

DENTISTRY – D.D.S.

Dean

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The goal of the General Dentistry Program is to train practitioners in the delivery of high-quality dental care that is preventive in purpose and comprehensive in scope, and that is based on sound biological principles.

Curriculum

Dentistry, like all health professions, exists to benefit society. Therefore, it continually assesses its professional services to ascertain what measures, attitudes, and skills most effectively serve society.

The School of Dentistry is committed to:

- Beginning the curriculum with a strong foundation in the sciences that are basic to knowledge of the structure and function of the human being in health and in sickness.
- Providing an educational environment that progressively leads a student to mastery and correlation of clinical sciences and skills.
- Developing a frame of reference from which to mobilize the resources of dentists and associated professional personnel in both delivery of health care and contribution to community well-being by education for the prevention of illness.

These concepts include responsibility for contributing to the body of scientific knowledge by questioning, investigating, and teaching; for remaining sensitive and adaptive to the needs of humanity in ever-changing conditions; and for maintaining consciousness of the individual obligation to live, practice, and strive for the good of humanity.

The curriculum in dentistry, organized to be completed in four academic years, fulfills the requirements for the Doctor of Dental Surgery degree.

Objective

The primary objective of the dentistry curriculum is to graduate individuals who attest to the purpose of the University and the goals of the School of Dentistry—which include advancing knowledge and understanding of health, disease, and ways to improve health and the dental health-care delivery system through basic and applied research.

Program learning outcomes

By the end of the program, the graduate should be able to:

1. Perform clinical decision making that is supported by foundational knowledge and evidence-based rationales.
2. Promote, improve, and maintain oral health in patient-centered and community settings.
3. Function as a leader in a multicultural work environment and manage a diverse patient population.
4. Maintain physical, emotional, financial, and spiritual health in one's personal life.
5. Apply ethical principles to professional practice.

Regulations

The student is also subject to the conditions of registration, attendance, financial policy, governing practices, and graduation requirements

outlined in Section II and in the School of Dentistry general information in Section III of this CATALOG.

Instruments, textbooks, additional materials

Instruments, textbooks, and materials required for the study and practice of dentistry are prescribed by the School of Dentistry. The school issues dental instruments each quarter as needed in the program.

Unauthorized or incomplete equipment is not acceptable. Advance administrative approval must be obtained for any exception.

Employment

Because the dental program is very rigorous, first-year students in dentistry may not accept part-time employment during the first term. Thereafter, such employment may be accepted by the student only upon receiving written permission from the associate dean for academic affairs.

Licensing

Eligibility to take examinations given by the state and regional boards of dental examiners is based on essentially the same requirements as are stipulated by the School of Dentistry for the Doctor of Dental Surgery degree. Information about the examinations of the respective states is available at the office of the associate dean for academic affairs. Credentials from the National Board of Dental Examiners are accepted in lieu of the written portion of a state examination in most states. Many states require the National Board Dental Examination and provide no alternative. The national board does not include a clinical examination.

D.D.S. competencies

The curriculum is designed to ensure that upon graduation all students will have the foundational knowledge (basic sciences), clinical sciences (clinical skills), and human and applied sciences (professional behaviors) necessary for the successful practice of general dentistry. LLUSD students must be competent in the following areas:

Domain I: Practice and Profession

1. **Critical Thinking: Perform clinical decision making that is supported by foundational knowledge and evidence-based rationales.**

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge
 - Understand the fundamental principles governing the structure and functioning of the human organism.
 - Read and evaluate scientific literature and other appropriate sources of information in making oral health-management decisions.
- b. Clinical Sciences
 - Apply critical-thinking and problem-solving skills in the comprehensive care of patients.
 - Integrate information from biomedical, clinical, and behavioral sciences in addressing clinical problems.
- c. Human and Applied Sciences
 - Understand the role of lifelong learning and self-assessment in maintaining competence and attaining proficiency and expertise.

2. Community Involvement: Promote, improve, and maintain the oral health of patients in various types of community settings.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge
 - Explain the principles of leadership and motivation.
 - Explain the role of professional dental organizations in promoting the health of the public.
 - Explain the concept of a worldwide community as described in the world mission of the Seventh-day Adventist Church.
 - Explain the role of the dental professional in a community setting.
- b. Clinical Sciences
 - Participate in local, national, or global community-based oral health-care programs.
 - Recognize the effectiveness of community-based programs.
- c. Human and Applied Sciences
 - Demonstrate the skills to function successfully as a leader on an oral health-care team.
 - Communicate effectively with patients, peers, other professionals, and staff.
 - Demonstrate the ability to serve patients and interact with colleagues and allied dental personnel in a multicultural work environment without discrimination.
 - Demonstrate honesty and confidentiality in relationships with staff.

3. Professional Practice: Understand the basic principles important in developing, managing, and evaluating a general dental practice.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge
 - Evaluate the advantages and disadvantages of different models of oral health-care management and delivery.
 - Explain legal, ethical, and risk-management principles relating to the conduct of dental practice.
 - Explain the basic principles of personnel management, office systems, and business decisions.
- b. Clinical Sciences
 - Demonstrate the ideal of service through the provision of compassionate, personalized health care.
 - Understand the importance of maintaining a balance between personal and professional needs for successful life management.
 - Apply knowledge of informational technology resources in contemporary dental practice.
 - Recognize and manage significant cultural, psychological, physical, emotional, and behavioral factors affecting treatment and the dentist-patient relationship.
- c. Human and Applied Sciences
 - Understand the role of lifelong learning and self-assessment in maintaining competence and attaining proficiency and expertise.
 - Apply financial management skills to debt and business management.

- Understand the importance of spiritual principles as a basis for developing a philosophy of health care.
- Establish rapport and maintain productive and confidential relationships with patients using effective interpersonal skills.

4. Patient Management: Apply behavioral and communication skills in the provision of patient care.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge
 - Understand the fundamental principles governing the structure and functioning of the human organism.
 - Read and evaluate scientific literature and other appropriate sources of information in making oral health-management decisions.
- b. Clinical Sciences
 - Apply critical-thinking and problem-solving skills in the comprehensive care of patients addressing intra-professional and inter-professional care.
 - Integrate information from biomedical, clinical, and behavioral sciences in addressing clinical problems.
- c. Human and Applied Sciences
 - Understand the role of lifelong learning and self-assessment in maintaining competence and attaining proficiency and expertise.
 - Recognize and manage significant cultural, psychological, physical, emotional, and behavioral factors affecting treatment and the dentist-patient relationship.
 - Establish rapport and maintain productive and confidential relationships with patients, using effective interpersonal skills.
 - Recognize common behavioral disorders and understand their management.
 - Use appropriate and effective techniques to manage anxiety, distress, discomfort, and pain.
 - Manage dental fear, pain, and anxiety with appropriate behavioral and pharmacologic techniques.

Domain II: Assessment of the Patient and the Oral Environment

5. Examination of Patients: Conduct an appropriately comprehensive examination to evaluate the general and oral health of a diverse patient population at all stages of life within the scope of general dentistry.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge/Basic Sciences
 - Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
 - Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions and their clinical features to understand patient risk in the prevention, diagnosis, and management of disease.
 - Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of disease.

- Apply knowledge of the biology of microorganisms in physiology and pathology for the prevention, diagnosis, and management of disease.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases and the promotion and maintenance of oral health.

b. Clinical Sciences

- Identify the chief complaint and take a history of the present illness.
- Conduct thorough medical, social, and dental histories.
- Perform an appropriate clinical and radiographic examination using diagnostic aids and tests, as needed.
- Establish and maintain accurate patient records.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences in the prevention, diagnosis, and management of diseases and the promotion and maintenance of oral health.
- Identify patient behaviors that may contribute to problems in maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.
- Identify patient behaviors that may contribute to orofacial problems.
- Identify signs of abuse or neglect.

6. Diagnosis: Determine a diagnosis by interpreting and correlating findings from the examination.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

a. Foundational Knowledge/Basic Sciences

- Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
- Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions and their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the biology of microorganisms in physiology and pathology for the prevention, diagnosis, and management of diseases.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.

b. Clinical Sciences

- Identify each problem that may require treatment.
- Recognize clinical and radiographic changes that may indicate disease.
- Establish a clinical or definitive diagnosis for each disorder identified.
- Recognize conditions that may require consultation with or referral to another health-care provider, and generate the appropriate request.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences in the prevention,

diagnosis, and management of diseases as well as the promotion and maintenance of oral health.

- Identify patient behaviors that may contribute to problems related to maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.

7. Treatment Planning: Develop a comprehensive treatment plan and treatment alternatives.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

a. Foundational Knowledge/Basic Sciences

- Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
- Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the biology of microorganisms in physiology and pathology for the prevention, diagnosis, and management of diseases.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases and the promotion and maintenance of oral health.

b. Clinical Sciences

- Identify treatment options for each condition diagnosed.
- Identify systemic diseases or conditions that may affect oral health or require treatment modifications.
- Develop an appropriately sequenced integrated treatment plan.
- Modify the treatment plan when indicated due to unexpected circumstances, noncompliant individuals, or for patients with special needs (such as frail or elderly, or medically, mentally, or functionally compromised individuals).
- Present the final treatment plan to the patient, including time requirements, sequence of treatment, estimated fees, payment options, and other patient responsibilities in achieving treatment outcomes.
- Identify patient expectations and goals for treatment.
- Explain and discuss the diagnosis, treatment options, and probable outcomes for each option with the patient or guardian.
- Secure a signed consent to treat.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.
- Identify patient behaviors that may contribute to problems related to maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.

8. Management of Emergencies, Pain, and Anxiety: Manage dental and medical emergencies that may be encountered in dental

practice, as well as pain and anxiety with pharmacologic and nonpharmacologic methods.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge/Basic Sciences
 - Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
 - Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.
 - Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
 - Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of diseases.
 - Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.
 - Recognize common behavioral disorders and understand their management.
- b. Clinical Sciences
 - Evaluate the patient's physical and psychological state and identify factors that may contribute to orofacial pain.
 - Manage patients with craniofacial pain and be able to differentiate pain of a nondental origin.
 - Manage dental emergencies of infectious, inflammatory, and traumatic origin.
 - Provide basic life support measures for patients.
 - Develop and implement an effective office strategy for preventing and managing medical emergencies.
- c. Human and Applied Sciences
 - Apply knowledge of sociology, psychology, ethics, and other human and applied sciences to the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.
 - Identify patient behaviors that may contribute to problems related to maintaining oral health.
 - Identify barriers that prevent patients from seeking oral health care.
 - Use appropriate and effective techniques to manage anxiety, distress, discomfort, and pain.
 - Manage dental fear, pain, and anxiety with appropriate behavioral and pharmacologic techniques.

9. Health Promotion and Maintenance: Provide appropriate preventive and/or treatment regimens for patients with various dental carious states, using appropriate medical and surgical treatments.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge/Basic Sciences
 - Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
 - Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as

their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.

- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
 - Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of diseases.
 - Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.
- b. Clinical Sciences
 - Use accepted prevention strategies, such as oral hygiene instruction, microbiologic evaluation, nutritional education, and pharmacologic intervention to help patients maintain and improve their oral and systemic health.
 - Properly isolate the tooth/teeth structure from salivary moisture and bacterial contamination.
 - Differentiate between sound and compromised tooth structure.
 - Develop and implement an appropriate treatment plan for enamel surfaces that can be managed by remineralization therapies.
 - Develop and implement an appropriate treatment plan for tooth surfaces with caries involving the enamel and/or dentin.
 - Remove or treat carious tooth structure and restore with appropriate materials.
 - Determine when a tooth has such severe carious involvement as to require extraction.
 - c. Human and Applied Sciences
 - Apply knowledge of sociology, psychology, ethics, and other human and applied sciences in the prevention, diagnosis, and management of diseases; as well as the promotion and maintenance of oral health.
 - Identify patient behaviors that may contribute to problems related to maintaining oral health.
 - Identify barriers that prevent patients from seeking oral health care.

Domain III: Oral Health Management

10. Management of Preventive Care: Evaluate and manage the implementation of preventative treatment modalities.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

- a. Foundational Knowledge/Basic Sciences
 - Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
 - Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.
 - Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.

- Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of disease.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of disease as well as the promotion and maintenance of oral health.

b. Clinical Sciences

- Provide patient education to maximize oral health.
- Manage preventive oral health procedures.
- Perform therapies to eliminate local etiological factors to control caries, periodontal disease, and other oral diseases.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.
- Identify patient behaviors that may contribute to problems related to maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.

11. Treatment of Periodontal Disease: Evaluate and manage the treatment of periodontal diseases.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

a. Foundational Knowledge/Basic Sciences

- Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of periodontal disease.
- Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as their clinical features to understand patient risk in the prevention, diagnosis, and management of periodontal diseases.
- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of periodontal diseases.
- Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of periodontal diseases.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of periodontal diseases as well as the promotion and maintenance of the periodontium.

b. Clinical Sciences

- Develop an appropriate oral hygiene instruction plan.
- Treat and manage patients with periodontal diseases with up to localized moderate chronic periodontitis (including patient education, management of interrelated systemic health, and effective subgingival scaling and root planing).
- Demonstrate knowledge of therapeutic and referral options for treatment of patients with generalized moderate-to-severe chronic periodontitis.
- Evaluate the outcomes of periodontal therapies provided to their patients either within their office or

services provided by a periodontal specialist to whom the patient may have been referred for treatment.

- Provide and assess success of periodontal maintenance for patients with up to localized moderate chronic periodontitis.
- Manage care of patients who are candidates for referral (those with moderate to severe chronic periodontitis, aggressive forms of periodontitis, mucogingival conditions, periodontal disease associated with systemic disease, or periodontitis that is refractory to treatment) by effective communication and coordination of therapy with a periodontal specialist when appropriate.
- Manage patients requiring modification of oral tissues to optimize restoration of form, function, and esthetics.
- Manage a comprehensive maintenance plan following the active phase of periodontal treatment.
- Manage patients with gingival esthetic needs.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences in the prevention, diagnosis, and management of periodontal diseases as well as the promotion and maintenance of periodontal health.
- Identify patient behaviors that may contribute to periodontal problems (examples: poor oral hygiene and poor compliance with periodontal maintenance).
- Identify barriers that prevent patients from seeking periodontal care.

12. Management of Disease of Pulpal Origin: Evaluate and manage diseases of pulpal origin and subsequent periapical disease.

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

a. Foundational Knowledge/Basic Sciences

- Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
- Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of disease.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of disease as well as the promotion and maintenance of oral health.

b. Clinical Sciences

- Prevent and manage pulpal disorders through the use of indirect and direct pulp capping and pulpotomy procedures.
- Assess case complexity of each endodontic patient.
- Manage endodontic emergencies.
- Manage nonsurgical endodontic therapy on permanent teeth.

- Recognize and manage endodontic procedural accidents.
- Manage pulpal and periapical disorders of traumatic origin.
- Manage endodontic surgical treatment.
- Manage bleaching of endodontically treated teeth.
- Evaluate outcome of endodontic treatment.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences to the prevention, diagnosis, and management of pulpal diseases as well as the promotion and maintenance of oral health.
- Identify patient behaviors that may contribute to problems related to maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.

13. **Basic Surgical Care: Provide basic surgical care to manage disease and improve oral health conditions.**

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

a. Foundational Knowledge/Basic Sciences

- Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
- Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of diseases.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.

b. Clinical Sciences

- Perform uncomplicated extractions of teeth.
- Manage surgical extraction, common intraoperative and postoperative surgical complications.
- Manage pathological conditions, e.g., lesions requiring biopsy, localized odontogenic infections, impacted third molars, and other referrals.
- Manage patients with dentofacial deformities or patients who can benefit from preprosthetic surgery.
- Manage oral and maxillofacial pathologic conditions using pharmacologic and nonpharmacologic methods.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences to the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.
- Identify patient behaviors that may contribute to problems related to maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.

14. **Assessment and Management of Maxillary and Mandibular Skeletodental Discrepancies: Assess and manage maxillary and mandibular skeletodental discrepancies, including space maintenance, as represented in the early, mixed, and permanent dentitions.**

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

a. Foundational Knowledge/Basic Sciences

- Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
- Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of diseases.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.

b. Clinical Sciences

- Perform mixed dentition analyses utilizing the Moyers and Nance methods.
- Perform a Steiner cephalometric analysis to evaluate for individual sagittal plane skeletodental discrepancies compared to normative data.
- Evaluate the noncephalometric, skeletodental facial esthetics of the child, adolescent, or adult patient.
- Manage multidisciplinary treatment cases involving orthodontics.
- Recognize the effects of abnormal swallowing patterns, mouth breathing, bruxism, and other parafunctional habits on the skeletodental structures; and manage treatment of these conditions.

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences in the prevention, diagnosis, and management of disease as well as the promotion and maintenance of oral health.
- Identify patient behaviors that may contribute to problems related to maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.

15. **Restoration and Replacement of Teeth: Manage the restoration of individual teeth and replacement of missing teeth for proper form, function, and esthetics.**

Examples for a new dentist to demonstrate competence in this area may include, but are not limited to, the following:

a. Foundational Knowledge/Basic Sciences

- Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure, and function to the prevention, diagnosis, and management of disease.
- Apply knowledge of the principles of genetic, congenital, and developmental diseases and conditions as well as

their clinical features to understand patient risk in the prevention, diagnosis, and management of diseases.

- Apply knowledge of the cellular and molecular basis of immune and nonimmune host defense mechanisms in the prevention, diagnosis, and management of diseases.
- Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of diseases.
- Apply knowledge of pharmacology in the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.

b. Clinical Sciences

- Complete digital intraoral scans for diagnosis and treatment planning purposes.
- Assess teeth for restorability.
- Assess esthetic and functional considerations.
- Manage preservation of space following loss of teeth or tooth structure.
- Select appropriate methods and restorative materials.
- Design fixed and removable prostheses.
- Digitally design indirect restorations.
- Implement appropriate treatment sequencing.
- Perform biomechanically sound preparations.
- Fabricate and place biomechanically sound provisional restorations.
- Make impressions for diagnostic and treatment casts.
- Obtain anatomic and occlusal relation records for articulation of casts.
- Prepare casts and dies for the construction of restorations and prostheses.
- Manage the laboratory fabrication of restorations and prostheses.
- Evaluate and place restorations that are clinically acceptable.
- Instruct patients in follow-up care of restorations and prostheses.
- Determine causes of postoperative problems after restoration and resolve such problems.
- Recognize and manage occlusal discrepancies

c. Human and Applied Sciences

- Apply knowledge of sociology, psychology, ethics, and other human and applied sciences to the prevention, diagnosis, and management of diseases as well as the promotion and maintenance of oral health.
- Identify patient behaviors that may contribute to problems related to maintaining oral health.
- Identify barriers that prevent patients from seeking oral health care.

- Endodontics (<http://llucatalog.llu.edu/dentistry/professional/department-endodontics/>)
- Oral & Maxillofacial Surgery (<http://llucatalog.llu.edu/dentistry/professional/department-oral-and-maxillofacial-surgery/>)
- Orthodontics (<http://llucatalog.llu.edu/dentistry/professional/department-orthodontics/>)
- Pediatric Dentistry (<http://llucatalog.llu.edu/dentistry/professional/department-pediatric-dentistry/>)
- Periodontics (<http://llucatalog.llu.edu/dentistry/professional/department-periodontics/>)

Admissions

The Admissions Committee looks for evidence of scholastic competence, high moral and ethical standards, and significant qualities of character and personality. In broad terms, the following are standards required for admission:

- Intellectual capacity to complete the curriculum
- Emotional adaptability and stability
- Social and perceptual skills
- Physical ability to carry out observation and communication activities, and the possession of sufficient motor and sensory abilities to practice general dentistry
- Commitment to a dynamic spiritual journey and service to mankind

Admission requirements

Although the pre dental curriculum can be completed in three years, a baccalaureate degree or equivalent is strongly recommended. The following college courses are required for entrance into the D.D.S. degree programs and must be taken in an accredited college in the U.S. or Canada:

Humanities

A complete sequence of English composition (two semesters or three quarters) to include composition and literature is required. Students with a Baccalaureate degree are considered to have met this requirement.

Natural Sciences

A complete course sequence, two semesters or three quarters, is required in each science listed unless otherwise noted.

General biology with laboratory
 General chemistry with laboratory
 General physics with laboratory
 Organic chemistry with laboratory
 Biochemistry (4 semester units or 6 quarter units)

Electives (strongly recommended in order of priority)

Histology
 Human gross anatomy
 Systems physiology
 Microbiology
 Cell and molecular biology
 Immunology
 Neuroscience
 Genetics
 Ceramics
 Management
 Developmental psychology
 Accounting

Departments and faculty

- Dental Anesthesiology (<http://llucatalog.llu.edu/dentistry/professional/department-dental-anesthesiology/>)
- Dental Education Services (<http://llucatalog.llu.edu/dentistry/professional/department-dental-education-services/>)
- Division of General Dentistry (<http://llucatalog.llu.edu/dentistry/professional/division-general-dentistry/>)

Nutrition

Students preparing for the predoctoral program are required to complete a minimum of three academic years with no fewer than 96 semester or 144 quarter units in an accredited college or university. Preference is given to applicants who have completed or will complete the requirements for a baccalaureate degree prior to admission. A maximum of 64 semester or 96 quarter units of credit may be accepted from an accredited junior or community college.

A complete academic year of class work (8 semester or 12 quarter units) in each subject: general biology, general chemistry, organic chemistry, and general physics are required. Also required is a complete sequence of English Composition (two semesters or three quarters). The biochemistry requirement is one semester or a minimum of (four semester units or 6 quarter units). All science prerequisites must be completed within five years prior to matriculation, with a grade of C or above in each course. A minimum grade point average of 2.7 in science subjects and in nonscience subjects, averaged separately, is required. The average grade point average for accepted students is substantially higher.

Students who are enrolled in another program in Loma Linda University are not considered for admission until they have completed or have been released from the program.

Prior to consideration for admission, the applicant must meet specific criteria related to past academic performance (G.P.A.), performance on the Dental Admission Test (DAT), and a personal interview. Applicants are expected to have taken the DAT within the previous two years, preferably not later than October of the year preceding expected matriculation.

In order to be better prepared with specific vocabulary and understanding, the applicant should include science courses with content similar to courses offered during the first year of the professional curriculum. The applicant's purpose should be the pursuit of diverse knowledge, the cultivation of an inquiring mind, the practice of efficient methods of study, and the habit of thinking and reasoning independently.

An applicant from a college or university outside the U.S. or Canada or from a nonaccredited college or university in the U.S. must complete a minimum of one full academic year (24 semester or 36 quarter credits) in an accredited college or university in the U.S. or Canada. This includes the required specific core sciences in the areas of biology, general chemistry, organic chemistry, biochemistry, and physics (all sciences except Biochemistry must include laboratories). A grade of C or above in each course completed is required. (A grade of C- will not be accepted.)

Credit for studies taken at a military service school is granted to veterans according to recommendations in the *Guide of the American Council on Education* and/or the California Committee for the Study of Education.

The University reserves the right to require satisfactory completion of written or practical examinations in any course for which transfer credit is requested.

Application procedure

The school participates in the American Association of Dental Schools Application Service (AADSAS). Applications are available online at <http://www.adea.org/>. Due to the high volume of applicants LLUSD recommends that AADSAS applications be submitted before August. The following is a step-by-step process for completing an application to Loma Linda University (LLU).

1. *AADSAS application.* Is submitted to the American Association of Dental Schools Application Service between June 1 and November 1 at www.adea.org where it is processed in approximately four to six weeks prior to being sent to the LLUSD Office of Admissions.
2. *Supplemental application.* After AADSAS completes coursework verification. The applicant then receives an email invitation from LLU to complete an electronic supplemental application.
3. The applicant must return the completed supplemental application and materials within thirty (30) days. This includes an essay specific to Loma Linda University, a photograph, and the application fee of \$150.
4. *Transcripts.* Official transcripts must be sent to AADSAS at the time application is submitted. When an applicant becomes an accepted student, official transcripts—mailed directly from colleges/universities to LLU—are required for coursework/degrees completed since submission of application to AADSAS and must be submitted by August 1 in order for the student to be registered for the first academic year of classes. Send to: Loma Linda University, Admissions Processing, 11139 Anderson Street, Loma Linda, CA 92350.
5. International students must submit official transcripts to LLU at time of supplemental application.
6. *References.* The applicant is asked to supply a minimum of three personal references. A reference from a pre-professional committee or science professor; a reference from an employer or professional and a reference from a spiritual leader. Applicants who have attended a college or university that has a preprofessional committee that prepares preprofessional evaluations, are encouraged to submit a preprofessional evaluation to LLUSD. Members of the applicant's family are excluded from writing the required letters of reference, although letters will be accepted for the file in addition to those required. All recommendation letters sent to AADSAS will be sent to Loma Linda University School of Dentistry along with the application.
7. *Dental Admission Test.* The applicant is required to complete and meet specific criteria related to performance on the Dental Admission Test (DAT). Preference is given to applicants who have taken the test by October of the academic year preceding that for which admission is desired. Entering D1 students are expected to have taken the test within the past two years. If the test has been taken more than one time, the most recent scores are used for admission criteria. The committee reviews all scores on the test. The DAT scores must be on file at Loma Linda University before an applicant is invited to interview.
8. *Interview.* The applicant's records will be screened when the supplemental application, recommendations, transcripts, and DAT scores are on file. The applicant may then be invited to the school for a personal interview. An interview is required for admission as it provides an opportunity for evaluation of noncognitive factors, including communication skills, core values, motivation, and passion for the profession; as well as genuine concern for others in the service of dentistry. At the time of the interview, a tour of the school will be given.
9. *Observation.* It is important that students seek experience observing and assisting in a dental office in order to become familiar with the work of a dentist. Prior to interviewing, applicants are expected to complete a minimum of fifty (50) hours of observation/work experience in a dental facility, twenty (20) of which must be done with a general dentist.
10. *Acceptance.* The student receives notification of an acceptance via a phone call, email and letter signed by the Dean. Upon payment of the

deposit, accepted students receive an email that serves as a receipt, as well as information about how to access registration information.

11. *Pre-entrance health requirements/immunizations.* It is expected that necessary routine dental and medical care will have been attended to before the student registers. New students are required to have certain immunizations and tests before registration. Forms to document the required immunizations are provided for the physician in the registration information made available electronically to the student by LLU. In order to avoid having a hold placed on registration, the student is encouraged to return the documentation forms to Student Health Service no later than six weeks prior to the beginning of classes.

For a complete list of required immunizations and tests, see the Admission Policies and Information (<http://llucatalog.llu.edu/about-university/admission-policies-information/>) section of this CATALOG. Documentation verifying compliance with this requirement must be provided before registration can be completed.

For further information, consult the *Student Handbook*, Section V—University Policies—Communicable disease transmission prevention policy; or contact the Student Health Service office at 909/558-8770.

If a returning student is assigned to a clinical facility that requires a tuberculosis skin test, the student is required to have the test within the six months before the assignment begins.

12. *Deposits.* The student accepted into dentistry must submit a nonrefundable deposit of \$1,000 to the Office of Admissions. All deposits become part of the first term's tuition. Failure to submit this deposit will result in loss of the applicant's position in the class. A second nonrefundable deposit of \$1,000 is due on May 1 in order to secure a place in the class. The remaining balance of the first term's tuition and fees are due no later than the day of matriculation in August.

13. *Financial requirement.* All first-year students are required to pay their first year's tuition, enrollment fee, and program fees before they can register for classes. In addition, international students (all non-U.S. Citizens and non-Permanent Residents) must provide documentary evidence of sufficient funds for their second year. International students will receive the necessary visa application and instructions after they have paid their first year's tuition and enrollment fee and submitted their second-year payment plan. In order to complete registration, the remaining program fees must be paid.

14. *Financial aid.* A financial aid advisor and financial aid programs are available. Please contact the Office of Financial Aid by email, finaid@llu.edu; or by telephone, 909/558-4509. Website information is located at <http://www.llu.edu/students/financial-aid/>.

Transfer

Transfer from another school of dentistry in the United States is considered only in unusual circumstances. A transfer applicant should expect to begin at the first-year level and will be considered only if there is space available. An application for transfer will be considered when the following information is received in the school's Office of Admissions:

- Letter from applicant, stating reason for requesting transfer;
- Letter of recommendation from the dean of the dental school where the applicant is enrolled;
- Official transcripts sent directly to the LLUSD Office of Admissions for both pre-dental and dental school courses completed;
- Dental Admission Test results.

Program requirements

Code	Title	Clock Hours				Total Units
		Lec	Lab	Clinical	Total	
First Year (Term 1)						
DENT 700A	Dental Fundamentals I	50			50	5.0
DENT 701L	Dental Fundamentals I Laboratory		90		90	3.0
DENT 710A	Professionalism, Mission, and Personal Development I	25			25	2.5
DENT 720A	Patient-Centered Care I			60	60	2.0
DENT 730A	Biomedical Sciences and Oral Ecosystems I	135	31		166	14.5
DNES 500	Curricular Practical Training ^{1,3}		120		120	1.0
RELR 776	Christian Spirituality and the Health Professional	30			30	2.0-3.0
First Year (Term 2)						
DENT 700B	Dental Fundamentals I	60			60	6.0
DENT 702L	Dental Fundamentals I Laboratory		120		120	4.0
DENT 710B	Professionalism, Mission, and Personal Development I	15			15	1.5
DENT 720B	Patient-Centered Care I			135	135	4.5
DENT 730B	Biomedical Sciences and Oral Ecosystems I	155	92		247	18.5
RELE 734	Christian Ethics for Dentists	20			20	2.0
Second Year (Term 1)						
DENT 750A	Dental Fundamentals II	120			120	12.0
DENT 751L	Dental Fundamental II Laboratory		170		170	5.0
DENT 760A	Professionalism, Mission, and Personal Development II	15			15	1.5
DENT 770A	Patient-Centered Care II	60	90		150	9.0
DENT 780A	Biomedical Sciences and Oral Ecosystem II	80			80	8.0
RELR 717	Diversity and the Christian Health Professional	20			20	2.0

Second Year (Term 2)

DENT 750B	Dental Fundamentals II	125		125	12.5
DENT 752L	Dental Fundamental II Laboratory		180	180	6.0
DENT 760B	Professionalism, Mission, and Personal Development II	15		15	1.5
DENT 770B	Patient-Centered Care II	30	180	210	9.0
DENT 780B	Biomedical Sciences and Oral Ecosystem II	100		100	10.0

Third Year (Term 1)

DENT 800A	Dental Fundamentals III	45		45	4.5
DENT 801L	Dental Fundamentals III Lab		125	125	4.0
DENT 810A	Professionalism, Mission, and Personal Development III	45		45	4.5
DENT 820A	Patient-Centered Care III			360	12.0
DENT 830A	Biomedical Sciences and Oral Ecosystems III	30		30	3.0

Third Year (Term 2)

DENT 800B	Dental Fundamentals III	100		100	8.0
DENT 810B	Professionalism, Mission, and Personal Development III	35		35	3.5
DENT 820B	Patient-Centered Care III			360	12.0
DENT 830B	Biomedical Sciences and Oral Ecosystems III	50		50	5.0
RELR 749	Marriage and Family Wholeness	20		20	2.0
RELT 726	Jesus ²	20		20	2.0

Fourth Year (Term 1)

DENT 850A	Dental Fundamentals IV	20	30	50	3.0
DENT 860A	Professionalism, Mission, and Personal Development IV	35		35	3.5
DENT 870A	Patient-Centered Care IV			450	15.0
DENT 880	Biomedical Sciences and Oral Ecosystems IV	20		20	2.0

Fourth Year (Term 2)

DENT 850B	Dental Fundamentals IV	10	30	40	2.0
DENT 860B	Professionalism, Mission, and Personal Development IV	35		35	3.5
DENT 870B	Patient-Centered Care IV			450	15.0
RELR 715	Christian Dentist in Community	20		20	2.0

Total Units		1540	1258	1815	4613	249.5-250.5
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¹ DNES 500 Curricular Practical Training may be repeated during each term

² May be substituted with another 700-level RELT course in religion including RELT 716, 718, or 740.

³ Fulfills service learning requirement

Normal time to complete the program

4 years (15 academic quarters) – full-time enrollment required