement between the student and the University. Registration is considered complete when the bill has been settled. Tuition, fees and other charges the student incurs including but not limited to, housing, meal plans, and bookstore charges are added to the student account and are considered a loan for an educational benefit.

When you register for courses with the University of the Pacific, you are responsible for all "charges" as they become due. The charges include but are not limited to tuition, fees, room and board, meal plans, Laptop Agreement, bookstore charges and library charges (herein "charges"). These charges are for your educational benefit and if you fail to satisfy your financial obligation to the University you will not be provided any benefits from the University. The benefits which may be terminated include but are not limited to, course registration, housing and meal plans, transcripts and diplomas. Any outstanding charges due on your student account will be transferred to a Student Note Loan balance with the Student Loan Department, of the University of the Pacific for servicing. This Student Note Loan balance is subject to daily interest, late fees, collection fees, credit bureau reporting and any legal fees or costs associated with any bankruptcy. Failure to pay these charges when due will result in loss of housing, suspension of meal plans, termination of enrolled student status and will result in being denied access to the deferred payment plan options. It is your responsibility to ensure that all financial aid is properly credited to your account. The University reserves the right to increase their fees and charges. Registration constitutes my agreement to all the forgoing terms and conditions.

You agree, in order for us to service your account or to collect any amounts you may owe, we may contact you by telephone at any telephone number associated with your account, including wireless telephone numbers, which could result in charges to you. We may also contact you by sending text messages or e-mails, using any e-mail address you provide to us. Methods of contact may include using pre-recorded/artificial voice messages and/or use of an automatic dialing device, as applicable. I have read this disclosure and agree that the University of the Pacific or its appointed agents may contact me as described above.

In order to receive a bill that includes tuition and fees prior to the payment deadline, you must early register for courses. Please note that students with delinquent accounts are not permitted to register. It is the students' responsibility to pay by the deadline, regardless of receiving a statement. Students can obtain their current account balance by logging into *insidePacific*. The University sends monthly electronic billing statements. Students receive a monthly email notifying them that their statement is ready for viewing. This statement notification email is also sent to any Authorized Users that the student establishes. Authorized Users do not have access to any other student information through this site. The billing statement can be printed from the computers located in the lobby of the Finance Center or by a request to the Student Accounts Office.

All electronic correspondence is sent to the student's u.pacific.edu email address.

A dispute of any charge on your student account must be submitted in writing to the Student Accounts Office within sixty days from the date of billing. If you fail to comply within the sixty day time period, you may forfeit your rights to dispute the charge in the future.

Payment of Bills

Tuition, fees, and room and board, if applicable, are due in full by the payment deadline. The payment deadlines are August 1st for the fall semester and January 1st for the spring semester for general students. Payment deadline information for other programs is available online on the Student Business Services website located at go.pacific.edu/studentaccounts. Any outstanding balances from prior semesters must be paid in full as well as the current semester payment, by the deadline. Students who have not yet registered can estimate their payment amount by utilizing the Calculation Worksheets available at the Student Business Services website. Payments for the intended enrollment must be made by the deadline, even if the student has not completed their course registration. Late fees will be assessed for payments received after the deadline. Failure to complete financial obligations can result in the cancellation of registration.

The University offers two payment options. The first is payment in full of all charges, less any applicable financial aid, by the deadline. The second option is a four month payment plan. The Monthly Plan requires a 25% down payment in addition to a $75 non-refundable, deferred fee per semester. Those who utilize the monthly payment plan must enroll ***online*** through *insidePacific* by the payment deadline. In order for a parent or guardian to enroll in the monthly payment plan, their student must officially establish them as an Authorized User. Subsequent monthly payments are due by the first of the month.

International students may **not** utilize the monthly payment plan. Payment in full is required by the payment deadline.

It is the student's responsibility to ensure that all financial aid is properly credited to his/her account.

Payments can be made by cash, paper check, money order, cashiers check, and electronic checks. Payments must be received by the deadline; postmarks are not acceptable. Payments by check or cash can be made in person at the Cashiers Office, located in the Finance Center. If making payment by mail, please send check or money order to the attention of Student Accounts. Please include the student's university identification number or send a copy of the statement, which can be downloaded and printed, in order to ensure proper payment application.

Students who have not paid in full, completed all financial aid requirements and/or enrolled in the monthly payment plan by the payment deadline, are assessed a $150 late payment fee. A late fee of $50 is assessed for any payments made after the due date.

Failure to make payments as agreed can result in the University of the Pacific canceling all financial arrangements, a student's registration, and denying all University services.

Any payment on the student account that is returned by a financial institution for any reason can lead to cancellation of registration. If registration is cancelled for the semester, the student will not receive credit for those courses. A returned payment fee of $25 is assessed for the first returned payment. Any payment returned subsequently is assessed a $35 returned payment fee. After two (2) returned payments, the University can suspend both electronic and paper check writing privileges and institute collection and/or legal actions against the payer. The student's account is then placed on a finance hold thus preventing the student from receiving any services from the University.

The University requires that all accounts be paid in full by the end of the semester. Any account that remains delinquent is transferred to the Student Loan Department for servicing. Once the account is transferred, the Student Account Note or balance is subject but not limited to, principal, interest, late charges, collection fees, credit bureau reporting, and any legal fees associated with the collection of the debt. In accordance with California state law, all unpaid balances accrue 10% interest, per annum, on the balance remaining on the date of transfer. Students are responsible for all fees associated in the collection of the debt. A student with a balance due to the University is not allowed any benefits from the University including but not limited to, registration for courses, copies of transcripts or diplomas, and utilization of University housing and meals, until the balance is paid in full. In addition, all institutional loans or other loans guaranteed by the Federal Government must be in good (current) standing and exit interviews completed prior to the release of diploma or transcripts.

If payments exceed charges on a student account, the account is said to have a credit balance. Credit balances are to be returned to the student based upon the method of payment. The student account is not to be used as a means for cash advances or payments to third parties. Upon request, credit balances resulting from cash payments will be refunded to the student. A credit balance that results from a check payment is refunded after 14 business days. Credit balances that result from *refundable* student loans and scholarships are also refunded upon request. All financial aid must be disbursed on the student account before a refund is processed. Refunds are issued on a weekly basis.

Refund of Tuition and Fees

The following refund schedule pertains only to tuition charges and is applicable when the student drops below full time enrollment or **officially withdraws** from the University. Students who intend to withdraw must notify the Office of the Registrar.

Refunds are based upon a percentage of calendar days. Calendar days of a semester may vary from semester to semester. For exact dates, please refer to the Student Accounts website or contact their office.

Notification and withdrawal before classes begin – No charge.

First day of classes until last day to add – $150 clerical charge.

After 50% of calendar days no refund, 100% penalty.

Fees are non-refundable after the last day to add courses for the semester.

Housing and meal plan charges are refunded on a prorated basis as determined by the Office of Residential Life & Housing. Refunds are based upon per diem charges and actual approved check out date.

If the student reducing units or withdrawing from the University is a financial aid recipient, the student's financial aid award may be adjusted according to federal and state regulations and University policy. If the student has received more federal financial aid dollars than earned, the unearned aid must be returned to the federal financial aid program or programs from which it was paid. The funds remaining on the student account after federal financial aid is returned might not cover all the charges on the account. Any remaining balance is owed to the University and is due and payable immediately. The Financial Aid Office can provide additional information related to changes in financial aid awards.

For More Information: go.pacific.edu/calendars (http://go.pacific.edu/calendars)

Fall 2017

(All Schools and Colleges except Pharmacy, Law and Dental)

Description	Date(s)
Orientation and Registration	
Graduate Student	(Registration) June 14 and (Orientation) August 25
Session 1 (Freshmen)	June 20 - 21
Session 2 (Freshmen)	June 23 - 24
Transfer Student Orientation	August 21 - 22
International Student Orientation	August 21 - 22
Session 3 (Freshmen)	August 23 - 24
Payment Deadline for Fall 2017	August 1
Classes Begin	August 28
# Registration	August 28
Labor Day Holiday	September 4
# Last Day to Add Classes	September 8
# Last Day for Pass/No Credit or Letter Grade Option	September 8
# Last day to drop classes without record of enrollment	September 8
Deadline for Application for Graduation Fall 2017 (Graduate)	September 8
Census Date	October 1

Fall Student Break	October 6
Spring 2018 Schedule of Classes available Online	October 9
* Advising for Spring 2018 Registration for continuing students	October 16 - November 3
Last Day for Pro-Rated Refund	October 19
Homecoming (classes in session)	October 20 - 22
Last day to Withdraw	October 30
* Early Registration Appointments begin date for continuing students Spring 2018	October 30
Thanksgiving Break	November 22 - 24
Classes Resume	November 27
Classes End	December 8
Final Examination Period	December 11 - 15
Deadline for Application for Graduation Spring 2018/Summer 2018 (Graduate)	December 15
Deadline to file Petition to Walk in May 2018 Commencement (Summer 2018 Graduate)	December 15

Spring 2018

(All Schools and Colleges except Pharmacy, Law and Dental)

Description	Date(s)
Payment Deadline for Spring 2018	January 1
International Student Orientation	January 9 - 10
New Student/Transfer Orientation and Registration	January 9 - 10
Graduate Student Orientation	January 12
Martin Luther King Jr. Holiday	January 15
Classes Begin	January 16
# Registration	January 16
# Last Day to Add Classes	January 26
# Last Day for Pass/No Credit or Letter Grade Option	January 26
# Last day to drop classes without record or enrollment	January 26
President's Day Holiday	February 19
Census Date	March 1
Last Day for Pro-Rated Refund	March 9
Summer 2018/Fall 2018 Schedule of Classes Available Online	March 12
Spring Break	March 12 - 16
Classes resume	March 19
* Advising for Summer 2018/Fall 2018 for continuing students	March 19 - April 6
Last day to withdraw	March 29
* Summer 2018 registration opens for continuing students (no appointments)	April 2
* Early Registration Appointments begin date for continuing students - Fall 2018	April 2
Deadline for Application for Graduation Fall 2018/Spring 2019/Summer 2019 (Undergraduate)	April 6
Classes End	May 1
Study Day	May 2
Final Examination Period	May 3 - 9
Commencement	May 12

Advisers should arrange to be available on this day.

* Limited to Currently enrolled students.

School of Pharmacy and Health Sciences including Physician Assistants

Pharmacy Fall 2017

Description	Date(s)
Early Registration Fall 2017 - Incoming 1st year students	June 14 - September 8
Early Registration Fall 2017 - Incoming graduate students	June 14 - September 8
Payment deadline for Fall 2017	August 1
Advanced Pharmacy Practice Experiences	August 14 - December 15

Orientation	August 23 - 25
Classes Begin	August 28
[#] Registration	August 28
Labor Day Holiday	September 4
[#] Last Day to Add Classes	September 8
[#] Last Day to Drop Classes without record of enrollment	September 8
Census Date	October 1
Pharmacy Spring 2018 Schedule of Classes Available Online	October 9
Midterm Exams	October 9 - 13
Last Day for Pro-rated refund	October 16
[*] Advising for Pharmacy Spring 2018	October 16 - 20
[*] Early Registration Pharmacy Spring 2018	October 22 - January 19
Last Day to Withdraw	October 30
Thanksgiving Break	November 22 - 24
Classes End	December 1
Final Examination Period	December 4 - 8

Pharmacy Spring 2018

Description	Date(s)
Payment deadline for Pharmacy Spring 2018	December 1
Deadline for Application for Graduation Spring 2018/Summer 2018 (Graduate)	December 15
Classes Begin	January 8
[#] Registration	January 8
Advanced Pharmacy Practice Experiences	January 8 - May 11
Martin Luther King Jr. Holiday	January 15
[#] Last Day to Add Classes	January 19
[#] Last Day to Drop Classes without record of enrollment	January 19
Midterm Exams	February 12 - 16
President's Day Holiday	February 19
Pharmacy Summer 2018 Schedule of Classes Available Online	February 19
Last Day for Pro-Rated Refund	February 23
[*] Advising for Pharmacy Summer 2018	February 26 - March 2
Census Date	March 1
Last day to Withdraw	March 5
[*] Early Registration for Pharmacy Summer 2018	March 5 - May 4
Classes End	April 4
Deadline for Application for Graduation Fall 2018/Spring 2019/Summer 2019 (Professional)	April 6
Final Examination Period	April 6 - 12

Pharmacy Summer 2018

Description	Date(s)
Payment deadline for Pharmacy Summer 2018	April 1
Deadline for Application for Graduation Fall 2018/Spring 2019/Summer 2019 (Professional)	April 6
Classes Begin	April 23
[#] Registration	April 23
[#] Last Day to Add Classes	May 4
[#] Last Day to Drop Classes without record of enrollment	May 4
Commencement	May 19
Pharmacy Fall 2018 Schedule of Classes Available Online	May 21
[*] Advising for Pharmacy Fall 2018	May 29 - June 8
Memorial Day Holiday	May 28
Midterm Exams	June 4 - 8
Last Day for Pro-Rated Refund	June 12
Census Date	September 1

* Early Registration for Pharmacy Fall 2018	June 13 - September 7
Early registration Pharmacy Fall 2018 - Incoming 1st year students	June 13 - September 7
Early registration Pharmacy Fall 2018 - Incoming graduate students	June 13 - September 7
Last Day to Withdraw	June 22
Fourth of July Holiday Observed	July 4
Classes End	July 24
Final Examination Period	July 26 - August 1

Audiology

Rupa Balachandran, Ph.D.

Audiology Program Director

Program Offered

Doctor of Audiology

Admission Requirements

A Bachelor's degree in any major with a minimum 3.0 GPA in the last 60 units, acceptable GRE scores, and three letters of recommendation.

Doctor of Audiology

Students must complete a minimum of 124 units with a Pacific cumulative grade point average of 3.0 in order to earn the doctor of audiology degree.

AUDI 301	Anatomy and Physiology of Hearing	3
AUDI 303	Signals and Systems	3
AUDI 305	Diagnostic Audiology I	3
AUDI 307	Diagnostic Audiology II	3
AUDI 309	Diagnostic Electrophysiology I	3
AUDI 311	Pediatric Audiology	3
AUDI 313	Central Auditory Processing - Diagnosis & Management	3
AUDI 315	Amplification I	3
AUDI 317	Amplification II	3
AUDI 319	Amplification III	3
AUDI 321	Auditory Implants	3
AUDI 325	Aural Rehabilitation	3
AUDI 331	Vestibular Assessment I	3
AUDI 337	Speech-Language Pathology for Audiologists	3
AUDI 339	Deaf Culture and Communication Systems	3
AUDI 341	Psychoacoustics	3
AUDI 343	Research Methods	3
AUDI 345	Hearing Disorders	3
AUDI 347	Tinnitus Assessment and Treatment	3
AUDI 349	Industrial Audiology	3
AUDI 353	Professional Issues	3
AUDI 355	Practice Management	3
AUDI 357	Pharmacology	3
AUDI 359	Tinnitus Management	3
AUDI 361	Comprehsensive Differential Diagnosis	3
AUDI 363	Diagnostic Electrophysiology II	3
AUDI 365	Advanced Topics in Research, Practice and Technolgoy	3
AUDI 367	Vestibular Assessment II	3
AUDI 369	Physical and Behavioral Health for Audiology	3
AUDI 385A	Audiology Practicum I	1
AUDI 385B	Audiology Practicum II	1
AUDI 385C	Audiology Practicum III	1

AUDI 387A	Internship I	2
AUDI 387B	Internship II	2
AUDI 388A	Externship I	9
AUDI 388B	Externship II	9
AUDI 388C	Externship III	9
AUDI 389A	Externship Seminar I	1
AUDI 389B	Externship Seminar II	1
AUDI 389C	Externship Seminar III	1
Total Hours		124

Graduate Programs

AUDI 301. Anatomy and Physiology of Hearing. 3 Units.
An in-depth course on the anatomy and physiology of the hearing mechanism primarily as it related to hearing.

AUDI 303. Signals and Systems. 3 Units.
Basics of signal processing for hearing aids and equipment that measure hearing. IEC/ANSI standards of performance for the instrumentation, calibration procedures, and compliance.

AUDI 305. Diagnostic Audiology I. 3 Units.
Foundation and orientation to audiological equipment and testing. Basic audiometric tests and underlying principles, case history and universal precautions.

AUDI 307. Diagnostic Audiology II. 3 Units.
Evaluation of middle ear function by using the principles of acoustic immittance. Principles underlying optoacoustic emissions. Implementation of tests and formulation of diagnosis based on test results.

AUDI 309. Diagnostic Electrophysiology I. 3 Units.
Diagnostic electrophysiological techniques, assessment of hearing using auditory evoked responses across all age ranges. Evidence-based best practices for determining threshold and neurophysiological integrity with the auditory brainstem response (ABR).

AUDI 311. Pediatric Audiology. 3 Units.
Diagnostic assessment of children from ages 0-18. Embryology and hearing development and genetics of hearing loss.

AUDI 313. Central Auditory Processing - Diagnosis & Management. 3 Units.
Assessment (screening and diagnostic) and treatment options for auditory processing disorders.

AUDI 315. Amplification I. 3 Units.
Theoretical and applied understanding of current technology in hearing aids. Electroacoustic analysis and programming of hearing instruments and verification of the performance of hearing instruments using objective and subjective measurements.

AUDI 317. Amplification II. 3 Units.
Theoretical and clinical aspects of advanced signal processing schemes and verification procedures are taught. Selection and fitting of amplification for special populations.

AUDI 319. Amplification III. 3 Units.
Advanced application of knowledge and skills obtained in AUDI 315 and AUDI 317. Personal and sound field FM systems, classroom listening, and assessment beyond the sound booth, classroom acoustics, assistive listening devices and counseling techniques.

AUDI 321. Auditory Implants. 3 Units.
This course covers a variety of auditory prosthetic devices with emphasis on cochlear implant technology. History, pediatric and adult candidacy, signal processing strategies and fitting protocols will be explored in detail.

AUDI 323. Pediatric Aural Rehabilitation. 3 Units.
This course is an overview of current management options for the (re)habilitation of children with hearing loss.

AUDI 325. Aural Rehabilitation. 3 Units.
Rehabilitation of children and with hearing loss. Current rehabilitation strategies and outcome measures that assess patients' success.

AUDI 327. Auditory Verbal Therapy. 3 Units.
Key principles and components of a successful auditory-verbal program along with procedural outlines to formulate a strategy to implement goals, including audiological monitoring, parent training and therapy components.

AUDI 331. Vestibular Assessment I. 3 Units.
Anatomy and physiology of the vestibular mechanism, diagnostic tests, case history, bedside evaluations, and ENG/VNG test battery.

AUDI 333. Vestibular Treatment. 3 Units.
Didactic and hands on approach to management and treatment of vestibular disorders. Causes and pathophysiology of vestibular loss, treatment programs. Interdisciplinary approach to the patient management.

AUDI 335. Speech and Language Development. 3 Units.
Overview of the normal processes underlying speech and language development across the lifespan.

AUDI 337. Speech-Language Pathology for Audiologists. 3 Units.
Overview of the speech and language disorders, screening and identification of children at risk for speech and language disorders. Basic phonetics and transcription, basic speech and language screening protocols.

AUDI 338A. Externship I. 3 Units.
Clinical Experience in an off-campus placement to develop advanced audiology skills and provide patient care. Minimum of 500 hours of clinical experience required.

AUDI 339. Deaf Culture and Communication Systems. 3 Units.
Introduction to Deaf Culture and American Sign Language (ASL), with emphasis on signs most useful to audiologists working clinically.

AUDI 341. Psychoacoustics. 3 Units.
Physical and psychological attributes related to sound in normal hearing and impaired ears. Classical psychophysical methods discussed, with an emphasis on their application to audiological testing.

AUDI 343. Research Methods. 3 Units.
Introduction to research methods used in audiology. Statistical analyses in descriptive and experimental research.

AUDI 345. Hearing Disorders. 3 Units.
Etiology, pathophysiology, diagnosis and treatment of diseases of the outer, middle, inner ear and the central auditory system. Syndromic and non-syndromic genetic disorders along with their impact on the development and function of the auditory system.

AUDI 347. Tinnitus Assessment and Treatment. 3 Units.
Causes and pathophysiology of tinnitus. The various therapies, pharmacological agents, and management of tinnitus.

AUDI 349. Industrial Audiology. 3 Units.
Introduction to the basic principles of sound and its measurement, including Damage Risk Criteria and its application to noise-induced hearing loss will be addressed, as well as components of hearing conservation programs in a variety of settings and evaluation of their effectiveness in the prevention of hearing.

AUDI 353. Professional Issues. 3 Units.
Current issues in the profession of audiology including audiology scope of practice, audiology employment opportunities, state licensure requirements to practice audiology, and professional certification options for audiologists.

AUDI 355. Practice Management. 3 Units.
Operational and business management of a clinical practice setting. Developing an appropriate business plan; startup and long term planning; essential legal considerations.

AUDI 357. Pharmacology. 3 Units.
Basic concepts and terminology of pharmacology will be explored, including pharmacokinetics, pharmacodynamics and ototoxic drugs. Medications that may contribute to or treat audiologic and vestibular diagnoses will be discussed. Legislation and regulatory issues related to drug clinical trials and the Food and Drug Administration (FDA) will be reviewed.

AUDI 359. Tinnitus Management. 3 Units.
Management of the tinnitus patient with various therapies including pharmaceuticals, cognitive behavior therapy, and hearing devices.

AUDI 361. Comprehsensive Differential Diagnosis. 3 Units.
Comprehensive review of use of auditory and vestibular test batteries in different diagnosis and management of patients.

AUDI 363. Diagnostic Electrophysiology II. 3 Units.
Advance assessments of hearing using auditory evoked responses across all age ranges. Evidence based review of the measurement and interpretation of the neurophysiological and electrophysiological methods of auditory function assessment in adults and children. Prerequisite: AUDI 309.

AUDI 365. Advanced Topics in Research, Practice and Technolgoy. 3 Units.
Advance topics of current trends in the field of audiology. Seminars in contemporary research topics, developments in evidence-based practice, and advancement in technology in the industry.

AUDI 367. Vestibular Assessment II. 3 Units.
Anatomy and physiology of the vestibular mechanism, case history, bedside evaluations, advanced diagnostic tests, introduction to vestibular rehabilitation, and advanced topics in vestibular research. Prerequisite: AUDI 331.

AUDI 369. Physical and Behavioral Health for Audiology. 3 Units.
Referral and management of common health conditions including physical and behavioral health. Implications for hearing loss and clinical management.

AUDI 385C. Audiology Practicum III. 1 Unit.
Guided clinical experience of a variety of audiological activities in diagnostic evaluations and hearing aid fittings under the guidance of clinical supervisors. Students will accrue a minimum of 40 patient contact hours.

AUDI 385B. Audiology Practicum II. 1 Unit.
Guided clinical experience of a variety of audiological activities in diagnostic evaluations and hearing aid fittings under the guidance of clinical supervisors. Students will accrue a minimum of 40 patient contact hours.

AUDI 385A. Audiology Practicum I. 1 Unit.
Guided observations of a variety of audiologic activities and preliminary structured participation as aide in diagnostic evaluations under the guidance of clinical supervisors. Students will accrue a minimum of 40 patient observations and/or contact hours.

AUDI 387B. Internship II. 2 Units.
Clinical Experience in an off-campus placement to develop intermediate audiology skills and provide patient care. Minimum of 200 hours of clinical experience required.

AUDI 387A. Internship I. 2 Units.
Clinical Experience in an off-campus placement to develop beginning audiology skills and provide patient care. Minimum of 200 hours of clinical experience required.

AUDI 388C. Externship III. 9 Units.
Clinical Experience in an off-campus placement to develop advanced audiology skills and provide patient care. Minimum of 500 hours of clinical experience required.

AUDI 388B. Externship II. 9 Units.
Clinical Experience in an off-campus placement to develop advanced audiology skills and provide patient care. Minimum of 500 hours of clinical experience required.

AUDI 388A. Externship I. 9 Units.
Clinical Experience in an off-campus placement to develop advanced audiology skills and provide patient care. Minimum of 500 hours of clinical experience required.

AUDI 389C. Externship Seminar III. 1 Unit.
Utilizing an evidence-based approach, case presentations are made by students in a grand rounds format (presenting a particular patient's medical problems, diagnostic testing results and treatment effects) to other audiology students and faculty incorporating various clinical practices and evaluation and treatment protocols.

AUDI 389B. Externship Seminar II. 1 Unit.
Utilizing an evidence-based approach, case presentations are made by students in a grand rounds format (presenting a particular patient's medical problems, diagnostic testing results and treatment effects) to other audiology students and faculty incorporating various clinical practices and evaluation and treatment protocols.

AUDI 389A. Externship Seminar I. 1 Unit.
Utilizing an evidence-based approach, case presentations are made by students in a grand rounds format (presenting a particular patient's medical problems, diagnostic testing results and treatment effects) to other audiology students and faculty incorporating various clinical practices and evaluation and treatment protocols.

Food Studies

Polly Adema, Director of Food Studies

Programs Offered

Master of Arts in Food Studies

University of the Pacific offers a Master of Arts Degree in Food Studies at its San Francisco campus and online, pending WSCUC approval. Course offerings illustrate the multidisciplinary nature of the program including anthropology, history, sociology, literature, writing, food policy, advocacy, and more. Course work focuses on developing mastery in research and writing, and in critical thinking and problem solving while achieving fluency in a range of food-related topics. The successful student will develop exceptional proficiency in evaluating the economic, environmental, cultural, historical, political, and social forces shaping and shaped by the modern food system.

This multidisciplinary program is designed to train students to master skills necessary for success in food-related professions. Research, presentation, and writing skills developed during students' studies will equip them for careers across corporate and nonprofit sectors of the food industry including marketing, advertising, research and development, policy, advocacy work, food writing, and for advanced work in academia.

The program consists of 32 credits of course work, including a thesis or a non-thesis (exam) option. Most classes are 4 credits; special courses may be 2-4 credits. All students must take FOOD 201, Introduction to Food Studies, and three other courses from the foundational core courses numbered 202-208, plus four electives of the students' choosing. Full-time students take two classes per semester and can complete the degree in four semesters; part-time students may take one or two classes per semester and can complete the program over a maximum of six years. There is no minimum course load required to remain in the program, but registration and matriculation fees will apply every semester to maintain active status.

Grade Point Requirements

Candidates for a graduate degree must maintain a cumulative GPA of at least 3.0. No grade below a B- (2.7) will be counted towards the degree.

Thesis and Non Thesis Options

In the thesis option (Plan A), students take the core FOOD 201 during the first year. Upon successful completion of the thesis prerequisite FOOD 208, Research Methods, students complete their thesis projects under the supervision of a faculty member in FOOD 299. That faculty member and at least one other faculty will evaluate the written thesis.

In the non-thesis option (Plan B), students take the core FOOD 201 during the first year. All students are strongly encouraged to take Food 208 but it is not required for those pursuing the non-thesis option. Plan B students do not take Food 299. Plan B students complete the degree requirements by successfully passing a comprehensive examination. Program faculty, working with the program director, contribute to the substance and evaluation of the exam. Each examination, which may include both oral and written components, will be comprehensive and specially tailored to reflect the courses taken by each individual student. A committee of two faculty will oversee the exams.

Admission Requirements

The program enthusiastically welcomes students from a broad range of undergraduate majors and backgrounds including business, health sciences, law, the social sciences, and humanities. Program acceptance is competitive and is based on committee review of each applicant's grade point average, a personal statement, resume, and three letters of recommendation from faculty members or employers familiar with the applicant's work. Applicants will have a Bachelor of Arts or Bachelor of Science degree with a GPA of at least 3.0. In exceptional cases, students with a 2.65-2.99 cumulative GPA may be considered for conditional admission.

Master of Arts in Food Studies

Students must complete a minimum of 32 units with a Pacific cumulative grade point average of 3.0 in order to earn the master of arts degree in food studies.

FOOD 201	Introduction to Food Studies	4
Select three of the following:		12
FOOD 202	History of Food	
FOOD 203	Food Writing	
FOOD 204	Anthropology of Food	
FOOD 205	Food and the Environment	
FOOD 206	Sociology of Food	
FOOD 207	Food, Nutrition and Human Health	
FOOD 208	Research Methods in Food Studies	
FOOD Electives (4 additional courses)		16
Select one of the following options:		
Thesis Option Plan A		
FOOD 299	Thesis	
Non-Thesis Option Plan B		
Written comprehensive examination		
Oral comprehensive examination		

Graduate Programs

FOOD 201. Introduction to Food Studies. 4 Units.
This course provides an overview of the state of the field from a multidisciplinary perspective. The course examines production, distribution, consumption patterns, ways that scholars address these topics, research methodologies, and considers the practical applications of food studies to the job market.

FOOD 202. History of Food. 4 Units.
This course makes a detailed examination of the importance of food as a catalyst in history. This course will focus on interpreting primary documents and making a critical assessment of secondary literature. It covers from the period from human evolution and the Neolithic Revolution to the present.

FOOD 203. Food Writing. 4 Units.
This is a practical course designed to hone student's writing skills, pitch food writing to a variety of markets and address important issues for many different audiences, academic and popular. This is an intensive writing workshop.

FOOD 204. Anthropology of Food. 4 Units.
This course examines the diversity of global food ways from biocultural and cross-cultural perspectives. It offers an analysis of the important role of food production, preparation, and eating in different cultures as well as the symbolic ritual importance of food.

FOOD 205. Food and the Environment. 4 Units.
This course examines the causes of contemporary agriculture-food-population-environmental problems, with emphasis on analyzing how human population growth and social and environmental change have dramatically changed decision contexts, not only for small scale tradition based agriculture but also for modern agriculture. The class applies insights from demography, anthropology, political ecology to propose alternative solutions that promote a balance between agriculture, food, population, and the environment.

FOOD 206. Sociology of Food. 4 Units.
This course offers an exploration of the production, distribution and consumption of food from a sociological perspective with emphases on political economy, culture, labor inequalities and movements for food system reform.

FOOD 207. Food, Nutrition and Human Health. 4 Units.
This course analyzes how approaches to health and nutrition have shifted over time and across different cultures. This course will also explore the roles of food and nutrition science is shaping dietary trends and patterns.

FOOD 208. Research Methods in Food Studies. 4 Units.
This course covers basic techniques for collecting, interpreting and analyzing qualitative data in the field of food studies. The class examines the theoretical approaches to various types of qualitative research as well as the practical techniques of data collection, such as working with primary documents, identifying key informants, selecting respondents, collecting field notes, analyzing data, writing and presenting findings to academic and non-academic audiences. Prerequisite: FOOD 201 with a "C-" or better.

FOOD 231. Food and Literature. 4 Units.
This course will provide an introduction to literary food studies and trace the development of key themes within food literature over the past two centuries, ranging from the role of meat in American society to the ways in which eating and cooking nourish the imagination. We'll begin by reading Eating Words: A Norton Anthology of Food Writing before moving onto such literary clasics as Jean Anthelme Brillat-Savarin's Physiology of Taste, Upton Sinclair's The Jungle, M. F. K. Fisher's The Gastronomical Me, The Alice B. Toklas Cook Book and Ruth Ozeki's My Year of Meats. In addition, we'll explore the historical development of nonfiction food writing genres, including cookbooks, culinary memoir, and gastronomic essays. The course assignments will focus on improving writing skills, oral communication, and literary analyses.

FOOD 232. Local Food History: A Case Study of San Francisco. 4 Units.
In this course we will cover the history of food in the San Francisco Bay Area, tracing how succeeding waves of immigrants adapted their cuisines to a rich new environment. Form the Spanish mission period through Chez Panisse and the California Cuisine movement, we will examine changing foodways as well as the marketing of particular dishes and restaurants to locals and to visitors from around the world. Students will visit culinary sites important to the history of the city, such as the Golden Gate Fortune Cookie Factory in Chinatown, the Cinderella Russian Bakery in Inner Richmond, and the Anchor Brewery on Potrero Hill. Readings include Jennifer Lee's The Fortune Cookie Chronicles, Matthew Booker's Down By The Bay: San Francisco's History Between the Tides, and Sally Fairfax's California Cuisine and Just Food. You will also get trained in oral history methods and in writing local food history. After reading Carol Kammen's On Doing Local History, weekly assignments will lead you, step by step, through the research and writing stages of a twelve-page research paper about a specific topic in San Francisco food history. Students will work with both primary and secondary materials relating to their topic, and are encouraged to incorporate oral history research where appropriate.

FOOD 234. Food Justice. 4 Units.
This course investigates the roles of intersecting hierarchies including race, class, gender, national status and sexuality in shaping the production, distribution and consumption of food. Through readings, case studies and research, we examine community-based and policy responses to these inequalities. This course includes field trips to and/or guest speakers from local food justice organizations.

FOOD 235. The Business of Food. 4 Units.
This class will provide a multisectoral overview of both prevailing and emerging structures and dynamics of the food industry. We will explore the food value chain from field to fork, employing the frameworks of strategic business analysis, market failure, and the influences of policy and the regulatory environment. Students will use these frameworks to evaluate and assess business models, products, and activities of established "Big Food" players and new market entrants. The class includes evaluation of current topics and non-market actors shaping the food industry to explore how cultural and social behaviors affect food consumption, as well as industry organization, the behavior and activities of industry participants. Also included will be a survey of basic concepts related to product development, pricing, and marketing.

FOOD 287A. Graduate Internship. 1-4 Units.

FOOD 287. Graduate Internship. 1-4 Units.

FOOD 291. Independent Study. 1-4 Units.

FOOD 293. Special Topics. 1-4 Units.

FOOD 297. Graduate Research. 1-4 Units.

FOOD 299. Thesis. 4 Units.

Music Therapy

Pacific's music therapy program offers post baccalaureate education for advanced training at a Master's level, which supports career advancement beyond attainment of the Board Certification. Flexible learning options support a broad range of career options for rapidly developing health care arenas. MA coursework affords students greater depth and breadth in knowledge and skills for advanced clinical competency and identifying areas of specialization through individualized mentoring.

Overview of Post-Baccalaureate Music Therapy Options

1. **Master of Arts Degree in Music Therapy** (See complete program description below)**.** This program is for Board-Certified Music Therapists seeking preparation for advanced-level practice, with specialization in either clinical or research areas.
2. **Equivalency Program Plus Master's Degree in Music Therapy** (These students are classified as graduate students and are referred to as Equivalency Plus Master's Students.) This program supports rapid development of advanced clinical competencies in music therapy. Candidates

who already have an undergraduate degree, demonstrate strong musicianship, and who qualify to enter the Graduate School may apply for this program. The Music Therapy Equivalency Plus Master's students must first complete the Equivalency requirements. Graduate-level classes such as MUSC 202 or MUSC 203, music electives, or specialization field courses may be taken concurrently. However, all music therapy graduate-level core courses can only be taken after successful completion of all Equivalency courses and the clinical internship (MTHR 187). Equivalency Plus Master's students usually earn the MT-BC credential and start practicing music therapy shortly after completing internship. This "real life" experience is extremely valuable in conjunction with the advanced coursework in music therapy.

Master of Arts Degree in Music Therapy

Program Description

The Master of Arts in music therapy requires a minimum of 36 units and provides a balance across three main areas, with at least 13 units in music therapy foundation courses, 13 units in specialization field courses, and 10 or more units of free electives.

Students are able to focus on their specific personal career goals by selecting one of two tracks supporting:

1. Preparation for eventual entry into teaching and research careers (Generally, this requires completion of the master's degree in music therapy first, followed by doctoral level work available in other programs.) or
2. Development of advanced clinical, administrative, and program development skills.

Application Procedure

Application is submitted to the graduate school; applicants who have a cumulative college GPA of 3.5 or higher are not required to take the GRE. For candidates with the MT-BC credential, an informal musicianship assessment and interview with the music therapy faculty is required.

Plan of Study

Both tracks in the Master of Arts in music therapy program allow for flexible designs for the individualized plan of study. Master of Arts students should consult with their advisor during the first term in residency, to determine their overall plan of study, and to detail their schedule of classes for each semester.

Program Policies

1. The work for the master's degree must be completed within 7 years from the date when the first 200 level course was taken at Pacific.
2. Students must pass the Board Certification Examination or provide evidence of current re-certification (MT-BC) status prior to completion of the Master of Arts degree in music therapy.
3. Students who provide evidence of equivalent prior coursework may substitute a free elective for any required course, with permission of advisor and music therapy program director.
4. In order to provide Protection of Human Research Subjects, IRB oversight, student liability insurance coverage, and ongoing faculty mentoring of students during Thesis and Clerkship work:
   - Students must be continuously enrolled for a minimum of 1 unit of credit each Fall or Spring semester while working with human subjects on thesis or clinical clerkship projects.
   - Students must be enrolled for a minimum of 1 unit of credit during the semesters in which the thesis or clinical clerkship is proposed and when it is defended. Thesis and Clerkship proposal and defense meetings with the student's faculty committee must be scheduled between September 1 and May 1.

Required Advanced Clinical Competencies

Students must demonstrate advanced clinical competencies as defined by the American Music Therapy Association (AMTA). Particular emphasis is placed upon the acquisition of advanced competencies relevant to the student's area of specialization.

Master of Arts in Music Therapy

Students must complete a minimum of 32 units with a Pacific cumulative and major/program grade point average of 3.0 or higher in order to earn the Master of Arts degree in music therapy.

Music Therapy Foundational Courses:

MTHR 231	Individual Music Therapy: Advanced Theory and Techniques	3
MTHR 232	Group Music Therapy: Advanced Theory and Techniques	3
MTHR 251	Music Therapy Supervision I: Introduction to Theory and Applications	1
MTHR 252	Music Therapy Supervision II: Applied Experience	1
MTHR 260	Advanced Clinical Practice in Music Therapy *	2
MUSC 203	Contemporary Issues in Music Education and Music Therapy	3

* 1.Two semesters, one unit each semester.
2. Students may fulfill one unit of this requirement by completing a Special Topics course in a clinical practice area.

Choose one of the following Options:

Option A, Thesis Plan

EDUC 201	Techniques of Research	3
or MTHR 239 & MTHR 265	Research in Music and Human Research in Music Therapy: Supervised Experience	
MUSC 202	Introduction in Music Research	3
MTHR 299	Thesis	4
Select three of the following Specialized Electives:		9
EDUC 216	Nature and Conditions of Learning	
EDUC 330	Advanced Human Development I	
EDUC 331	Advanced Human Development II	
EDUC 335	Psychotherapeutic Interventions	
EDUC 337	Crisis Intervention	
EDUC 338	Consultation Methods	
EDUC 341	History and Systems in Psychology	
EDUC 343	Psychopathology and Wellness Promotion	
EDUC 348	Neuropsychology	
MTHR 240 & MTHR 291	Psychology of Music and Graduate Independent Study	

Option B, Non- Thesis Plan

EDUC 201	Techniques of Research	3
or MTHR 239 & MTHR 265	Research in Music and Human Research in Music Therapy: Supervised Experience	
MTHR 245	Clinical Clerkship in Music Therapy	1
MUSC 202	Introduction in Music Research	3
Select four of the following Specialized Electives:		12
EDUC 216	Nature and Conditions of Learning	
EDUC 330	Advanced Human Development I	
EDUC 331	Advanced Human Development II	
EDUC 335	Psychotherapeutic Interventions	
EDUC 337	Crisis Intervention	
EDUC 338	Consultation Methods	
EDUC 341	History and Systems in Psychology	
EDUC 343	Psychopathology and Wellness Promotion	
EDUC 348	Neuropsychology	
MTHR 240 & MTHR 291	Psychology of Music and Graduate Independent Study	

Master of Arts in Music Therapy - 3 Year Internship Option

Students must complete a minimum of 32 units with a Pacific cumulative and major/program grade point average of 3.0 or higher in order to earn the Master of Arts degree in music therapy.

Pre-Board-Certification Courses:

MTHR 011	Music as Therapy: A Survey of Clinical Applications	3
MTHR 018	Basic Skills for Music Therapists and Allied Professionals	3
MTHR 020	Observation and Assessment in Music Therapy	2
MTHR 135	Music with Children in Inclusive Settings: Therapeutic and Educational Applications	3
MTHR 141	Music Therapy in Mental Health and Social Services	3
MTHR 142	Music Therapy in Medicine and Health Care	3
MTHR 150	Fieldwork in Music Therapy	4
MTHR 187	Internship in Music Therapy	2

Music Therapy Foundational Courses:

MTHR 231	Individual Music Therapy: Advanced Theory and Techniques	3

MTHR 232	Group Music Therapy: Advanced Theory and Techniques	3
MTHR 251	Music Therapy Supervision I: Introduction to Theory and Applications	1
MTHR 252	Music Therapy Supervision II: Applied Experience	1
MTHR 260	Advanced Clinical Practice in Music Therapy *	2
MUSC 203	Contemporary Issues in Music Education and Music Therapy	3

* Two semesters, one unit each semester.

Choose one of the following Options:

Option A, Thesis Plan

EDUC 201	Techniques of Research	3
or MTHR 239 & MTHR 265	Research in Music and Human Research in Music Therapy: Supervised Experience	
MTHR 299	Thesis	4
MUSC 202	Introduction in Music Research	3
Select three of the following Specialized Electives:		6
EDUC 216	Nature and Conditions of Learning	
EDUC 330	Advanced Human Development I	
EDUC 331	Advanced Human Development II	
EDUC 335	Psychotherapeutic Interventions	
EDUC 337	Crisis Intervention	
EDUC 338	Consultation Methods	
EDUC 341	History and Systems in Psychology	
EDUC 343	Psychopathology and Wellness Promotion	
EDUC 348	Neuropsychology	
MTHR 240 & MTHR 291	Psychology of Music and Graduate Independent Study	

Option B, Non-Thesis Plan

EDUC 201	Techniques of Research	3
or MTHR 239 & MTHR 265	Research in Music and Human Research in Music Therapy: Supervised Experience	
MTHR 245	Clinical Clerkship in Music Therapy	1
MUSC 202	Introduction in Music Research	3
Select four of the following Specialized Electives:		12
EDUC 216	Nature and Conditions of Learning	
EDUC 330	Advanced Human Development I	
EDUC 331	Advanced Human Development II	
EDUC 335	Psychotherapeutic Interventions	
EDUC 337	Crisis Intervention	
EDUC 338	Consultation Methods	
EDUC 341	History and Systems in Psychology	
EDUC 343	Psychopathology and Wellness Promotion	
MTHR 240 & MTHR 291	Psychology of Music and Graduate Independent Study	

Graduate Programs

MTHR 018. Basic Skills for Music Therapists and Allied Professionals. 3 Units.
MTHR 018 focuses on the development of applied/basic music skills necessary for implementing therapeutic music interventions with children and adults. Students increase performance competencies in the areas of singing and accompanying, and explore improvising/ composing/arranging with instruments such as autoharp, Orff and other rhythmic/ethnic instruments. The course includes development of song repertoire commonly used across various therapeutic settings. This course is open to non-Major. Prerequisite: MCOM 002.

MTHR 011. Music as Therapy: A Survey of Clinical Applications. 3 Units.
This course introduces the uses of music as a creative arts therapy, and it includes an overview of the history, theory, and clinical practice of music therapy across a broad range of settings. Classroom experiences, reading, films, and field observations introduce the student to various uses of music in the treatment of children and adults that are a foundation for the sequence of music therapy courses which together support development of required AMTA competencies for the professional music therapist. This course also offers an introduction to music therapy for interested persons in other health and pre-professional programs. This course is open to non-majors.

MTHR 020. Observation and Assessment in Music Therapy. 2 Units.
This course focuses on developing observation skills and assessment competencies. Students will practice implementation of standardized and therapist-constructed assessments (through simulation) to appropriately measure and monitor progress and evaluate effectiveness of music therapy interventions for children and adults. For graduate students only who need to fulfill coursework for board-eligibility through the Certification Board for Music Therapists.

MTHR 135. Music with Children in Inclusive Settings: Therapeutic and Educational Applications. 3 Units.
This course presents specific music therapy techniques and skills for development of programs for children's successful integration within home/school/community environments. Students will identify and create therapeutic music strategies to effect changes in children's academic, social, motor, and leisure skills development. This course also acquaints students with relevant music therapy/education research and current legislation regarding children within inclusive settings. Open to non-majors. Prerequisites: SPED 123 and either MTHR 018 or MCOM 002; or with instructor permission.

MTHR 139. Research in Music. 2 Units.
The application of scientific methods to investigate music therapy and related disciplines (e.g., music education and music psychology) are reviewed, including: qualitative and quantitative methods and related designs, review and evaluation of research literature, and writing a research proposal. Statistical analyses and evidence-based practice are introduced. Prerequisite: MCOM 002 or Instructor Permission.

MTHR 140. Psychology of Music. 2 Units.
This course introduces the psychological foundations of music, including the study of acoustics, perception of sound, music and neuroscience, and physical and psychosocial responses to music. Prerequisite: MTHR 139 or MTHR 239 or permission of the instructor.

MTHR 141. Music Therapy in Mental Health and Social Services. 3 Units.
MTHR 141 examines theory, research, and clinical skills related to music therapy for adults, children, and adolescents in various mental health and social service treatment settings. It also includes an introduction to current DSM criteria for mental disorders commonly encountered by music therapists, and an overview of major theories of psychotherapy as they relate to music therapy. The course introduces music therapy techniques for group treatment which includes music improvisation, songwriting, and basic relaxation methods. This course is for music therapy majors only and it must be taken concurrently with Fieldwork in Music Therapy. Prerequisites: MTHR 011, MTHR 018, MTHR 135, and MTHR 140, PSYC 111 and completion of Voice, Guitar, and Piano competencies.

MTHR 142. Music Therapy in Medicine and Health Care. 3 Units.
This course provides an overview of music therapy with children, adults, and older adults in medical settings. Students survey theories, methods, and empirically supported treatments in settings such as acute care, physical rehabilitation, gerontology, palliative care, preventative medicine, and health maintenance. It also includes the study of physical and psychosocial processes natural to aging and end of life, and assists students in developing skills in improvised music for relaxation and palliative care. The course is for music therapy majors only. Prerequisites: MTHR 141, BIOL 011 and completion of Voice, Guitar, and Piano competencies.

MTHR 143. Supervisory Techniques. 1 or 2 Unit.
This course offers techniques in the supervision of music therapy fieldwork. The course is only open to music therapy majors by permission of the instructor. Prerequisites: MTHR 020, MTHR 140 and MTHR 150.

MTHR 150. Fieldwork in Music Therapy. 1-2 Units.
Fieldwork provides students with structured clinical experiences in music therapy under the supervision of a music therapist in varying community settings. This course repeated for credit and taken concurrently each semester students are enrolled in MTHR 135, MTHR 140, MTHR 141 and MTHR 142. Prerequisites: MTHR 011 and MTHR 018. This course is open only to music therapy majors, and a minimum of 4 units of Fieldwork (MTHR 150) is required for completion of the music therapy degree program.

MTHR 187. Internship in Music Therapy. 1 Unit.
This course consists of clinical training experience at an internship site approved by the AMTA. Successful completion of required hours and competencies allows students to sit for the Music Therapy Board Certification Examination. Prerequisites: Successful completion of all coursework and functional music skills, competency evaluation and individualized internship training plan. Students are required to enroll in MTHR 150 within the period of one year prior to the start of internship.

MTHR 191. Independent Study. 1-2 Units.

MTHR 197D. Undergraduate Research. 1-4 Units.

MTHR 230. Bonny Method of Guided Imagery and Music Level I Training. 3 Units.
Intensive 5-day residential seminar introduces theory and clinical applications of the Bonny Method of Guided Imagery and Music (BMGIM) and other music and imagery techniques. Participants gain intensive personal experience with BMGIM. Hands-on experiential exercises, demonstrations, and clinical examples introduce simple imagery techniques to add to participants' existing repertoire of therapeutic interventions. This residential phase of the course meets the Association of Music and Imagery (AMI) requirements for introductory training in the Bonny Method. The on-line learning component extends and deepens the student's understanding through exposure to literature in the Bonny Method, sharing of discoveries from readings and music listening, as well as personal reflection and integration of experiential learning. Due to the experiential nature of this course, participants must be willing to participate in all learning activities and in the group sharing process, and attend all seminar sessions as listed in the residential seminar course schedule. All students and instructors are expected to maintain confidentiality of personal material shared by group members. Prerequisites: Evidence of clinical experience and permission of instructor.

MTHR 231. Individual Music Therapy: Advanced Theory and Techniques. 3 Units.
This course explores current theories and techniques of music-centered psychotherapy for supportive, re-educative/rehabilitative, and re-constructive levels of clinical practice with a variety of populations. The course includes development of therapeutic relationship through music improvisation, and focused music-evoked imagery to address supportive and re-educative goals for individual clients. Experiential learning includes classroom simulations and supervised clinical practice. Prerequisites: MTHR 187 (or an AMTA-approved clinical internship) and MTHR 230 (or Level I training in the Bonny Method of Guided Imagery and Music) or permission of instructor.

MTHR 232. Group Music Therapy: Advanced Theory and Techniques. 3 Units.
This course examines theories and models for group music therapy with applications for a variety of clinical populations. The course includes approaches for quick group assessment and brief treatment environments. The focus in on therapist and member roles and tasks within group development processes. Students refine group facilitation skills that use music-centered techniques of improvisation and music-evoked imagery through in-class simulations and supervised clinical practice. Prerequisite: MTHR 231 with a "B" or better or permission of instructor.

MTHR 239. Research in Music. 2 Units.
The application of scientific methods to investigate music therapy and related disciplines (e.g., music education and music psychology) are reviewed, including: qualitative and quantitative methods and related designs, review and evaluation of research literature, and writing a research proposal. Statistical analyses and evidence-based practice are introduced. Prerequisite: MCOM 002 or Instructor Permission.

MTHR 240. Psychology of Music. 2 Units.
This course introduces the psychological foundations of music, including the study of acoustics, perception of sound, music and neuroscience, and physical and psychosocial responses to music. Prerequisite: MTHR 139 or MTHR 239 or permission of the instructor.

MTHR 245. Clinical Clerkship in Music Therapy. 1-4 Units.
As an alternate requirement for Thesis, Clinical Clerkship is designed for students who may want to focus on clinical skills and knowledge. Students complete a major project related to an applied therapeutic or educational setting.

MTHR 251. Music Therapy Supervision I: Introduction to Theory and Applications. 1 Unit.
This course provides a foundation for effective music therapy clinical supervision. It introduces multicultural, ethical, and legal considerations and explores factors unique to music therapy supervision. Readings, workbook assignments, field observations and in-class discussion of theories and techniques prepare students for MTHR 252, and practical experience supervising undergraduate students in clinical training settings. Prerequisite: MTHR 187 or an AMTA approved clinical internship.

MTHR 252. Music Therapy Supervision II: Applied Experience. 1 Unit.
This course provides mentored practice in clinical supervision and it supports individualized skill development of competencies for professional participation in clinical management and student, volunteer, or peer supervision situations. Learning experiences include direct on-site supervision of undergraduate music therapy students in fieldwork placements, maintaining the on-site learning environment, monitoring student progress, conducting formal evaluations, conducting group student supervision and regular participation in supervisors group consultation meetings with faculty. Prerequisite: MTHR 251 with a "B" or better.

MTHR 260. Advanced Clinical Practice in Music Therapy. 1 Unit.
This course provides individualized experiences for development of advanced clinical skills in music therapy. Students may focus on a new area of specialization, or may work within a familiar clinical environment that develops skills at a more advanced level. Experiences may include supervised practice in advanced music therapy techniques, interdisciplinary collaboration, new program development, or expansion of an existing clinical program. Prerequisites: two semesters of MTHR 187 or clinical internship.

MTHR 265. Human Research in Music Therapy: Supervised Experience. 1 Unit.
This course offers individualized experiences for development of advanced research skills in music therapy. It provides faculty oversight and supervision of human research in clinical or laboratory settings. Students may focus on their own independent research project or may work within a collaborative or faculty-directed research environment. It is required for students who conduct summer research activities with human subjects and includes projects that contribute to completion of the master's thesis or clinical clerkship. This course may be repeated. Prerequisites: Completion of University Human Subjects (IRB) training for student investigators, and permission of instructor.

MTHR 275. College Teaching in Music Therapy: Curriculum, Competencies and Classroom. 3 Units.
Students review the AMTA requirements for music therapy undergraduate program curriculum and for competency-based education and clinical training. The course provides mentored practice in teaching foundational level music therapy college courses, and it supports individualized skill development for professional participation in academic music therapy programs as an instructor. Permission of instructor.

MTHR 291. Graduate Independent Study. 1-4 Units.

MTHR 299. Thesis. 1-4 Units.
Students create an original monograph that embodies original research.

Data Science

Phone: (209) 946-2992

Location: San Francisco and Sacramento
Website: Data Science (http://www.pacific.edu/analytics)

Degrees Offered

Master of Science in Data Science

Data Science Program Overview

The MS in Data Science prepares graduates for careers in data analytics and related fields. This is science (as opposed to business) based program that is focused on developing students' math foundation in statistics and linear algebra, and computer programming to prepare them for coursework in topics like machine learning, fraud detection, sentiment analysis, and data visualization.

This 32-unit, 4-semester degree culminates in the Capstone Project, in which students work on an analytics problem with a sponsoring company.

Prerequisite entry requirements include:

- A Bachelors degree
- Educational qualifications and/or work experience in:
  - Statistics
  - Linear Algebra
  - Computer programming (any language, although Python and R are the preferred languages)
- In addition, international students must also have:
  - The US equivalent of a GPA of 3.0 or above
  - TOEFL (or equivalent) English language proficiency. A minimum score of 90 or a score of at least 550 (213 on the computer-based test) is required

Data Science Program Educational Objectives

The MS in Data Science prepares graduates for careers in data analytics and related fields. This is done by developing students' math foundation in statistics and linear algebra.

The education that students receive will allow them after graduation to:

- Extract value from data to assist organizations in predicting future events, understand past performance, and optimize processes;
- Apply the methods of data mining, data wrangling, programming, quantitative methods, modeling, and machine learning to prepare very large data sets for analysis;
- Apply the scientific method to develop and test hypotheses using mathematical and statistical principles;
- Deliver in skilled communication the results and findings through informative visualizations to project stakeholders.

Master of Science in Data Science

Students must complete a minimum of 32 units with a Pacific cumulative grade point average of 3.0 to earn the master of science in data science degree.

Semester 1		
ANLT 201	Linear Algebra for Data Science	2
ANLT 202	Frequentist Statistics	1
ANLT 208	Research Methods for Data Science	1
ANLT 212	Analytics Computing for Data Science	2
ANLT 224	Data Wrangling	1
ANLT 242	Relational Databases	1
ANLT 283	Weekly Hot Topics	1

Semester 2		
ANLT 203	Bayesian Statistics	1
ANLT 210	Software Methods for Data Science	1
ANLT 222	Machine Learning for Data Science	2
ANLT 232	Introduction to Data Visualization	1
ANLT 243	NoSQL Databases	1
ANLT 272	Healthcare Case Studies	1
ANLT 283	Weekly Hot Topics	1
Semester 3		
ANLT 214	Data Engineering for Data Science	2
ANLT 276	Emphasis Case Studies	1
ANLT 283	Weekly Hot Topics	1
Select three of the following:		3
ANLT 205	Consumer Analytics	
ANLT 206	Sentiment Analysis and Opinion Mining	
ANLT 207	Time Series Analysis	
ANLT 273	Fraud Detection	
ANLT 274	Customer Analytics	
ANLT 275	Text Mining	
Semester 4		
ANLT 233	Dynamic Visualization	1
ANLT 234	Analytics Storytelling for Data Science	1
ANLT 282	Capstone Project	6

Graduate Programs

ANLT 201. Linear Algebra for Data Science. 2 Units.
Linear algebra is the generalized study of solutions to systems of linear equations. In this course, students will begin by focusing on developing a conceptual understanding of computational tools from linear algebra, which are frequently employed in the analysis of data. These tools include: formulating linear systems as metrix-vector equations, solving systems of simultaneous equations using technology, performing basic computations involving matrix algebra, solving eigenvalue-eigenvector problems using technology, diagonalization, and orthogonal projections. Students will then be exposed to more advanced topics, such as singular value decomposition, principle component analysis, Random Walk, Markov Chains, and applications of linear algebra in data mining. The use of software to perform computations will be emphasized. Prerequisite: Admission into the Data Science program or permission of Program Director.

ANLT 202. Frequentist Statistics. 1 Unit.
A survey of regression, linear models, and experimental design. Topics include simple and multiple linear regression, single- and multi-factor studies, analysis of variance, analysis of covariance, mode selection, and diagnostics. This class will focus more on the application of regression methods than the underlying theory through the use of modern statistical programming languages. Prerequisite: ANLT 201.

ANLT 203. Bayesian Statistics. 1 Unit.
This course introduces Bayesian statistical methods that enable data analysts and scientists to combine information from similar experiments, account for complex spatial, temporal, and other relationships, and also incorporate prior information or expert knowledge into a statistical analysis. This course explains the theory behind Bayesian methods and their practical applications, such as social network analysis, predicting crime risk, or predicting credit fraud. The course emphasizes data analysis through the use of modern analytic programming languages. Prerequisite: ANLT 202.

ANLT 205. Consumer Analytics. 1 Unit.
This course introduces the techniques used to analyze consumer shopping and buying behavior using transactional data in industries like retail, grocery, e-commerce, and others. Students will learn how to conduct item affinity (market basket) analysis, trip classification analysis, RFM (recency, frequency, monetary) analysis, churn analysis, and others. This class will teach students how to prepare data for these types of analyses, as well as how to use machine learning and statistical methods to build the models. The class is an experiential learning opportunity that utilizes real-world data sets and scenarios. Prerequisite: ANLT 222.

ANLT 206. Sentiment Analysis and Opinion Mining. 1 Unit.
This course introduces the algorithms and methods used to analyze the subjective opinions and sentiments of the author of a free text document such as a tweet, blog post, or article. The class will examine the applications of this type of analysis as well as its benefits and limitations. Sentiment analysis is closely tied to text mining and uses techniques such as natural language processing, text analysis, and computational linguistics for feature extraction and preprocessing of the data. Students will explore the current state of usage of sentiment analysis, as well as future implications and opportunities. Prerequisite: ANLT 222.

ANLT 207. Time Series Analysis. 1 Unit.
This course introduces the theory and application of statistical methods for the analysis of data that have been observed over time. Students will learn techniques for working with time series data and how to account for the correlation that may exist between measurements that are separated by time. The class will concentrate on both univariate and multivariate time series analysis, with a balance between theory and applications. Students will complete a time series analysis project using real-world scenario and data set. Prerequisite: ANLT 222.

ANLT 208. Research Methods for Data Science. 1 Unit.
Students learn about research design, qualitative and quantitative research, and sources of data. Topics will include a variety of research topics, including such things as data collection procedures, measurement strategies questionnaire design and content analysis, interviewing techniques, literature surveys; information databases, probability testing, and inferential statistics. Students will prepare and present a research proposal (with emphasis on technical writing/presentation principles) as part of the course.

ANLT 210. Software Methods for Data Science. 1 Unit.
Students learn the tools, methodology, and etiquette in developing data science applications, tools, and analytical workflows in collaborative environments. Data scientists are at the nexus of software engineering, science, and business. In order to thrive in this world, they must work collaboratively across these fields and skill sets, while ensuring that work is accessible and digestible to everyone involved. Moreover, they must ensure their work is production-worthy and extensible. This course teaches all of the elements, both technical and conceptual, to create productive, helpful, and professional data scientists.

ANLT 212. Analytics Computing for Data Science. 2 Units.
This course introduces computational data analysis using multi-paradigm programming languages. By the end of the course, students will tackle complex data analysis problems. The course emphasizes the use of programming languages for statistical and machine learning analysis, and predictive modeling. Graphical analytics tools will also be used. The course will also cover the various packages for accessing data that come with the various languages, manipulating and preparing data for analysis, conducting statistical and machine learning analyses, and graphically plotting and visualizing data and analytical results. The course emphasizes hands-on data and analysis using a variety of real-world data sets and analytical objectives. Prerequisite: Admission into the Data Science program or permission of Program Director.

ANLT 214. Data Engineering for Data Science. 2 Units.
This course introduces students to data warehousing architectures, big data processing pipelines and in-memory analytic techniques as an alternative to traditional warehouse approaches. The class will provide an overview of conventional data warehousing architectures, focusing on those processing pipeline technologies that enable the management of both SQL and NoSQL data. Students will learn how to design systems to manage large volumes of poly-structured data including temporal, spatial, spatiotemporal, and multidimensional data. The class will also provide an overview of the benefits of in-memory analytics, focusing on cloud computing and cluster computing architectures and associated modern toolsets. Students will learn how to design in-memory systems to iterative graphs, complex multistage applications, fault tolerant solutions, and to use modern cloud based analytic platform services. Prerequisite: Successful Completion of Second Semester of Master of Science in Data Science.

ANLT 222. Machine Learning for Data Science. 2 Units.
Machine learning is the artificial intelligence discipline for uncovering patterns and relationships contained in large data sets. Students will be exposed to the supervised learning methods such as neural networks and decision trees. Practical application of these techniques will be tools like R and Python. Students will also learn: proper techniques for developing, training, and cross-validating predictive models; bias versus variance; and will explore the practical usage of these techniques in business and scientific environments. Students will also be introduced to unsupervised learning – the class of machine learning for uncovering patterns and relationships in data without labeling the data or establishing a preconceived set of classes or results. Students will learn through hands-on programming projects. Prerequisite: Successful Completion of First Semester of Master of Science in Data Science.

ANLT 224. Data Wrangling. 1 Unit.
This course will teach you how to retrieve data from disparate sources, combine it into a unified format, and prepare it for effective analysis. This aspect of data science is often estimated to be upwards of 80% of the effort in a typical analytics process. Students will learn how to read data from a variety of common storage formats, evaluate its quality, and learn various techniques for data cleansing. Students will also learn how to select appropriate features for analysis, transform them into more usable formats, and engineer new features into more powerful predictors. This class will also teach students how to split the data set into training and validation data for more effective analytical modeling.

ANLT 232. Introduction to Data Visualization. 1 Unit.
This course introduces tools and methods for visualizing data and communicating information clearly through graphical means. The class covers various data visualizations and how to select the most effective one depending on the nature of the data. Students will practice using the data visualization methodology by walking through a case study with the instructor and then practicing the steps on their own. Students will work with modern analytic graphics packages, and will be introduced to open source libraries, and to commercial visualization products. Prerequisite: ANLT 213.

ANLT 233. Dynamic Visualization. 1 Unit.
This course introduces advanced visualization techniques for developing dynamic, interactive, and animated data visualization. Students will learn a variety of techniques for the visualization of complicated data sets. These techniques are valuable for visualizing genomic data, social or other complex networks, healthcare data, business dynamics changing over time, weather and scientific data, and others. Often the visual presentation of data is enhanced when it is made interactive and dynamic, allowing users to “move through” the data and manipulate the data graphically for exploratory analysis. This presentation often involves web application development, and students will be exposed to these rudiments as well as tools that enable faster development of data visualization. Prerequisite: ANLT 234.

ANLT 234. Analytics Storytelling for Data Science. 1 Unit.
This course builds upon ANLT 232. It will dive into how visualizations should be presented differently when presenting to lay people, business executives, and a technical group. It will also consider visualizations meant for exploratory analysis versus persuasive argument versus survey, or "30,000 foot" analysis. Working alone and in teams, students will create visualizations using their own findings and using provided case studies. Prerequisite: ANLT 232.

ANLT 242. Relational Databases. 1 Unit.
This course introduces relational database management systems (RDBMS) and the structured query language (SQL) for manipulating data stored therein. The class is focused on the applied use of SQL by data scientists to extract, manipulate and prepare data for analysis. Although this class is not a database design class, students will be exposed to entity-relationship (ER) models and the benefits of third normal form (3NF) data modeling. The class employs hands-on experiential learning utilizing the modern relational database querying languages and graphical development environments.

ANLT 243. NoSQL Databases. 1 Unit.
This course will examine different non-relational (NoSQL) database paradigms, such as Key-Value, Document, Column-family, and Graph databases. Students will learn about advantages and disadvantages of the different approaches. The class will include hands-on experience with a representative sample of NoSQL databases. Computing developments that spurred the existence of NoSQL databases, such as big data, distributed and cloud computing will also be discussed. Prerequisite: ANLT 242.

ANLT 272. Healthcare Case Studies. 1 Unit.
This course is a culmination of the first semester of the MS Analytics program. It provides an experiential learning opportunity that ties together the statistical, computational analytics and database concepts in a series of case studies in the Healthcare sector. Students will examine four separate case studies of the use of data analytics in healthcare. Students will work in teams to dissect these case studies and evaluate the business opportunity, the analysis methodology, the raw data, the feature engineering and data preparation, and the analytical outcomes. Students will present their evaluation and make recommendations for improvements in the analysis and related opportunities. Prerequisites: ANLT 203, ANLT 212, ANLT 243.

ANLT 273. Fraud Detection. 1 Unit.
This course introduces the use of analytics to detect fraud in a variety of contexts. This class shows how to use machine learning techniques to detect fraudulent patterns in historical data, and how to predict future occurrences of fraud. Students will learn how to use supervised learning, unsupervised learning, and social network learning for these types of analyses. Students will be introduced to these techniques in the domains of credit card fraud, healthcare fraud, insurance fraud, employee fraud, telecommunications fraud, web click fraud, and others. The course is experiential and will apply concepts taught in prior data wrangling and machine learning courses using real-world data sets and fraud scenarios. Perquisite: ANLT 222.

ANLT 274. Customer Analytics. 1 Unit.
This course introduces the techniques used to analyze consumer shopping and buying behavior using transactional data in industries like retail, grocery, e-commerce, and others. Students will learn how to conduct item affinity (market basket) analysis, trip classication analysis, recommender systems, RFM (recency, frequency, monetary) analysis, churn analysis, and others. This class will teach students how to prepare data for these types of analyses, as well as how to use machine learning and statistical methods to build the models. The class is an experiential learning opportunity that utilizes real-world data sets and scenarios. Prerequisite: ANLT 222.

ANLT 275. Text Mining. 1 Unit.
This course introduces the essential elements of text mining, or the extension of standard predictive methods to unstructured text. The class will explore the use of text mining in domains such as digital security, bioinformatics, law, marketing, and social media. Students will be exposed to information retrieval, lexical analysis, pattern recognition, meta-data tagging, and natural language processing (NLP). A large portion of this class will be devoted to the data preparation and wrangling methods needed to transform unstructured text into a suitable structure for analysis. Prerequisite: ANLT 222.

ANLT 276. Emphasis Case Studies. 1 Unit.
This course is a culmination of the second semester in the Master of Science in Analytics program. It provides an experiential learning opportunity that ties together the statistical, computational analytics and database concepts in a series of case studies in the finance, manufacturing, telecommunications and retail sectors. Students will examine four separate case studies of the use of data analytics. Students will work in teams to dissect these case studies and evaluate the business opportunity, the analysis methodology, the raw data, the data and feature engineering and data preparation, and the analytical outcomes. Students will present their evaluation and make recommendations for improvements in the analysis and related opportunities. Prerequisite: Successful Completion of First Semester of Master of Science in Analytics (Fall).

ANLT 282. Capstone Project. 6 Units.
This course is a culmination of all modules in the MS Analytics program. It provides an experiential learning opportunity that connects all of the materials covered in the MS Analytics program. Students will be formed into teams and assigned to an industry sponsored project. Capstone projects will be agreed in advance with sponsoring companies and will represent real-world business issues that are amenable to an analytic approach. These projects will be conducted in close oversight by the sponsoring company, as well as, a University faculty member and may be conducted on the sponsoring company's premises using their preferred systems and tools, at the sponsoring company's discretion. Prerequisite: Successful completion of Semester 2 (Spring).

ANLT 283. Weekly Hot Topics. 1 Unit.
This course consists of a set of weekly presentations and discussions around key analytic issues and current case studies. These hot topics will be presented by a combination of guest speakers – industry luminaries in the area of analytics – and University of the Pacific faculty members, including the MS Analytics program director. Many of these topics will be drawn from relevant real-world contemporary analytic stories that reinforce specific elements of the academic content being taught and cannot be predicted in advance.

HUMANISTIC EDUCATION

It is the goal of the School of Dentistry to educate the highest quality practitioners who can practice independently and successfully in their patients' best interests. It is our belief that a humanistic approach to education best accomplishes this goal. Our view of humanism is based upon honest communication of clear expectations along with positive support for diligent effort. Although kindness is valued, humanism is not interpreted to mean softness, weakness, or superficial niceness. In fact, humanism places great responsibility on each member of the dental school community.

In order for this approach to work, faculty members must be models of the profession's highest standards, and they must teach in a way that encourages and energizes students. Students, in turn, are expected to set very high standards, to work hard, and to take personal responsibility for their own learning process.

Humanistic student-faculty Interaction

Includes

- Good work ethic
- Constructive feedback
- Maintaining confidentiality
- Addressing the issue
- Celebrating achievement
- Excellence
- High ethical standards
- Professional responsibility
- Increasing independence
- Attainment of competency

Excludes

- Minimum effort
- Authoritarian behavior
- Public criticism
- Ignoring the problem
- Dwelling on the negative
- Expedience
- Ethical compromise
- Avoiding responsibility
- Continued dependence
- Tolerance of inability

COMPETENCY STATEMENTS

Competencies are written statements describing the level of knowledge, skill, and values expected of graduates. Students are introduced to competency-based education and the competency statements at matriculation; second- and third-year students are reminded of the competency focus of the educational program during mandatory clinic orientations at the start of each academic year. In addition to these competencies expected of students in the DDS and IDS programs at graduation, there are other components of the curriculum - foundation knowledge and skills - that are also required as part of the educational program. These are normally defined as learning objectives in individual courses.

In regard to oral disease detection, diagnosis, and prevention

1. Establish and maintain patient rapport
2. Perform a complete patient work-up, to include history and physical, laboratory, and radiographic examinations
3. Interpret findings from the complete patient work-up and present them in a standardized format
4. Determine differential, provisional, and definitive diagnoses
5. Determine and consider patient's dental, medical, and personal situations in evaluating the range of dental therapies appropriate for that individual
6. Combine diagnostic and prognostic data with a science base and patient's values to form an individualized, comprehensive, sequenced treatment plan
7. Discuss treatment plans with patients and caregivers, including presentation of findings, alternatives, risks and benefits, and obtain informed consent from them
8. Modify ongoing treatment plans based on changed circumstances
9. Make referrals to dental and medical colleagues and, in conjunction with them, manage patients' care
10. Use preventive strategies to help patients maintain and improve their oral health

In regard to treatment of dental diseases and abnormalities

11. Restore single teeth for therapeutic reasons
12. Treat patients who have missing teeth with simple fixed, removable, and implant-supported prostheses
13. Oversee long-term care for patients with dental prostheses
14. Work with commercial laboratory support associated with restorative treatment
15. Fabricate nightguard appliances to protect the dentition
16. Address simple cosmetic concerns
17. Prevent and treat pulpal inflammations using direct and indirect procedures
18. Perform uncomplicated endodontic therapy on permanent teeth
19. Treat plaque-induced gingivitis, mild chronic periodontitis, and other conditions requiring uncomplicated periodontal therapy
20. Recognize and treat or refer moderate to severe chronic periodontitis, aggressive periodontitis, and other conditions requiring complicated periodontal therapy
21. Assess results of periodontal treatment
22. Recognize and refer dental malocclusions and disturbances in the development of dentition
23. Perform simple and surgical tooth and root extractions
24. Treat simple and recognize and refer complex complications related to intraoral surgical procedures
25. Treat simple and refer complex oral bony abnormalities
26. Treat simple and refer complex oral mucosal abnormalities
27. Administer and prescribe medications commonly used in dentistry, including local anesthesia, and manage their complications
28. Recognize and respond to intraoral emergencies
29. Recognize and respond to medical emergencies occurring in the dental office
30. Perform CPR

In regard to customized treatment of dental diseases and abnormalities

31. Treat patients with special needs who do not require hospital adjunctive care as part of treatment
32. Recognize oral healthcare needs, refer, and ensure follow-up treatment for patients with complex disabilities and medical conditions
33. Involve caregivers, guardians, and other health and social service professionals in managing the oral health of patients
34. Perform treatment for children in a manner that incorporates consideration of their expected growth and development
35. Counsel patients on lifestyle habits that affect oral health

In regard to health care delivery and practice management

36. Function as a patient's primary and comprehensive oral health care provider
37. Prepare and use complete and accurate records
38. Use current infection and hazard control measures in dental practice
39. Practice four-handed dentistry
40. Direct services of dental auxiliaries
41. Develop a philosophy of practice
42. Develop a plan incorporating dental practice management principles
43. Participate in quality assurance systems
44. Practice consistent with sound business principles and legal requirements and regulations

45. Evaluate oral health care delivery and payment systems in terms of their impact on patients, dental practices, and the profession

In regard to personal development and professionalism

46. Diagnose and treat only within one's competence
47. Recognize moral weakness, uncertainty, and dilemmas in dental practice and practice in accordance with normative ethical principles
48. Recognize signs of abuse and neglect and take appropriate action
49. Communicate with patients, staff, and others in an empathetic and culturally competent manner
50. Participate in activities designed to improve the health of communities
51. Participate in organized dentistry
52. Assume active responsibility for one's lifelong learning
53. Use information technology for dental practice
54. Evaluate scientific, lay, and trade information and claims about new products and procedures
55. Think critically, solve problems, and base dental decisions on evidence and theory

COURSE DESCRIPTIONS AND FACULTY

Course descriptions are grouped by department. Courses are numbered by year: first-year predoctoral courses in the 100s, second-year predoctoral courses in the 200s, and third-year predoctoral courses in the 300s. Graduate courses are similarly numbered by year: first-year graduate courses in the 400s, second-year graduate courses in the 500s, and third-year graduate courses in the 600s. Quarters during which a course is offered in the DDS and graduate orthodontics and endodontics programs are indicated in parentheses following the course descriptions. (For the sequence of courses in the IDS program, please see Distribution of Instruction). Units of credit are listed separately for clinical courses offered during second and third years, e.g. EN 259 Clinical Endodontics I (2 or 4 units). Otherwise the unit value is listed after the course title. More than a single unit value is reported when there is a difference in contact hours between DDS and IDS courses.

Beginning in the fourth quarter, DDS and IDS students must enroll in selective instruction each year which serves to extend basic knowledge and skills in a discipline. A listing of selective course offerings is distributed during the winter and spring quarters. Advanced topics and experiences in selected basic, clinical, and behavioral science disciplines are offered (10 to 40 hours per year, 0.1-1.0 units per course). If additional work is needed to reach competency in previously completed courses, supplemental instruction offering additional customized and intensive instruction in targeted didactic, laboratory, and clinical competencies will be offered by the faculty.

Units of Credit

One unit of credit is awarded for ten hours of lecture or seminar, twenty hours of laboratory or clinic, or thirty hours of independent study per term. In the predoctoral programs (DDS and IDS), students are assigned to comprehensive care clinics for approximately 500 hours during the second year and 1,000 hours during the third, in addition to specialty clinic rotations. Units of credit are assigned in the comprehensive care clinical disciplines in proportion to the amount of time students spend providing specific types of care for assigned patterns.

Full-time enrollment in the predoctoral programs at the School of Dentistry (DDS and IDS) is defined as16 or more units per term. Full-time enrollment in the graduate residency programs in orthodontics and endodontics is defined as 20 or more units per term. For the graduate certificate programs in Advanced Education in General Dentistry and Oral and Maxillofacial Surgery, full-time enrollment is defined as 16 or more units per term.

Biomedical Sciences (BMS)

Department Chairperson

David M. Ojcius
Professor of Biomedical Sciences

Faculty

A

Homayon (Homer) Asadi
Associate Professor of Biomedical Sciences
Other, San Jose City College, 1982
B.A., San Jose State University, Biology, 1984
D.D.S., University of the Pacific, 1988

B

Alan Wythe Budenz
Professor of Biomedical Sciences
University of Redlands, 1970
Oregon State University, 1972
University of California, Los Angeles, 1977
University of California, San Francisco, 1982
University of the Pacific, 2000

Dorothy T. Burk
Associate Professor of Biomedical Sciences
BA, University of New Hampshire, Zoology, 1972
PhD, University of Michigan, Anatomy, 1976
University of Virginia, Craniofacial Development, Postdoctoral Fellowship, 1979
MA, University of the Pacific, Educational Counseling Psychology, 1994

C

Takahiro Chino
Assistant Professor of Biomedical Sciences
DDS, Japanese Ministry of Public Health, Dentistry, 1991
DDS, Matsumoto Dental University, Dentistry, 1991
Matsumoto Dental University, Japan, Oral Maxillofacial Surgery, 1993
Indiana University School of Dentistry, Oral Surgery, Medicine Pathology, 1995
Other, Indiana University School of Dentistry, Oral Diagnosis, 1996
MSD, Indiana University School of Dentistry, Dental Diagnostic Sciences, 1999
PhD, University of Washington, Oral Biology, 2008
University of Medicine Dentistry of New Jersey, Postdoctoral Fellow, Periodontics, 2010

D

Nejat A. Duzgunes
Professor of Biomedical Sciences
Diploma, Noble and Grenough School, Deham, Mass., 1968
BS, Middle East Technical University, Ankara, Turkey, Physics, 1972
PhD, State University of New York at Buffalo, Biophysical Sciences, 1978
Other, University of California, San Francisco, Membrane Biophysics, 1981

H

Stefan Highsmith
Professor of Biomedical Sciences
BA, University of California, Berkeley, Chemistry, 1966
PhD, Massachusetts Institute of Technology, Organic Chemistry, 1972
Brandeis University, Physical Chemistry, 1974
University of California, San Francisco, Biophysical Chemistry, 1978

M

Ana Carolina Morandini

Assistant Professor of Biomedical Sciences
DDS, University of São Paulo, Bauru School of Dentistry, 2006
MS, University of São Paulo, Bauru School of Dentistry, Periodontology, 2009
PhD, University of São Paulo, Bauru School of Dentistry, Oral Biology, 2012
Federal University of Rio de Janeiro, Postdoctoral Fellow - Immunobiology, 2014
University of São Paulo, Bauru School of Dentistry, Postdoctoral Fellow - Oral Biology, 2015
Medical University of South Carolina, Research Visiting Scholar - Oral Health Sciences, 2016

Alexander J. Murphy
Professor of Biomedical Sciences
BS, Brooklyn College, Chemistry, 1962
PhD, Yale University, Biochemistry, 1967
University of California, San Francisco, Biophysical Chemistry, 1970

O

David M. Ojcius
Professor of Biomedical Sciences
BS, University of California, Berkeley, Biophysics, 1979
PhD, University of California, Berkeley, Biophysics, 1986
Harvard Medical School, Postdoctoral Fellow, 1987
Rockefeller University, New York, Postdoctoral Fellow, 1991

R

Gary D. Richards
Associate Professor of Biomedical Sciences
A.A., Chabot College, 1977
B.A., University of California at Berkeley, Anthropology, 1980
M.A., University of California at Berkeley, Anthropology, 1984
PhD, University of California at Berkeley, Anthropology, 2007

T

Der Thor
Assistant Professor of Biomedical Sciences
BS, University of the Pacific, Biological Sciences, 2000
MS, University of the Pacific, Biological Sciences, 2003
PhD, University of the Pacific, Physiology and Pharmacology, 2009

X

Nan Xiao
Assistant Professor of Biomedical Sciences
BS, Peking University, Stomatology, 2003
MS, Peking University - School of Stomatology, Orthodontics, 2005
PhD, Hong Kong University of Science and Technology, Biochemistry, 2009

Z

Benjamin D. Zeitlin
Associate Professor of Biomedical Sciences
BSc, University of Strathclyde, Immunology and Pharmacology, 1992
PhD, Sheffield Hallam University, Immunopharmacology, 2000

Adjunct Faculty

D

Dorothy Dechant
Adjunct Assistant Professor of Biomedical Sciences
BA, University of California, Berkeley, Anthropology, 1973
MA, University of California, Berkeley, Anthropology, 1978
PhD, University of California, Berkeley, Anthropology, 1982

H

Robert Halliwell

Adjunct Professor of Biomedical Sciences
BS, University of Stirling, Biology and Psychology, 1983
MS, University of London, Neurological Science, 1985
PhD, University of Dundee, Clinical Pharmacology, 1992
University of California Irvine, Neuroscience, 1999

K

Krystyna Konopka
Adjunct Professor of Biomedical Sciences
High School, Lodz, Poland, 1954
MD, School of Medicine, Lodz, Poland, Medicine, 1961
Bieganski Hospital, Lodz Poland, Clinical Pathology, 1965
Jonscher Hospital, Lodz Poland, Rotating Internship, 1965
MS, University of Lodz, Biochemistry, 1966
PhD, University of Lodz, Biochemistry, 1969

M

Matthew Milnes
Adjunct Instructor of Biomedical Sciences
BS, California Lutheran University, Biology, 1997
MS, University of the Pacific, Biology, 2000
DDS, University of the Pacific School of Dentistry, General Dentistry, 2003

T

Scott P. Turner
Adjunct Instructor of Biomedical Sciences
University of California, Berkeley
A.B., Columbia University, Anthropology, 1994
M.A., University of California, Berkeley, Anthropology, 1997

Course Descriptions

Predoctoral Courses

AN 110. Human Anatomy I: Cells to Systems. 6 Units.
The student will gain an understanding of cell biology, functional histology, and gross anatomy of the human body as appropriate for professional health care providers. Emphasis will be on the integration of anatomical knowledge at all levels and its correlation with basic clinical medicine relevant to dentistry. (45 hours lecture, 40 hours laboratory, including 15 hours clinical correlations/case discussion. Quarters 1-2.).

AN 111. Human Anatomy II: The Orofacial Complex. 7 Units.
The student will gain an understanding of the embryology, histology, neuroanatomy and gross anatomy of the head and neck as appropriate for a dental professional. The objectives are for the student to (1) understand the normal development and structure of tissues of the head and neck in preparation for courses in oral pathology and oral medicine and (2) comprehend the biological basis for rational diagnosis and treatment of clinical problems. Emphasis will be on the integration of anatomical knowledge and its correlation with oral medicine and clinical dentistry (40 hours lecture, 40 hours laboratory, 20 hours seminar/case discussion, Quarter 3).

BC 114. Biochemistry. 6 Units.
Study of major molecular structures and processes of the human organism including structure, function, and biosynthesis of the informational macromolecules, proteins and nucleic acids; generation and storage of metabolic energy; structure, genesis, and transformations of mineralized tissues; and digestion, absorption, and utilization of required nutrients. (60 hours lecture, including 10 hours case-based discussion. Quarters 1-2.).

BMS 121. Clinical Pharmacology and Pathology. 1 Unit.
This course focuses on the action of therapeutic drugs on dental patients. In addition, the most commonly found pathologic lesions (red and white, ulcerative, etc) will be discussed. This two-quarter course covers the general principles of drug action, including drug absorption, distribution, metabolism, elimination, and pharmacodynamics of important therapeutic drug categories in combination with the most commonly found oral lesions. The dental implications of therapeutic drugs and commonly found oral lesions will be emphasized and discussed using a seminar, case-based format. (Quarters 1 and 2).

MC 224. Microbiology. 6 Units.
The biology of microorganisms that cause disease, including caries, and periodontal and endodontic infections. Microbial structure, metabolism, genetics, and virulence factors; molecular diagnostics and recombinant DNA technology. Pathogenesis, epidemiology, clinical syndromes, laboratory diagnosis, treatment, and prevention of infectious diseases. Innate, humoral and cell-mediated immunity, hypersensitivity and vaccines. Antibacterial, antiviral and antifungal agents. Bacterial infections, including oral manifestations; oral microbiology. Virology, with emphasis on HIV, herpesviruses, and hepatitis viruses; oral manifestations of viral infections. Mycology, with emphasis on oral infections. Parasitology, with emphasis on global public health. Microbiology laboratory, focusing on the human skin and oral microbiome. (57 lecture hours, including independent study hours; 15 laboratory hours. Quarters 4-5.).

PG 120. Physiology. 7 Units.
Study of the functioning of the human body, basic methods used to evaluate physiological parameters and introduction to recognition of functional abnormalities in humans. Cell membrane transport; electrical potentials; peripheral nerves; skeletal and smooth muscles; spinal cord and autonomic nervous system; circulatory system and respiratory system; homeostatic function of the kidneys; energy metabolism, temperature regulation, assimilation of food by the gastrointestinal tract; regulatory function of the endocrine system; perception of the external world through the sense organs, and integrative activity of the brain. (70 hours lecture and demonstrations including 10 hours case-based discussion. Quarters 1-3.).

PG 220. Pharmacology and Therapeutics. 6 Units.
Rationale of drug use in dental practice, and mechanisms of action of drugs used for the medical management of dental patients; pharmacodynamics and drug kinetics; quantitative pharmacology; drug laws and regulations; prescription writing; emergency drugs, autonomic, respiratory, cardiovascular, psychotropic, hormonal, gastrointestinal, antianxiety, antiparkinson, antidiabetic, antineoplastic drugs; neuromuscular blockers, histamine antagonists, inflammatory mediators, sedative- hypnotics, anticonvulsants, general and local anesthetics, analgesics, antibiotics, antifungal and antiviral agents, substance abuse, toxicology, drug interactions, and therapeutic decision making. (60 hours lecture. Quarters 6-8.).

Graduate Courses

AN 410. Advanced Head and Neck Anatomy I. 1 Unit.
This course presents head and neck anatomy in depth to provide residents essential foundation for dental procedures. The development of normal and pathological craniofacial shapes, as well as anatomical structures relevant for implant placement, are discussed in detail. (Quarter 1.).

AN 510. Advanced Head & Neck Anatomy II. 1 Unit.
This course covers head and neck anatomy in depth to provide residents with essential foundation knowledge for dental procedures. The development of normal and pathological craniofacial shapes, as well as anatomical structures relevant for implant placement, are covered in detail. (Quarter 5.).

BC 414. Biochemistry and Bioengineering I. 1 Unit.
Residents learn how to assess biocompatibility and longevity of various materials in contact with body fluid and tissues. This course also covers biofilm formation and removal from oral biomaterials. (Quarter 2.).

BMS 401. Research Philosophy and Design I. 1 Unit.
In this two-quarter foundational course, students learn about hypothesis-driven research, including hypothesis development and significance testing. (Quarter 1.).

BMS 411. Stem Cell Biology I. 1 Unit.
In this two-quarter course, residents discuss in detail current research on cell populations, their properties, and possible application routes--the foundation of modern biology-driven endodontic therapy. Treatment possibilities for immature teeth and other applications in regenerative endodontics are presented. (Quarter 2.).

BMS 412. Topics in Oral Biology I. 1 Unit.
This course covers the interaction of pulpal and periapical tissues with medicaments such as bisphosphonates or TNF-alpha blocking antibodies, the effects of systemic diseases such as HIV, diabetes or sclerodermia on oral tissues, and other common issues in endodontics. (Quarter 4.).

BMS 414. Oral Biology Journal Club I. 3 Units.
This course features discussion of papers on a variety of topics in oral biology.(Quarter 2.).

BMS 440. Thesis Protocol. 1 Unit.
In this independent-study research course, residents work with mentor(s) to develop research questions, formulate hypotheses, and write a formal research proposal that includes a full literature review, statement of material and methods, execution of the research, and appropriate analysis and interpretation of data. (Quarters 2-3.).

BMS 450. Research Project I. 3 Units.
In this independent-study research course, residents work with research mentors to perform the research project, including data gathering, complilation, and interpretation of the results. The course will culminate in a publishable manuscript.(Quarters 1-4.).

BMS 501. Research Philosophy and Design II. 1 Unit.
In this two-quarter foundational course, residents learn about hypothesis-driven research, including hypothesis development and significance testing. (Quarter 5.).

BMS 512. Topics in Oral Biology II. 1 Unit.
This course covers the interaction of pulpal and periapical tissues with medicaments such as bisphosphonates or TNF-alpha blocking antibodies, the effects of systemic diseases such as HIV, diabetes or sclerodermia on oral tissues, and other common issues in endodontics. (Quarter 8.).

BMS 514. Oral Biology Journal Club II. 3 Units.
Residents read and discuss current literature on a range of oral biology topics. (Quarter 6.).

BMS 550. Research Project II. 3 Units.
In this independent-study research course, residents work with research mentors to perform the research project, including data gathering, complilation, and interpretation of the results. The course will culminate in a publishable manuscript. (Quarters 5-8.).

BMS 651. Manuscript Preparation. 3 Units.
Residents prepare the final version of a publishable manuscript. (Quarter 9.).

MC 404. Host Response I. 1 Unit.
This course extends basic immunology to the etiology of pulpal and periapical disease focusing on the host response. The role of inflammatory mediators and the cells that elaborate them is discussed. (Quarter 1.).

MC 424. Oral Microbiology I. 1 Unit.
Residents learn about microbial structure, metabolism, genetics, and virulence factors; molecular diagnostics and recombinant DNA technology; pathogenesis, epidemiology, clinical syndromes, laboratory diagnosis, treatment, and prevention of infectious diseases. (Quarter 2.).

MC 504. Host Response II. 1 Unit.
This course extends from basic immunology to the etiology of pulpal and periapical disease focusing on the host response. The role of inflammatory mediators and the cells that elaborate them will be discussed. (Quarter 5.).

PG 420. Advanced Pharmacology I. 1 Unit.
Local anesthesia and pain management of acute and chronic pain are main components of this lecture series, with specific emphasis on endodontics. Infection control, including biochemistry and side effects, is also presented. (Quarter 1.).

PG 520. Advanced Pharmacology II. 1 Unit.
Local anesthesia and pain management of acute and chronic pain are two main components of this lecture series, with specific emphasis on endodontics. Infection control, including biochemistry and side effects, is also presented. (Quarter 5.).

Clinical Oral Health Care (COH)

DDS Distribution of Instruction (http://catalog.pacific.edu/dental/course-descriptions/clinical-oral-health/DDS_Distribution_of_Instruction_2017-2018.pdf)

IDS Distribution of Instruction (http://catalog.pacific.edu/dental/course-descriptions/clinical-oral-health/IDS_Distribution_of_Instruction_2017-2018.pdf)

Department Chairperson

Sig H Abelson
Associate Professor of Clinical Oral Health

Faculty

A

Sig H Abelson
Associate Professor of Clinical Oral Health
Other, Los Angeles City College, Arts, 1959
Los Angeles State College, 1962
DDS, University of the Pacific School of Dentistry, Dentistry, 1966
MA, Keck School of Medicine, University of Southern California, Academic Medicine, 2010

Maryam Ajami
Instructor of Clinical Oral Health
BS, Bachelor of Science, Architectural Engineer, 2005
DDS, University of the Pacific, Dentistry, 2012

Janet E. Andrews
Assistant Professor of Clinical Oral Health
BS, University of the Pacific/Marquette University, Dental Hygiene, 1975
MA, University of the Pacific, Education, 1979
DDS, University of the Pacific, Dentistry, 1983

Amy Shyuan Au
Assistant Professor of Clinical Oral Health
BA, University of the Pacific, Applied Sciences, 2009
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dental, 2012
MA, University of Illinois at Chicago College of Dentistry, Masters of Science, 2015

B

Rene A. Bagus
Instructor of Clinical Oral Health
DDS, University of the Pacific, 2001

Brian Baliwas
Instructor of Clinical Oral Health
BS, UC Davis, Biochemistry, 2005
DDS, University of the Pacific, School of Dentistry, Dentistry, 2014

William C. Barthold
Assistant Professor of Clinical Oral Health
BA, Indiana University, 1971
DDS, University of Michigan, 1975

Bahareh Behdad
Instructor of Clinical Oral Health
BS, Azad University of Tehran, B.S. in General Biology, 2002
MS, Concordia University, M.Sc. In Biology, 2006
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2012

Carsen Bentley
Instructor of Clinical Oral Health
BA, University of New Mexico, Chemistry and Political Science, 2008
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2011
Cert., Lutheran Medical Center Brooklyn New York, Advanced Education in General Dentistry, 2012

MPH, Medical College of Wisconsin, Master of Public Health, 2016

Kim Lucas Benton
Instructor of Clinical Oral Health
University of California at Davis, 1982
Howard University, 1984
DDS, Meharry Medical College-School of Dentistry, 1988

C

Pedro A. Caturay
Assistant Professor of Clinical Oral Health
BS, San Francisco State University, Nursing, 1985
DDS, University of the Pacific School of Dentistry, Dentistry, 1991
University of the Pacific School of Dentistry, AEGD, 1992

Armando Chang
Instructor of Clinical Oral Health
BA, University of California, Berkeley, Biology, 1979
DDS, Northwestern University, Dentistry, 1983

Gina S. Chann
Assistant Professor of Clinical Oral Health
BS, University of California, Davis, 1986
DDS, University of the Pacific School of Dentistry, 1989

Russell G. Choy
Assistant Professor of Clinical Oral Health
BA, University of California at Berkeley, Biology, 1984
DDS, University of the Pacific, 1987

E

Richard H. Evans
Assistant Professor of Clinical Oral Health
University of Utah, Pre-dental/Biological Science, 1960
DDS, Washington University, Dentistry, 1964

F

Richard Farrell
Instructor of Clinical Oral Health
BS, University of San Francisco, 1967
University of California, Berkeley, Graduate courses, Department of Zoology, 1968
San Diego State University, Secondary Education courses, 1970
DDS, University of Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 1974

G

Darya Gertrudes Ghafourpour
Instructor of Clinical Oral Health
BA, University of California, Santa Cruz, Biology, 1992
DDS, University of the Pacific, 1996

H

Glen F Hebert
Assistant Professor of Clinical Oral Health
California State University, Fresno, 1983
BA, California State University, Northridge, Biology, 1985
DDS, University of California, San Francisco, Dentistry, 1990

Vivian Huang
Assistant Professor of Clinical Oral Health
BA, Creighton University, Communication Arts, 2000
DMD, Tufts University, Dentistry, 2005
University of California Los Angeles, AEGD Residency, 2006

J

Harry S. Jew
Assistant Professor of Clinical Oral Health
BA, Golden Gate University, 1981
DDS, Northwestern University, 1982
MS, University of New Haven, Human Nutrition, 2002

Leslie Jue
Instructor of Clinical Oral Health
BS, University of California Davis, Physiology, 1984
DDS, University of the Pacific Dental School, Dentistry, 1987

K

Constantine J. Karsant
Instructor of Clinical Oral Health
BA, San Francisco State University, Health Sciences, 1981
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, 1984

Courtney Kilkuts
Instructor of Clinical Oral Health
BA, Princeton University, Psychology, 2010
DMD, University of Pennsylvania, Dentistry, 2014
Other, Abington Memorial Hospital, General Practice Dentistry, 2015

Alexander Kogan
Instructor of Clinical Oral Health
BA, University of San Francisco, Biology, 1996
DDS, University of the Pacific School of Dentistry, 1999

L

William W. Lee
Assistant Professor of Clinical Oral Health
BS, University of Pittsburgh, Neuroscience, 1993
DDS, State University of New York, Buffalo, Dentistry, 1998
Cert, San Francisco VA Hospital, GPR Dentistry, 1999
Fellowship, San Francisco VA Hospital, Prosthodontics, 2000

Stephen C. Lindblom
Assistant Professor of Clinical Oral Health
BS, University of California, San Diego, Molecular Biology, 1996
DDS, University of the Pacific, 2001

Elliot Low
Instructor of Clinical Oral Health
University of California, Berkeley, 1974
DDS, University of the Pacific School of Dentistry, Dentistry, 1977
UCSF, Implantology Study Group - (One Year Program), 1984
UCSF Postgraduate Temporomandibular Joint Disorder Program, 1989

M

Jason Matsushino
Instructor of Clinical Oral Health
BA, UC Santa Barbara, Japanese, 2003
DDS, UOP Dugoni Dental School, General Dentistry, 2008
Other, Weill Cornell, PGY-1 6PR, 2009

James Edward Milani
Associate Professor of Clinical Oral Health
BA, University of the Pacific, Biology, 1979
DDS, University of the Pacific, 1982

N

Nilou Nadershahi
Assistant Professor of Clinical Oral Health
BS, University of California Berkeley, Architecture, 1988
DDS, University of the Pacific Authur A. Dugoni School of Dentistry, Dentistry, 1991

Farbod Bob Nadjibi
Instructor of Clinical Oral Health
BS, University of California, Davis, Genetics, 1996
DDS, University of the Pacific, 1999
AEGD, University of the Pacific, School of Dentistry, 2000

Daniel Nam
Instructor of Clinical Oral Health
BA, University of California, Los Angeles, Music-Piano, 1996
DDS, University of the Pacific School of Dentistry, General Dentistry, 2002

O

Edward Orson
Instructor of Clinical Oral Health
AA, Miami, FL., Science, 1991
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 1994
Progressive Ortho, Orthodontics, 2008

P

Tim J. Patel
Professor of Clinical Oral Health
BA, UC Berkeley, Psychology, 1991
DMD, Boston University Dental School, Dentistry, 1996

Beverly Presley-Nelson
Instructor of Clinical Oral Health
University of Arizona, Philosophy, Creative Writing, Chemistry, 1971
RDH, Phoenix College, 1973
BS, Northern Arizona University, Vocational and Professional Education, 1978
REFDH, Northern University of Arizona, Education/Expanded Function Dental Hygiene, 1978
DDS, University of the Pacific School of Dentistry, Dentistry, 1982
Beijing Stomatological Hospital, Chinese Educational Exchange, Foreign Expert, 1983

S

Leyla Sahabi
Instructor of Clinical Oral Health
BS, UCLA, Biology, 2008
DMD, Boston University, General Dentistry, 2012

Shiva Salehi
Instructor of Clinical Oral Health
BS, King's College London, Computer Science, 2004
DDS, UoP, Dentistry, 2014

Shirin Salehinia
Instructor of Clinical Oral Health
B.A., California State University, Northridge, 1990
D.D.S., University of California at San Francisco, 1995
Tufts University, Dental Sleep Medicine, 2013

Edward L. Shaw
Assistant Professor of Clinical Oral Health
BS, University of British Columbia, 1977
DDS, University of the Pacific, 1982
Cert, University of California, San Francisco, GPR, 1983
Cert, University of California, San Francisco, Prosthodontics, 1986

Raymond Joseph Sheridan
Assistant Professor of Clinical Oral Health
BS, LeMoyne College, Biology, 1966
DDS, New York University College of Dentistry, Doctor of Dental Surgery, 1970

Jennifer Silvers
Instructor of Clinical Oral Health
BS, Univ. of Mary Mardin - Baylor, Cellular Biology, 2008
DDS, University of the Pacific, Dentistry, 2012

T

Russell Haywood Taylor
Instructor of Clinical Oral Health
BSc, University of Ottawa, Biology, 2004
MS, University of Ottawa, Biochemistry, 2005
DMD, McGill Univeristy, Dentistry, 2009
University of the Pacific School of Dentistry, Dentistry-AEGD, 2010

David T. Thornton
Assistant Professor of Clinical Oral Health
BS, University of the California, Berkeley, Nutrition/Dietetics, 1980
DDS, University of the Pacific School of Dentistry, 1986
Other, V. A. Hospital Martinez, CA GPR, 1988

Walter Tickner
Instructor of Clinical Oral Health
Diablo Valley College, General Education for transfer to UC, 1966
BA, University of California, Berkeley, Paleontology, 1968
DDS, University of California, Los Angeles, Dentistry, 1973

Michael T. Tiller
Assistant Professor of Clinical Oral Health
BS, University of Oregon, 1995
DDS, University of the Pacific, Dentistry, 1999

Alan K. Tong
Assistant Professor of Clinical Oral Health
BA, City University of New York City College, 1976
MBA, St. John's University, New York, NY, 1984
DDS, University of the Pacific, 1989

V

Michael Viale
Assistant Professor of Clinical Oral Health
BS, UC Berkeley, Genetics, 1975
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 1979

Terry L. Vincent
Assistant Professor of Clinical Oral Health
BS, Arizona State University, Zoology, 1967
DDS, UCLA, Dentistry, 1971

W

Walter Weber
Instructor of Clinical Oral Health
University of Santa Clara, Economics, 1973
DDS, UOP, Dentistry, 1976
De Paul Hospital, General Practice, 1977
MA, Golden Gate University, Masters in business admin, Finance, 1988

George J. Wolff
Instructor of Clinical Oral Health
University of California(Berkeley), 1961

DDS, University of Washington, 1966

Adjunct Faculty

A

Ben Amini
Adjunct Instructor of Clinical Oral Health
Cabrillo College, 1989
BS, San Diego State University, 1991
BDS, University of California San Francisco, Bachelor of Dental Sciences, 1996
DDS, University of California San Francisco, Doctor of Dental Surgery, 1996

G

Jamshid James Ghafourpour
Adjunct Assistant Professor of Clinical Oral Health
BS, University of California, Los Angeles, CA, Chemistry and Geophysics, 1981
MS, University of California, Los Angeles, CA, Geophysics, 1983
D.D.S., University of the Pacific, Arthur A. Dugoni School of Dentistry, 1986
MBA, University of the Pacific, Arthur A. Dugoni School of Dentistry, Business Administration, 2000

N

Josephine Ng
Adjunct Instructor of Clinical Oral Health
BS, University of the Pacific, Biological Sciences, 2006
DDS, University of the Pacific School of Dentistry, Dentistry, 2010

R

Melinda M Reynard
Adjunct Instructor of Clinical Oral Health
BA, University of Texas Austin, Psychology / Pre-Dental, 1979
MS, University of Arizona, Food Science and Nutrition, 1981
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 1989

T

Thuy Tran
Adjunct Instructor of Clinical Oral Health
BS, University of California Davis, BS Neurobiology, Physiology Behavior, 2007
DDS, UOP, Dental Surgery, 2011
UOP, Advanced Education in General Dentistry, 2012

V

Charles N Van Sicklen
Adjunct Instructor of Clinical Oral Health
BS, University of the Pacific, Biology, 2009
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, DDS, 2014
Other, Medical College of Georgia, GPR Certificate, 2015

Diagnostic Sciences (DS)

DDS Distribution of Instruction (http://catalog.pacific.edu/dental/course-descriptions/diagnostic-sciences/DDS_Distribution_of_Instruction_2017-2018.pdf)

IDS Distribution of Instruction (http://catalog.pacific.edu/dental/course-descriptions/diagnostic-sciences/IDS_Distribution_of_Instruction_2017-2018.pdf)

Department Chair (interim)

Alan Wythe Budenz
Professor of Diagnostic Sciences

Faculty

A

Mark McGregor Abzug
Assistant Professor of Diagnostic Sciences
BA, University of California Santa Barbara, Geography, 1975
DDS, University of the Pacific School of Dentistry, General Dentistry, 1980

Kalid Aziz
Assistant Professor of Diagnostic Sciences
DDS, University of Los Andes, Venezuela, Dentistry, 1993
MS, University of Iowa, Operative Dentistry, 2002

B

John Berk
Assistant Professor of Diagnostic Sciences
Pierce Junior College, Undergraduate-Pre-Dental Studies, 1964
University of California Los Angeles, Undergraduate-Pre-Dental Studies, 1966
DDS, University of Calfornia San Francisco, General Dentistry, 1970

Mark T. Booth
Assistant Professor of Diagnostic Sciences
BA, Stanford University, Human Biology, 1995
DDS, University of the Pacific School of Dentistry, Dentistry, 2001
CERT, University of the Pacific School of Dentistry, Advanced Clinical Experience, Resident, 2002
CERT, University of the Pacific School of Dentistry, Advanced Education in General Dentistry, 2003

Alan Wythe Budenz
Professor of Diagnostic Sciences
University of Redlands, 1970
Oregon State University, 1972
University of California, Los Angeles, 1977
University of California, San Francisco, 1982
University of the Pacific , 2000

C

David William Chambers
Professor of Diagnostic Sciences
AB, Harvard University, Experimental psychology, 1965
EdM, Harvard Univeristy, School of Education, Educational evaluation, 1966
PhD, Stanford Univeristy, School of Education, Educational psychology, 1969
MBA, San Francisco State University, Management and operations research, 1979
Cambridge University, Department of Philosophy, Visiting Scholar, 2008
University of California, Berkeley, Department of Philosophy, Visiting Scholar, 2010
Center for Philosophy of Natural and Social Sciences, London School of Economics, Visiting Scholar, 2012

Elisa M. Chavez
Associate Professor of Diagnostic Sciences
BS, Saint Mary's College of California, 1990
DDS, University of California, San Francisco, 1994
CERT, University of Michigan, Geriatric Dentistry Fellowship (Certificate), 2000

Irene Chen
Instructor of Diagnostic Sciences
BA, Barnard College/Columbia University, Chemistry, 1995
DMD, Boston University, 2004
University of the Pacific - AEGD, 2006

Janice Chou
Instructor of Diagnostic Sciences
BS, University of San Diego, Biochemistry/Cell Biology, 2006
DDS, University of the Pacific School of Dentistry, General Dentistry, 2010
University of the Pacific School of Dentistry, Advanced Education in General Dentistry, 2011

Darren P Cox
Professor of Diagnostic Sciences
BS, Louisiana State University, Zoology, 1985
DDS, LSU School of Dentistry, Dentistry, 1990
Loyola University Hospital, Chicago, IL, General Practice Residency, 1991
Emory University Hospital, Atlanta GA, Oral, Head and Neck Pathology Residency, 2000
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USC School of Policy, Planning and Development and Marshall School of Business, 2004
ADEA Leadership Institute- American Dental Education Assn., 2009
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Drexel University, Executive Leadership in Academic Medicine, 2015

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Rocky Mountain University of Health Professions, Occupational Therapy, 2011

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CERT, Branemark NobleBiocare Restorative Implant Certificate, Implant Certificate, 2000
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UOP School of Dentistry, AEGD Program, AEGD, 2004

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UCSF Hospital, SF General Hospital, VA Longbeach Hospital, Hospital Dentistry, Oral Med, Oral Surg Clerkship, 1981
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DDS, University of California San Francisco, Dentistry, 2005
Cert, Department of Veterans Affairs (Northern California Health Care System), General Practice Dentistry, 2006

Cert, UCSF Pain Management Center (remote), Post Graduate Pain Management, 2008
Cert, University of Medicine and Dentistry, New Jersey, Orofacial Pain Fellowship, 2008
MSD, University of Medicine and Dentistry, New Jersey, Orofacial Pain Masters, 2009
Diplomate, American Board of Orofacial Pain, Board Certified, 2011

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DDS, University of Southern California, Doctorate Dental Surgery, 2004
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University of Connecticut, Certificate in Endodontics - Board Eligible, 2010

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FDSD, Delta Sigma Delta, Delta Sigma Delta Degree, 1995
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BA, University of Texas at Austin, Human Ecology, 2006
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Baylor College of Dentistry, Pediatric Dentistry - Externship, 2009
Our Children's House at Baylor, Pediatric Dentistry - Externship, 2009
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Kaplan Institute and Truman College, English as a Second Language (ESL), 2003
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Medical School of Hannover, Oral Surgery, 1987
German Academic Exchange Medical Student, 1989
MD, Hannover Medical School, 1989
Harvard Medical School, Head Neck Oncology, 1990
University of Cologne/Germany, ENT, 1991
University of Cologne/Germany, 1995
PhD, University of Koeln, Ol and Maxillofacial Surgery, 1996

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MPH, California State University, Long Beach, Community Health Education, 1996

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BDS, University of Pune India, Dentistry, 1997
DDS, California State, Dentistry, 2008

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BS, UCLA, Microbiology, Immunology and Molecular Genetics, 2006
DDS, University of the Pacific School of Dentistry, Dentistry, 2009
UCLA, General Practice Residency, 2011

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Archbishop Mitty High School, High School, 2000
BA, University of Colorado at Boulder, Environmental, Population, and Organic Biology, 2005
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Doctor of Dental Sciences, 2013

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BS, University of Southern California, Los Angeles, CA, Biology, 1989
DDS, University of Southern California, Los Angeles, CA, Doctor of Dental Surgery, 1993
MA, The Pankey Institute, Continuum Level I, II, II-E, III, IV, 2007
Other, Academy of Craniofacial Pain, TMD/Sleep Apnea Mini Residency, 2008
Other, California Academy of General Dentistry, Master track Program, 2008
Other, United States Dental Institute, Orthodontics, 2008

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University of California, San Francisco, Oral Medicine Internship, 1978

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DDS, University California, San Francisco, Dentistry, 2015
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CA Cred., St. Mary's College, Secondary Education, 1971
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Rush-Presbyterian St. Luke's Medical Center, Internship-Surgery, 1971
Northwestern University McGraw Medical Center, Residency: Pathology, 1972
Northwestern University McGraw Medical Center, Residency: Surgery, 1973
Northwestern University McGraw Medical Center, Fellowship: Head and Neck Surgery, 1976
Northwestern University McGraw Medical Center, Residency: Otolaryngology, 1976

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Loma Linda University Medical Center, Certificate in Dental Anesthesiology, 1998
Loma Linda University, Dental Anesthesiology, 1998
New York University, Certificate in Endodontics, 2001
New York University, Endodontics, 2001
15th Annual Endodontic Biology Review, 2016
18th Annual Loma Linda Anesthesia Symposium, 2016
ITI dental Implant Systems, 2016
Oral surgery Internship Department of Oral/Maxillofacial surgery, 2016
Steri-oss Advances Surgical, and Prosthetic Techniques, 2016

B

Orest Balytsky
Assistant Professor of Endodontics
BS, Lviv Medical Institute, Dr of Stomatology Prenatal/Dentistry, 1981
DMD, University of Pittsburgh School of Dentistry, Dentistry, 1995
Other, University of Pittsburgh School of Dentistry, Certificate in Endo, 1998

David Clifford Brown
Associate Professor of Endodontics
BSD, Newcastle University Dental School, 1988
MSD, Newcastle University Dental School, Operative, 1993
MSD, Indiana University, Endodontics, 1994

Ronald Brown
Associate Professor of Endodontics
University of California, Los Angeles, 1953
DDS, College of Physicians Surgeons (UOP), 1957
Cert., Loyola University of Chicago, Endodontics, 1984
MS, Loyola Univeristy of Chicago, Oral Biology, 1984

D

Craig Dunlap
Assistant Professor of Endodontics
BS, UC Davis, Genetics, 1990
DDS, UC San Francisco, Dentistry, 1994
Other, University of Illinois, Chicago, Endodontics, 1996
Other, Oregon Health Sciences University, Moderate Parenteral Sedation, 2010

E

Samer Magdi Ebeid
Assistant Professor of Endodontics
BS, Univeristy of San Francisco, Biological Sciences, 1989
DDS, University of the Pacific, Dentistry, 1992
Boston Univeristy School of Dental Medicine, Endodontics, 1996

F

Nava Fathi
Assistant Professor of Endodontics
Complutense University, Madrid, Spain, Certificate of completion of the UC Education Abro, 1991
BS, University of California, Irvine, Biological Science, 1992
DDS, University of the Pacific, Doctorate in Dental Surgery, 1995
University of the Pacific Arthur A. Dugoni School of Dentistry, Advanced Ed in General Dentistry, Certificate, 1996
University of the Pacific, Advanced Endodontics, 1996
University of Southern California School of Dentistry, Postgraduate Program in Endodontics, Los Angeles, CA, Certificate of Endodontic Specialty, 1998
University of Southern California, Postgraduate Endodontics, 1998
American Dental Association Institute For Diversity in Leadership, Chicago, IL, Certificate of Completion, 2000
Northwestern University Kellogg School of Management - ADA/Kellogg Mini MBA Program, Certificate of Completion, 2001

Bruce B. Fogel
Associate Professor of Endodontics
DDS, University of California, Los Angeles, 1970
Harvard University / Forsyth Dental Center, Certificate in Endodontics, 1972

Jennifer Melissa Fong
Assistant Professor of Endodontics
BS, UC Davis, Genetics, 2004
DDS, University of the Pacific, School of Dentistry, Dentistry, 2007
VA Palo Alto, General Practice Residency, 2008
Other, Tufts Denal School, Endodontics, 2013

G

Johnah C Galicia

Assistant Professor of Endodontics
DMD, Manila Central University, Philippines, Dentistry, 1996
Other, University of Rennes 1, France, Clinical Dentistry, 2000
PhD, Niigata University , Japan, Oral Biology, 2006
MS, University of North Carolina, Endodontics, 2014

Alan H. Gluskin
Professor of Endodontics
BA, University of California, Los Angeles, Anthropology, 1968
DDS, University of the Pacific, Dentistry, 1972
CERT, Temple University, Endodontics, 1976

K

Ravi S. Koka
Assistant Professor of Endodontics
BDS, London Hospital Medical College, England, 1990
DDS, Loma Linda University, 1993
MS, University of Nebraska, 1998

L

Yoon Lee
Assistant Professor of Endodontics
BS, University of the Pacific (UOP),, Bachelor of Science (B.S.) in Biological Sciences, 2011
DDS, UOP Arthur A. Dugoni School of Dentistry, Doctor of Dental Surgery (D.D.S.), 2014
Nova Southeastern University College of Dental Medicine,, Specialty certificate in Endodontics, 2016

Lawrence M. LeVine
Assistant Professor of Endodontics
BS, University of Illinois, Urbana, Philosophy, 1958
DDS, University of Illinois, Chicago, Dentistry, 1962

M

Nick A Morton
Assistant Professor of Endodontics
BS, University of California San Diego, Biochemistry and Cell Biology, 2004
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Doctor of Dental Surgery, 2008
MS, University of Florida, Masters of Science in Dental Science, 2010

P

Christine Inge Peters
Professor of Endodontics
American School in Lahore, Pakistan, 1976
Heilbronn, Germany, Primary School, 1977
Gymnasium Mockmuhl, Mockmuhl, Germany, 1986
DMD, Ruprecht-Carls - University, Heidleberg, Germany, Approbation as Dentist, 1992
DMD, Ruprecht-Carls - University, Heidleberg, Germany, Dissertation: Dr. med. Dent, 1992
University of Zurich, Switzerland, Postgraduate in Education Endodontology, 2001

Ove Andreas Peters
Professor of Endodontics
DDS, University of Kiel Dental School, Germany, Dentistry, 1990
PhD, University of Kiel, Physiology, Dr med dent., 1992
PhD, University of Zurich Dental School Switzerland, Oper. Dentistry/ Endodontics, 2001
University of Zurich Dental School Switzerland, Endodontics, 2001
MS, UCSF, Oral Biology, 2003
CERT, UCSF, Endodontics, 2006

Q

Phuong N. Quang
Assistant Professor of Endodontics
BA, University of California, Berkeley, Biochemistry and Molecular Biology
Minor: Spanish, 2000

DDS, University of California, San Francisco School of Dentistry, Doctor of Dental Surgery, 2005
PhD, University of California, San Francisco, School of Dentistry, Oral Craniofacial Sciences, 2010
University of Texas Health Sciences Center at San Antonio, Endodontics Certificate, 2012

R

Yasaman Ravandoust
Assistant Professor of Endodontics
DDS, Azad University, School of Dentistry, Dentistry, 1999
MS, Isfahan University, Endodontics, 2001
DDS, UCSF, Dentistry, 2010
MS, UCSF, Endodontics, 2013

Ali Allen Rezai
Assistant Professor of Endodontics
BA, University of California, Davis, Economics, 1987
DDS, Columbia University School of Dental Oral Surgery, Dentistry, 1999
Manhattan VA Medical Center, 2000
Manhattan VA Medical Center/New York University, Endodontics, 2002

S

Raymond S. Scott
Associate Professor of Endodontics
BA, U.C. Santa Barbara, Biology, 1977
DDS, University of the Pacific, Dentistry, 1980
MS, University of Pittsburgh, Endodontics, 1992

T

Kenneth W. Tittle
Assistant Professor of Endodontics
BS, University of California, Santa Barbara, Biopsychology, 1985
DDS, University of the Pacific, Dentistry, 1989
VA Medical Center at Long Beach, CA, 1990
MS, Loma Linda University, Endodontics, 1995

Polymnia Tsotsis
Instructor of Endodontics
Other, Laney-Peratta College, Biochemistry/Biology, 2004
BS, University of Muenster, Germany, Undergraduate in Dentistry, 2009
DDS, University of Muenster, Germany, Graduate Studies in Dentistry, 2012

W

Ralan Dai Ming Wong
Associate Professor of Endodontics
College of San Mateo, 1988
Skyline College, 1988
University of the Pacific, 1989
DDS, University of the Pacific, Dentistry, 1992
University of the Pacific, AEGD, 1994
University of Vienna, Histology, 1996
MS, University of Pennsylvania, 1997
University of Pennsylvania, Endodontics, 1997

Adjunct Faculty

D

Aaron Rocklin Doms
Adjunct Assistant Professor of Endodontics
BS, UC Davis, Biochemistry, 1996
DDS, UC San Francisco, Dentistry, 2001
Other, Temple University, Endodontics, 2005

H

Ken Hovden
Adjunct Assistant Professor of Endodontics
BA, Stanford University, Biology, 1978
DDS, UOP School of Dentistry, 1981

Z

Shatha Zahran
Adjunct Instructor of Endodontics
BDS, King Abdulaziz University, Dentistry, 2012

Course Descriptions

Predoctoral Courses

EN 154. Basic Endodontics. 1 Unit.
Development of the dental pulp, classification and nature of endodontic disease, clinical diagnosis, and fundamentals of root canal therapy and radiographic interpretation. (10 hours lecture. Quarter 3.).

EN 159. Preclinical Endodontics. 2 Units.
Study of pulp morphology, anatomy, cleaning and shaping of root canals; access openings; use of irrigating solutions; obturating the canal and judging the complete treatment with radiographs. (40 hours laboratory. Quarter 4.).

EN 254. Endodontics. 1 Unit.
Review of endodontic retreatment and surgical therapies; dental trauma and sequelae; complex problem solving; endodontic emergencies; endodontic mishaps; and alternate treatments. (10 hours lecture. Quarter 7.).

EN 259. Clinical Endodontics I. 2 or 4 Units.
Study of endodontic diagnosis, treatment planning, and therapy, including management of endodontic emergencies and surgical endodontics in a comprehensive clinical dental practice setting. (Quarters 5-8.).

EN 359. Clinical Endodontics II. 8 Units.
Study of endodontic diagnosis, treatment planning, and therapy, including management of endodontic emergencies and surgical endodontics in a comprehensive clinical dental practice setting. (Quarters 9-12.).

Graduate Courses

EN 401. Endodontic Technology I. 1 Unit.
This course introduces residents to endodontic technology. (Quarter 1.).

EN 402. Endodontic Therapy Seminar I. 2 Units.
Residents discuss contemporary endodontic strategies and the application of current scientific evidence to endodontic treatment. (Quarters 1-2.).

EN 403. Endodontic Biology and Pathology I. 8 Units.
This course presents the biology and etiology of pulpal and periapical disease. (Quarters 1-4.).

EN 405. Advanced Endodontic Technique. 8 Units.
This preclinical course uses simulated root canal treatment on extracted teeth with a variety of instruments and devices to prepare residents for clinical care. (Quarter 1.).

EN 411. Case Seminar I. 12 Units.
Residents review their own cases prepared according to ABE board documentation rules. (Quarters 1-4.).

EN 412. Classic Literature I. 12 Units.
Residents review the body of classic literature pertinent to endodontics, including material relevant for board preparation. (Quarters 1-4.).

EN 413. Current Literature I. 4 Units.
In this course, residents review current endodontic literature using the EndoLit iPad app. (Quarters 1-4.).

EN 422. Clinical Transition: Evidence-based Endodontics. 4 Units.
This course introduces residents to the evidence-based modalities and local rules for treating patients endodontically in the school's clinic. (Quarter 2.).

EN 423. Anesthesia and Pain Management I. 1 Unit.
This course is an introduction to theoretical and practical anesthetic techniques and pain management. (Quarter 2.).

EN 424. Pain/Neuro Seminar I. 1 Unit.
Residents study the physiology and pathophysiology of pain. (Quarter 1.).

EN 430. Clinic Connections I. 1 Unit.
The collaboration between endodontists and other members of the dental team is essential for good clinical outcomes. A series of presentations by clinicians with different training and expertise reinforces an inclusive view of typical and atypical treatment modalities. (Quarter 4.).

EN 440. Special Topics in Endodontology I. 2-4 Units.
Residents attend seminars by invited speakers and faculty with expertise and training in contemporary endodontic therapies. (Quarters 1-2.).

EN 457. Endodontic Clinic: Assisting. 1 Unit.
In this clinical course, residents assist during endodontic treatment by endodontic faculty in the graduate endodontic clinic. (Quarter 1.).

EN 458. Clinical Endodontics I. 29 Units.
Residents practice non-surgical endodontics appropriate in scope and case difficulty for the first year. (Quarters 2-4.).

EN 459. Clinical Endodontics: Surgery I. 5 Units.
Residents practice surgical endodontics appropriate in scope and case difficulty for the first year. (Quarters 2-4.).

EN 466. Special Care Clinic Rotation. 2 Units.
In this rotation, residents practice non-surgical endodontics under sedation and general anesthesia for patients with special needs. (Quarter 3.).

EN 503. Endodontic Biology and Pathology II. 8 Units.
This course presents the biology and etiology of pulpal and periapical disease. (Quarters 5-8.).

EN 511. Case Seminar II. 12 Units.
Residents review their own cases prepared according to ABE board documentation rules. (Quarters 5-8.).

EN 512. Classic Literature II. 12 Units.
Residents review the body of classic literature pertinent to endodontics, including material relevant for board preparation. (Quarters 5-8.).

EN 513. Current Literature II. 4 Units.
In this course, residents review current endodontic literature using the EndoLit iPad app. (Quarters 5-8.).

EN 530. Clinic Connections II. 1 Unit.
The collaboration between endodontists and other members of the dental team is essential for good clinical outcomes. A series of presentations by clinicians with different training and expertise reinforces an inclusive view of typical and atypical treatment modalities. (Quarter 8.).

EN 558. Clinical Endodontics II. 48 Units.
Residents practice non-surgical endodontics appropriate in scope and case difficulty for the first year. (Quarters 5-8.).

EN 559. Clinical Endodontics: Surgery II. 7 Units.
Residents practice surgical endodontics appropriate in scope and case difficulty for the second year. (Quarters 5-8.).

EN 567. Endodontics at La Clinica II. 28 Units.
Residents practice non-surgical endodontics appropriate in scope and case difficulty for the second year at an affiliated extramural site. (Quarters 5-8.).

EN 571. Predoctoral Instruction. 8 Units.
Residents instruct predoctoral dental students in non-surgical endodontics. (Quarters 6-8.).

EN 611. Case Seminar III. 3 Units.
Residents review their own cases prepared according to ABE board documentation rules. (Quarter 9.).

EN 613. Current Literature III. 1 Unit.
In this course, residents review current endodontic literature using the EndoLit iPad app. (Quarter 9.).

EN 658. Clinical Endodontics III. 9 Units.
Residents practice non-surgical endodontics appropriate in scope and case difficulty for the third year. (Quarter 9.).

EN 659. Clinical Endodontics: Surgery III. 1 Unit.
Residents practice surgical endodontics appropriate in scope and case difficulty for the third year. (Quarter 9.).

EN 671. Residency Instruction. 2 Units.
Senior residents instruct first-year residents in endodontic technique. (Quarter 9.).

EN 684. ABE Seminar. 3 Units.
Residents participate in mock board exams and assemble their portfolios. (Quarter 9.).

Preventive and Restorative Dentistry (PRD)

DDS Distribution of Instruction (http://catalog.pacific.edu/dental/course-descriptions/preventive-and-restorative-dentistry/DDS_Distribution_of_Instruction_2017-2018.pdf)

IDS Distribution of Instruction (http://catalog.pacific.edu/dental/course-descriptions/preventive-and-restorative-dentistry/IDS_Distribution_of_Instruction_2017-2018.pdf)

Department Chairpersons (interim)

Homayon (Homer) Asadi
Associate Professor of Biomedical Sciences

Terry Edwin Hoover
Associate Professor of Diagnostic Sciences

Faculty

A

Bernadette A Alvear Fa
Associate Professor of Preventive and Restorative Dentistry
BS, University of the Pacific, Biology, 2003
DDS, University of the Pacific, Dentistry, 2006
National Academy of Sports Medicine, Exercise Physiology,Certified Personal Trainer, 2012
Women's Fitness Specialist (WFS), National Academy of Sports Medicine, Exercise Physiology for Women, 2014

B

Curtis Barmby
Instructor of Preventive and Restorative Dentistry
American River College, AA Pre-Dental, 1967
DDS, UCSF School of Dentistry, Dentistry, 1971
Wadsworth VA Medical Center, Certificate in Fixed Prosthodontics, 1981
American Board of Prosthodontics, Diplomate, 1987

Chetna Chadha Baveja
Assistant Professor of Preventive and Restorative Dentistry
BDS, DAV Dental College, Dentistry, 1995
DDS, Pacific School of Dentistry, Dentistry, 2001

Ashwini Bhave
Assistant Professor of Preventive and Restorative Dentistry
BDS, Nasik University, Government Dental College Hospital, 2008
Other, Rutgers School of Dental Medicine, Prosthodontics, 2013
DDS, University of Detroit Mercy School of Dentistry, 2 year faculty track accelerated program, 2016

Michelle Brady
Assistant Professor of Preventive and Restorative Dentistry
BDS, Cardiff Dental School, Dentistry, 1994
Other, Dublin Dental School, Clinic Dentistry, 2004
Other, Dublin Dental School, Conscious Sedation, 2011

Philip M. Buchanan
Associate Professor of Preventive and Restorative Dentistry
AA, Santa Monica City College, Pre-dental, 1963
DDS, University of Southern California, Dentistry, 1968
EdD, University of the Pacific, Dental Education, 2016

George E. Bunnell
Associate Professor of Preventive and Restorative Dentistry
BS, University of San Francisco, Biology, 1962
DDS, College of Physician and Surgeons, University of the Pacific, Dentistry, 1967

C

Susan Caliri
Instructor of Preventive and Restorative Dentistry

BS, University of San Francisco, Science, 1977
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, Dentistry, 1985
V.A. Medical Center, San Francisco, General Practice Residency, 1986

Daniel M. Castagna
Associate Professor of Preventive and Restorative Dentistry
BA, University of the Pacific Stockton, CA, Biology, 1978
DDS, University of the Pacific, Dentistry, 1981

Eric H. Chen
Instructor of Preventive and Restorative Dentistry
BS, University of the Pacific, Biochemistry, 2002
MS, University of the Pacific, Pharmacy and Chemistry, 2007
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, Dental Surgery, 2009
Other, University of the Pacific, Arthur A. Dugoni School of Dentistry, Certificate: Adv Education in General Dentistry, 2011

Robert H. Christoffersen
Professor of Preventive and Restorative Dentistry
BA, San Francisco State University, 1963
DDS, University of the Pacific, 1967
MA, University of the Pacific, 1980

Tom Collins
Assistant Professor of Preventive and Restorative Dentistry
BS, University of Santa Clara, Biology, 1977
MA, SF State University, Masters Biology, 1980
DDS, UOP School of Dentistry, 1983

Megan Constant
Instructor of Preventive and Restorative Dentistry
BS, California Polytechnic State University San Luis Obispo, Biology, 2011
University of California Berkeley Extension, Biology, 2012
DDS, UOP Dugoni, Dentistry, 2016

Carlos A Correa
Instructor of Preventive and Restorative Dentistry
College of Marin, 1983
City College of San Francisco, 2015

Ryan Courtin
Instructor of Preventive and Restorative Dentistry
BS, UCLA, BS Biology, 2010
DDS, UOP Dental, DDS, 2016

Steven Reed Curtis
Associate Professor of Preventive and Restorative Dentistry
Santa Rosa Junior College, 1977
University of California, Davis, 1978
DDS, University of California, Los Angeles, Doctor of Dental Science, 1982
Chanute Air Force Base, Air Force General Practice Residency, 1983
Bethesda National Naval Dental Center, Prosthodontic Specialty Certificate, 1992
Peterson Area Dental Laboratory, 1996

D

Mina R. Desai
Assistant Professor of Preventive and Restorative Dentistry
BDS, Gov. Dental College, Ahmedabad, India, Dentistry, 1987
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 1991

Lori Doran-Garcia
Assistant Professor of Preventive and Restorative Dentistry
BS, University of California, Los Angeles, Psychology, 1987
DDS, University of the Pacific School of Dentistry, General Dentistry, 1991

Richard Doyle
Instructor of Preventive and Restorative Dentistry

BA, San Jose State University, Biological Sciences, 1970
DDS, University of the Pacific School of Dentistry, Dentistry, 1974
U.S. Army, Dental, 1975

Stafford Justin Duhn
Assistant Professor of Preventive and Restorative Dentistry
BA, University of California, Berkeley, 1981
DDS, University of the Pacific, 1984

E

Thomas C Ellerhorst
Assistant Professor of Preventive and Restorative Dentistry
BS, University of San Francisco, Biology, 1972
DDS, University of the Pacific, Dentistry, 1977

F

Gail E. Frick
Assistant Professor of Preventive and Restorative Dentistry
BS, Scripps College, Biology, 1973
Georgetown, Graduate Biology, 1974
DMD, TUFTS University - School of Dental Medicine, Dentistry, 1977
UCLA, Prosthodontics Certificate, 1981

G

Michael V. Gamboa
Assistant Professor of Preventive and Restorative Dentistry
BA, University of the Pacific, 1985
DDS, University of the Pacific, 1988

Richard John Garcia
Associate Professor of Preventive and Restorative Dentistry
BS, University of San Francisco, 1971
DDS, University of California, Los Angeles, 1975
Veterans Administration Hospital, San Francisco, 1976

Marc J. Geissberger
Professor of Preventive and Restorative Dentistry
BS, St. Mary's College of California, Bachelors of Science in Biology, 1988
DDS, Doctor of Dental Surgery, University of the Pacific, Dentistry, 1991
MA, University of the Pacific, Master of Arts in Educational Psychology, 1994
CPT, National Academy of Sports Medicine, Exercise Physiology, 2009

Ernest G. Giachetti
Assistant Professor of Preventive and Restorative Dentistry
BS, University of Santa Clara, 1963
DDS, University of the Pacific , 1967

Eduardo Eduardo Gonzalez
Assistant Professor of Preventive and Restorative Dentistry
DDS, Universidad Evangelica, Dental Surgery, 1995
New York University, Prosthodontics Certificate of Completion, 1998
Private Zahn Klinik Schloss Schellestein with Prof. Fouad Khoury, Olsberg, Germany, Bone augmentation Procedures soft tissue management, 2008
Pikos Implant Institute, Advanced Bone Grafting Procedures I II, 2009

Shika Gupta
Associate Professor of Preventive and Restorative Dentistry
BDS, GOA Dental College and Hospital, Dentistry, 1997
MDSC, University of Malaya, Faculty of Dentistry, 2001
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2007

H

Foroud F. Hakim
Assistant Professor of Preventive and Restorative Dentistry

Louisiana State University, 1985
BS, San Jose State University, 1987
DDS, University of the Pacific, 1991
MBA, University of the Pacific, 1999
ADEA Leadership Institute, 2008

W. Peter Hansen
Associate Professor of Preventive and Restorative Dentistry
San Diego High School, 1962
BS, UOP Bachelor of Science Biology, 1966
Mercy Hospital School of Medicine Technology, 1967
DDS, University of the Pacific School of Dentistry, 1971
UCSF Medical Center, 1973
University of Southern California School of Dentistry Advanced Prosthodontics, 1979

Heidi K. Hausauer
Assistant Professor of Preventive and Restorative Dentistry
BA, University of the Pacific, 1982
DDS, University of the Pacific, 1985
VA Palo Alto, 1986

Rex W Hoover
Instructor of Preventive and Restorative Dentistry
BA, UOP, Biology, 1970
DDS, UCLA, 1974

I

Parvati Iyer
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BDS, Madras Dental College (India), Dentistry, 1989
DDS, University of Michigan, Dentistry, 1998
Other, AEGD USCF, Hospital Dentistry, 1999

K

Parag R. Kachalia
Associate Professor of Preventive and Restorative Dentistry
BS, University of California, Davis, Physiology, 1998
Minor, University of California at Davis, Managerial Economics, 1998
DDS, University of the Pacific, Dentistry, 2001

Carol Kim
Assistant Professor of Preventive and Restorative Dentistry
BA, University of Colorado, Boulder, Psychology, 2002
DDS, University of California, LA, Dentistry, 2008
Other, Veterans Administration, Resident, 2009
MS, Colombia University, Prosthodontics, 2012

Nicholas K. Kitajima
Instructor of Preventive and Restorative Dentistry
BS, University of California, Davis, Physiology, 2001
DDS, University of the Pacific, School of Dentistry, General Dentistry, 2004
University of the Pacific, School of Dentistry, AEGD Dentistry, 2005

Linda Kuo
Instructor of Preventive and Restorative Dentistry
BS, UC Berkeley, Molecular Cell Biology, 2007
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2013

L

Eugene Edward LaBarre
Associate Professor of Preventive and Restorative Dentistry
BA, Harvard University, 1973
DMD, Tufts University, 1977

MS, University of North Carolina, 1981

Kevin C. Lin
Assistant Professor of Preventive and Restorative Dentistry
B.S.A., U.C. Davis, Biological Sciences and Psychology (Double Major), 2006
DDS, U.C.L.A., Dentistry, 2010
U.C.S.F., Prosthodontics, 2013

Josh Liu
Instructor of Preventive and Restorative Dentistry
BS, University of California, Santa Barbara, Aquatic Biology, 2007
DDS, University of Pacific, Arthur A. Dugoni School of Dentistry, Dentistry, 2012

Marcia A Loo
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DDS, University of the Pacific, Dentistry, 1996

Kenneth Gregory Louie
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BA, University of California, Berkeley, Microbiology, 1985
DDS, University of the Pacific, Dentistry, 1988
MA, University of the Pacific, Education, 1994

Jennifer Marie Low
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BS, Santa Clara University, Biology, 2008
DDS, University of the Pacific Arthur A Dugoni School of Dentistry, 2012

M

Joy Magtanong-Madrid
Instructor of Preventive and Restorative Dentistry
BS, University of California, Irvine, CA, Classical Civilization, 2004
University of California, San Francisco, Post-Baccalaureate Certificate, 2007
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Doctor of Dental Surgery, 2011

Anthony A Marcos
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BS, UC Davis, Biochemistry, 1991
DDS, University of the Pacific , Dentistry, 1994

Olga Matveyeva
Instructor of Preventive and Restorative Dentistry
Other, Odessa Medical College #1, Dental Technician, 1977
Cert., Odessa Training School for Health Workers, Certificate of Completion, 1986
Cert., Health Department of Odessa Regional State Boars of Certification, Dental Technician, 2013

Charles W. McGary
Instructor of Preventive and Restorative Dentistry
University of Michigan, 1953
University of Michigan, DDS, 1957

Jeffrey P. Miles
Associate Professor of Preventive and Restorative Dentistry
BA, University of California, Santa Barbara, CA, Biochemistry, 1976
BDS, University of California, San Francisco, Dental Services, 1980
DDS, University of California, San Francisco, CA, 1980
University of Washington, Summer Institute in Clinical Dental Research Metho, 2006
University of North Carolina, Institute for Teaching and Learning, 2007

Adam M Miller
Instructor of Preventive and Restorative Dentistry
BS, University of California Davis, Man. Economics/ Psychology, 2006
San Francisco State University, Post Baccalaureate Pre-Health Professions, 2012
DDS, UOP Dugoni, DDS(expected June 2016), 2016

Donald Missirlian

Assistant Professor of Preventive and Restorative Dentistry
UCLA, 1961
DDS, Northwestern University Dental School, Dentistry, 1965
SF State, 1978
University of Iowa, School of Dentistry (Iowa City), Certificate of Specialty in Fixed Prosthodontics, 1981

Arthur Muncheryan
Instructor of Preventive and Restorative Dentistry
BSc, U.C. Irvine, Electrical Engineering, 1972
DDS, UCSF School of Dentistry, Dentistry, 1977

N

David Nisenboym
Instructor of Preventive and Restorative Dentistry
BS, UC Davis, Biology, 2009
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, Dentistry, 2013
Pascua Yaqui Dental Clinic, Tucson, AZ, 2014

Warden H. Noble
Professor of Preventive and Restorative Dentistry
University of California, Berkeley, Biology, 1961
DDS, University of California, San Francisco, Dentistry, 1965
MS, University of Southern California, Education, 1968
MS, University of Michigan, Ann Arbor, Restorative Dentistry, 1970

P

Erika Peterson
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Other, USC School of Dental Hygiene, 1967
BS, San Jose State University, Molecular Biology, 1976
DDS, University of the Pacific School of Dentistry, Dentistry, 1979

Donnie Poe
Instructor of Preventive and Restorative Dentistry
Career Academy Vocational School, Dental Technology, 1968

Priya Prasannakumar
Assistant Professor of Preventive and Restorative Dentistry
BDS, Pamashree Dr. D. Y. Patil Dental School, Dentistry, 2002
DDS, University of the Pacific, Dentistry, 2011

R

Gitta Radjaeipour
Associate Professor of Preventive and Restorative Dentistry
San Jose State University, Pre-Dental, 1989
DDS, University of the Pacific, School of Dentistry, Doctoral of Dental Surgery, 1992
EdD, University of the Pacific, Gladys L Benerd School of Education, Education administration and leadership EDD, 2009

Aneet Randhawa
Assistant Professor of Preventive and Restorative Dentistry
BDS, Punjab Government Dental College and Hospital, 1988
MDS, Punjab Government Dental College and Hospital, 1992

Laura K. Reid
Assistant Professor of Preventive and Restorative Dentistry
Flinders University, Australia, Education Abroad Program, 1989
BS, University of California, Davis, Psychology, 1991
Vanderbilt University, Doctor of Medicine, 1996
DDS, University of the Pacific, Doctorate of Dental Surgery, 2000

Patrick L. Roetzer
Assistant Professor of Preventive and Restorative Dentistry
BS, University of Wisconsin, Experimental Psychology and Biology, 1970
DDS, Marquette University, Dentistry, 1974

Veterans Administration Medical Center, General Practice Resident, 1975

S

Steven Judd Sadowsky
Professor of Preventive and Restorative Dentistry
BA, University of California, Los Angeles, Psychology, 1967
DDS, University of California, Los Angeles, DDS, 1971
University of Southern California School of Dentistry, Los Angeles, Certificate, Advanced Prosthodontic Education, 1983

Ladan Sahabi
Assistant Professor of Preventive and Restorative Dentistry
AS, Pierce College, Chemistry, 2006
BS, University of California Los Angeles, Biochemistry, 2009
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Doctor of Dental Surgery, 2012

Sima Salimi
Assistant Professor of Preventive and Restorative Dentistry
BS, Fairleigh Dickinson University, Bachelors of Science in Biology, 1991
DDS, University of the Pacific, 1994., Doctor of Dental Surgery, 1994

Amin P Samadian
Instructor of Preventive and Restorative Dentistry
DDS, Tehran Azad University School of Dentistry, Tehran, Iran, Dentistry, 2011
Other, SBMU, Implant Dentistry, 2012

Eugene T. Santucci
Associate Professor of Preventive and Restorative Dentistry
BS, Kings College, 1964
DDS, Temple University School of Dentistry, 1968
U.S. Navy Dental Internship, Certificate of Completion, 1969
Foundation for Advanced Continuing Education, Certificate of Completion, 1977
MA, University of the Pacific, 1994

Noelle M Santucci
Associate Professor of Preventive and Restorative Dentistry
BS, Marquette University, Dental Hygiene/Biology, 1985
DDS, University of the Pacific, 1991
University of the Pacific, Advanced Education in General Dentistry Cert., 1992
MA, University of the Pacific, 1994

Robert Savage
Instructor of Preventive and Restorative Dentistry
BS, University of California Irvine, Biological Sciences, 1993
DDS, Northwestern University, Dentistry, 1997
Other, University of California San Francisco, Prosthodontics, 2006

Hugo Schmidt
Instructor of Preventive and Restorative Dentistry
BA, San Jose State University, Molecular Biology, 1980
DDS, University of Southern California, 1985
University of California, San Francisco, Certificate of Prosthodontics, 1991
University of California Medical Center, Certificate of Maxillofacial Prosthetics, 1992

Karen A. Schulze
Associate Professor of Preventive and Restorative Dentistry
DDS, University of Leipzig, Germany, Dentistry, 1992
PhD, University of Leipzig, Germany, Oral Surgery, 1998
Post-doc, UC San Francisco, Post-Doc in Dental Materials, 2002

Roxanna R. Shafiee
Assistant Professor of Preventive and Restorative Dentistry
BS, University of San Francisco, Biology, 1993
DDS, University of the Pacific, 1997
MSD, University of the Pacific, Orthodontics, 2009

Dennis Daizo Shinbori

Associate Professor of Preventive and Restorative Dentistry
Other, Lowell High School, 1968
AA, City College of San Francisco, 1970
BA, University of the Pacific, 1972
DDS, University of the Pacific, Dentistry, 1975

Cathrine Steinborn
Instructor of Preventive and Restorative Dentistry
BA, UC Santa Barbara, Botany, 1978
DDS, UoP School of Dentistry, Dentistry, 1985
Other, Veterans Administration SF, General Practice Residency, 1986

Bina Surti
Associate Professor of Preventive and Restorative Dentistry
BS, Wayne State University, Biology, 1991
DDS, University of Detroit Mercy, Dentistry, 1995
AEGD, Case Western Reserve University, AEGD, 1996
Case Western Reserve University, Fellowship, 1997

T

Sharareh Tajbakhsh
Instructor of Preventive and Restorative Dentistry
BS, University of California, San Diego, Biochemistry cell Biology, 1996
DDS, University of the Pacific, Dental School, Dentistry, 2001

Ulf Temnitzer
Assistant Professor of Preventive and Restorative Dentistry
Sonoma State University, 2007
DDS, University of the Pacific, Dentistry, 2010
Other, University of Alabama at Birmingham, Graduate Prosthodontics, 2013

Konni Kawata Tittle
Instructor of Preventive and Restorative Dentistry
CSUF, Biology, 1984
Indiana University, Biology - Undergraduate, 1985
Indiana University, School of Dentistry, 1987
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 1989

Chi Dinh Tran
Assistant Professor of Preventive and Restorative Dentistry
University of Richmond, 1973
DDS, Medical College of Virginia, 1979
University of California, San Francisco, Certificate in Prosthodontics, 1984

V

Jessie Virginia Vallee
Assistant Professor of Preventive and Restorative Dentistry
BS, University of the Pacific, Biological Sciences, 2001
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2004
Bureau of Medicine and Surgery, US Navy, AEGD certification, 2005
Other, Academy of Academic Leadership, Center for Advancing Learning and Teaching, 2008
Other, National Institutes of Health, Protecting Human Research Participants, 2008
Other, Disney Leadership Institute, Leadership Excellence, 2012
Other, University of the Pacific Arthur A Dugoni School of Dentistry, Course Director Orientation, 2012

W

Erich Werner
Assistant Professor of Preventive and Restorative Dentistry
BS, San Jose State University, Biology, 1984
DDS, UOP School of Dentistry, 1988

Richard H. White
Associate Professor of Preventive and Restorative Dentistry
BA, Albion College, Biology, 1971

DDS, University of Michigan School of Dentistry, Dentistry, 1975
US Public Health Service, General Practice Dental Residency, 1976
University of Washington, Summer Institute in Clinical Dental Research Metho, 2010
CalTeach I and CalTeach II, 2013

Debra A. Woo
Assistant Professor of Preventive and Restorative Dentistry
AA, De Anza Community College, A.A., 1977
BS, University of California, Davis, Human Biology, 1979
MA, San Jose State University, Health Sciences, 1983
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, Dentistry, 1986

Erika Woodson
Instructor of Preventive and Restorative Dentistry
BS, University of California, Davis, Exercise Science - Physiology, 2001
DDS, Howard University of Dentistry, Dentistry, 2007
Other, Community Regional Medical Center, GPR, 2008

Y

Nathan Yang
Assistant Professor of Preventive and Restorative Dentistry
BS, University of California at Davis, Psychology and Biochemistry, 1998
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, Dentistry, 2006

Robert Yee
Instructor of Preventive and Restorative Dentistry
BS, UCSD, Biology, 2007
DDS, USC School of Dentistry, DDS, 2011

Adjunct Faculty

C

Nabeel Cajee
Adjunct Instructor of Preventive and Restorative Dentistry
Cuernavaca Language School, Cuernavaca, Morelos, Mexico, Intermediate Spanish Program, 2008
BA, University of the Pacific, Self-Designed - Science and Conscience, 2011
DDS, Pacific Dugoni School of Dentistry, Dentistry, 2015
Alameda Health System, Highland Hospital, Oakland, CA, Advanced Education General Dentistry Resident, 2016

J

Sunny Joseph
Adjunct Instructor of Preventive and Restorative Dentistry
BA, University of California Berkeley, Integrative Biology, 2008
DDS, University of the Paciific School of Dentistry, Dentistry, 2014

L

Christine Lewis
Adjunct Instructor of Preventive and Restorative Dentistry
College of San Mateo, 2010
Skyline College, 2011
BA, San Francisco State University, BA in General Biology-Summa Cum Laude, 2013
DDS, University of the Pacific Arthur A. dugoni School of Dentistry, 2016
VA Northern California Healthcare system, General Practice Residency, 2017

N

Molly P. Newlon
Adjunct Associate Professor of Preventive and Restorative Dentistry
UCSB, General Education, 1973
BA, UCLA, Fine Arts/Dance, 1975
MA, UCLA, Dance Therapy, 1977
DDS, University of the Pacific, Dentistry, 1982

GPR Cert., Veterans Administration Hospital, general practice residency, 1983

Julia Nishioka
Adjunct Instructor of Preventive and Restorative Dentistry
BA, Claremont McKenna College, Science and Management, Biotechnology Sequence, 2012
DDS, Arthur A. Dugoni School of Dentistry, Dentistry, 2015

R

Debora Roubal
Adjunct Instructor of Preventive and Restorative Dentistry
Whittier College, 1984
BA, University of California Santa Barbara, Aquatic Biology, 1987
DDS, University of the Pacific School of Dentistry, Dentistry, 1994

S

Deepinder Ruchi Sahota
Adjunct Instructor of Preventive and Restorative Dentistry
University of the Pacific School of Dentistry, Honors Dental Program, 2001
DDS, University of the Pacific School of Dentistry, Dentistry, 2004
VA Palo Alto General Practice Residency, Certificate in General Dentistry, 2005

T

Yasamin Tarassoli
Adjunct Instructor of Preventive and Restorative Dentistry
DDS, Shahid Beheshti School of Dentistry, Dentistry, 2002
DMD, Tofts School of Dental Medicine, Dentistry, 2009

Mary Michael Turoff
Adjunct Assistant Professor of Preventive and Restorative Dentistry
BS, UC Davis, Biological Sciences, 1974
DDS, UOP School of Dentistry, General Dentistry, 1977

U

Jacqueline O Uy
Adjunct Instructor of Preventive and Restorative Dentistry
BA, Ateneo de Manila University, Psychology, 2007
DDS, University of the Pacific, Dentistry, 2016

V

Katherine Vo
Adjunct Instructor of Preventive and Restorative Dentistry
BS, University of San Francisco, Biology with minor in Biochemistry, 2000
DDS, UCSF, General Dentistry, 2004

Oral and Maxillofacial Surgery (OS)

Department Chairperson (interim)

Anders Nattestad
Professor of Oral and Maxillofacial Surgery

Faculty

A

Michael Ajayi
Associate Professor of Oral and Maxillofacial Surgery
BDS, University of Lagos College of Medicine and Dentistry, 1975
BSc, University of Toronto, Toronto, Canada, 1981
University of Toronto, Oral and Maxillofacial Surgery, Resident, 1981
Henry Ford Hospital, Oral Maxillofacial Surgery, Detroit, Michigan, Chief Resident, 1983

B

Edmond Bedrossian
Associate Professor of Oral and Maxillofacial Surgery
BS, University of San Francisco, Biology, 1981
DDS, University of the Pacific, 1986
DDS, Highland General Hospital, Certificate of Completion, 1990

John A. Boghossian
Associate Professor of Oral and Maxillofacial Surgery
AA, City College of San Francisco, Biology, 1983
BA, San Francisco State University, Biology, 1984
DDS, University of California San Francisco, Dentistry, 1988
Other, Memorial Sloan-Kettering Cancer Center, New York, NY, Dental Oncology Fellowship Certificate, 1990
Harbor-UCLA Medical Center, Torrance, CA, Oral Surgery, 1995

D

Alfredo A. Dela Rosa
Assistant Professor of Oral and Maxillofacial Surgery
Saint Ignatius College Preparatory, San Francisco, 1999
University of California, Davis: College of Biological Sciences, Biological Sciences, 2002
BS, University of California, San Francisco, Dental Sciences, 2004
DDS, University of California, San Francisco, Doctor of Dental Surgery, 2006
MD, Harvard Medical School, Boston MA, Doctor of Medicine, 2009
Massachusetts General Hospital, General Surgery, 2010
Massachusetts General Hospital, Oral Maxillofacial Surgery, 2012

F

Vincent Wayne Farhood
Associate Professor of Oral and Maxillofacial Surgery
DDS, University of Southern California, Dentistry, 1970
Certificate, Wilford Hall USAF Medical Center, Oral Maxillofacial Surgery, 1978

I

A. Thomas Indresano
Professor of Oral and Maxillofacial Surgery
AB, Boston University, Biology, 1967
DMD, Harvard University School of Dental Medicine, Dentistry, 1971
Vanderbilt University, Oral and Maxillofacial Surgery, 1974

J

Bahram Javid
Associate Professor of Oral and Maxillofacial Surgery
Hilsea College (Basingstoke) U.K., School Certificate, Oxford University, U.K., 1951
L.D.S., King College (Durham University) Sutherland Dental School, Newcastle-upon-Tyne, U.K., Oral Surgery, 1956
King's College Dental School (Durham University). Newcastle-upon-Tyne, U.K., Junior House Officer, 1957
King's College Dental School, 1957
Newcastle-on-Tyne Infirmary, England, Junior House Instructor, 1957
Eastman Dental Center, University of Rochester, Rochester, New York, USA, Clinical Fellow, 1958
DMD, School of Dental Medicine, Tufts University, 1960
Hospital of the University of Pennsylvania, Graduate School of Medicine, Pennsylvania, PA USA, Oral Surgery Residency Program, 1966
Diplomate, American Board of Oral and Maxillofacial Surgery, 1972

K

Brandon Kang
Instructor of Oral and Maxillofacial Surgery
BA, Rutgers University, New Brunswick NJ, 2000
New York University, College of Dentistry, Doctor of Dental Surgery, 2004
Woodhull Medical Center Brooklyn NY, Oral Maxillofacial surgery, 2009

Sam F Khoury
Instructor of Oral and Maxillofacial Surgery

BS, Santa Clara University, Biology, 1999
DMD, University of Pittsburgh, Dental Medicine, 2005

L

Wendy Peiwen Liao
Instructor of Oral and Maxillofacial Surgery
BA, University of California, Berkeley, Molecular Cell Biology Emphasis in Neurobiology, 1999
BA, University of California, Berkeley, Music, 1999
DDS, University of California, Los Angeles, Degree Expected, 2004

Luis Ramon G. Limchayseng
Assistant Professor of Oral and Maxillofacial Surgery
BS, University of the East (Philippines), 1979
DMD, University of the Philippines College of Dentistry, 1983

M

Craig D McDow
Assistant Professor of Oral and Maxillofacial Surgery
BS, Oregon State University, Zoology, 1977
Portland State University, Adaptive Physiology, 1978
DMD, Oregon Health Sciences University, Dentistry, 1982
GPR, USAF Keesler AFB, General Dentistry, 1983
MS, University of Michigan Hospitals, Oral Maxillofacial Surgery, 1989

Joseph Clarence McMurray
Assistant Professor of Oral and Maxillofacial Surgery
BS, Pt. Loma College, Biology, 1985
DMD, Washington University St. Louis, 1990
University of Southern California, Oral Maxillofacial Surgery, 1994
MBA, Pepperdine University, Business Economics and Management, 2007

N

Anders Nattestad
Professor of Oral and Maxillofacial Surgery
DDS, University of Copenhagen, Dentistry, 1986
Masters, Kobenhavns Universitet, Health Sciences, 1986
PhD, Dental School, University of Copenhagen, Dentistry, 1991
PhD, Royal Dental College, Dentistry, 1992
American Dental Association (ADEA), ADEA Leadership Institution, 2007

P

Chan M. Park
Associate Professor of Oral and Maxillofacial Surgery
BS, University of California, San Diego, La Jolla, CA, General Biology, 2000
DDS, University of California School of Dentistry, Los Angeles, CA, Doctor of Dental Surgery, 2005
MD, Loma Linda University School of Medicine, Doctor of Medicine, 2008
Loma Linda University Medical Center, General Surgery Internship - Certificate, 2009
Loma Linda University, OMFS Residency Certificate, 2011

S

Benjamin R. Shimel
Assistant Professor of Oral and Maxillofacial Surgery
BA, Saint Mary's College of California, Integral Program of Liberal Arts, 2002
Other, California San Francisco State University, Biology, 2009
Other, Cal Berkeley Extension, Biology, 2010
University of California, San Francisco, Externship, 2012
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2013

T

Len Tolstunov
Associate Professor of Oral and Maxillofacial Surgery

DDS, Moscow Dental Institute, 1985
Moscow Trauma Hospital, Resident in the department of oral and maxillofacial, 1989
DDS, University of the Pacific, Graduated with honors (TAU KAPPA OMEGA), 1992
University of California, San Francisco, Oral and Maxillofacial Surgery residency, 1997

Adjunct Faculty

B

Michael Lawrence Beckley
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, Texas Christian University, Biology, 1992
DDS, Baylor College of Dentistry Texas A and M University, 1997
University of the Pacific School of Dentistry, Oral and Maxillofacial Surgery, 2002

Sonia Bennett-Selbert
Adjunct Instructor of Oral and Maxillofacial Surgery
Other, John Tyler Community College, AA in Arts Science, 2006
BS, Virginia Commonwealth University, Minor Chemistry, 2009
DDS, Indiana University School of Dentistry, Dentistry, 2014

Craig Yale Bloom
Adjunct Associate Professor of Oral and Maxillofacial Surgery
BA, Boston University, Biology, 1967
DMD, University of Pennsylvania Dental School, Dentistry, 1971
University of Pennsylvania, Anesthesiology, 1973
University of Pennsylvania, OMF Surgery, 1976

E

Austin Eckard
Adjunct Instructor of Oral and Maxillofacial Surgery
BA, University of California, Berkeley, Molecular and Cell Biology, 2009

F

Jesse M. Fa
Adjunct Instructor of Oral and Maxillofacial Surgery
BS, University of the Notre Dame, IN, Science, 2003
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2006
PGY1 General Practice Residency VA/UCI Medical Center, Long Beach, Certificate, 2007
PGY2 General Practice Residency VA/UCLA Medical Center, LA, Certificate, 2008
University of Illinois at Chicago, Oral Surgery Internship, Certificate, 2010

Alicia Follmar
Adjunct Instructor of Oral and Maxillofacial Surgery
BA, Stanford University, Human Biology, Molecular Physiology Disease Mech, 2009
Other, University of Southern California, Los Angeles County, Oral Maxillofacial Surgery (one week externship, 2012
Other, University of the Pacific, Highland Hospital, Department of Oral and Maxillofacial Surgery, 2012
DMD, Harvard School of Dental Medicine, Dentistry, Oral Maxillofacial Surgery, 2013

G

Ehssan Ghassemi
Adjunct Instructor of Oral and Maxillofacial Surgery
Western University of Health Sciences

Brian Goo
Adjunct Instructor of Oral and Maxillofacial Surgery
University of Southern California

K

Raghav Kandelwal
Adjunct of Oral and Maxillofacial Surgery
University of Ghana, Accra, Ghana, UC Education Abroad Program, 2006
University of Hanoi, Hanoi, Vietnam, UC Education Abroad Program, 2008

BS, University of California, San Diego, Biology and Minor in History, 2010
DMD, Harvard School of Dental Medicine, Dentistry, 2014

Touraj Khalilzadeh
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, University of California, Irvine, Biological Sciences, 2002
DMD, University of Pennsylvania, Doctor of Dental Medicine, 2006
MD, University of Maryland School of Medicine, Doctor of Medicine, 2009
Other, University of Maryland Medical Center, R. Adams Cowley Shock Trauma Center, Oral Maxillofacial Surgery, 2012

Joseph S Kim
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BA, Oxford College at Emery University, Chemistry, 1985
DMD, Tufts University School of Dental Medicine, 1991
Montefiore Medical Center, Specialty Certificate, 1997

Michael Rudolph Knoll
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, University of California Riverside, Biology, 1993
MS, Loma Linda University School of Dentistry, Doctorate Dental Surgery, 2001
University of Alabama Birmingham, OMS Certificate Internship, 2002
University of Alabama Birmingham, Medical Doctorate, 2004
Certificate, University of Alabama Birmingham, Internship General Surgery, 2005
Certificate, University of Alabama Birmingham, Oral Maxillofacial Surgery, 2007

L

Gregory Scott Lee
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BA, UOP Stockton, Stockton California, 1984
DDS, UOP School of Dentistry, 1987
Certificate, UOP Highland General Hospital, 1997

M

Nima Massoomi
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, St. Lawrence University, Cum Laude, Canton, New York, Bio/Chemistry, 1994
DMD, University of Pennsylvania School of Dental Medicine, Dental Medicine, 2001
Med, University of Pennsylvania Graduate School of Education, Masters of Education, 2001
Internship, Vandervilt University Medical Center, Nashville, TN, General Surgery, 2005
MD, Vanderbilt University School of Medicine, Nashville, TN, Medicine, 2007
Residency, Vanderbilt University, Nashville, TN, Oral Maxillofacial Surgery, 2007
Fellowship, T. Williams Evans Fellowship Columbus, Ohio, Facial Cosmetics Surgery, 2008

N

Yuko Christine Nakamura
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, Duke University Trinity College, Durham, NC, Major: Cell Molecular Biology, Minor: Chemistry, 1999
DMD, Case Western Reserve University School of Dental Medicine, Cleveland, OH, Doctor of Medical Dentistry, 2004
MD, Columbia University College of Physicians Surgeons, NY, Doctor of Medicine, 2007
Columbia University Medical Center, New York, NY, General Surgery Internship, 2008
Columbia University Medical Center, New York, NY, Oral Maxillofacial Surgery Certificate, 2010

Ned Leonard Nix
Adjunct Associate Professor of Oral and Maxillofacial Surgery
BS, University of California, Davis, Agricultural and Managerial Economics, 1986
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, Dentistry, 1995
Certificate, General Practice Residency, St. Luke's Roosevelt Hospital Center, 1996
Certificate, Oral and Maxillofacial Surgery, St. Luke's Roosevelt Hospital Center, 2000
MA, University of the Pacific, Gladys Benerd School of Education, Dental Education, 2015

P

Dhaval Patel
Adjunct Assistant Professor of Oral and Maxillofacial Surgery

BDS, Govt Dental College, India, Dental Studies, 2005
DDS, University of Buffalo, General Dentistry, 2009
University of Texas Health Science Center, Implants, bone augmentation, 2010
Other, University of Buffalo, Oral and Maxillofacial Surgery, 2014
Other, University at Buffalo, Oral and Maxillofacial Surgery, 2016

R

Terry Rust
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, University of Oregon, 1962
DDS, St. Louis University Dental School, Dentistry, 1967
County Hospital NY Intern, 1968
North Welling Hospital, 1969
NYU Post Grad Oral Surgery, Oral Surgery, 1970

S

Roger W. Sachs
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, Parsons College, Biology, 1964
MS, Northeastern University, Physiology, 1966
DMD, Temple University, Dentistry, 1970
Beth Israel Hospital, OMFS, 1971
Lincoln Hospital, Albert Einstein College of Medicine, Oral Maxillofacial Surgery, 1974

Alireza Michael Sodeifi
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
DMD, Harvard School of Dental Medicine, Dentistry, 1997
Vanderbilt University Medical Center, Intern, Oral Surgery, 1998
Vanderbilt University Medical Center, Resident, General Surgery, 2001
Vanderbilt University Medical Center, Resident, Oral Surgery, 2002
Vanderbilt University Medical Center, Chief Resident, Oral Surgery, 2003
MD, Vanderbilt University School of Medicine, Dentistry, 2007

Brett Sterling
Adjunct Instructor of Oral and Maxillofacial Surgery
New York University College of Dentistry

U

Suzin Um
Adjunct Assistant Professor of Oral and Maxillofacial Surgery
BS, Smith College Northampton MA, Economics, 2007
DDS, University of California LA, DDS, 2011
Montefiore Medical Center NY, 2015

Course Descriptions

Predoctoral Courses

OS 139. Preclinical Multidisciplinary Surgery. 1 Unit.
Study of the principles of mucoperiosteal flap design, biopsy techniques, suturing, use of flaps, bone removal, and tooth sectioning for exodontia; apicoectomy in endodontic surgery and osseous surgery. Soft tissue grafting in periodontics will also be demonstrated. (7.5 hours lecture, 4 hours laboratory. Quarter 4.).

OS 239. Clinical Oral and Maxillofacial Surgery I. 1 Unit.
Oral and maxillofacial surgical treatment planning and treatment including routine exodontia, incision and drainage, biopsy, mucoperiosteal flap design, sectioning of teeth, and bone removal; utilizing accepted procedures for asepsis; and patient preparation, positioning, and management including obtaining patients' informed consent and proper consideration for medically compromised patients. The student learns to assume responsibility for recognizing limitations of their competence and to refer patients who need more complex surgical treatment to a specialist. (Quarters 5-8.).

OS 339. Clinical Oral and Maxillofacial Surgery II. 2 Units.
Oral and maxillofacial surgical treatment planning and treatment including routine exodontia, incision and drainage, biopsy, mucoperiosteal flap design, sectioning of teeth, and bone removal; utilizing accepted procedures for asepsis; and patient preparation, positioning, and management including obtaining patients' informed consent and proper consideration for medically compromised patients. The student learns to assume responsibility for recognizing limitations of their competence and to refer patients who need more complex surgical treatment to a specialist. (Quarters 9-12.).

Graduate Courses

OS 434. Implant Seminar I. 4 Units.
In this implant treatment-planning seminar, endodontics residents discuss case presentations and treatment planning options. The focus will be on evidence-based treatment options. (Quarters 1-4.).

OS 439. Advanced Oral Surgery and Implantology I. 3 Units.
This hands-on course provides endodontics residents the foundational and practical knowledge of treatment planning and placement. (Quarters 3-4.).

OS 534. Implant Seminar II. 4 Units.
In this implant treatment-planning seminar, endodontics residents discuss case presentations and treatment planning options. The focus will be on evidence-based treatment options. (Quarters 5-8.).

OS 634. Implant Seminar III. 1 Unit.
In this Implant treatment-planning seminar, endodontics residents discuss case presentations and treatment planning options. The focus will be on evidence-based treatment options. (Quarter 9.).

Orthodontics (OR)

Department Chairperson

Robert L. Boyd
Professor of Orthodontics

Program Director

HeeSoo Oh
Professor of Orthodontics

Clinical Director

M. Gabrielle Thodas
Assistant Professor of Orthodontics

Director of the Pre-doctoral Program

Mohamed S. Fallah
Associate Professor of Orthodontics

Director of the Craniofacial Research Instrumentation Laboratory (CRIL)

Sheldon Baumrind
Professor of Orthodontics

Associate Director of the Craniofacial Research Instrumentation Laboratory (CRIL)

HeeSoo Oh
Professor of Orthodontics

Director of the Cleft Lip and Palate Prevention Program

Marie Milena Tolarova
Professor of Orthodontics

Faculty

A

Maryse M. Aubert
Associate Professor of Orthodontics
DDS, University Paris V, Dentistry, 1976
University Paris VII, Embryology, 1976
University of the Pacific, Orthodontics, 1980
MA, University of the Pacific, Education, 1994
MA, University of the Pacific, Psychology and Counseling, 1994
University of California, San Francisco, Certificate of Participation - Temporomandibular, 1996

B

Sheldon Baumrind
Professor of Orthodontics
BS, New York University, Chemistry, 1943
DDS, New York University, College of Dentistry, Dentistry, 1947
U. Oregon Dental School, Certificate in Orthodontics, 1966
MS, Oregon Health Sciences University, Cell Biology, 1968

Roger P. Boero
Associate Professor of Orthodontics
Pomona College, 1960
DDS, College of Physicians Surgeons (UOP), Dentistry, 1964
University of the Pacific, Orthodontics, 1975
MSD, University of the Pacific, Orthodontics, 1995

Robert L. Boyd
Professor of Orthodontics
Indiana University, Biology, 1966
DDS, Temple University, Dentistry, 1970
CERT, University of Pennsylvania, Periodontics, 1972

CERT, University of Pennsylvania, Orthodontics, 1974
Med, University of Florida, Dental Education, 1981

F

Mohamed S. Fallah
Associate Professor of Orthodontics
BSD, University of London, UK, Dental Surgery, 1969
University of Pittsburgh, Certificate - Clinical Intership, 1974
MSD, University of Pittsburgh, Dental Science, 1976
University of Pittsburgh, Certificate - Orthodontics, 1976

H

David C. Hatcher
Associate Professor of Orthodontics
BA, Central Washington State College (1969), Biology
Columbia Basin Comm. College, Pasco, Washington (1967), Biology
DDS, University of Washington, Seattle (1973), Dentistry
M.R.C.D., University of Toronto, Ontario Canada (1983), Oral Radiology
M.Sc., University of Toronto, Ontario Canada (1983), Oral Radiology
University of Vermont Medical Center (1976), General Practice Residency
University of Washington, Seattle (1965), Biology
University of Washington, Seattle (1968), Biology
Western Washington State College (1969), Biology

K

Katherine Kieu
Instructor of Orthodontics
BS, University of California, Los Angeles, Biology, 2005
DDS, University of California, San Francisco, Dentistry, 2009
MSD, University of the Pacific, Orthodontics, 2012

M

Kimberly A Mahood
Assistant Professor of Orthodontics
BS, University of Louisville, Biology, 2000
DMD, University of Kentucky College of Dentistry, Dentistry, 2004
University of Kentucky College of Dentistry, Oral and Maxillofacial Surgery, 2005
University of the Pacific Arthur A. Dugoni School of Dentistry, Advanced General Dentistry, 2007
MSD, University of the Pacific Arthur A. Dugoni School of Dentistry, Orthodontics, 2010

O

HeeSoo Oh
Professor of Orthodontics
DDS, Chonnam National University School of Dentistry, Korea, Dentistry, 1989
Chonnam National University Hospital, Korea, Pediatric Dentistry, 1992
MS, Chonnam National University, School of Dentistry, Korea, Pediatric Dentistry, 1992
PhD, Chonnam National University, School of Dentistry, Korea, Oral Biology, 1999
University of the Pacific, School of Dentistry, Graduate Residency Program - AEGD, 2001
MSD, University of the Pacific, Arthur A. Dugoni, School of Dentistry, Orthodontics, 2005

P

Joorok Park
Assistant Professor of Orthodontics
BA, University of California, Berkeley, Molecular and Cell Biology, 2001
DMD, University of Pennsylvania, School of Dental Medicine, Dental Medicine, 2006
MSD, University of the Pacific, Arthur A. Dugoni School of Dentistry, Certificate, Orthodontics, 2008

T

M. Gabrielle Thodas
Assistant Professor of Orthodontics

BS, Oregon State University, Biology, 1972
DDS, University of the Pacific, General Dentistry, 1977
MSD, University of the Pacific, Orthodontics, 1995

Miroslav Tolar
Associate Professor of Orthodontics
MD, Charles University School of Medicine, 1965
PhD, Czechoslovak Academy of Sciences Charles University School of Medicine, Postgraduate Program in Physiology, 1970
University of California in San Francisco, Postgraduate course in biostatistics biomodeling, 1993

Marie Milena Tolarova
Professor of Orthodontics
Gymnasium, Tabor, Czechoslovakia, College education, 1959
MD, Charles University School of Medicine, Medicine, 1965
PhD, Czechoslovak Academy of Sciences Charles University School of Medicine, Prague, Czechoslovakia, Human Genetics, 1979
Board Cert, Postgraduate Medical Institute, Prague, Czechoslovakia, Medical Genetics, Board Certificate, 1985
Board Cert, Postgraduate Medical Institute, Prague, Czechoslovakia, Pediatrics, Board Certificate, 1985
DSc, Czechoslovak Academy of Sciences, Prague, Czechoslovakia, Medical Genetics, 1986

Walied Touni
Instructor of Orthodontics
Faculty of Sciences, Cairo, Egypt, Preliminary Natural Sciences (certificate), 1990
BDS, CAIRO University, Cairo, Egypt, Dentistry, 1994
Cairo University, Egypt, General Practice Residency, 1995
Cairo University, Egypt, prosthodontics, 1998
MSD, University of the Pacific, Arthur A. Dugoni School of Dentistry, orthodontics, 2012

V

Armin Vahidnia
Assistant Professor of Orthodontics
BA, University of California, Berkeley, Molecular Cell Biology (Neurobiology, 2007
DDS, University of the Pacific, dentistry, 2012
Ohio State University, Orthodontic Internship, 2014
MSD, University of the Pacific, orthodontics, 2016

Maureen Ann Valley
Associate Professor of Orthodontics
BA, University of California, Biology (High Honors), 1987
DMD, Harvard School of Dental Medicine, Dentistry (Cum Laude, 1992
MPH, Harvard School of Public Health, Public Management and Community Health, 1992
MS, Northwestern University Dental School, Orthodontics, 1997

Y

Jennifer Yau
Instructor of Orthodontics
BS, University of the Pacific, Biology, 2009
DDS, University of California, Los Angeles, Doctor of Dental Surgery,, 2013
MSD, University of the Pacific, Arthur A. Dugoni School of Dentistry, Certificate in Orthodontics, 2015

Adjunct Faculty

A

Arash Abolfazlian
Adjunct Assistant Professor of Orthodontics
BS, California Polytechnic State University, San Luis Obispo, Industrial Technology and Biology, 2007
DDS, University of the Pacific, Dentistry, 2011
MSD, University of the Pacific, Orthodontics, 2013

Tarek Abousheta
Adjunct Instructor of Orthodontics
BDS, University of Alexandria, Faculty of Dentistry, Dentistry, 2004
University of Kentucky College of Dentistry, Orofacial pain shadowing program, 2009
DDS, University of Southern California, Dentistry, 2012
University of the Pacific Arthur A. Dugoni School of Dentistry, Craniofacial Molecular Genetics Research Fellowship, 2013

MSD, University of the Pacific Arthur A. Dugoni School of Dentistry, Orthodontics, 2016

Hesham Amer
Adjunct Assistant Professor of Orthodontics
BDS, Cairo University (Cairo, Egypt), General Dentistry, 1995
MS, University of the Pacific School of Dentistry, Orthodontics, 2001

Christopher Anderson
Adjunct Assistant Professor of Orthodontics
BS, Santa Clara University, Biology, 2001
DDS, University of the Pacific, Dentistry, 2004
MSD, University of the Pacific, Orthodontics, 2006

B

Marta Parisek Baird
Adjunct Assistant Professor of Orthodontics
BS, University of the Pacific, Biology, 2005
DDS, University of the Pacific, Dentistry, 2008
Western Regional Board Exam, successfully completed, 2008
MSD, University of the Pacific, Orthodontics, 2011
American Board of Orthodontics, Diplomate, 2012

Thomas Reed Bales
Adjunct Assistant Professor of Orthodontics
University of California Davis, 1971
DDS, University of the Pacific, School of Dentistry, Dental, 1974
Certificate, UCLA, Orthodontics, 1976

Matthew K Bruner
Adjunct Assistant Professor of Orthodontics
Interlake High School, 1990
BS, Pacific Lutheran University, Biology, 1994
DDS, Loma Linda University School of Dentistry, Dentistry, 1998
Army, Flight Surgeon Primary Course, 2000
MS, University of Louisville, Orthodontics, 2004

C

Sean K. Carlson
Adjunct Assistant Professor of Orthodontics
BA, University of California, Santa Barbara, Biology, 1989
DMD, Harvard School of Dental Medicine, Dentistry, 1994
MS, University of California, San Francisco, Oral Biology, 1998
University of California, San Francisco, Orthodontics Certificate, 1998

Thad Champlin
Adjunct Associate Professor of Orthodontics
AA, Santa Monica College, Pre-Dent, 1963
BS, Cal State University Long Beach, Zoology (Pre-Dent), 1965
DDS, USC, Dentistry, 1969
MSD, University of the Pacific, Orthodontics, 1984

Vanessa Chong
Adjunct Instructor of Orthodontics
Other, Appleby College, 2006
Other, University of Western Ontario, Honours Pathology and Toxicology Program, 2009
DDS, University of Toronto, Doctor of Dental Surgery (awarded with honours), 2013

Lani Chun
Adjunct Assistant Professor of Orthodontics
BS, University of Utah, Major: Sociology Minor: Chemistry, 1994
DDS, New York University College of Dentistry, Doctor of Dental Surgery, 1999
Bronx Lebanon Hospital Center, Hospital Based General Practice, 2000
MSD, University of the Pacific, Orthodontics, 2008

Ronald Chung

Adjunct Instructor of Orthodontics
BA, University of California, Irvine, Cognitive Psychology, 2007
DDS, Ostrow School of Dentistry of University of Southern California, Dentistry, 2014
MSD, University of the Pacific Arthur A. Dugoni School of Dentistry, Orthodontics, 2016

Sarah Chung
Adjunct Assistant Professor of Orthodontics
BS, University of the Pacific, Biological Sciences, 2003
DDS, University of California San Francisco, dental, 2007
MSD, University of the Pacific, orthodontics, 2012

William A Cole
Adjunct Associate Professor of Orthodontics
BA, Washington and Jefferson College, Biology, 1981
DMD, New Jersey Dental School, Dental, 1983
Cert, University of California, San Francisco, Orthodontics, 1986

D

Sam W. Daher
Adjunct Assistant Professor of Orthodontics
DCS, Vanier College, Health Sciences, 1988
McGill University, Pre-Dentistry, 1990
DDS, McGill University, Dentistry, 1994
MS, Universite de Montreal, Orthodontics, 2006

Bill Dischinger
Adjunct Assistant Professor of Orthodontics
Lake Oswego High School, 1990
BS, Oregon State University, Pre Dental, 1994
DMD, Oregon Health Sciences University, Dentistry, 1997
Tufts University, Certificate in Orthodontics, 1999

Steven A. Dugoni
Adjunct Professor of Orthodontics
DMD, Tufts University, 1979
MSD, University of the Pacific, 1981

F

Daniel Frey
Adjunct Instructor of Orthodontics
Gettysburg College, Focus in Biology, 2006
University of Pittsburgh, Focus in Biology, Pre-Dental Concentration, 2009
DMD, Temple University - Kornberg School of Dentistry, Dentistry, 2013

Stuart Lund Frost
Adjunct Assistant Professor of Orthodontics
Eastman School of Dentistry, Certificate in TMJD, 1988
Arizona State University, 1989
Mesa Community College, 1989
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 1992
University of Rochester, Eastman Dental Center, Certificate in Orthodontics, 2000

Robert W Fry
Adjunct Associate Professor of Orthodontics
DDS, U of Missouri Kansas City, 1973
MS, Univ of North Carolina, Orthodontics, 1977

G

Garry G Gast
Adjunct Assistant Professor of Orthodontics
BS, Oregon State Univ., 1967
San Francisco State, 1968
DDS, University Of Detroit, 1972

Cert., Univ. of Calif. San Francisco, Orthodontics, 1977

John P. Gibbs
Adjunct Associate Professor of Orthodontics
BS, University of Nebraska, Nebraska, 1954
DDS, University of Nebraska Medical Center, Nebraska, Doctor of Dental Surgery, 1956
Other, University of Nebraska, Nebraska, Orthodontics, 1960

Cheryl Guerrero
Adjunct Instructor of Orthodontics
BS, Cal Poly, San Luis Obispo, Business Administration, 2003
DDS, UC San Francisco, Dentistry, 2013

H

Robert S. Haeger
Adjunct Instructor of Orthodontics
University of Michigan, 1983
MS, University of Illinois At Chicago, Orthodontics, 1989
DDS, University of Michigan, Dental, 2011

Stephen J. Hannon
Adjunct Assistant Professor of Orthodontics
BS, Washington Lee University, Chemistry, 1971
DDS, Georgetown University, Dentistry, 1975
MS, West Virginia University, Orthodontics, 1978

Harry H. Hatasaka
Adjunct Assistant Professor of Orthodontics
University of Colorado, 1947
DDS, Northwestern University, 1954
U.S. Public Health Service Hospital, 1955
MSD, University of Washington, 1960

Hyeon-Shik Hwang
Adjunct Associate Professor of Orthodontics
Other, Yonsei University, Pre-Dentistry, 1979
DDS, Yonsei University, Dentistry, 1983
MSD, Yonsei University, Orthodontics, 1989
PhD, Yonsei University, Orthodontics, 1992

K

Ehsan Karimian
Adjunct Assistant Professor of Orthodontics
DDS, Shahid Beheshti School of Dentistry, Dentistry, 2002
MS, Tehran University School of Dentistry, Orthodontics, 2008
UCLA, Advanced Implantology, 2008
DDS, UCSF School of Dentistry, Dentistry, 2011
MS, University of the Pacific Arthur A. Dugoni School of Dentistry, Orthodontics, 2013

Paul M Kasrovi
Adjunct Professor of Orthodontics
BS, University of Southern Cal (USC), Biomedical Engineering, 1984
MS, University of Pennsylvania, Electrical Engineering, 1986
DDS, UCSF, Dental Sciences, 1992
MS, UCSF, orthodontics, oral biology, 1995

Rebecca B Keller
Adjunct Assistant Professor of Orthodontics
Livermore High School, High School Diploma, 1993
University of Southern California, 1995
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, dentistry, 1998
Certificate, Harvard - Wide General Practice Residency, Hospital Based General Practice Residency, 1999
BA, University of the Pacific, Applied Sciences (awarded in 2000), 2000
Certificate, University of the Pacific Arthur A. Dugoni School of Dentistry, orthodontics, 2003

MSD, University of the Pacific Arthur A. Dugoni School of Dentistry, orthodontics, 2003

Lauri Kim
Adjunct Instructor of Orthodontics
BS, University of California, Berkeley, Nutritional Sciences, 2008
DDS, University of California, Los Angeles School of Dentistry, Dentistry, 2014
MSD, University of the Pacific Arthur A. Dugoni School of Dentistry, Orthodontics, 2016

L

Jetson Scott Lee
Adjunct Associate Professor of Orthodontics
AB, University of California, Berkeley, CA, Biological Sciences
DDS, University of the Pacific, School of Dentistry, Dentistry
MSD, University of the Pacific, School of Dentistry, Orthodontics

Victor S. Lee
Adjunct Instructor of Orthodontics
Beijing University, completed two courses of Chinese (Mandarin) Langua, 2002
BS, University of California, Davis, Neurology, Physiology and Behavior: Exercise Biol, 2007
Kyoto Seika University, completed three courses of Japanese Language, 2007
DDS, University of California, Los Angeles School of Dentistry, Dentistry, 2011
MSD, University of the Pacific, Orthodontics, 2013

Donald W. Linck II
Adjunct Assistant Professor of Orthodontics
DDS, University of California School, San Francisco, 1963
Columbia University, Orthodontics, 1965

M

Justin Maccaro
Adjunct Instructor of Orthodontics
BS, Boston College, Biology, Chemistry, 2009
DMD, Harvard School of Dental Medicine, DMD, 2013

Laura Mancini
Adjunct Instructor of Orthodontics
Other, McGill University, Pre Dental in Health Science, 2009
DMD, McGill University, Dentistry, 2013
MSD, University of the Pacific, Arthur A. Dugoni School of Dentistry, Orthodontics, 2015

Cameron K. Mashouf
Adjunct Associate Professor of Orthodontics
DDS, University of Tehran, Dentistry, 1967
University of California, Berkeley, Physiology, 1970
Loyola University, Chicago, Certificate in Orthodontics, 1972

Laurie McCullough
Adjunct Instructor of Orthodontics
Diablo Valley College, 2005
University of Queensland, Australia, year-long undergraduate study abroad program, 2006
BS, University of California, Davis, biological sciences, 2007
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, dentistry, 2011
University of Florida, orthodontic internship, 2012
MSD, University of the Pacific, Arthur A. Dugoni School of Dentistry, orthodontics, 2014

Setareh Mozafari
Adjunct Assistant Professor of Orthodontics
DDS, Azad University, School of Dentistry, Dental, 2001
DDS, University of Southern California, School of Dentistry, Dental, 2005
University of Rochester, Eastman Dental Center, Orthodontics and Dentofacial Orthopedics, 2007

P

Cheol-Ho Paik
Adjunct Associate Professor of Orthodontics

DDS, Seoul National University, Dental College, Dentistry, 1983
PhD, Tsurumi University, Dental School, Orthodontics, 1990

Sheetal Patil
Adjunct Assistant Professor of Orthodontics
College of Engineering, Electrical Engineering, 1990
BDS, Govt. of Dental College Hospital, Dentistry, 1996

Thomas R. Pitts
Adjunct Associate Professor of Orthodontics
DDS, Univeristy of the Pacific, 1965
MSD, Univeristy of Washington, 1970
Univeristy of Washington, Certificate, 1970

John M. Pobanz
Adjunct Assistant Professor of Orthodontics
Utah State University, Predental Studies
Weber State University, Predental Studies
DDS, University of Nebraska College of Dentistry, dental, 1996
MS, University of Nebraska College of Dentistry, orthodontics, 1998

Jesse Punch
Adjunct Instructor of Orthodontics
BSc, University of Massachusetts Amherst, Biology, 2009
DMD, Tufts University School of Dental Medicine, Dentistry, 2013
MSD, University of the Pacific, MS in dentistry, 2015

R

Sarah Rashid
Adjunct Assistant Professor of Orthodontics
BDS, Kings College London, Dentistry, 1993
Royal College of Surgeons of England, Orthodontics Pediatric Dentistry, 1996
MSc, University of London, Orthodontics, 2001
Royal College of Surgeons of England, Orthodontics, 2002

Shikha Rathi
Adjunct Assistant Professor of Orthodontics
BDS, D.Y. Patil College of Dentistry, general dentistry, 2004
D.Y. Patil Dental College and Hospital, General Dentistry Internship, 2005
Preceptors, University of Texas HSC San Antonio, Oral and Maxillofacial Radiology, 2007
Certificate, University of Texas Health Science Center San Antonio, Oral and maxillofacial Radiology, 2010
MS, University of Texas Health Science Center San Antonio, Oral and Maxillofacial Radiology, 2011

W. Ron Redmond
Adjunct Associate Professor of Orthodontics
BA, U C Riverside, Zoology, 1962
DDS, University of the Pacific, Dentistry, 1966
MS, University of Southern California, Orthodontics, 1970

Michael R. Ricupito
Adjunct Associate Professor of Orthodontics
BA, San Jose State University, Biological Science, Psychology minor, 1980
DDS, University of the Pacific School of Dentistry, Dentistry, 1983
MS, University of California at Los Angeles School of Dentistry, Oral Biology, 1987
University of California at Los Angeles School of Dentistry, Certificate in Orthodontics, 1987

Straty S. Righellis
Adjunct Associate Professor of Orthodontics
DDS, University of California, Los Angeles, 1971
MSD, University of California, Los Angeles, 1973

Charlene Rocha
Adjunct Instructor of Orthodontics
AA, Chabot College, Hayward California, liberal arts, 2006
BS, University of California, San Diego, biology, 2008

DDS, University of California, San Francisco School of Dentistry, dentistry, 2012
MSD, University of the Pacific, Arthur A. Dugoni School of Dentistry, orthodontics, 2014

Bert D. Rouleau
Adjunct Assistant Professor of Orthodontics
BS, University of Vermont, Zoology, Botany, 1975
DMD, Tufts University, Dentistry, 1978
MS, Northwestern University, Pediatric Dentistry, 1980
MSD, University of the Pacific, Orthodontics, 1982

Bertrand Aaron Rouleau
Adjunct Instructor of Orthodontics
Tufts University, 2003
BA, University of San Diego, Psychology, 2007
Other, University of San Francisco, Biological Sciences, 2007
DDS, University of the Pacific, Dentistry, 2011

S

Trevan Samp
Adjunct Instructor of Orthodontics
AB, Brown University, Biology, 2010
DMD, University of Pennsylvania School of Dental Medicine, dentistry, 2014
MSD, University of the Pacific Arthur A. Dugoni School of Dentistry, orthodontics, 2016

L. William Schmohl
Adjunct Assistant Professor of Orthodontics
BS, University of California Berkeley, Business Admin, 1966
U.S. Naval Hospital, Oakland, CA, Externship, 1969
DDS, University of California San Francisco, Dentistry, 1970
MS, Case Western Reserve University, Orthodontics, 1974

Kenneth Shimizu
Adjunct Assistant Professor of Orthodontics
BS, University of California, Berkeley, Biology, 1980
DDS, University of the Pacific, Dentistry, 1985
MSD, University of the Pacific, Orthodontics, 1987

V

Adrian M. Vogt
Adjunct Assistant Professor of Orthodontics
BS, University of Western Ontario, Pharmacology Toxicology, 1988
DDS, University of the Pacific School of Dentistry, General Dentistry, 1992
MSD, University of the Pacific School of Dentistry, Orthodontics, 1994
University of the Pacific School of Dentistry, Certificate in Orthodontics, 1994

Shana Vohra
Adjunct Instructor of Orthodontics
BS, University of the Pacific, Biological Sciences, 2011
cert, University of the Pacific, Invisalign Certification, 2013
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2014
MSD, University of the Pacific Arthur A. Dugoni School of Dentistry, Orthodontics, 2016

W

Eric C. Wu
Adjunct Assistant Professor of Orthodontics
BS, Revelle College, University of California San Diego, Biochemistry/Cell Biology, 1995
DMD, University of Pennsylvania, School of Dental Medicine, 2000
University of California Los Angeles, Advanced Education in General Dentistry, 2001
Katz Graduate School of Business, University of Pittsburgh, MBA Certificate program, 2004
University of Pittsburgh, Orthodontics and Dentofacial Orthopedics, 2005

Course Descriptions

Predoctoral Courses

OR 144. Human Growth and Development. 1 Unit.
Study of the basic mechanisms of human growth and development with emphasis on craniofacial development. Study of the development of the dentition and occlusion and introduction to malocclusion and its classification. (10 hours lecture. Quarter 3.).

OR 244. Orthodontics. 2 Units.
An introduction to orthodontic diagnostic procedures, comprehensive treatment planning, and various treatment modalities as applied to a full range of malocclusions in a general dental practice. A strong emphasis is placed on the use of the Invisalign appliance and its application in general practice. Other orthodontic appliances covered will be the functional appliance as it relates to early orthodontic treatment and the edgewise appliance in full comprehensive cases. Orthognathic surgical cases and use of microimplants for anchorage will also be reviewed. (20 hours lecture. Quarters 4-5.).

OR 249. Preclinical Orthodontics. 1 Unit.
This preclinical course introduces students to various removable and fixed appliances with primary focus on their application for minor orthodontic movement. Laboratory instruction addresses such areas as fabrication of removable and fixed appliances, cementation of bands, bonding of brackets and placement of arch wires. Lateral head films are traced, measured, analyzed, and discussed with regard to norms and growth patterns. The course also introduces students to 3-D computer technology for the manufacturing of the Invisalign system appliance and the use of this appliance in general practice. Emphasis is placed on critical self-evaluation skills. (12 hours seminar. Quarter 8.).

OR 348. Applied Orthodontics. 1 Unit.
A study of standard orthodontic records and their application to diagnosis, treatment planning, and treatment evaluation in the mixed and permanent dentitions. Students will present cases incorporating digital records, cephalometric analysis, photographs, to explain diagnostic, treatment planning, and treatment procedures. (12 hours seminar, 6 hours graduate orthodontic clinic. Quarters 9-10.).

Graduate Courses

OR 401. Cephalometrics. 4 Units.
The purpose of the course is to introduce students to the use of cephalometric radiographs in clinical orthodontics. In addition to understanding basic principles and the historical signficance of cephalometry, students will learn how to interpret various cephalometric analyses that are most commonly used in diagnosis and treatment planning. At the end of this course, students should also be able to perform various methods of superimposition in order to identify and understand changes that occurred during growth and treatment between different lateral cephalometric radiographs. (Quarters 1-2.).

OR 402. Facial Growth. 4 Units.
The purpose of the course is to provide students with scientific literature that supports current knowledge and understanding of basic biological principles on craniofacial growth and development. This course focuses on the basic mechanisms of postnatal growth of the cranium, nasomaxillary complex and mandible, and the clinical application of facial growth principles. (Quarters 3-4.).

OR 403. Critical Thinking - Research Design. 3 Units.
The purpose of the course is to provide students with foundational knowledge on scientific methods, while also honing an ability to critically evaluate the literature and to design a sound research project. (Quarters 2-4.).

OR 404. Research Practicum and Thesis I. 4 Units.
This is an independent research course. Under the guidance of research mentors, students develop research questions, formulate hypotheses and write a formal research proposal that includes a full literature review, statement of material and methods, execution of the research, and appropriate analysis and interpretation of data. This course is designed to enable successful completion of the MS thesis. (Quarters 1-4.).

OR 410. Biomechanics. 7 Units.
The purpose of the course is to introduce fundamental concepts for understanding the laws of mechanics and biological responses to force systems used in orthodontic appliances. This is a seminar-based course designed to teach first year residents the basic principles of biomechanics and theories related to planning and designing orthodontic force systems. Students will be expected to read and understand background material in assigned articles & textbooks for seminar discussions. (Quarters 1-4.).

OR 411. Craniofacial Biology & Genetics - Genetics in Orthodontics. 6 Units.
In about sixty percent of dental conditions and diseases, genetics plays an important – and sometimes the major – role in etiology. As orthodontics is focusing on treatment of malocclusions and dentofacial deformities, in etiology of which genetics is almost always in the background, it is important for an orthodontist to understand why or how a malocclusion occurs, how it reacts to a treatment plan, to what extent it may be expressed in the next generation, and - last but not least - if it can be prevented. The concepts of heredity and genetics in orthodontics are covered in this course starting with historical Orthodontia Era (1900-1930), through Hereditary vs Environment Era (1930-1970) and Heritability Era (1970-2000) to the present time Orthodontic Genomic Era. Nowadays, genetics is a backbone of personalized medicine and also of personalized orthodontics. Patient's treatment outcome may be affected by combinations of specific gene mutations not only in orofacial clefts, craniofacial anomalies and malocclusions, but also in external apical root resorption, mandibular morphology, tooth size, hypodontia, and other conditions. Understanding of basic genetic and translational research concepts is needed for precision orthodontics and for utilization of modern genomic information for improved treatment of malocclusions and dentofacial deformities. (Quarters 2-3.).

OR 412. Cleft Lip & Palate/Craniofacial Anomalies - Orofacial Clefts and Abnormal Craniofacial Development. 2 Units.
This course provides information needed for understanding of concepts related to disturbed and compromised craniofacial growth. It forms a necessary background that makes possible to distinguish and diagnose craniofacial abnormalities. Principles of developmental craniofacial biology and craniofacial embryology are reviewed and continuously updated with new findings and discoveries. Particular emphasis is given to molecular regulation of craniofacial morphogenesis, abnormal neural crest formation (leading to Treacher Collins syndrome, Pierre Robin sequence, DiGeorge sequence, and Hemifacial Microsomia), and molecular regulation of skeletal morphogenesis and disorders comprising the FGFR-related craniosynostosis spectrum (Apert, Crouzon, Pfeiffer, Muenke, Jackson-Weiss, and Beare-Stevenson syndromes). In order to build a solid foundation for the clinical dental treatment and, specifically, for orthodontic treatment of orofacial clefts (cleft lip, cleft and palate and cleft palate only) – complex etiology of these anomalies, that is influenced by a genetic background and environmental factors, is explained. Points of origin and importance of precise diagnosis of nonsyndromic and syndromic cases are emphasized. (Quarter 4.).

OR 414. Introduction to Contemporary Orthodontics. 5 Units.
The purpose of the course is to introduce basic artistic skills in contemporary orthodontics. This is a seminar-based course designed for first year residents to review the basic concepts of photography, direct bonding of fixed appliances, 3D imaging, 3D cephalometric analysis, and digital imaging software (2D and 3D).Students will be expected to read and understand background material in assigned articles for seminar discussions. They are also expected to complete assignments. This course will consist of 17 seminar sessions throughout the first year of residency. (Quarters 1-4.).

OR 420. Bone Biology. 1 Unit.
The purpose of this course is for students to gain an understanding of the general biological activities of bone. This is a seminar-based course designed for first year residents to review basic concepts and theories of bone biology, orthodontic tooth movement, and osseointegration of orthodontic microimplants. Students will be expected to read and understand background material in assigned articles & textbooks for seminar discussions. (Quarter 4.).

OR 421. Current Literature Seminar I. 4 Units.
A review of articles appearing in orthodontic and related journals is presented using a seminar format. (Quarters 1-4.).

OR 422. Anatomy. 1 Unit.
This course provides a detailed review of anatomic structures of the craniofacial region. Lecture topics include osteology of the skull, innervation and blood supply of the face, muscles of facial expression and mastication, and anatomy of the oral cavity. (Quarter 1.).

OR 423. Comprehensive Case Analysis Seminar I. 4 Units.
The seminar highlights the clinical application of various diagnostic procedures and treatment philosophies and the presentation of practical procedures in the management of unusual problems that can arise during the course of treatment. Basic and applied principles of photography and advances in computer technology are integral to this course. During each session, a Comprehensive Case Analysis is presented by the second year residents. All students then participate in discussion about the case. (Quarters 1-4.).

OR 424. Treatment Planning Seminar I. 4 Units.
A case presentation is prepared by the first-year residents to share initial diagnostic records in order to diagnose and treatment plan orthodontic cases. All students then participate in free-format discussion. (Quarters 1-4.).

OR 426. Principles of Orthodontic Technique. 5 Units.
This course is designed to provide basic principles on orthodontic tooth movement and fixed appliances by working on typodonts. (Quarters 1-2.).

OR 430. Surgical-Orthodontic Treatment. 6 Units.
The purpose of this course is to provide the student with fundamental knowledge in orthognathic surgery and its role in the orthodontic treatment of skeletal malocclusions. This seminar-based course covers basic concepts involved in surgical orthodontics, which include: diagnosis and treatment planning, pre-surgical orthodontics, surgical procedures utilized by oral surgeons, and post-surgical orthodontics. In addition, topics such as TMJ disorders, Distraction Osteogenesis, and Obstructive Sleep Apnea are discussed. The goal is for the student to understand these surgical concepts and implement them in the clinical treatment of orthognathic surgery patients. (Quarters 1-4.).

OR 431. Orthognathic Surgery Seminar I. 4 Units.
This course is a joint seminar for the orthodontic and oral surgery residents that is held once a month during the first and second years of the residency program. The Orthognathic Surgery Seminar consists of case presentations by the Orthodontic and Oral and Maxillofacial Surgery faculty and residents. Emphasis is placed on diagnosis, treatment planning, management of pre- & post surgical orthodontic treatment, and understanding of treatment outcome and stability. (Quarters 1-4.).

OR 432. Multidisciplinary Seminar I. 4 Units.
The treatment of patients with complex dental and skeletal orthodontic, periodontal, and restorative problems that requires input from a variety of dental specialties is considered. The teaching format includes case presentations by the residents and open discussions of interdisciplinary topics. (Quarters 1-4.).

OR 433. Retention Seminar I. 1 Unit.
Long-term post-active treatment records provide invaluable material for studying stability of orthodontic treatment outcome. Each of the second year residents is required to present the long-term post retention patient whose active orthodontic treatment was completed at least ten years prior to the resident's year of graduation from the program. Faculty and the first year residents are participated in the discussion after the presentation. (Quarter 4.).

OR 434. Introduction to Invisalign. 1 Unit.
Th purpose of this course is to introduce basic knowledge on clinical applications of Invisalign treatment, while also incorporating the latest treatment protocols. (Quarter 1.).

OR 440. Imaging in Orthodontics, TMJ & Airway Consideration. 4 Units.
Orthodontists have a fundamental interest in facial form, facial growth patterns, occlusion and any pathologic conditions that may alter them. Current three dimensional (3D) imaging techniques avaliable for rutine imaging provide the opportunity to utilize a "systems approach" in order to visualize and evaluate the functional and developmental relationships between proximal craniofacial regions. This course will discuss the use of 3D imaging to evaluate the developmental and functional inter-relationships between TMJ, occlusions, airway, and facial growth. (Quarters 2-3.).

OR 441. Orthodontic Treatment of Craniofacial Anomolies. 3 Units.
Understand and relate embryology, abnormal growth and development and sequelae of surgical repair of craniofacial anomalies to the orthodontic treatment of craniofacial anomalies. (Quarters 2-4.).

OR 456. Clinical Orthodontics I. 30 Units.
Clinical orthodontics includes various appliance systems: edgewise appliance (.018 & .022" slot), TAD, self-ligating brackets, fixed-functional appliance (Herbst, Forsus), and Invisalign for adolescent and adult patients. Clinical experience in treating orthodontic patients with a variety of problems is provided. In addition, various orthopedic appliances, including the headgear, face mask, rapid maxillary expander and other fixed auxillary appliances (LLA, TPA, Wilson distalizer) may be incorporated into specific treatment protocols. Patients are treated in the Graduate Orthodontic Clinic every afternoon Monday-Friday, as well as Thursday nights. (Quarters 1-4.).

OR 457. Mixed Dentition Orthodontics I. 8 Units.
In addition to a didactic portion that focuses on the review of mixed dentition articles and comprehensive case analyses, this course also includes clinical sessions that provide residents with basic knowledge and experience in treating various malocclusions in the mixed dentition stage. This course provides an understanding of facial growth and occlusal development in the mixed dentition, an ability to diagnosis and treatment plan mixed dentition cases, and an ability to evaluate growth changes and treatment outcomes. (Quarters 1-4.).

OR 458. Surgical Orthodontics I. 2 Units.
This course provides clinical experience in analyzing diagnostic records and formulating surgical orthodontic treatment plans for patients with major skeletal and dental disharmonies that require integration of surgical and orthodontic treatment , communication with surgeons, pre-and post- surgical orthodotnic treatment, and evaluation of treatment outcomes. (Quarters 1-4.).

OR 459. Clinical Orthodontics in Craniofacial Anomalies I. 2 Units.
This course combines the orthodontic treatment of patients with craniofacial anomalies in the graduate clinic and attending panels provided by comprehensive Oakland Children's Hospital Craniofacial Anomalies Teams. (Quarters 1-4.).

OR 501. Principles of Orthodontics. 8 Units.
Principles of Orthodontics is a literature-based seminar. Each resident will participate in discussion with emphasis on the critical analysis and evaluation of the scientific methodology in the literature reviewed. Topics include Principles of Orthodontics Introduction, Biomechanics, Facial growth, Retention & Relapse, Functional appliances, Intraoral forces, Mandibular motion & Tooth contact, Maxillo-Mandibular references, and Occlusal treatment objectives. Each seminar will focus on the clinical application of the material. (Quarters 5-8.).

OR 502. Microimplant & Bone Biology I. 6 Units.
The objective of the course is to comprehensively review the factors related to safety and stability of orthodontic microimplants and their clinical application in orthodontic treatment. Students will be expected to read and understand background material in assigned articles for seminar discussions. They will also present their own clinical cases that utilized microimplants. (Quarters 5-6.).

OR 503. Research Design I. 4 Units.
An advanced course for orthodontic graduate students in which the nature of hypothesis testing, the process of clinical decision making, and the statistical methodology to be employed in each student's thesis project is discussed. (Quarters 5-8.).

OR 504. Research Practicum and Thesis II. 4 Units.
This is an independent research course. Under the guidance of research mentors, students develop research questions, formulate hypotheses and write a formal research proposal that includes a full literature review, statement of material and methods, execution of the research, and appropriate analysis and interpretation of data. This course is designed to enable successful completion of the MS thesis. (Quarters 5-8.).

OR 510. Periodontic-Orthodontic Relations. 8 Units.
This course includes the Orthodontic-Restorative-Periodontal Interface: Esthetic & Functional Considerations, Periodontal and Other Benefits of Two Phase vs. Single Phase Orthodontic Treatment, Clinical Considerations of Orthodontic Root Resorption, Periodontal Considerations in the Orthodontic Treatment of Impacted Teeth, Invisalign treatment. Part II Invisalign Treatment: What are the Latest Innovations from Invisalign and Do They make Possible Now the Successful Treatment of Complex Class, I, II, and III Malocclusions? (Quarters 5-8.).

OR 511. Practice Management I. 3 Units.
The goal of the Practice Management Course is to introduce and familiarize the orthodontic residents with a multitude of basic concepts that include human resource management, management systems, marketing, legal aspects of orthodontics, associateships/practice ownership, and customer service. The course includes: 1) guest lectures by orthodontists, orthodontic consultants, and other professionals connected to the specialty of orthodontics, and 2) private practice office visits both in the San Francisco Bay area and out-of-state. (Quarters 6-8.).

OR 512. Preparation for Specialty Examination. 1 Unit.
This course will prepare the 2nd year residents for the American Board of Orthodontics Written Exam. This provides a comprehensive review of basic sciences and clinical concepts in orthodontics. This course will consist of 10 seminar sessions during the Winter and Spring quarters of the 2nd year of residency. (Quarter 7.).

OR 513. TMD & Orthodontics. 1 Unit.
Orthodontic treatment has many ramifications for the stomatognathic system. The temporomandibular joint depends on proper occlusion for health and function. This course requires that the student understand the intricacies of the interrelationship between the occlusion and the TMJ, as well as basic management of TMD symptoms. (Quarter 5.).

OR 521. Current Literature Seminar II. 4 Units.
A review of articles appearing in orthodontic and related journals is presented using a seminar format. (Quarters 5-8.).

OR 523. Comprehensive Case Analysis Seminar II. 4 Units.
The seminar highlights the clinical application of various diagnostic procedures and treatment philosophies and the presentation of practical procedures in the management of unusual problems that can arise during the course of treatment. Basic and applied principles of photography and advances in computer technology are integral to this course. During each session, a Comprehensive Case Analysis is presented by the second year residents. All students then participate in discussion about the case. (Quarters 5-8.).

OR 524. Treatment Planning Seminar II. 4 Units.
A case presentation is prepared by the first-year residents to share initial diagnostic records in order to diagnose and treatment plan orthodontic cases. All students then participate in free-format discussion. (Quarters 5-8.).

OR 531. Orthognathic Surgery Seminar II. 4 Units.
This course is a joint seminar for the orthodontic and oral surgery residents that is held once a month during the first and second years of the residency program. The Orthognathic Surgery Seminar consists of case presentations by the Orthodontic and Oral and Maxillofacial Surgery faculty and residents. Emphasis is placed on diagnosis, treatment planning, management of pre- & post surgical orthodontic treatment, and understanding of treatment outcome and stability. (Quarters 5-8.).

OR 532. Multidisciplinary Seminar II. 4 Units.
The treatment of patients with complex dental and skeletal orthodontic, periodontal, and restorative problems that requires input from a variety of dental specialties is considered. The teaching format includes case presentations by the residents and open discussions of interdisciplinary topics. (Quarters 5-8.).

OR 533. Retention Seminar II. 1 Unit.
Long-term post-active treatment records provide invaluable material for studying stability of orthodontic treatment outcome. Each of the second year residents is required to present the long-term post retention patient whose active orthodontic treatment was completed at least ten years prior to the resident's year of graduation from the program. Faculty and the first year residents are participated in the discussion after the presentation. (Quarter 8.).

OR 556. Clinical Orthodontics II. 40 Units.
Clinical orthodontics includes various appliance systems: edgewise appliance (.018 & .022" slot), TAD, self-ligating brackets, fixed-functional appliance (Herbst, Forsus), and Invisalign for adolescent and adult patients. Clinical experience in treating orthodontic patients with a variety of problems is provided. In addition, various orthopedic appliances, including the headgear, face mask, rapid maxillary expander and other fixed auxillary appliances (LLA, TPA, Wilson distalizer) may be incorporated into specific treatment protocols. Patients are treated in the Graduate Orthodontic Clinic every afternoon Monday-Friday, as well as Thursday nights. (Quarters 5-8.).

OR 557. Mixed Dentition Orthodontics II. 8 Units.
In addition to a didactic portion that focuses on the review of mixed dentition articles and comprehensive case analyses, this course also includes clinical sessions that provide residents with basic knowledge and experience in treating various malocclusions in the mixed dentition stage. This course provides an understanding of facial growth and occlusal development in the mixed dentition, an ability to diagnosis and treatment plan mixed dentition cases, and an ability to evaluate growth changes and treatment outcomes. (Quarters 5-8.).

OR 558. Surgical Orthodontics II. 2 Units.
This course provides clinical experience in analyzing diagnostic records and formulating surgical orthodontic treatment plans for patients with major skeletal and dental disharmonies that require integration of surgical and orthodontic treatment , communication with surgeons, pre-and post- surgical orthodotnic treatment, and evaluation of treatment outcomes. (Quarters 5-8.).

OR 559. Clinical Orthodontics in Craniofacial Anomalies II. 2 Units.
This course combines the orthodontic treatment of patients with craniofacial anomalies in the graduate clinic and attending panels provided by comprehensive KAISER and Oakland Children's Hospital Craniofacial Anomalies Teams. (Quarters 5-8.).

OR 601. Temporomandibular Joint Disorders. 1 Unit.
This course provides an overview of clinical anatomy and mechanics of the TMJ, pathogenesis of degenerative TMD disorders, and various approaches on the management of TMD. (Quarter 9.).

OR 602. Microimplant & Bone Biology II. 1 Unit.
The objective of the course is to comprehensively review the factors related to safety and stability of orthodontic microimplants and their clinical application in orthodontic treatment. Students will be expected to read and understand background material in assigned articles for seminar discussions. They will also present their own clinical cases that utilized microimplants. This course will consist of 16 seminar sessions throughout the second and third year of residency. (Quarter 9.).

OR 603. Research Design II. 1 Unit.
An advanced course for orthodontic graduate students in which the nature of hypothesis testing, the process of clinical decision making, and the statistical methodology to be employed in each student's thesis project is discussed. (Quarter 9.).

OR 604. Research Practicum and Thesis III. 6 Units.
This is an independent research course. Under the guidance of research mentors, students develop research questions, formulate hypotheses and write a formal research proposal that includes a full literature review, statement of material and methods, execution of the research, and appropriate analysis and interpretation of data. This course is designed to enable successful completion of the MS thesis. (Quarter 9.).

OR 611. Practice Management II. 1 Unit.
The goal of the Practice Management Course is to introduce and familiarize the orthodontic residents with a multitude of basic concepts that include human resource management, management systems, marketing, legal aspects of orthodontics, associateships/practice ownership, and customer service. The course includes: 1) guest lectures by orthodontists, orthodontic consultants, and other professionals connected to the specialty of orthodontics, and 2) private practice office visits both in the San Francisco Bay area and out-of-state. (Quarter 9.).

OR 612. Ethics. 1 Unit.
This is an intermediate-advanced course that builds on undergraduate ethics instruction and focuses on issues unique to orthodontic practice. Typical or expectable ethical problems in orthodontics are studied. Reflection and student participation is emphasized in discussions of real-life cases. (Quarter 9.).

OR 613. Orthodontics Speaker Series. 2 Units.
This course includes various topics in orthodontics. (Quarter 9.).

OR 621. Current Literature Seminar III. 1 Unit.
A review of articles appearing in orthodontic and related journals is presented using a seminar format. (Quarter 9.).

OR 623. Comprehensive Case Analysis Seminar III. 1 Unit.
The seminar highlights the clinical application of various diagnostic procedures and treatment philosophies and the presentation of practical procedures in the management of unusual problems that can arise during the course of treatment. Basic and applied principles of photography and advances in computer technology are integral to this course. During each session, a Comprehensive Case Analysis is presented by the second year residents. All students then participate in discussion about the case. (Quarter 9.).

OR 624. Treatment Planning Seminar III. 1 Unit.
A case presentation is prepared by the first-year residents to share initial diagnostic records in order to diagnose and treatment plan orthodontic cases. All students then participate in free-format discussion. (Quarter 9.).

OR 631. Orthognathic Surgery Seminar III. 1 Unit.
This course is a joint seminar for the orthodontic and oral surgery residents that is held once a month during the first and second years of the residency program. The Orthognathic Surgery Seminar consists of case presentations by the Orthodontic and Oral and Maxillofacial Surgery faculty and residents. Emphasis is placed on diagnosis, treatment planning, management of pre- & post surgical orthodontic treatment, and understanding of treatment outcome and stability. (Quarter 9.).

OR 632. Multidisciplinary Seminar III. 1 Unit.
The treatment of patients with complex dental and skeletal orthodontic, periodontal, and restorative problems that requires input from a variety of dental specialties is considered. The teaching format includes case presentations by the residents and open discussions of interdisciplinary topics. (Quarter 9.).

OR 656. Clinical Orthodontics III. 10 Units.
Clinical orthodontics includes various appliance systems: edgewise appliance (.018 & .022" slot), TAD, self-ligating brackets, fixed-functional appliance (Herbst, Forsus), and Invisalign for adolescent and adult patients. Clinical experience in treating orthodontic patients with a variety of problems is provided. In addition, various orthopedic appliances, including the headgear, face mask, rapid maxillary expander and other fixed auxillary appliances (LLA, TPA, Wilson distalizer) may be incorporated into specific treatment protocols. Patients are treated in the Graduate Orthodontic Clinic every afternoon Monday-Friday, as well as Thursday nights. (Quarter 9.).

OR 657. Mixed Dentition Orthodontics III. 2 Units.
In addition to a didactic portion that focuses on the review of mixed dentition articles and comprehensive case analyses, this course also includes clinical sessions that provide residents with basic knowledge and experience in treating various malocclusions in the mixed dentition stage. This course provides an understanding of facial growth and occlusal development in the mixed dentition, an ability to diagnosis and treatment plan mixed dentition cases, and an ability to evaluate growth changes and treatment outcomes. (Quarter 9.).

OR 658. Surgical Orthodontics III. 1 Unit.
This course provides clinical experience in analyzing diagnostic records and formulating surgical orthodontic treatment plans for patients with major skeletal and dental disharmonies that require integration of surgical and orthodontic treatment , communication with surgeons, pre-and post- surgical orthodotnic treatment, and evaluation of treatment outcomes. (Quarter 9.).

OR 659. Clinical Orthodontics in Craniofacial Anomalies III. 1 Unit.
This course combines the orthodontic treatment of patients with craniofacial anomalies in the graduate clinic and attending panels provided by comprehensive KAISER and Oakland Children's Hospital Craniofacial Anomalies Teams. (Quarter 9.).

Pediatric Dentistry (PD)

Department Chairperson

Alfred Jeffrey Wood
Professor of Pediatric Dentistry

Faculty

B

Nicolas Bronzini
Assistant Professor of Pediatric Dentistry
BS, University of California, Davis, Biological Sciences, 2002
DDS, University of the Pacific - School of Dentistry, Dentistry, 2005
University of Southern California, Pediatric Dentistry, 2007

G

Geraldine Gerges Gaid
Assistant Professor of Pediatric Dentistry
Other, College Sainte-Marcelline, Science, 2001
Other, College Jean-de-Brebeuf, Health Sciences, 2003
DMD, Universite de Montreal, Dental Medicine, 2008
Other, McGill University-Montreal Children's Hospital, Multi-disciplinary training program in dentistry, 2009
MA, Horce H. Rackham, School of Graduate Studies, Master's Degree in Pediatric Dentistry, 2013
Other, University of Michigan-School of Dentistry, Certificate in Pediatric Dentistry, 2013

H

Charles W Halterman
Assistant Professor of Pediatric Dentistry
Eastman Dental, Pedo Certificate, 1973
BS, Chico State College, 1976
DDS, University of California, San Francisco, Dentistry, 1980
MA, University of the Pacific, School of Dentistry, 1993

May Hayder
Assistant Professor of Pediatric Dentistry
BA, UC Berkeley, Molecular and Cell Biology, 1999
DDS, UC San Francisco, Dentistry, 2006
Other, University of Southern California, Certificate-Advanced Educ.in General Dentistry, 2007
Other, St. Barnabas Hospital, Certificate Pediatric Dentistry, 2009

L

David W. Lee
Assistant Professor of Pediatric Dentistry
D.D.S., University of the Pacific School of Dentistry, Dentistry, 1988
A.B., University of California at Berkeley, Integrative Biology, 1991

M

Leticia Mendoza-Sobel
Assistant Professor of Pediatric Dentistry
DDS, Escuela Nacional de Estudios Profesionales, Dental Degree, 1981
Universidad Latinoamericana, School of Dentistry, Mexico City, Pediatric Dentistry, 1990
Universidad Latinoamericana, School of Dentistry, Mexico City, Orthodontics, 1992

Stephanie D. Moniz
Assistant Professor of Pediatric Dentistry
BS, Uiniversity of Santa Barbara, Pharmacology, 2006
DDS, University of the Pacific, Dentistry, 2009
Children's Hospital of Wisconsin, Pediatric Dentistry, 2011

P

Robert C. K. Peng

Assistant Professor of Pediatric Dentistry
Santo Domingo Dominican Republic, 1983
BA, Duke University, 1986
DDS, University of California, Los Angeles, School of Dentistry, 1995
University of California, Los Angeles, School of Dentistry, Pediatric Dental Residency, 1998

Nikki Pung-Yamato
Assistant Professor of Pediatric Dentistry
DDS, University of the Pacific, Dentistry, 2009
Interfaith Medical Center, Pediatric Dentistry / Board Certified, 2011

W

Alfred Jeffrey Wood
Professor of Pediatric Dentistry
BS, Virginia Commonwealth University, Biology, 1980
DDS, Medical College of Virginia, Dentistry, 1984
Medical College of Virginia, Pediatric Dentistry, 1987

Adjunct Faculty

C

Alice Chan
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of the Pacific, Biological Science, 2009
DDS, University of the Pacific, Dentistry, 2012
Other, Lutheran Medical Canter SF, AEGD, 2013
Other, Tufts University, Pediatric Dentistry, 2016

D

Jared G Danielson
Adjunct Instructor of Pediatric Dentistry
BS, Brigham Young University, Exercise Physiology, 2001
DDS, University of the Pacific, Dentistry, 2004
CAGS, Boston University, Pediatric Dentistry, 2006

F

Niki Fallah
Adjunct Assistant Professor of Pediatric Dentistry
BA, UC Berkeley, American Studies, 2003
DDS, USC, Dentistry, 2010
MS, UCSF, Oral and Craniofacial Sciences, 2014
Other, UCSF, Pediatric Certificate, 2014

G

Jay T Golinveaux
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of California Berkeley, Science, Resource Economics and Policy, 1996
AB, California State University, Sacramento, General Science, 1997
DDS, University of the Pacific School of Dentistry, General Dentistry, 2008
MS, University of California, San Francisco, Pediatric Dentistry, 2011

K

Aneil Kamboj
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of Pacific, Biology, 2006
DDS, Arthur A. Dugoni School of Dentistry, DDS, 2009
Other, St. Barnabas Hospital, GPR, 2010
Other, St. Barnabas Hospital, Pediatric Dentistry, 2012

Karen Kishiyama
Adjunct Assistant Professor of Pediatric Dentistry

BS, California Institute of Technology, Chemical Engineering, 2002
MS, California Institute of Technology, Materials Science, 2004
DDS, UCSF, Dentistry, 2010
Other, UCSF, Pediatric Dentistry, 2013

L

Charles Leung
Adjunct Assistant Professor of Pediatric Dentistry
New York University
Kings County Hospital Center, General Dentistry, 2011
Maimonides Medical Center, Pediatric Dentistry, 2013

Lerida F. Lipumano-Picazo
Adjunct Assistant Professor of Pediatric Dentistry
University of the Philippines, Pre-Doctoral, 1982
DMD, University of the Philippines, 1986
Boston University School of Graduate Dentistry, Pediatric Dentistry, 1992

M

Ian Marion
Adjunct Assistant Professor of Pediatric Dentistry
BS, UOP Stockton CA, Bachelor of Science in Biological Sciences, 2009
DDS, UOP Dugoni SF, Doctor of Dental Surgery, 2012
MS, University of Washington School of Dentistry, Master of Science in Dentistry, 2015

Malay Mathur
Adjunct Assistant Professor of Pediatric Dentistry
BDS, University of Rajasthan, Udaipur, India, Dental Surgery, 2007
MS, New York University, Biology, 2011
DDS, University of California, San Francisco, Dental Surgery, 2013
Other, New York University, Advanced Certificate in Pediatric Dentistry, 2015

Eric Charles McMahon
Adjunct Assistant Professor of Pediatric Dentistry
BS, UC Davis, Genetics, 2001
DDS, University of the Pacific, Dentistry, 2005
DDS, Harvard Dental, Specialty Certificate, 2007

Simon P. Morris
Adjunct Assistant Professor of Pediatric Dentistry
BS, Harvey Mudd College, 1993
DDS, University of the Pacific, 1996
University of Southern California, Certificate of Specialization, 1998

N

John A Neves
Adjunct Assistant Professor of Pediatric Dentistry
Georg-August Universitaet, Education Abroad Program, 1997
BS, University of California, Major: Biology Minors: German Music, 1998
DMD, Nova Southeastern University, Doctor of Dental Medicine, 2004
Nova Southeastern University/Miami Children's Hospital, Certificate in Pediatric Dentistry, 2006

Scott Ngai
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of California, Berkeley, Molecular Cell Biology/Public Health, 2007
DDS, UoP School of Dentistry, Dentistry, 2010
Other, University of California, Los Angeles, Pediatric Specialty, 2012

S

Jamie J Sahouria
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of the Pacific, Biological Sciences, 2001
DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, 2004

University of the Pacific, Advanced Education - General Dentistry, 2005
MS, University of Texas Health Sciences Center - Houston, Pediatric Dentistry, 2007

Rinku S Saini
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of California, Irvine, Biological Sciences, 1999
MS, University of Hawaii at Manoa, Cell and Molecular Biology, 2000
University of Hawaii at Manoa, Certificate of Public Health, 2000
DDS, Columbia University College of Dental Medicine, 2005
MPH, Columbia University Mailman School of Public Health, Health Policy and Management, 2005
UCLA, General Practice Residency Program, 2006
Children's National Medical Center, 2009

Donald C. Schmitt
Adjunct Assistant Professor of Pediatric Dentistry
BA, University of California, Berkeley, Human Biodynamics, 1993
DDS, University of the Pacific, 1999
Miller Children*s Hospital, Long Beach, 2001
University of Southern California, Pediatric Dentistry, 2001

Richard Stephen Sobel
Adjunct Associate Professor of Pediatric Dentistry
BA, Queens College, New York City, 1963
U.S. Public Health Service COSTEP Externship, Federal Medical Center, 1966
DDS, State University of New York at Buffalo, School of Dentistry, Dentistry, 1967
Harvard University, Pediatric Dentistry, 1979

Joshua J. Solomon
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of the Pacific, BS Biology, 1998
DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, 2001
MS, University of Texas, Dental Branch at Houston, Dept. of Oral Bio-Materials, Master of Science, 2003
University of Texas, Dental Branch at Houston, Dept. of Pediatric Dentistry, Certificate in Pediatric Dentistry, 2003

Kristina Svensson
Adjunct Assistant Professor of Pediatric Dentistry
BS, UC Berkeley, Chemistry, 2007
DDS, university of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2012
Other, Children's Hospital Wisconsin, Pediatric Dentistry, 2014

T

Yogita B Thakur
Adjunct Assistant Professor of Pediatric Dentistry
BDS, VYWS College Hospital, General Dentistry, 1996
MSA, University of Iowa, Dental Public Health, 2002
MS, UCSF, Certificate Pediatric Dentistry, 2010

Vikram Tiku
Adjunct Assistant Professor of Pediatric Dentistry
BA, Dartmouth College, Biology, 2005
DDS, University of the Pacific, School of Dentistry, Dentistry, 2011
Other, UNLV, Pediatric Dentistry, 2014
Other, USC, GPR, 2014

Brigid W Trent
Adjunct Assistant Professor of Pediatric Dentistry
BA, Marquette University, Physiology, Spanish, 2002
DDS, University of Illinois, Dentistry, 2006
DDS, VA Medical Center, SF, General Practice Residency, 2009
Childrens Memorial Hospital, Pediatric Dentistry, 2011

Amanda Tsoi
Adjunct Assistant Professor of Pediatric Dentistry
Other, Ohlone College, Spanish, 2007
BS, UOP, BS Biology, 2011

Other, The Umlora Institute, Italian, 2011
DDS, UOP, Dentistry, 2014
Cincinnati Childrens Hospital Medical Center, Pediatric Dentistry, 2016

V

Viviene L. Valdez
Adjunct Assistant Professor of Pediatric Dentistry
BS, Ohio State University, Biological Sciences, Biology, 2003
DDS, New York University College of Dentistry, 2007
St. Barnabas Hospital, Bronx, Pediatric Dental Residency, 2010

Vincent Van
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of California, Irvine, Biological Science, 2006
DDS, University of California, Los Angeles, School of Dentistry, 2011
Other, New York University College of Dentistry, Advanced Education in Pediatric Dentistry, 2013

W

Michael Wahl
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of California Los Angeles, Engineering, 2006
DDS, New York University College of Dentistry, DDS, 2010
New York University College of Dentistry, Pediatric Dentistry, 2012

Y

Christian Yee
Adjunct Assistant Professor of Pediatric Dentistry
BS, University of the Pacific, Biology, 2006
Shasta Community Health Center, 2009
DDS, UCSF Dental School, Dentistry, 2010
Certi., University of Southern California, Pediatric Dentistry, 2012
USC/Children's Hospital Orange County, Pediatrics, 2012

Course Descriptions

Predoctoral Courses

PD 146. Preclinical Pediatric Dentistry. 1 Unit.
This simulation lab-based course introduces first-year IDS students to the technical aspects of preparing and restoring primary teeth and preparation of a space maintenance appliance. (2 hours lecture, approximately 6 hours lab/clinic. Quarter 3.).

PD 240. Pediatric Dentistry. 2 Units.
The study of the physical and psychological development of the child; understanding and prevention of dental disease in children; differential diagnosis and treatment of dental and periodontal diseases and abnormalities in children; and modern concepts of behavioral guidance in children. (20 hours lecture. Quarters 5-6.).

PD 346. Dental Auxiliary Utilization. 2 Units.
Rationale and system of procedures for sit-down, four-handed dental practice, including ergonomically correct practice and work-related injury prevention. (84 hours clinic in conjunction with Clinical Pediatric Dentistry. Quarters 7-10.).

PD 347. Clinical Pediatric Dentistry. 2 or 4 Units.
Study of the diagnosis, treatment planning, and comprehensive preventive and restorative dental treatment for children. (84 hours clinic in conjunction with Dental Auxiliary Utilization. Quarters 7-10.).

Periodontics (PR)

Department Chairperson

William P. Lundergan
Professor of Periodontics

Faculty

A

Editha Abayan
Instructor of Periodontics/Dental Hygiene
DMD, Centro Escolar University, Doctor of dental Medicine, 1995
Skyline College, General Education, 2004
BA, University of Pacific, Bachelor of Science in Dental Hygiene, 2006
Other, University of the Pacific, oral Health Care with People with Complex Needs, 2009

Tamer Alpagot
Professor of Periodontics
Hacettepe University, Ankara, Turkey, Dentistry, 1981
DDS, Ege University, Izmir, Turkey, Dentistry, 1983
PhD, Hacettepe University, Ankara, Turkey, Periodontics, 1986
PhD, University of Minnesota, Oral Biology, 1995

B

Gretchen J. Bruce
Associate Professor of Periodontics
University of Minnesota, 1973
BA, Northwestern University, Biology, 1976
BS, University of Illinois, Bachelor of Science Dentistry 12/81, 1983
DDS, University of Illinois, Doctor of Dental Surgery 6/83, 1983
Cert, Boston University, Certificate, Periodontics 6/87, 1987
MBA, University of the Pacific, Master of Business Administration, 1999

C

Huei-Ling Chang
Assistant Professor of Periodontics
DDS, University of California, San Francisco, Dentistry, 2005
MS, The Ohio State University, Periodontology, 2008

Abida Tariq Cheema
Assistant Professor of Periodontics
BSc, Lahore College for Women, Lahore, Pakistan, PreMed/Dental, 1970
BDS, de' Montmorency College of Dentistry, Punjab Dental Hospital, Lahore, Pakistan, Dentistry, 1974
MSc, Institute of Dental Surgery, London University, London, UK, Periodontology, 1986

Lauren K Chin
Instructor of Periodontics
BA, San Francisco State University, Industrial Arts, 2007
BA, San Francisco State University, Journalism, 2007
BS, University of Pacific, Dental Hygiene, 2014

Preeti M Chopra
Assistant Professor of Periodontics
BDS, H.P Govt Dental School, Bachelor of Dental Surgery, 2004
MS, University of Alabama, Masters of Science in Dental Biomaterials, 2007
MS, Baylor College of Dentistry, Texas AM University, Master of Science - Periodontics, 2010

D

Cathleen Dornbush
Instructor of Periodontics/Dental Hygiene
Illinois Central College, Prehygiene, 1975
BS, University of Southern California, Dental Hygiene, 1979

University of the Pacific, RDHAP, 2004

E

Gwendolyn Essex
Instructor of Periodontics/Dental Hygiene
Other, San Diego City College, A.S. Human Biology, Honors, 1994
BS, University of California, San Francisco, B.S. Dental Hygiene, 1996
MS, San Francisco State University, M.S. Health Science, 1999
Other, University of San Francisco, Ed.D. Learning and Instruction, 2009

G

Gary Grill
Assistant Professor of Periodontics
BS, University of Maryland, BS Zoology, 1974
DDS, University of Southern California, Dentistry, 1978
Boston University, Certificate in Periodontics, 1980

H

Lisa A. Harpenau
Professor of Periodontics
BS, Loyola Marymount University, Biology, 1986
BS, University of California San Francisco, Dental Sciences, 1990
DDS, University of California San Francisco, 1990
Baylor College of Dentistry, Periodontics, 1992
MS, Baylor University Graduate School, Oral Biology, 1992
MBA, University of the Pacific, 1999
MA, University of the Pacific, Educational Administration, 2009

Deborah J. Horlak
Associate Professor of Periodontics/Dental Hygiene
Wittenberg University, Biology/Chemistry, 1971
BA, Ohio State University, Psychology/Dental Hygiene, 1973
MA, California State University, Fresno, Higher Education Administration, 2003

Josef A Huang
Assistant Professor of Periodontics
BS, University of San Diego, Biology, 1993
DDS, Columbia University Dental, Dental, 1998
New York University, Periodontics, 2001

J

Tanya V. Jones
Instructor of Periodontics/Dental Hygiene
Brigham Young University
Brigham Young University, German, 1982
AA, Chabot College, Dental Hygiene, 1985
AA, University of the Pacific, Dental Hygiene, 2004

K

Candice Kieffer
Instructor of Periodontics/Dental Hygiene
San Joaquin Delta College, Stockton CA, 2007
BS, University of the Pacific, RDH, 2009

Navid Knight
Assistant Professor of Periodontics
B.A., University of California at Berkeley, 1986
D.D.S., University of the Pacific School of Dentistry, 1989
University of the Pacific Arthur A. Dugoni School of Dentistry, 1990
Oregon Health Sciences University, Certificate in Periodontics, 1992
Oregon Health Sciences University, Mini Anesthesia Residency, 1992
Veterans Admin. Hospital, Periodontology resident, 1992

United States Navy, Certificate of Training in Oral Pathology/Medicine, 1995

L

Dan R. Lauber
Assistant Professor of Periodontics
BA, San Fernando Valley State College, Biology, 1970
DDS, University of Southern California, 1975
Boston University, Periodontics Certificate, 1979

Lory Laughter
Assistant Professor of Periodontics/Dental Hygiene
BS, Idaho State University, Dental Hygiene, 1994
MS, University of the California, San Francisco, Dental Hygiene, 2015

William P. Lundergan
Professor of Periodontics
AA, College of the Sequoias, Mathematics, 1970
BS, University of California, Irvine, Biology, 1973
University of California, San Francisco, Pharmacy, 1978
DDS, University of the Pacific, Dentistry, 1981
CERT, University of Connecticut, Certificate of Proficiency in Periodontics, 1983
MA, University of the Pacific, Education, 1994

M

Frank Martinez
Assistant Professor of Periodontics
University of New Mexico, Chemical Engineering, 1967
U. S. Navy, Technician's Prosthetics School, 1972
BS, University of New Mexico, 1974
DDS, University of Southern California, 1978
National Naval Dental Center, Periodontics Certificate, 1983
SCU, School of Law, Santa Clara California, 1995

Arielle Miller
Instructor of Periodontics
Gavilan College, 2009
BS, Santa Clara University, Biology, 2012
Skyline/Canada College, 2013
BS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dental Hygiene, 2015

N

Richard Alan Nathan
Associate Professor of Periodontics
BS, Tufts College, Biology / Psychology, 1971
DMD, Tufts Dental, Dentistry, 1975
Denver Hospital, Denver, CO, General Practice, 1976
UCSF Dental School, Periodontology Certificate, 1978
MS, UCSF Dental School, Oral Biology, 1979

P

Kavitha Parthasarathy
Associate Professor of Periodontics
BDS, Bangalore University, Dental Science, 1999
MS, SUNY at Buffalo, Periodontics, 2007

R

Mustafa Radif
Instructor of Periodontics/Dental Hygiene
BDS, Baghdad University, Dental Surgery, 2001
Cert., Diablo Valley College, Dental Laboratory Technology, 2010
BSD, University of the Pacific, Dental Hygiene, 2012

T

William J. Tognotti
Assistant Professor of Periodontics
University of San Francisco, 1955
DDS, College of Physicians Surgeons (UOP), 1959

Z

Joseph A. Zingale
Professor of Periodontics
Adelbert College of Case Western Reserve University, 1953
BS, Case Western Reserve University, 1955
DDS, Case Western Reserve University, 1957
St. Luke's Hospital Cleveland, Ohio, Rotating Internship, 1958
Walter Reed Institute of Research, Advanced Theory and Science of Dental Practice, 1968
Letterman Army Medical Center, Periodontics, 1970
MPS, Western Kentucky University, 1974

Adjunct Faculty

A

Michael Abelson
Adjunct Assistant Professor of Periodontics
BS, UCLA, Microbiology, 1986
DDS, University of the Pacific, Dentistry, 1989
Baylor College of Dentistry, Periodontology Certificate, 1991
MS, Baylor University, Oral Biology, 1991

B

Eric M Blasingame
Adjunct Assistant Professor of Periodontics
BS, University of the Pacific, Biochemistry, 2007
MS, University of the Pacific, Biology, 2009
DDS, University of thePacific Dugoni School of Dentistry, Dentistry, 2012
University of Alabama at Baltimore, Periodontics, 2015

K

Richard Tsu-hsun Kao
Adjunct Professor of Periodontics
AB, University of California, Berkeley, Bacteriology, 1976
MA, San Francisco State University, Cell Biology, 1980
DDS, University of California, San Francisco, Dentistry, 1982
PhD, University of California, San Francisco, Experimental, 1984
University of California, San Francisco, Post-doctoral fellow Bone Biochemistry, 1986
University of California, San Francisco, Post-doctoral fellow Pathology, 1986
University of California, San Francisco, Certificate in Periodontics, 1991

L

Fan Liu
Adjunct Instructor of Periodontics
BS, University of the Pacific, Dental Hygiene, 2015

M

Maritza Mendez
Adjunct Associate Professor of Periodontics/Dental Hygiene
BA, Temple University, Philadelphia, PA, Psychology, Cum Laude, 1987
DMD, University of Pennsylvania, School of Dental Medicine, Philadelphia, PA, Dentistry, 1991
UCSF, AEGD, Resident (Certificate), 1994
UCSF, AEGD, Chief Resident, 1995

Scott W. Milliken

Adjunct Assistant Professor of Periodontics
BA, San Jose State University, Biology, 1984
DDS, University of Pacific, Surgery, 1987
MS, Northwestern University, Certificate in Periodontics, 1989

Edith Mora
Adjunct Instructor of Periodontics/Dental Hygiene
BS, University of the Pacific, Biology, 1998
MS, University of the Pacific, Biology, 2000
DMD, Tufts University School of Dental Medicine, Dental Medicine, 2004

John Muller
Adjunct Assistant Professor of Periodontics
BS, University of San Francisco, Biology, 1978
DDS, University of the Pacific, Dentistry, 1985

P

Malvika Patel
Adjunct Instructor of Periodontics/Dental Hygiene
BS, University of North Carolina-Charlotte, Biology, 2013
BS, University of the Pacific, Dental Hygiene, 2016

R

Mauricio Ronderos
Adjunct Assistant Professor of Periodontics
DDS, Pontificia Universidad Javeriana, Dentistry, 1992
MPH, University of Minnesota, Epidemiology, 1999
MS, University of Minnesota, Periodontics-Dentistry, 1999
University of Minnesota, Periodontics, 1999

V

Bruce Valentine
Adjunct Assistant Professor of Periodontics/Dental Hygiene
Modesto Junior College, Associates of Arts, 1964
University of California, Berkeley, 1965
DDS, University of the Pacific School of Dentistry, Dentistry, 1969

Course Descriptions

Predoctoral Courses

PR 150. Periodontal Diseases. 1 Unit.
Introduction to periodontology, clinical and histopathological features, epidemiology, classification of periodontal diseases, pathogenesis, etiologies of periodontal disease, genetics, and risk assessment. (10 hours lecture. Quarter 4.).

PR 156. Preclinical Periodontics. 1 Unit.
Study of techniques for instrument sharpening, root planing, and use of ultrasonic devices. Introduction to temporary splinting, microbiologic sampling, and dental implants. (5 hours lecture, 5 hours lab. Quarter 4.).

PR 250. Periodontics. 3 Units.
Introduction to the methodology of collecting data, utilizing data to make a diagnosis, preparing a treatment plan, and providing initial therapy including microbial sampling and chemotherapeutics; rationale for initial therapy including elimination of local factors, occlusal correction, provisional splinting, and initial therapy evaluation; basic rationale for periodontal surgery; techniques employed in surgical periodontics including the scientific basis for surgical technique, specific indications/contraindications, and sequence in healing following gingival surgery, osseous resection, gingival augmentation, regenerative therapy, and dental implants. (30 hours lecture. Quarters 5-7.).

PR 251. Periodontics. 2 Units.
Introduction to basic rationale for periodontal surgery; techniques employed in surgical periodontics including scientific basis for surgical technique, specific indications/contraindications, and sequence in healing following gingival surgery, osseous resection, gingival augmentation, regenerative therapy, and dental implants. (20 hours lecture. IDS Quarters 2-3.).

PR 256. Clinical Periodontics I. 3 or 6 Units.
Study of periodontal examination, diagnosis, treatment planning, nonsurgical therapy, use of evidence based dentistry and self-assessment principles, periodontal re-evaluation, periodontal surgery, and supportive periodontal therapy in comprehensive clinical dental practice. (Quarters 5-8.).

PR 356. Clinical Periodontics II. 4 Units.
Study of periodontal examination, diagnosis, treatment planning, nonsurgical therapy, periodontal re-evaluation, periodontal surgery, and supportive periodontal therapy in comprehensive clinical dental practice. (Quarters 9-12.).

THIRTY-SIX MONTH DOCTORAL PROGRAM OVERVIEW (DDS)

First Year

Quarter 1

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Preclinical Technique I	
9-10	Integrated Clinical Sciences I: Orientation to the Clinical Practice of General Dentistry				Integrated Medical Sciences I
10-11					
11-12		Integrated Medical Sciences I			
12-1					
1-2					
2-3	ICSI: OCP	Integrated Medical Sciences I	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Medical Sciences I
3-4	*ICS I/IMS I				
4-5	* IMS I				

*ICS I meets 2:00 - 4:00 p.m. first half of quarter. IMS meets from 4:00 - 5:00 p.m. on those days.

Quarter 2

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Medical Sciences I
9-10	Integrated Clinical Sciences I: Orientation to the Clinical Practice of General Dentistry				
10-11					
11-12		Integrated Medical Sciences I			
12-1					
1-2					
2-3	ICSI: OCP	Integrated Medical Sciences I	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Medical Sciences I
3-4					
4-5	Radiology				

Quarter 3

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Medical Sciences
9-10	Endodontics				
10-11	Integrated Clinical Sciences I: Orientation to the Clinical Practice of General Dentistry				
11-12		Integrated Medical Sciences			
12-1					Human Growth and Development
1-2					
2-3	ICSI: OCP	Integrated Medical Sciences	Integrated Preclinical Technique I	Integrated Preclinical Technique I	Integrated Medical Sciences
3-4					
4-5	Dental Radiology				

Quarter 4

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour		Integrated Preclinical Technique I		Orthodontics
9-10	Integrated Clinical Sciences I: Clinical Practice of General Dentistry Advanced Practicum	Block Assignments (Variable, as assigned) Dental Radiographic Tech, Preclin Endo, Local Anesthesia, Pred. Multi Surgery, Adv Rest Tech, Preclin Perio, Clinical Transitions		Block Assignments	Block Assignments
10-11					
11-12					
12-1					
1-2					
2-3	Block Assignments (Variable, as assigned)	Microbiology	Integrated Preclinical Technique I	Microbiology	Microbiology
3-4		Block Assignment Lecture Series		Periodontics	
4-5					

Second Year

Quarter 5

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Pediatric Dentistry	** Microbiology	Practice Management	Orthodontics
9-10	ICS II	Periodontics		* Integrated Preclinical Technique II	Integrated Preclinical Technique II
10-11	* General Pathology Lab/Seminar	* General Pathology Lab/Seminar	*, ** Microbiology Laboratory		
11-12					
12-1					
1-2					
2-3	* Clinical Practice	* Clinical Practice	*, ** Clinical Practice	* Clinical Practice	Integrated Preclinical Technique II
3-4					
4-5					

* Courses and Clinical Practice alternate. ** Integrated Clinical Sciences II: Applications of Foundational Knowledge meets for a total of 13 hours this quarter on Wednesdays.

Quarter 6

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Pediatric Dentistry	Integrated Clinical Sciences II: Application of Foundational Knowledge	Pharmacology	Integrated Preclinical Technique II
9-10	* General Pathology (weeks 1-5) * ICS II (weeks 6 - 10)	Periodontics		* Integrated Preclinical Technique II	* Integrated Preclinical Technique II
10-11		* General Pathology (weeks 1 - 5) * ICS II (weeks 6 - 10)	* Integrated Clinical Sciences II		
11-12					
12-1					
1-2					
2-3	* Clinical Practice	* Clinical Practice	* Clinical Practice	* Clinical Practice	* Clinical Practice
3-4					
4-5					

* Clinical Practice and courses alternate.

Quarter 7

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Endodontics (5 weeks) Periodontics (3 weeks)	Examination Hour	Pharmacology	Pharmacology	* Integrated Preclinical Technique II
9-10		Periodontics	Integrated Clinical Sciences II	* Integrated Preclinical Technique II	
10-11	* Oral Pathology	* Integrated Clinical Sciences II: Application of Foundational Knowledge Seminar/Lab	* Integrated Clinical Sciences II: Application of Foundational Knowledge Seminar/Lab		
11-12					
12-1					
1-2					
2-3	* Clinical Practice	* Clinical Practice	* Clinical Practice	* Clinical Practice	* Clinical Practice
3-4					
4-5					

* Clinical Practice and courses alternate.

Quarter 8

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Pharmacology	Dental Implants		
9-10	* Integrated Clinical Sciences II: Application of Foundational Knowledge Seminar/Lab		* Integrated Clinical Sciences II: Application of Foundational Knowledge Seminar/Lab	Pharmacology	* Oral Pathology
10-11		* Integrated Clinical Sciences II: Application of Foundational Knowledge Seminar/Lab		* Personalized Instructional Program	
11-12					
12-1					
1-2					
2-3	* Clinical Practice	* Clinical Practice	* Clinical Practice	* Clinical Practice	* Clinical Practice
3-4					
4-5					

* Clinical Practice and course alternate.

Third Year

Quarter 9

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour				
9-10	Clinical Care of Complex Needs	Clinical Practice	Clinical Practice	Integrated Clinical Sciences III: Multidisciplinary Case Based Seminars	Clinical Practice
10-11	Oral Pathology				
11-12					
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

Quarter 10

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour				
9-10	Clinical Care of Complex Needs	Clinical Practice	Clinical Practice	Integrated Clinical Sciences III: Multidisciplinary Case Based Seminars	Clinical Practice
10-11	Differential Diagnosis				
11-12					
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

Quarter 11

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Extramural Patient Care Seminars				
9-10	Practice Management II	Clinical Practice	Clinical Practice	Integrated Clinical Sciences III: Multidisciplinary Case Based Seminars	Clinical Practice
10-11					
11-12					
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

Quarter 12

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour				
9-10		Clinical Practice	Clinical Practice	Jurisprudence (weeks 1 - 4)	Clinical Practice
10-11					
11-12	Preparation for State Licensure				
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

7/31/2017

IDS TWENTY-FOUR MONTH DOCTORAL PROGRAM OVERVIEW

First Year

Quarter 1

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Integrated Clinical Sciences I; also Radiology	Integrated Preclinical Technique I: Direct and Indirect Restorations	Integrated Preclinical Technique I: Direct and Indirect Restorations	Integrated Clinical Sciences I; also Local Anes.	Clinical Pharm & Pathology
9-10					IPT II
10-11				Clinical Practice	IPT II: Removable Prosthodontics
11-12					
12-1					
1-2					
2-3	Integrated Clinical Sciences I; also Radiology	Integrated Preclinical Technique I: Direct and Indirect Restorations	Integrated Preclinical Technique I: Direct and Indirect Restorations	Integrated Preclinical Technique I: Direct and Indirect Restorations	IPT II: Removable Prosthodontics
3-4					
4-5					

Clinic observations on select Monday and Thursday nights.

Quarter 2

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Integrated Clinical Sciences I; also Radiology, Local Anesthesia, Multidiscip. Surgery & ICS II	Clinical Pharm & Pathology	Integrated Preclinical Technique I		IPT II: Removable Prosthodontics
9-10		Periodontics		IPT II: Implant Dentistry	
10-11		ICS I; also Radiology, Local Anesthesia & Multidiscip. Surgery		Clinic	
11-12					
12-1					
1-2					
2-3	Clinic	Integrated Preclinical Technique I	Integrated Preclinical Technique I	IPT II: Implant Dentistry	IPT II: Removable Prosthodontics
3-4					
4-5					

Quarter 3

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Endodontics (5 weeks) Periodontics (3 weeks)		Integrated Preclinical Technique I		Comprehensive Principles in Dentistry II
9-10		Periodontics		IPT II: Occlusion	
10-11	Preclinical Endodontics	Clinic		Clinic	
11-12					
12-1					
1-2					
2-3	Clinic	Integrated Preclinical Technique I	Integrated Preclinical Technique I	IPT II: Occlusion	Clinic
3-4					
4-5					

Quarter 4

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour		Dental Implants	Personalized Instructional Program	Orthodontics
9-10	ICS II Seminar		Personalized Instructional Program	Pharmacology	Personalized Instructional Program
10-11	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	* Oral Pathology
11-12					
12-1					
1-2					
2-3	Integrated Clinical Sciences II: Applications of Foundational Knowledge Seminar	Integrated Clinical Sciences II: Applications of Foundational Knowledge Seminar	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5					

* Clinical Practice and course alternate.

Second Year

Quarter 5

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Pediatric Dentistry (IDS 2019)		Practice Management	Orthodontics
9-10	Clinical Care of Complex Needs	Clinical Practice	Clinical Practice	Integrated Clinical Sciences III: Multidisciplinary Case Based Seminars	Clinical Practice
10-11	Oral Pathology				
11-12					
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

Quarter 6

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour	Pediatric Dentistry (IDS 2019)			
9-10	Clinical Care of Complex Needs	Clinical Practice	Clinical Practice	Integrated Clinical Sciences III: Multidisciplinary Case Based Seminars	Clinical Practice
10-11	Differential Diagnosis				
11-12					
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

Quarter 7

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9					
9-10	Extramural Patient Care Seminars	Clinical Practice	Clinical Practice	Integrated Clinical Sciences III: Multidisciplinary Case Based Seminars	Clinical Practice
10-11	Practice Management II				
11-12					
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

Quarter 8

HOUR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8-9	Examination Hour				
9-10		Clinical Practice	Clinical Practice	Jurisprudence (weeks 1 - 4)	Clinical Practice
10-11	Preparation for State Licensure				
11-12					
12-1					
1-2					
2-3	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice	Clinical Practice
3-4					
4-5	Evening Clinic 6-8:30 pm			Evening Clinic 6-8:30 pm	

DISTRIBUTION OF INSTRUCTION

DDS

DDS Distribution of Instruction (http://catalog.pacific.edu/dental/distributionofinstruction/DDS_Distribution_of_Instruction_2017-2018.pdf)

IDS

IDS Distribution of Instruction (http://catalog.pacific.edu/dental/distributionofinstruction/IDS_Distribution_of_Instruction_2017-2018.pdf)

Orthodontics Graduate Program

Year 1

Summer Quarter (1)		Didactic Units	Lab/Clinic Units
OR 401I	Cephalometrics	2	0
OR 404I	Research Practicum and Thesis I	1	0
OR 410I	Biomechanics	1	0
OR 411I	Craniofacial Biology Genetics - Genetics in Orthodontics	2	0
OR 414I	Introduction to Contemporary Orthodontics	2	0
OR 421I	Current Literature Seminar I	1	0
OR 422	Anatomy	1	0
OR 423I	Comprehensive Case Analysis Seminar I	1	0
OR 424I	Treatment Planning Seminar I	1	0
OR 426I	Principles of Orthodontic Technique	0	2
OR 430I	Surgical-Orthodontic Treatment	1	0
OR 431I	Orthognathic Surgery Seminar I	1	0
OR 432I	Multidisciplinary Seminar I	1	0
OR 434	Introduction to Invisalign	1	0
OR 456I	Clinical Orthodontics I	0	7
OR 457I	Mixed Dentition Orthodontics I	0	2
OR 458I	Surgical Orthodontics I	0	1
OR 459I	Clinical Orthodontics in Craniofacial Anomalies	0	1
	Quarter Total	16	13
Autumn Quarter (2)			
OR 401	Cephalometrics	2	0
OR 403I	Critical Thinking	1	0
OR 404I	Research Practicum and Thesis I	1	0
OR 410I	Biomechanics	2	0
OR 411I	Craniofacial Biology Genetics - Genetics in Orthodontics	1	0
OR 414I	Introduction to Contemporary Orthodontics	1	0
OR 421I	Current Literature Seminar I	1	0
OR 423I	Comprehensive Case Analysis Seminar I	1	0
OR 424I	Treatment Planning Seminar I	1	0
OR 426	Principles of Orthodontic Technique	0	3
OR 430I	Surgical-Orthodontic Treatment	1	0
OR 431I	Orthognathic Surgery Seminar I	1	0
OR 432I	Multidisciplinary Seminar I	1	0
OR 440I	Imaging in Orthodontics, TMJ Airway Consideration	2	0
OR 456I	Clinical Orthodontics I	0	7
OR 457I	Mixed Dentition Orthodontics I	0	2
OR 458I	Surgical Orthodontics I	0	1
OR 459I	Clinical Orthodontics in Craniofacial Anomalies	0	1
	Quarter Total	16	14
Winter Quarter (3)			
OR 402I	Facial Growth	2	0
OR 403I	Critical Thinking	1	0
OR 404I	Research Practicum and Thesis I	1	0
OR 410I	Biomechanics	2	0
OR 411	Craniofacial Biology Genetics - Genetics in Orthodontics	1	0
OR 414I	Introduction to Contemporary Orthodontics	1	0
OR 421I	Current Literature Seminar I	1	0
OR 423I	Comprehensive Case Analysis Seminar I	1	0
OR 424I	Treatment Planning Seminar I	1	0
OR 430I	Surgical-Orthodontic Treatment	2	0

OR 431I	Orthognathic Surgery Seminar I	1	0
OR 432I	Multidisciplinary Seminar I	1	0
OR 440	Imaging in Orthodontics, TMJ Airway Consideration	2	0
OR 456I	Clinical Orthodontics I	0	8
OR 457I	Mixed Dentition Orthodontics I	0	2
OR 458I	Surgical Orthodontics I	0	1
OR 459I	Clinical Orthodontics in Craniofacial Anomalies	0	1
	Quarter Total	17	12
Spring Quarter (4)			
OR 402	Facial Growth	2	0
OR 403	Critical Thinking - Research Design	1	0
OR 404	Research Practicum and Thesis I	1	0
OR 410	Biomechanics	2	0
OR 412	Cleft Lip Palate/Craniofacial Anomalies - Orofacial Clefts and Abnormal Craniofacial Development	2	0
OR 414	Introduction to Contemporary Orthodontics	1	0
OR 420	Bone Biology	1	0
OR 421	Current Literature Seminar I	1	0
OR 423	Comprehensive Case Analysis Seminar I	1	0
OR 424	Treatment Planning Seminar I	1	0
OR 430	Surgical-Orthodontic Treatment	2	0
OR 431	Orthognathic Surgery Seminar I	1	0
OR 432	Multidisciplinary Seminar I	1	0
OR 433	Retention Seminar I	1	0
OR 456	Clinical Orthodontics I	0	8
OR 457	Mixed Dentition Orthodontics I	0	2
OR 458	Surgical Orthodontics I	0	1
OR 459	Clinical Orthodontics in Craniofacial Anomalies I	0	1
	Quarter Total	18	12
Year Total:		67	51
Year 2			
Summer Quarter (5)			
OR 501I	Principles of Orthodontics	2	0
OR 502I	Microimplant Bone Biology I	2	0
OR 503I	Research Design I	1	0
OR 504I	Research Practicum and Thesis II	1	0
OR 510I	Periodontic-Orthodontic Relations	2	0
OR 513	TMD Orthodontics	1	0
OR 521I	Current Literature Seminar II	1	0
OR 523I	Comprehensive Case Analysis Seminar II	1	0
OR 524I	Treatment Planning Seminar II	1	0
OR 531I	Orthognathic Surgery Seminar II	1	0
OR 532I	Multidisciplinary Seminar II	1	0
OR 556I	Clinical Orthodontics II	0	10
OR 557I	Mixed Dentition Orthodontics II	0	2
OR 558I	Surgical Orthodontics II	0	1
OR 559I	Clinical Orthodontics in Craniofacial Anomalies II	0	1
	Quarter Total	14	14
Autumn Quarter (6)			
OR 501I	Principles of Orthodontics	2	0
OR 502I	Microimplant Bone Biology I	2	0
OR 503I	Research Design I	1	0
OR 504I	Research Practicum and Thesis II	1	0

OR 510I	Periodontic-Orthodontic Relations	2	0
OR 511I	Practice Management I	1	0
OR 521I	Current Literature Seminar II	1	0
OR 523I	Comprehensive Case Analysis Seminar II	1	0
OR 524I	Treatment Planning Seminar II	1	0
OR 531I	Orthognathic Surgery Seminar II	1	0
OR 532I	Multidisciplinary Seminar II	1	0
OR 556I	Clinical Orthodontics II	0	10
OR 557I	Mixed Dentition Orthodontics II	0	2
OR 558I	Surgical Orthodontics II	0	1
OR 559I	Clinical Orthodontics in Craniofacial Anomalies II	0	1
	Quarter Total	14	14
Winter Quarter (7)			
OR 501I	Principles of Orthodontics	2	0
OR 503I	Research Design I	1	0
OR 504I	Research Practicum and Thesis II	1	0
OR 510I	Periodontic-Orthodontic Relations	2	0
OR 511I	Practice Management I	1	0
OR 512	Preparation for Specialty Examination	1	0
OR 521I	Current Literature Seminar II	1	0
OR 523I	Comprehensive Case Analysis Seminar II	1	0
OR 524I	Treatment Planning Seminar II	1	0
OR 531I	Orthognathic Surgery Seminar II	1	0
OR 532I	Multidisciplinary Seminar II	1	0
OR 556I	Clinical Orthodontics II	0	10
OR 557I	Mixed Dentition Orthodontics II	0	2
OR 558I	Surgical Orthodontics II	0	1
OR 559I	Clinical Orthodontics in Craniofacial Anomalies II	0	1
	Quarter Total	13	14
Spring Quarter (8)			
OR 501	Principles of Orthodontics	2	0
OR 503	Research Design I	1	0
OR 504	Research Practicum and Thesis II	1	0
OR 510	Periodontic-Orthodontic Relations	2	0
OR 511	Practice Management I	1	0
OR 521	Current Literature Seminar II	1	0
OR 523	Comprehensive Case Analysis Seminar II	1	0
OR 524	Treatment Planning Seminar II	1	0
OR 531	Orthognathic Surgery Seminar II	1	0
OR 532	Multidisciplinary Seminar II	1	0
OR 533	Retention Seminar II	1	0
OR 556	Clinical Orthodontics II	0	10
OR 557	Mixed Dentition Orthodontics II	0	2
OR 558	Surgical Orthodontics II	0	1
OR 559	Clinical Orthodontics in Craniofacial Anomalies II	0	1
	Quarter Total	13	14
Year Total:		54	56
Year 3			
Summer Quarter (9)			
OR 601	Temporomandibular Joint Disorders	1	0
OR 602	Microimplant Bone Biology II	1	0
OR 603	Research Design II	1	0
OR 604	Research Practicum and Thesis III	6	0

OR 611	Practice Management II	1	0
OR 612	Ethics	1	0
OR 613	Orthodontics Speaker Series	2	0
OR 621	Current Literature Seminar III	1	0
OR 623	Comprehensive Case Analysis Seminar III	1	0
OR 624	Treatment Planning Seminar III	1	0
OR 631	Orthognathic Surgery Seminar III	1	0
OR 632	Multidisciplinary Seminar III	1	0
OR 656	Clinical Orthodontics III	0	10
OR 657	Mixed Dentition Orthodontics III	0	2
OR 658	Surgical Orthodontics III	0	1
OR 659	Clinical Orthodontics in Craniofacial Anomalies III	0	1
	Quarter Total	18	14
Year Total:		18	14
Program Total:		139	121

Endodontics Graduate Program

Year 1

Summer Quarter (1)		**Didactic Units**	**Lab/Clinic Units**
AN 410	Advanced Head and Neck Anatomy I	1	0
BMS 401	Research Philosophy and Design I	1	0
BMS 450I	Research Project I	1	0
DS 430	Advanced Oral Pathology I	1	0
DS 460	Advanced Radiology I	1	0
EN 401	Endodontic Technology I	1	0
EN 402I	Endodontic Therapy Seminar I	1	0
EN 403I	Endodontic Biology and Pathology I	2	0
EN 405	Advanced Endodontic Technique	0	8
EN 411I	Case Seminar I	3	0
EN 412I	Classic Literature I	3	0
EN 413I	Current Literature I	1	0
EN 424	Pain/Neuro Seminar I	1	0
EN 440I	Special Topics in Endodontology I	1	0
EN 457	Endodontic Clinic: Assisting	0	1
MC 404	Host Response I	1	0
OS 434I	Implant Seminar I	1	0
PG 420	Advanced Pharmacology I	1	0
	Quarter Total	21	9
Autumn Quarter (2)			
BMS 411	Stem Cell Biology I	1	0
BMS 414I	Oral Biol Journal I	1	0
BMS 414	Oral Biology Journal Club I	1	0
BMS 440I	Thesis Protocol	1	0
BMS 450I	Research Project I	1	0
EN 402	Endodontic Therapy Seminar I	1	0
EN 403I	Endodontic Biology and Pathology I	2	0
EN 411I	Case Seminar I	3	0
EN 412I	Classic Literature I	3	0
EN 413I	Current Literature I	1	0
EN 422	Clinical Transition: Evidence-based Endodontics	4	0
EN 423	Anesthesia and Pain Management I	1	0
EN 440	Special Topics in Endodontology I	1	0
EN 458I	Clinical Endodontics I	0	6
EN 459I	Clinical Endodontics: Surgery I	0	1
MC 424	Oral Microbiology I	1	0
OS 434I	Implant Seminar I	1	0
PRD 484	Biomaterials I	1	0
	Quarter Total	24	7
Winter Quarter (3)			
BMS 414I	Oral Biol Journal I	1	0
BMS 450I	Research Project I	1	0
DS 402	Statistical Methods I	1	0
EN 403I	Endodontic Biology and Pathology I	2	0
EN 411I	Case Seminar I	3	0
EN 412I	Classic Literature I	3	0
EN 413I	Current Literature I	1	0
EN 458I	Clinical Endodontics I	0	9
EN 459I	Clinical Endodontics: Surgery I	0	1
EN 466	Special Care Clinic Rotation	0	1

OS 434I	Implant Seminar I	1	0
OS 439I	Advanced Oral Surgery and Implantology I	3	0
	Quarter Total	16	11
Spring Quarter (4)			
BMS 412	Topics in Oral Biology I	1	0
BMS 414	Oral Biology Journal Club I	1	0
BMS 450	Research Project I	1	0
EN 403	Endodontic Biology and Pathology I	2	0
EN 411	Case Seminar I	3	0
EN 412	Classic Literature I	3	0
EN 413	Current Literature I	1	0
EN 430	Clinic Connections I	1	0
EN 458	Clinical Endodontics I	0	10
EN 459	Clinical Endodontics: Surgery I	0	1
OS 434	Implant Seminar I	1	0
OS 439	Advanced Oral Surgery and Implantology I	3	0
	Quarter Total	17	11
Year Total:		78	38
Year 2			
Summer Quarter (5)			
BMS 550I	Research Project II	1	0
DS 530	Advanced Oral Pathology II	1	0
EN 503I	Endodontic Biology and Pathology II	2	0
EN 511I	Case Seminar II	3	0
EN 512I	Classic Literature II	3	0
EN 513I	Current Literature II	1	0
EN 558I	Clinical Endodontics II	0	9
EN 559I	Clinical Endodontics: Surgery II	0	1
EN 567I	Endodontics at La Clinica II	0	7
MC 504	Host Response II	1	0
OS 534I	Implant Seminar II	1	0
PG 520	Advanced Pharmacology II	1	0
	Quarter Total	14	17
Autumn Quarter (6)			
BMS 514I	Oral Biol Journal II	1	0
BMS 550I	Research Project II	1	0
EN 503I	Endodontic Biology and Pathology II	2	0
EN 511I	Case Seminar II	3	0
EN 512I	Classic Literature II	3	0
EN 513I	Current Literature II	1	0
EN 558I	Clinical Endodontics II	0	11
EN 559I	Clinical Endodontics: Surgery II	0	1
EN 567I	Endodontics at La Clinica II	0	7
EN 571I	Predoctoral Instruction	1	0
OS 534I	Implant Seminar II	1	0
	Quarter Total	13	19
Winter Quarter (7)			
BMS 514I	Oral Biol Journal II	1	0
BMS 550I	Research Project II	1	0
EN 503I	Endodontic Biology and Pathology II	2	0
EN 511I	Case Seminar II	3	0
EN 512I	Classic Literature II	3	0
EN 513I	Current Literature II	1	0

EN 558I	Clinical Endodontics II	0	11
EN 559I	Clinical Endodontics: Surgery II	0	1
EN 567I	Endodontics at La Clinica II	0	7
EN 571I	Predoctoral Instruction	2	0
OS 534I	Implant Seminar II	1	0
	Quarter Total	14	19
Spring Quarter (8)			
BMS 512	Topics in Oral Biology II	1	0
BMS 514	Oral Biology Journal Club II	1	0
BMS 550	Research Project II	1	0
EN 503	Endodontic Biology and Pathology II	2	0
EN 511	Case Seminar II	3	0
EN 512	Classic Literature II	3	0
EN 513	Current Literature II	3	0
EN 530	Clinic Connections II	1	0
EN 558	Clinical Endodontics II	0	11
EN 559	Clinical Endodontics: Surgery II	0	1
EN 567	Endodontics at La Clinica II	0	7
EN 571	Predoctoral Instruction	2	0
OS 534	Implant Seminar II	1	0
	Quarter Total	18	19
Year Total:		59	74
Year 3			
Summer Quarter (9)			
BMS 651	Manuscript Preparation	3	0
EN 611	Case Seminar III	3	0
EN 613	Current Literature III	1	0
EN 658	Clinical Endodontics III	0	9
EN 659	Clinical Endodontics: Surgery III	0	1
EN 684	ABE Seminar	3	0
EN 671	Residency Instruction	2	0
OS 634	Implant Seminar III	1	0
	Quarter Total	13	10
Year Total:		13	10
Program Total:		150	122

DDS ADMISSIONS REQUIREMENTS

Doctor of Dental Surgery Requirements

Details on admissions requirements for the Doctor of Dental Surgery degree are found here (http://dental.pacific.edu/academic-programs/doctor-of-dental-surgery/dds-admissions-requirements). From here (http://dental.pacific.edu/academic-programs) you can navigate to admissions requirements for all degrees offered at the School of Dentistry.

Bachelor of Arts in Applied Sciences

In conjunction with the School of Pharmacy and Health Sciences, students who matriculate at the School of Dentistry without a baccalaureate degree can apply for the degree of Bachelor of Arts in Applied Sciences. Transcripts of interested students are sent to the associate dean in PHS for evaluation. Students who meet the requirements for the BAAS will be notified and are eligible to receive the diploma upon successful completion of dental school.

Admission with Advanced Standing

Only under unusual and compelling circumstances does the School of Dentistry accept transfer students. Incompatibility of dental education programs generally inhibits transition from another dental school to the University of the Pacific's program. Students requesting such classification usually join the first-year class. No student will be admitted to advanced standing beyond the second year. Special action regarding transfer is required.

Financial Aid

It is important to know that all applicants are considered for admission regardless of their financial circumstances. Financial aid is awarded on the basis of financial need as long as the student is a U.S. citizen or an eligible non-citizen. The financial aid office emails application materials beginning in late January to those who apply for admission.

Financial aid staff assists students in managing their financial resources and their indebtedness in school and after graduation. Staff members conduct a needs analysis and provide comprehensive financial guidance for every student applying for financial aid. Students may be awarded aid from federal, state, and institutional sources.

TUITION AND FEES

University of the Pacific is a private institution with tuition and fees providing about two-thirds of the revenue necessary for the three-year doctoral program. Gifts from alumni, parents and regents, income from endowments, funds from private agencies and other revenue help meet program costs, but inflation and other factors may require annual increases in tuition and fees to provide necessary program revenue.

Because we offer the nation's only dental program that can be completed in three calendar years, our dental students pay tuition for three years as opposed to four years at all other dental schools.

Tuition

Tuition for the 2017-2018 academic year for the DDS and IDS predoctoral progarms and for the residency programs in orthodontics and endodontology programs is $107,930.

Estimated Educational Expenses

Type	First Year	Second Year	Third Year
Tuition	$107,930	$107,930	$107,930
Fees	$7,936	$8,961	$10,121
Kit	$11,900	$2,379	$0
Books and Supplies	$2,795	$800	$800
Estimated Total	$130,561	$120,070	$118,851

Estimated Living Expenses

Category	Monthly	Quarterly	Annual
Rent	$1,641	$4,923	$19,692
Food	$505	$1,515	$6,060
Transportation	$127	$381	$1,524
Personal/Misc.	$254	$762	$3,048
Estimated Total	$2,527	$7,581	$30,324

Upon notification of acceptance, applicants are required to submit a nonrefundable $1,000 enrollment fee ($500 for the graduate orthodontic program) as directed in the acceptance letter in order to hold their place. The fee will be applied to first quarter tuition upon matriculation to the University of the Pacific. First quarter tuition is due and payable before matriculation day. Subsequent payment of tuition is due by the first day of each quarter and is required for registration and continued enrollment.

Tuition Refund

Withdrawal: School policy provides that in response to written notice of withdrawal by a student or by an applicant, tuition credit shall be allocated as follows:

- Prior to matriculation: full credit less the enrollment fee.
- After matriculation: credit prorated according to calendar days after reduction by the enrollment fee (see below).
- After first day of class, second through final quarters: credit prorated according to calendar days as follows:
    - 1st through 7th day: 80% credit
    - 8th through 14th day: 60% credit
    - 15th through 25th day: 40% credit
    - 26th through 35th day: 20% credit
    - After 35th day: no refund

Dismissal: Upon dismissal for reasons other than misconduct, tuition credit is allocated according to the refund schedule above. When a dismissed student is readmitted, full tuition must be paid for each quarter repeated, or part thereof.

Extended Program

A student who has not fully demonstrated competency to the faculty in all clinical disciplines by the end of the final quarter of the program will be extended beyond graduation. An extended student is not charged tuition for one quarter. Tuition for subsequent quarter(s) or part(s) thereof is charged at 85% of the current rate. In every quarter of the extension, an extended student pays current rates for mandatory health and disability insurance. Upon notification to the dean that performance meets graduation standards, an extended student receives tuition credit of 10% for each full week of instruction remaining in the quarter.

Readmission and Repeat
Repeat students are charged 85% of the current tuition for any quarter repeated and 100% of the current rate thereafter. A student must pay any outstanding account balance to be eligible for readmission or to repeat all or part of an academic year.

Diplomas and Transcripts
A diploma or transcript of academic work will not be issued until a student's account with the University is paid in full and in the judgment of the school all other requirements have been satisfied. If a diploma or transcript is held for financial reasons only, the original graduation date is retained on the record.

Fees
The enrollment fee described above is nonrefundable. The list of fees and expenses below should not be considered complete for all students, and includes anticipated costs for outside agencies listed as "special fees." Fees listed below are for the DDS program and are estimates. Fees for the International Dental Studies and the Graduate Orthodontic programs are available from the Division of International Dental Studies and the Department of Orthodontics, respectively.

DDS Program Fees, 2017-2018
(partial listing; some fees subject to adjustment)

- Application Fees: $75.00
- Instrument Management Fee: $3,100.00
- Student Doctoral Kit*: $11,900.00
- Student Body**: $89.00
- Health Insurance: $3,400.00
- Disability Insurance: $54.00
- Technology Fee: $640.00
- Optical Loupes: $1,195.00
- Rental Kit: $210.00

Special Fees, 2017-18 (partial)
- A.S.D.A.: $83.00
- California Dental Assn. Membership**: $5.00
- Laboratory Fee: $320.00
- **Total: $21,071.00***

*The Student Doctoral Kit includes textbooks, instruments and supplies that are required by the school according to guidelines submitted by the Store Committee. These materials are issued in a kit on matriculation day to all registered students. Instruments and supplies should not be purchased in advance. Release from kit purchases will not be granted. Allowance should be made for additional supplies and instruments that will be required during the educational program.

**Fees for student body, class, ASDA and CDA memberships vary each year according to decisions of the student body and the respective classes.

Store Refund Policy
A full refund is provided on non-kit items returned within five school days of the date of purchase and within University policy.

Student Accounts
Student accounts are provided for payment of fees and student store charges. This privilege may be restricted for cause.

Student accounts are billed on a monthly basis and are due and payable prior to the next billing date to avoid a late fee.

Students who fail to make payments on accounts in a timely fashion and as billed are subject to suspension from the academic program without further action or procedures. In addition, a student will not be deemed to have met graduation requirements, nor will a diploma or transcript of academic performance be issued, until a student's account with the university is paid in full.

Patient Accounts
The student is responsible for financial management of assigned comprehensive care patients. This responsibility includes charging correct fees for procedures authorized. Students will not receive credit for a procedure if financial arrangements have not been made prior to initiating care.

Foreign Students
In order to comply with regulations of the United States Immigration and Naturalization Service, the University of the Pacific requires applicants who are not citizens or permanent residents of the United States to submit a detailed certification of finances showing sufficient financial resources for study at the university. Other special information and instructions regarding the admission of foreign students will be provided upon request.

Disclaimer

The school reserves the right to modify or change admission standards or requirements at any time without prior notice and effective immediately. The information provided on this site cannot be regarded as creating a binding contract between the student and the school.

GENERAL POLICIES

Students who enroll in the School of Dentistry agree to adhere to the school's policies and procedures and to conform their conduct to the standards of the school and of the law. Students who fail to do so are subject to all sanctions or other appropriate action by the school, up to and including interim or indefinite suspension, interim or indefinite involuntary leave of absence, or final dismissal.

In cases where the school determines in its judgment that a student's continued enrollment at the School of Dentistry would not be prudent, for reasons including but not limited to the student's violation of standards of conduct, inadequate academic performance, and/or a judgment that the student has failed to demonstrate attributes of character which the school believes are necessary to qualify students to practice dentistry, the school may terminate the student's enrollment and/or refuse to award a degree.

Equal Educational Opportunity

The school is an equal opportunity institution of higher learning and is firmly committed to nondiscrimination in its delivery of educational services and employment practices. In compliance with all applicable federal and state laws, such decisions will be made irrespective of the individual's race, color, religion, religious creed, ancestry, national origin, age (except for minors), sex, marital status, citizenship status, military service status, sexual orientation, medical condition (cancer-related or genetic condition), disability and/or any other status protected by law. When necessary, the School will reasonably accommodate an individual (including students) with disabilities if the educational program of the school is not compromised and the individual can safely perform all essential functions without undue hardship to the school and without altering fundamental aspects of its educational program.

See also:

For all other school policies, please refer to the Policies and Procedures page (http://dental.pacific.edu/departments-and-groups/human-resources/employee-resources/policies-and-procedures).

Disclaimer

All claims against the school or university for loss or damage arising from acts, omissions, or contingencies beyond the control of the university and its employees are hereby expressly waived. The waiver includes loss by fire, theft, or natural catastrophe of any materials belonging to a member of the student body, whether such loss occurs on or off the school premises. Students agree to these conditions when they register.

Policy on Accommodations for Students with Disabilities

The school grants otherwise qualified students, residents, and applicants all the rights, privileges, programs, and activities generally accorded or made available to students at the school and does not discriminate on the grounds listed in the Policy Prohibiting Unlawful Discrimination in the administration of its educational programs, admissions, scholarships and loans, or other school activities.

The school will reasonably accommodate individuals with disabilities when the individual so presents a request in accordance with this policy and the individual is qualified to safely and effectively perform all essential functions of the position unless there is undue hardship in doing so. Reasonable accommodations do not include a modification of the fundamental requirements and elements of the program (e.g. behavior and conduct standards, attendance and grading policies, academic and patient-care standards, etc.)

If the individual student, resident, or applicant is otherwise qualified, in response to a request for accommodation the school will offer to make an accommodation if the accommodation is reasonable, effective, does not alter a fundamental aspect of the program, will not otherwise impose an undue hardship on the school, and/or there are no equivalent alternatives. If appropriate, the school may choose to consult with such individuals, internal or external to the school, to provide further assistance needed to evaluate the request for accommodation.

For purposes of reasonable accommodation, a student, resident, or applicant with a disability is a person who: (a) has a physical or mental impairment which limits one or more major life activities (such as walking, seeing, speaking, learning, or working); or (b) has a record with the school by which the school has officially recognized such impairment. To be eligible to continue at the school, the student, resident, or applicant must meet the qualifications and requirements expected generally of its students, and must also be able to perform the requirements of the individual major or program in which s/he is enrolled, with or without reasonable accommodation.

Note: In the event that a request for reasonable accommodation is denied, the school may occasionally choose to afford the student some temporary measure or flexibility, which is not based on the asserted disability issue, but which otherwise is considered appropriate, if it does not alter a fundamental element of the program and is not viewed by the School as inequitable toward other students. In such few cases, such temporary measure or flexibility will not be a precedent, nor will be a reasonable accommodation, and the student thereby will not be regarded as an individual with a disability.

Procedure for Seeking Accommodations

A student, resident, or applicant who requires an accommodation aid or assistance ("accommodations"), whether for academic or other uses, and who believes s/he is qualified under the school's policy, should contact the Assistant Dean of Academic Affairs, who serves as coordinator of disability accommodations and services. Individuals who may apply for admission are also encouraged to contact this office to request general information.

Faculty and staff members who receive student-initiated inquiries or requests regarding accommodations should promptly refer those students to the Assistant Dean of Academic Affairs. Accommodation determinations should not be made without consultation and written determination of the assistant dean.

Students and residents who seek academic accommodations are expected to contact the Assistant Dean of Academic Affairs well in advance of the commencement of the activity course(s), and to provide all requested supporting information at least three weeks in advance of the requested implementation date.

Determination of Accommodation Requests and Right to Obtain Further Review:

Provided that the assistant dean determines that the documentation provided by the student, resident, or applicant is sufficient, the Assistant Dean of Academic Affairs will respond in writing to the request for accommodation and will do so in a manner consistent with the policy. If the student, resident, or applicant agrees with the response, faculty and staff members who will be involved in providing or facilitating the accommodation will be informed of the accommodation, but the Assistant Dean of Academic Affairs will not provide medical or health-related information, unless such information is appropriate in order to allow them to assist in implementing the accommodation.

Responsibility of Student, Resident, or Applicant

Each student, resident, or applicant requesting accommodation bears the responsibility for initiating, documenting and communicating promptly with the school regarding a disability-related request for accommodation. Timely communication between the student and the Assistant Dean of Academic Affairs and/or individual faculty members is critical. Requests for information and details on accommodations will generally be communicated via confidential email, and student, resident, or applicant replies to such communications, be they from the assistant dean or a faculty member, should be in writing within 72 hours. Students must contact course directors at least one week in advance of an assessment for which accommodation is requested. Once an accommodation has been agreed upon by the student or resident and a faculty member, the student or resident must adhere to the accommodation, barring a significant and unforeseen event (e.g., sudden serious illness). Last-minute requests for or cancellations of previously agreed upon accommodations are prohibited by this policy. Furthermore, a student or resident who appears late for an assessment for which accommodations have been arranged forfeits the time lost due to tardiness.

The student, resident, or applicant will provide to the Assistant Dean of Academic Affairs the documentation to support the request. Documentation from the appropriate health professional(s) should reflect the nature of and present level of disability, how the disability affects the student's, resident's or applicant's needs in a collegiate setting, and how the requested accommodation will resolve the needs. Because the provision of all reasonable accommodations and services is based upon assessment of the current impact of the disability on current academic performance, it is in an individual's best interest to provide recent and appropriate documentation, generally no more than three years old. Earlier documentation regarding learning disabilities will be reviewed, if it is supplemented by more recent materials.

The Assistant Dean of Academic Affairs has discretion to determine what type of professional documentation is necessary, and this may vary depending on the nature of the disability and/or accommodation. The assistant dean has discretion to seek independent medical assessment if in his/her judgment it is appropriate in some circumstances.

Family Educational Rights and Privacy Act (FERPA)

Please click here (http://www.pacific.edu/About-Pacific/AdministrationOffices/Office-of-the-Registrar/Student-Privacy--FERPA.html) for the University's FERPA policy.

Code of Ethics and Adjudication of Ethics Violations

All allegations of unethical student behavior are investigated by a senior faculty member (appointed by the Dean) acting as an Initial Reviewer. If there is sufficient evidence to support the allegations and the student agrees to the proposed sanction, the Initial Reviewer recommends the appropriate disciplinary action to the Dean. If the student disagrees with the findings of the Initial Reviewer or the proposed sanction, the allegation will then be forwarded to the Ethics Committee.

The ethics committee conducts hearings on matters related to student behavior and violations of the Code of Ethics. The committee is a joint faculty-administrative committee comprised of a chair selected by the Dental Faculty Council, three elected faculty members, and five elected students, one from each DDS and IDS class. In addition, four elected faculty members and three elected students, one from each class, act as alternates, and may be called to serve during committee review of a complaint that may involve an elected member or when an elected member is unable to be present. Recommendations of the ethics committee are submitted to the dean for action. The decision of the dean can only be appealed through University channels (Office of the Provost). Privileged information related to petitions, petitioners, and all deliberations and recommendations of the committee are treated as confidential and will remain "in committee" except as reported through appropriate channels.

Please click here (http://sfdental.pacific.edu/docs/Code_of_Ethics.pdf) to see the Code of Ethics.

Policy Statement on Alcohol Consumption and Drug Use

For the Policy Statement on Alcohol Consumption and Drug Use, please refer to the policy here (http://sfdental.pacific.edu/employees/hrdocuments/Policy%20Statements/Alcohol%20Consumption%20and%20Drug%20Use%20-%20Student.pdf).

Workplace Security and Anti-Violence Policy

For the Workplace Security and Anti-Violence policy (which includes weapons and firearms), please refer to the policy here (https://webshare.pacific.edu/sites/policies/Pages/Security%20and%20Anti%20Violence%20Policy.aspx).

Prohibited Sexual and Other Unlawful Harassment Policy

For the Prohibited Sexual and Other Unlawful Harassment policy, please refer to the policy here (http://www.pacific.edu/Documents/hr/acrobat/Title%20IX.pdf).

ACADEMIC AND ADMINISTRATIVE POLICIES

Academic and administrative policies set forth in this section are in force for all students enrolled at the School of Dentistry during the academic year 2017-2018. Students who join a subsequent cohort for any reason are governed by the policies, requirements, and curriculum of the catalog in effect at the time of re-entry. The right to change academic programs, policies, and standards at any time without prior notice is reserved by the university. It is the student's responsibility to regularly consult this site for changes or modifications.

Registration

Registration at the School of Dentistry includes payment of tuition and fees, enrollment in courses, submission of all required application materials (including one official transcript of academic record from each college or university attended through the last completed quarter, semester, or summer session), and submission of required medical examination and clearance forms.

In order to receive credit for coursework taken during a particular term, a student must be properly registered during that term. Barring a written notice of withdrawal or a dismissal from the school, registration is assumed for all students.

Records & Transcripts

An academic record (transcript) for each student is maintained in the Office of Academic Affairs. This official record is used in the conduct of the student's personal and academic affairs and is considered both private and confidential. In accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA), the School of Dentistry has established procedures to ensure that students have access to their records, that those records are accurate, and that the privacy rights of students are protected. Students are notified annually of their rights under FERPA by publication of this catalog. The full policy is available here (http://www.pacific.edu/About-Pacific/AdministrationOffices/Office-of-the-Registrar/Student-Privacy--FERPA.html).

Upon written request by the student, an official transcript is issued to whomever is designated, provided all financial obligations to the university have been met. The official transcript shows all work completed to date, and is divided into four program years (three program years for the IDS program). Official transcripts of credit earned at other institutions which have been presented for admission or evaluation of credit become the property of the university and are not reissued or copied for distribution to other institutions. Students can access their unofficial transcript any time through InsidePacific, the university portal.

Exemption from Courses

If a student has extensive educational preparation in a discipline, the student may petition the appropriate course director for exemption from required coursework. Such exemption may be granted at the discretion of the course director who will award an appropriate final letter grade (A, B, C, D), or credit (CR) signifying completion of the required course.

Attendance Policy

Students at the School of Dentistry assume professional obligations which include regular and consistent attendance at all formal learning activities. This includes classroom, laboratory, and remedial instruction; written and oral examinations, quizzes, and practicals; and patient care experiences. Regular and consistent attendance is an essential qualification of all students. A student who in the judgment of the school fails to meet this qualification may be dismissed from school.

Course directors can determine a reasonable attendance policy specific to their course, and must provide students a written statement of such policy in the course syllabus. In the absence of such a written statement from the course director, the school's policy is in effect.

The student is responsible for making up all work missed due to an absence. Faculty have sole discretion in determining whether and under what conditions missed work is to be made up. Faculty also decide if, when, and under what conditions a make-up exam or practical will be provided. It is expected that make ups will replicate the original assessment in difficulty and content coverage, although an alternative format may be used.

Discretionary Days

The school allots a set number of discretionary days to each student for use during an academic year. Students are expected to use discretionary days judiciously for such events as medical appointments or illness, legal obligations, national board examinations, postgraduate or employment interviews, or other school-sponsored trips or events.

Discretionary days in effect for each class are as follows:

First-year DDS, IDS: 5 full days (DDS no carryover to Year 2)

Second-year DDS: 8 full days

Third-year DDS and second-year IDS: 8 full days plus 50% of unused days from Year 2 (Year 1 for IDS students).[1]

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[1]Night clinic sessions count as one half-day. An absence for all three instructional sessions on Monday or Thursday (morning, afternoon, and evening) counts as 1.5 discretionary days.

Guidelines for use of discretionary days:

1. Half-days can be used for events lasting less than a full day (e.g., medical appointments). However, students who report an illness for a morning session will be excused for the entire day. Faculty will be notified of a day-long absence and, for clinic students, clinic staff will reschedule patients.
2. For any absence of more than two (2) consecutive days, documentation supporting the absence must be submitted promptly to the Office of Academic Affairs. 'Bunching' of unused days at the end of an academic year is prohibited by this policy.
3. Discretionary days may not be used when an examination, quiz, or practical is scheduled. In the event of an absence on a day when an examination, quiz, or practical is scheduled, a discretionary day will be forfeited. Illness or other emergency must be documented. Make ups are allowed at the sole discretion of the course director(s), who will set the day and time of the make up.
4. Discretionary days may not be used retroactively.
5. A discretionary day is forfeited whenever an unreported absence is discovered or otherwise reported to the Office of Academic Affairs.
6. A student who exceeds the number of available discretionary days in an academic year may be referred to the ethics committee. In cases of excessive absence, the assistant or associate dean of academic affairs will meet with the student, and other impacted parties as needed, to determine whether an internal solution is possible (e.g., medical or other leave of absence), and if so, implement the solution. Only if an internal solution fails or is not possible is the student referred to the ethics committee.

Notification Process

A student who wishes to use a discretionary day or part thereof must notify the Office of Academic Affairs in advance or by 9:00 a.m. on the day of the absence. In the event of an emergency, the student must notify Academic Affairs as soon as reasonably possible. The Office of Academic Affairs will notify faculty promptly of the student's absence and will maintain a log of each student's use of discretionary days. Absences must be communicated daily.

A student who exceeds the number of available discretionary days in an academic year may be referred to the ethics committee (see above).

Attendance at Examinations and Other Assessment Activities

Barring a documented emergency, attendance at scheduled examinations, quizzes, practicals, or other assessment activities is mandatory. Students are expected to report to the assigned location early and to begin the examination at the designated start time. No student will be allowed to begin an examination 15 minutes after the designated start time (5 minutes for a quiz), and no student will be allowed to leave an examination room until 15 minutes have elapsed (5 minutes for a quiz). A student who appears for an examination within the 15 minute window forfeits the missed time.

Course directors have sole discretion to determine if and under what conditions a make up examination will be provided.

Approved: DFC, November 21, 2012; Dean's Cabinet, December 3, 2012

Grades

Grades represent passing or failing performance. Grades of A, B, C, and D represent passing performance, and the grade of F represents failure. Grades of A, excellent; B, good; and C, acceptable, represent unconditional passing performance; the grade D indicates conditional passing performance and must be remediated. Special conditions on such grades must be specified when grades are submitted and may include additional instruction or evaluation before advancement to clinical practice or eligibility for national or clinical board examinations. Course directors are required to provide a grade for every enrolled student at the end of each quarter of instruction. They must also notify the Office of Academic Affairs in writing of conditions and assignments for removing incomplete grades and suggested alternatives for overcoming failing performance, if any exist.

Credit (CR)

Credit (CR) may be awarded in clinical courses to indicate that the student has not been assigned sufficient patients for clinical ability to be assessed in a particular area. In nonclinical courses, CR signifies satisfactory completion of an ungraded course where reliable differentiation among passing grades is not possible.

INC (Incomplete)

An incomplete grade (INC) may be given temporarily when a student is progressing satisfactorily but the course director has insufficient information to award a letter grade because the student has not completed all assigned coursework. The course director determines the conditions under which and the date by which the deficiency that caused the INC must be removed by the student. If no completion date is stipulated, by default the end date of the subsequent term is the completion date. Failure to comply with stated conditions by the stipulated date will result in the INC reverting to the grade F, failure. When an INC is given in the terminal quarter of a clinical course, a customized program will be developed to allow the student to meet clinical expectations in a timely manner. No student may earn a diploma with a permanent INC grade in a course directly tied to one or more of the school's competency statements.

Grade Point Average

In computing a grade point average (GPA) numerical values are: A, 4 points; B, 3 points; C, 2 points; D or INC, one point; and F, zero points. Credit (CR) notations do not affect the grade point average. The dental school does not award "+" or "-" modification of grades. For details on how GPA is calculated for students repeating a single course or an entire academic year, see the Repeat section in the Academic Performance tab.

Change of Grades

Final passing grades (A, B, C, D, CR) are not subject to change on the basis of second examination or additional work completed after grades are submitted. Passing grades may be changed during the quarter following award of the final grade to correct an error in computation or in transcribing a report or where some part of a student's work has been overlooked. A failing grade of F may be changed only on the basis of reexamination or repeat of the course. Reexamination or repeat of the course is at the discretion of the course director or the Student Academic Performance and Promotion Committee. Upon reexamination, D is the highest grade that can be reported; on repeat of the course, the new final grade will be reported. When a final grade is awarded to substitute for INC or for the failing grade of F, this will be indicated on the student transcript by an appropriate symbol denoting the change (* for INC and # for F grades).

Academic Performance

Academic Progress

The Office of Academic Affairs reviews student academic performance each quarter. In a course that continues through two or more quarters, a grade is awarded each quarter to indicate interim progress, and the final grade for the entire course is awarded at completion of the terminal quarter of the course. However, the Academic Advisory and Student Academic Performance and Promotions Committees will regard an interim grade in the same manner as a final grade with respect to promotion.

Academic Good Standing

Academic good standing requires a grade point average (GPA) of at least 2.0 for all didactic courses attempted and for all laboratory and clinic courses attempted, and no permanent D or F grades.

Academic Probation

Academic probation is accorded to a student upon receipt of a GPA below 2.0 for all didactic courses attempted OR a GPA below 2.0 for all laboratory and clinic courses attempted OR both; OR to a student with a permanent D or F grade. Normally, the standard for academic good standing must be met within three months of being placed on academic probation. In circumstances where this time constraint cannot be met, e.g. for laboratory and clinic grades at the beginning of the second year, or when a course is being repeated to remove an F grade, a reasonable time period will be specified.

I. Phase One Academic Probation: Intervention

1. Didactic and/or lab/clinic GPA below 2.0 if the student was in good academic standing the previous quarter. (New students are assumed to be in good standing upon matriculation unless otherwise stipulated by the Office of Student Services.)
2. Repeating students are placed on intervention at the beginning of their repeat year.
3. Examples of interventions include:
    - meetings with advisor
    - assignment of tutors
    - inventory of outside activities, living conditions
    - diagnostic testing for suspected health, psychological, language, or learning problems
    - in-course remediation
    - evaluation by health care professional to determine fitness for student activities
    - alternative career counseling

II. Phase Two Academic Probation: Contract

1. Didactic and/or lab/clinic GPA below 2.0 if the student was on Phase I probation the previous quarter, or
2. Any permanent D or F grade.
3. Examples of contract conditions include:
    - required weekly meetings with faculty member, Group Practice Leader, or advisor
    - restrictions on outside activities, living conditions
    - required professional assistance with diagnosed health, psychological, or learning problems
    - tutors
    - assignment to scheduled supplemental courses
    - regular meetings with therapist
4. No student on contract is eligible to take National Dental Board Examinations without approval from the promotions committee.

Academic Disqualification

Academic disqualification may be recommended to the dean by the Student Academic Performance and Promotions Committee for a student who has failed to meet any condition of phase two probation (contract). When a student's academic record meets published criteria for academic disqualification, the committee will provide an opportunity for the student to appear before it to ensure that all pertinent information is available before the committee makes its recommendation to the dean. This is the only opportunity for the student to present relevant information to the committee; if a student fails to provide all pertinent information at this opportunity, the student risks exclusion of information from the committee's deliberations. A student appearing before the committee has the option to: (i) select a faculty advisor; (ii) request and receive assistance from that faculty advisor with preparation of a statement to the committee; and (iii) request the faculty advisor attend the committee meeting with the student as a silent observer.

A student may, at their discretion, take advantage of all or none of these opportunities. During the committee meeting, the student is advised to read aloud their prepared statement, but is discouraged from circulating copies or presenting evidence of academic performance.

If, in the judgment of the committee and after consideration of the relevant information available to it, the student has the capacity and commitment to overcome his or her documented deficiencies and reach an acceptable level of patient care, the committee may recommend (i) continuation on academic contract; (ii) extension of the program; or (iii) re-enrollment in a subsequent cohort. The committee may also recommend re-enrollment only through the normal admissions process, after a careful review of the relevant information and as appropriate to the student's potential.

Promotion

Students who are in academic good standing automatically are recommended for promotion by the Student Academic Performance and Promotions Committee. The committee may recommend that a student who is not in academic good standing be promoted on academic probation with conditions of the probation clearly outlined.

Academic Standards for Holding Student Office

In order to run for and/or hold an elected or appointed office in the Associated Student Body or to assume a major leadership position in an organization affiliated with and approved by the school, a student must be registered for a full-time course of study, be in good academic and disciplinary standing, and maintain a cumulative Grade Point Average of 2.5 or higher during the entire period of time in which he or she holds office. Failure to meet the academic standards outlined by this policy will result in a one quarter probationary period, during which the student is expected to meet the minimum cumulative GPA standard. Failure to do so by the end of the probationary period will lead to automatic resignation from office.

Repeat

When one course is repeated by a student who remains with his/her original cohort, BOTH attempts are permanently recorded on the student's transcript. Repeated courses are identified on the transcript with a "Y" in the repeat column, and the interim and permanent grade earned, if applicable, is INCLUDED in the Grade Point Average calculation (“grade averaging”).

When more than one course is repeated (normally by a student who is repeating an entire academic year), BOTH attempts are permanently recorded on the student's transcript. Repeated courses are identified on the transcript with a "Y" in the repeat column, but interim or permanent grades earned are NOT included in the GPA calculation ("grade replacement").

In the absence of a written agreement of exemption filed in the Office of Academic Affairs, students who join a subsequent cohort for any reason are governed by the policies, requirements, and curriculum of the catalog in effect at the time of re-entry.

Withdrawal

A student who wishes to withdraw from school must file a written request in the Office of Academic Affairs. A student's request for withdrawal becomes final only upon completion of the customary check-out process. The student's academic standing at the completion of the check-out process will be recorded on the permanent record (transcript). The record of a student who withdraws without first requesting permission will record a dismissal. A student who has met the published criteria for disqualification may not elect to voluntarily withdraw until the dean has rendered a final decision regarding promotion or academic standing.

Leave of Absence

Student or resident requests for a leave of absence are filed with the dean, who will designate the appropriate administrator to respond to the request. To request a leave of absence, the student or resident must be in good academic standing and must submit a written request identifying persuasive reasons warranting the leave, together with documentation supporting the request. The dean will notify the student or resident in writing of the decision and, if approved, will stipulate the length of the leave and conditions for re-enrollment. The student or resident assumes the responsibility of keeping the dean informed of the intent to re-enroll by the specified date. Students or residents with federally-guaranteed student loans whose leave of absence exceeds 180 days will be reported as withdrawn on the 181st day and federal loans will enter repayment. A student or resident who does not re-enroll by the specified date will be considered to have withdrawn from the school. The decision whether to deny, grant, or set conditions for a request for leave of absence shall be in the sole discretion of the dean. Leaves of absence from the dental school's three-year curriculum are rarely granted.

The dean has the authority to place a student on interim or indefinite leave of absence after careful review of the facts of a case. See also the Overview section of the General Policies section.

Graduation

In addition to all other requirements for graduation, the candidate must demonstrate competence to discharge the duties required of a practitioner of dentistry. In addition to the skills, knowledge, and values expected of a beginning general dentist, this is interpreted to mean evidence of moral character compatible with the public interest and with the practice of the healing arts, discharge of all financial obligations to the school, completion of all technical and clinical requirements prescribed in the curriculum, good academic standing, a passing score on Part II of the National Board Dental Examination, and compliance with all relevant policies of the School of Dentistry. If, in the opinion of the Student Academic Performance and Promotion Committee, the candidate for the Doctor of Dental Surgery degree has met all these requirements, it is authorized to recommend to the dean the graduation and conferral of the degree. The committee may also recommend delay in the individual's graduation date and will stipulate conditions necessary to bring the student to a competent level.

Committees

Student Academic Performance and Promotions Committee

Functions: The Student Academic Performance and Promotions Committee evaluates records of student academic performance and progress; recommends to the dean appropriate candidates for promotion, dismissal, repeat or other action, and students who should receive awards for academic excellences; and works with the curriculum committee in planning, developing, and recommending methods by which students' performance may best be evaluated. The committee ensures enforcement of academic standards as described in this catalog.

Membership includes: the associate dean of oral health education (chair), the associate dean for clinical services, the assistant dean for academic affairs, all Group Practice Leaders, and all department chairpersons. Should a clinical department chair be unable to attend the meeting, a single co- or vice-chair is invited.

Academic Advisory Committee

Functions: The Academic Advisory Committee reviews records of students who are on phase one academic probation to recommend intervention, and reviews records of students on phase two academic probation to draw up contracts. It also reviews the records of students who have failed their contracts and makes recommendations to the Student Academic Performance and Promotion Committee.

Membership includes: the associate dean of oral health education, the assistant dean for academic affairs, two Group Practice Leaders, one representative each of the biomedical science courses and preclinical technique courses, and one student.

Student Appeals Committee

Functions: The Student Appeals Committee reviews and makes recommendations on student-initiated appeals for reconsideration of faculty action with regard to grading or evaluation. In academic matters related to promotion and dismissal, the Student Appeals Committee's inquiry will be limited to review of compliance with the due process components of this policy and will not constitute an attempt to substitute its judgment for the academic judgment of faculty or of the administration.

Membership includes: four elected faculty members and three elected students, one each from the two senior classes and the junior class.

STANDING COMMITTEES

In keeping with sound shared governance principles, the School of Dentistry incorporates the expertise and perspective of students, faculty, and administrators in the decision-making process through use of the committee system. Committees are designated according to areas of concern and authority as "faculty," "administrative," or "joint faculty-administrative" committees. Standing committees are listed below.

Faculty Committees

The faculty has primary responsibility for recommending policy in the following areas: curriculum, subject matter and methods of instruction, research, faculty status, and those aspects of student life which are related to the educational process. Final review and decision rest with the dean, president, and Board of Regents.

- Academic Advisory Committee
- Admissions Committee, DDS
- Admissions Committee, IDS
- Curriculum Committee
- Dental Faculty Council
- Faculty Appointment, Promotion, and Tenure Committee
- Research Committee
- Student Academic Performance and Promotions Committee
- Advisors Committee

Joint Faculty-Administration Committees

Joint committees consider areas of major importance to faculty and administration. Administrative officials hold ultimate authority, but faculty members' and students' consultation and advice are of great importance.

- Education and Information Technology Advisory Committee
- Ethics Committee
- Clinical Quality Assurance Committee
- Student Appeals Committee

Administrative Committees

The administration has primary responsibility for maintenance of existing institutional resources and the creation of new resources. The dean plans, organizes, directs, and represents the School of Dentistry with general support from the faculty, the president, and the Board of Regents. The dean initiates, innovates, and assures that School of Dentistry standards and procedures conform to policy established by the Board of Regents and to standards of sound academic practice. Administrative committees are those in which administrative responsibility is primary and members appointed by the dean serve in an advisory capacity.

- A. W. Ward Museum Committee
- Infection Control Committee
- Managers and Directors Committee
- Outcomes Review Committee
- Committee on Continuing Dental Education
- Store Committee
- Student Clinic Advisory Committee
- Student Financial Aid Committee

SERVICES

The resources below are available to assist students and residents in areas related to completion of the academic program.

Business Office

The business office manages student accounts, including posting of all charges; collecting payments; and issuing reimbursements.

Student Services

Under direction of the associate dean of student services, this office is responsible for recruiting and advising potential students, coordinating admissions and pre-dental programs, managing admissions committee activities and directives, and providing consultation and assistance in nonacademic areas including student government, clubs and organizations, financial aid, health, insurance, and housing. Student Services also plans and supervises all student retreats.

Housing

The school maintains a listing of off-campus, privately-owned apartments for interested students. The school does not endorse, investigate, or guarantee the tenability of listings or suitability of those responding to any off-campus listing.

Financial Aid

Financial aid is available only to U.S. citizens, permanent residents, and eligible non-citizens. Loans and scholarship funds are available from private, state, and federal sources. The financial aid office assists students in managing their financial resources and their indebtedness. It also provides comprehensive financial guidance for every student applying for financial aid to help them find the best funding option. Eligibility for most available financial aid funds is based on demonstrated financial need. An applicant must be approved for admissions before financial aid can be awarded.

Complete information about the types of financial aid available and the application process can be obtained from our website at www.dental.pacific.edu (http://www.dental.pacific.edu) or from the financial aid staff in the Office of Student Services.

Student Store

The student store stocks equipment, books, and supplies for the educational program. It is available for students, faculty, and staff. Merchandise is also available from the store's website, www.dentalstudents.com (http://www.dentalstudents.com).

First-Year Retreat and Counseling

During matriculation week, all first-year students attend a two-day retreat on the Stockton campus. During the retreat, students meet with student leaders from the second-year and third-year classes to discuss student experiences and leadership opportunities. Several activities are planned to encourage interaction between students and faculty, such as team building activities and a social mixer..

Many faculty members who teach first-year courses serve as advisors to new students to provide friendly ears and sounding boards for their concerns and to assist them in the transition from undergraduate to professional education. Students are assigned an advisor at the beginning of their first year. Second- and third-year students have access to their assigned group practice leader as well as course directors and other faculty members.

Academic counseling is provided by advisors as well as course directors, faculty members, the associate dean of oral health education, and the assistant dean for academic affairs. Referral to professional health care counseling is available; however the school cannot warrant the services of external health care providers. (Students should become familiar with the procedures of such counselors before engaging the services.) Services of a psychologist trained in student stress and study skills problems are available to students on an on-call and drop-in basis.

Pacific Health Services

Pacific Health Services (PHS), part of the university's Division of Student Life, maintains a clinic at the School of Dentistry. Dental students who are enrolled full-time and have submitted the required health history form and immunization records are eligible for care at any PHS clinic. The on-site nurse practitioner is supported by an extended professional staff that includes a supervising physician, other nurse practitioners, and a registered dietitian. Services available to students include health education, wellness information, and direct care during illness.

All dental students are charged a health service fee of $60 each quarter. The fee covers nurse practitioner services, nutritionist services (mostly by phone), and health and wellness management. The health services fee does not cover student health insurance, the cost of some procedures, the cost of medications, or costs incurred as a result of outside referrals.

Dental and Orthodontic Treatment Benefits

Dental and orthodontic treatment benefits are available at the School of Dentistry during regular clinic hours for students in good standing and their spouses and children living at home. Students and their spouses/children who request and are accepted for dental care pay at a reduced rate established by clinic administration.

Development

The school recognizes generous philanthropic support with the Campaign Wall, room namings digital displays. Thousands of the school's supportive alumni and students, faculty, staff, friends, foundations, corporations, and organization donors have helped to build clinics and classrooms, provide scholarships, fund faculty positions, provide dental care to patients, and support numerous projects that keep the dental school strong.

Marketing & Communication

The Office of Marketing & Communication directs communications and marketing programs to increase the visibility of the dental school and to enhance its identity to various constituents. The marketing and communications team promotes not only the dental school, but also the school's students, faculty, staff, alumni, and clinics, through effective media relations, Web communications, event planning, publication development, and marketing strategies.

Continuing Dental Education

The Division of Continuing Dental Education provides dynamic and multidisciplinary continuing education programs for all members of the dental profession. CDE offers a variety of programs, including lecture courses, hands-on workshops, mini residency programs, evening courses, certification programs, and online courses. Program lengths vary, and include half-day, full-day, and multiple session programs. CDE courses are presented by the profession's outstanding leaders and educators and classes are held at the dental school in San Francisco as well as select locations throughout California and the United States. The division also sponsors travel CE programs abroad, the next being planned for 2018 is a cruise to the Greek Isles.

Dugoni School of Dentistry students, faculty, and staff receive discounted rates, up to 50% off regular tuition, to attend continuing dental education courses offered by the division. Dues-paying members of the Alumni Association receive a 15% discount on most CDE programs offered by the division and recent graduates from the last five years receive a 20% discount off of regular tuition.

For more information, visit dental.pacific.edu/ce1 (http://www.dental.pacific.edu/ce1) or contact Continuing Dental Education at (415) 929-6486 or cedental@pacific.edu. To register for courses, please click here (https://reg.abcsignup.com/view/cal1a.aspx?ek=&ref=&aa=&sid1=&sid2=&as=36&wp=197&tz=&ms=&nav=&cc=&cat1=&cat2=&cat3=&aid=UPSOD&rf=).

PROFESSIONAL AND FRATERNAL ORGANIZATIONS

Social, fraternal, and professional organization memberships are open to all students in the doctoral program. Opportunities to establish associations that will endure throughout graduates' lifetimes are described in the groups. Navigate using the tabs above.

Associated Student Body

The Associated Student Body of the University of the Pacific, Arthur A. Dugoni School of Dentistry is composed of all students enrolled in the doctoral program. Business affairs of the organization are conducted by the Student Executive Council which consists of the elected student body officers, the president and vice president of each class, and elected representatives to selected agencies of organized dentistry. Any student may meet with the Student Executive Council, but only duly elected officers may vote on issues under consideration. Students are represented on the following school committees: Curriculum; Faculty Appointment, Promotion, and Tenure; Student Appeals; Ethics; Museum; Postgraduate Studies; Safety; Store; Student Clinic Advisory; Infection Control; Clinical Quality Assurance; and Academic Advisory.

Student Research Group

The Student Research Group (SRG) works to enhance the research culture at the Dental School by supporting collaboration between students and faculty members in current research projects. The goal of SRG is to promote the advancement of dental research and evidence-based practice.

The SRG is a chapter of the National Student Research Group (NSRG)/American Association for Dental Research (AADR) and the International Association for Dental Research (IADR). Group members are encouraged to participate in various school events, attend the NSRG meeting and the annual AADR/IADR meeting. A member of the student group also represents Pacific each year at the ADA-sponsored Annual Dental Student Conference on Research in the Washington DC area.

SCOPE (Student Community Outreach for Public Education) Organization

The Student Community Outreach for Public Education program (SCOPE) is a student-directed, peer-mentoring organization at the School of Dentistry which provides professional development projects focused on community oral health. Created in 1994 by students and a faculty mentor, SCOPE's mission is to provide leadership development and engage students and faculty in volunteer oral health projects directed toward community needs. Today, SCOPE exemplifies several of the school's strategic directives, including utilization of public health science and implementation of the best clinical preventive practices.

Clinical extramural externships form one component of the Community Health SCOPE programs. Externships and SCOPE provide the major components of Pacific's Community-Campus Partnership Programs (CCPP). This partnership engages Dugoni students' oral health community projects in collaborations with the health needs of community agencies.

Inter-professional projects, leadership development, and evidence-based best practices form the foundation of CCPP and SCOPE programs. SCOPE student officers take an active role in designing, leading, and evaluating health projects such as screenings, prevention services, group presentations and educational sessions for children, families and senior citizens in the Bay Area. SCOPE officers strive to sponsor inter-professional projects with audiology, pharmacy, nursing, physical therapy and physician assistant students and schools.

National Dental Fraternities

Two chapters of national dental fraternities are active at the School of Dentistry: Alpha Omega and Delta Sigma Delta.

School of Dentistry Alumni Association

The Alumni Association of the University of the Pacific, Arthur A. Dugoni School of Dentistry, has five membership categories:

1. Alumni Members — all graduates of the dental school, including dental hygienists and post-doctoral program graduates;
2. Associate Members — dentists and hygienists who graduated from other schools and who join the Association;
3. Dugoni School Family Members — non-dentists who are valued members of our community;
4. Life Members - Alumni Members who have attained their 50th graduation anniversary and who have been active dues-paying members for 30 years, or who were designated this distinction prior to 1976; and
5. Honorary Members - non-Alumni Members and non-Associate Members who are recipients of the Medallion of Distinction.

The Alumni Association's mission is to engage and inspire its members in meaningful relationships with students, the School of Dentistry and with each other for life. The purpose of the Association is to promote the welfare of the School, the graduates of the School and the profession of dentistry. The excellent reputation of our school and its unequaled physical facilities are the direct result of the loyalty and active support of its alumni and the Alumni Association.

The Alumni Association sponsors, or co-sponsors, many educational and social events throughout the year for alumni and students, and additionally supports students at events such as the city softball league and golf, basketball, and softball tournaments.

Officers

Daniel M. Castagna '81
President

Mary M. Turoff '77
President-Elect

David Ehsan '95
Vice President

Parag R. Kachalia '01
Secretary

Bruce G. Toy '81
Treasurer

William A. van Dyk '73
Treasurer-Elect

Kimberly A. LaRocca '06 DH
Immediate Past President

Arthur A. Dugoni '48
Dean Emeritus

Joanne Fox
Director

Board Members

Basil Al Shaikhly '15 IDS
Alan W. Budenz, Associate
Jeffrey J. Bueno '90
Shareen Char-Fat '86
Richard F. Creaghe '86
William D. Gilbert '85
Parag R. Kachalia '01
Amanda Rae Kronquist '15
Kimberly Mahood '10 Ortho
Arielle J. Miller '16 DH
Akhil S. Reddy '08
Jamie J. Sahouria '04
R. Alexander Schmotter '15
Daniel S. Tanita '73
Kevin R. Tanner '82
Bing Elliot Xia '00 IDS

Student Representatives

Elizabeth Goodyear '17 DH
Linda H. Phi '18 Ortho
Michael J. Stout '17

Ex-Officio

Deborah Horlak
Associate Professor,
Dental Hygiene Program Director

Nader A. Nadershahi '94
Dean

Jeff Rhode
Associate Dean for Development

Dennis D. Shinbori '75
Annual Meeting Committee Chair

PDF Representative

M. Gabrielle Thodas '77/'95 Ortho
PDF President

Staff

Rowena R. O'Connor

Manager

Andrea J. Woodson
Coordinator

Dugoni School Foundation

The Dugoni School Foundation is a group of volunteers working closely with the Dean and the development team to promote philanthropy at the School of Dentistry. The mission of the Foundation is to ensure that the University of the Pacific, Arthur A. Dugoni School of Dentistry has the resources it needs to realize its visions and goals.

The Foundation shares the school's commitment to excellence and measures success by the joy it brings to donors, by the funds it raises, by the fundraising programs it initiates, and by the continuing recruitment and retention of new, effective board members.

Dugoni School Foundation

Executive Committee

Dr. M. Gabrielle Thodas '77, '95 President

Dr. Nader Nadershahi, '94

Mr. Gary Mitchell

Dr. W. Ronald Redmond '66

Mr. Jeff Rhode

Mr. Steven Tiret

Dr. Gary Weiner, '66

_____

Dr. Braden Beck '71, '85

Dr. Edmond Bedrossian '86

Dr. Gerald Bittner, Jr. '85

Dr. Susan Bittner '74A

Dr. Joseph Bronzini '66

Dr. Michael Campbell '79

Dr. Elisa LoBue-Campbell '84

Dr. Arthur Dugoni '48, Dean Emeritus

Dr. Joseph Errante '80

Dr. Nava Fathi, '95

Dr. John Young Jin Kim '04

Dr. Michael Lasky '95

Dr. Jill Lasky '98

Dr. Gary Low '76

Dr. Aneet Randhawa

Dr. Kenneth Shimizu '85, '87

Dr. Daniel Tanita '73

Dr. Colin Wong '65

Dr. Douglas Yarris '83

Dr. Saam Zarrabi '08

Ex Officio

Dr. Dan Castagna '81 – Alumni Association President

American Student Dental Association (ASDA)

All University of the Pacific dental students are members of ASDA and, concurrently, student members of the American Dental Association with all the rights and privileges of such membership. Benefits are detailed in publications distributed by these organizations.

California Dental Association (CDA)

University of the Pacific dental students were the first in California to avail themselves of the student membership category offered by the California Dental Association. Modest annual dues provide each student member with CDA publications, access to CDA meetings without charge, and other benefits.

American Dental Education Association (ADEA)

All enrolled predoctoral students are members of ADEA.

The Council of Students is one of several councils of ADEA. The school's elected representatives to the council participate in the ADEA annual session and regional meetings. The Council of Students has an administrative board consisting of a vice president who serves on the ADEA executive committee, and a chair, vice chair, secretary, and member-at-large. The council elects several student delegates who have full voting privileges in the ADEA House of Delegates.

AWARDS

Awards and prizes are presented annually at the Graduate Alumni Association banquet honoring the graduating classes. A detailed description of each award, including selection criteria, is available in the Office of Academic Affairs.

Scholarship

Alpha Omega International Dental Fraternity award
Dean's Valedictorian awards (DDS, IDS)
Dean's Salutatorian awards (DDS, IDS)
Dean's Award (third highest GPA)
Excellence in Anatomy award
Excellence in Biochemistry award
Excellence in General Pathology award
Excellence in Implants award
Excellence in Microbiology award
Excellence in Oral Diagnosis award
Excellence in Oral Surgery award
Inesi Award in Physiology
OKU Clinical Excellence awards
Phi Kappa Phi

Leadership, Professionalism, Scholarship, and Service

Abelson Endowment award
Academy of General Dentistry award
Alpha Omega Dental Fraternity, Bay Area Alumni award
American College of Dentists, Northern California Section award
American Student Dental Association Award of Excellence
Thomas R. Bales Family Endowment Good Samaritan Award
Community Service award
California Dental Association award
Delta Dental Plan of California Student Leadership award
Deric Desmarteau Endowment award
Kevin Campbell Alumni Association Service award
F. Gene and Rosemary Dixon IDS Endowment award
CHIPS Editor award
Pierre Fauchard Academy awards
William W.Y. Goon/OKU award
International College of Dentists Student Leadership award
San Francisco Dental Society Ethics award
Charles, Charles Jr. and Joe Sweet Scholarship awards (for pediatric dentistry)
Frederick T. West Leadership award
Herbert K. Yee Scholarship award

Outstanding Performance

Academy of Osseointegration award
Advanced Education in General Dentistry Outstanding Resident award
Eric B. Bystrom Memorial award
Academy of Operative Dentistry award
American Academy of Implant Dentistry award
American Academy of Oral and Maxillofacial Radiology award
American Academy of Oral Medicine award
American Academy of Oral and Maxillofacial Pathology award
American Academy of Oral and Maxillofacial Radiology award
American Academy of Esthetic Dentistry award
American Academy of Pediatric Dentistry award
American Academy of Periodontology award
American Association of Endodontics award
American Association of Oral and Maxillofacial Surgeons Dental Student awards
American Association of Oral Biologists award
American Association of Orthodontics award
American Association of Public Health Dentistry award
American College of Prosthodontists award

American Dental Society of Anesthesiology award
Oral and Facial Surgeons of California award
Dentsply/American Dental Association Student Research Program award
Charles A. Ertola award (for removable prosthodontics)
Thomas B. Hartzell award (for periodontics)
Hinman Symposium award
International Congress of Oral Implantologist award
Lasky Family Endowment Pediatric awards
Oral and Maxillofacial Pathology award
Oral Surgery Outstanding Resident award
Quintessence Publishing Co. awards (one each for research achievement, periodontics, and restorative dentistry)
Warren Family Endowment award (for pediatric dentistry)
Western Society of Periodontology
Who's Who award

Graduation Honors

Upon recommendation of the Student Academic Performance and Promotion Committee, students who complete the didactic, clinical, and national board requirements for graduation and whose academic record qualifies them for election to Tau Kappa Omega are graduated with honors. Those who complete graduation requirements and whose record qualifies them for election to Omicron Kappa Upsilon are graduated with high honors. The valedictorian is graduated with highest honors.

Honor Societies

Phi Kappa Phi

Each year DDS and IDS students who demonstrate the highest academic achievement are inducted into Phi Kappa Phi, a national multi-disciplinary honor society.

Omicron Kappa Upsilon

The Delta Delta chapter of the national dental honor fraternity, Omicron Kappa Upsilon, was organized at the dental school in 1934. Its purpose is to encourage scholarship and to advance ethical standards of the dental profession. Membership is limited to twelve percent of the graduating DDS and IDS classes, selected by a faculty vote on the basis of scholarship and character.

Tau Kappa Omega

In 1927, the Alpha Chapter of an undergraduate honor society, Tau Kappa Omega, was organized for promotion of honor and service to the school. Students are elected to the fraternity on the basis of ideals and scholarship.

CAMPUS MAP

Location

University of the Pacific
Arthur A. Dugoni School of Dentistry
155 Fifth Street
San Francisco, CA 94103
415.929.6400
Map >> (http://maps.google.com/maps?ll=37.774428,-122.389628&z=13&t=m&hl=en-US&gl=US&mapclient=embed&q=155%205th%20St%20San%20Francisco,%20CA%2094103)

BART

Take BART to Powell Street Station. Exit at the Fifth Street exit. Walk to the corner of Market and Fifth Street and turn left. The school is located at the corner of Fifth and Minna. For more information about BART, please visit http://bart.gov.

Bus Lines (MUNI)

For information about bus, streetcar and light rail routes and schedules in the area, please visit www.sfmuni.com (http://www.sfmuni.com).

Bus Routes	Nearest Stop to Dental School
KT, J, L, M, N, S	Metro Powell Station
5, 5L, 21, 31, Powell-Hyde, Powell-Mason	Market Street and Powell Street
F, 6, 9, 9L, 71	Market Street and Fifth Street
8X, 27, 30, 45	Howard Street and Fifth Street
14, 14L	Mission Street and Fifth Street
12	Folsom Street and Fifth Street

CalTrain

The nearest Caltrain station is the San Francisco Station located at 700 Fourth Street. From there, patients and visitors may either walk to the dental school or transfer to Muni lines 30, 45, N or T.

Parking

We recommend public transportation, as street parking is very limited. If you chose to drive, please allow yourself plenty of time to find parking. The nearest garage is the Fifth and Mission/Yerba Buena Garage (http://www.fifthandmission.com), and its entrance is on Mission Street.

There are also several parking garages nearby for longer visits. Details about meter rates and tips about parking in the city are available here:

- http://www.sfmta.com/getting-around/parking
- http://www.cityparksf.com

Traveling by Car

From the Bay Bridge

Take the Fifth Street exit to Fifth Street and proceed north to Mission Street. The campus is located at 155 Fifth Street (between Howard and Mission Street).

From the Golden Gate Bridge

After crossing the bridge to San Francisco, proceed to the Lombard Street exit. Follow Lombard to Van Ness (101 South) go right on Van Ness, continue on to O'Farrell Street. Left on O'Farrell Street, right on Hyde Street (becomes Eighth Street as it crosses Market Street). After crossing Market proceed one block to Mission, left on Mission Street to Fifth Street, turn right on Fifth Street, and 155 Fifth Street will be on your left.

From 101 North

Exit at the Seventh Street exit, Seventh Street north to Mission Street, turn right on Mission, turn right on Fifth Street.

From 280 North

Exit at Sixth Street, continue north on Sixth Street to Mission Street, go right on Mission one block, and turn right at Fifth.

For information about airport transportation services to the dental school, please visit the San Francisco International Airport (http://www.flysfo.com), Oakland International Airport (http://www.oaklandairport.com) or San Jose International Airport (http://www.sjc.org).

ACADEMIC CALENDAR

Summer 2017 Quarter

Description	Date(s)
Matriculation Week	July 11 - 14
Classes Begin	July 17
Labor Day Holiday	September 4
Study Day	September 26
Final Examination Period	September 27 - 29
Autumn Student Break	October 2 - 6

Autumn 2017 Quarter

Description	Date(s)
Classes Begin	October 9
Thanksgiving Holiday Break	November 23 - 24
Study Day	December 19
Final Examination Period	December 20 - 22
Winter Student Break	December 25 - January 5

Winter 2018 Quarter

Description	Date(s)
Classes Begin	January 8
Martin Luther King Jr. Holiday	January 15
President's Day Holiday	February 19
Study Day	March 20
Final Examination Period	March 21 - 23
Spring Student Break	March 26 - 30

Spring 2018 Quarter

Description	Date(s)
Classes Begin	April 2
Memorial Day Holiday	May 28
Study Day	June 12
Final Examination Period	June 13 - 16
Commencement	June 17
Summer Student Break	June 18 - July 13

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