

## Dentist Framework

### *What is a Dentist?*

Tasked with delivering safe and effective dental care to patients, dentists are specialized professionals who diagnose and provide treatments for a variety of oral health issues. These professionals are required to complete a supplementary four years of training in addition to undergraduate coursework, making them highly qualified for the role. They may work in general dentistry or concentrate their knowledge and skills in areas of orthodontics, oral and maxillofacial surgery, periodontics or endodontics. Whether opening their own practice or working with a team of dentistry professionals, dentists also frequently oversee the work of others in the office, including dental hygienists and assistants.

<https://www.learnhowtobecome.org/dentist/>

Below is a small chart that briefly outlines a broad introduction to the dental field. Dentist-specific information can be found later in the framework. The information is organized by grade level – which allows the educator to introduce the information to the student in *small, appropriate increments*.

<u>Programs and Professions</u>			
<b>What professions and programs are there in dentistry?</b>			
<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>
<ul style="list-style-type: none"><li>• Introduce the levels within the dental profession<ul style="list-style-type: none"><li>○ Dental Assisting</li><li>○ Dental Hygiene</li><li>○ Dentist</li><li>○ Dental Specialists</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Explain the differences between each level of dentistry</li></ul>	<ul style="list-style-type: none"><li>• Types of schools &amp; what programs they offer</li><li>• Length of Programs</li></ul>	<ul style="list-style-type: none"><li>• Job Statistics<ul style="list-style-type: none"><li>○ Salary</li><li>○ Job Growth</li></ul></li><li>• Dental Specialties</li></ul>

### **Ninth Grade**

- **What are the levels within the dental profession?**
  - There are a few different professions within the dental field. It begins with a dental assistant, followed by a dental hygienist, a dentist, and finally, a dental specialist - if the dentist chooses to specialize. Dentists may specialize in any of the ten dental specialties currently adopted by the American Dental Association. Some of these specialties include orthodontics and oral surgery.  
<https://www.ada.org/en/ncrdscb/dental-specialties/specialty-definitions>

### **Tenth Grade**

- **What are the differences between each level in dentistry? What do these professionals do?**
  - *Dental Assistant:* A dental assistant provides hands-on help for the dentist. The dental assistant performs preparatory work such as sterilizing equipment, preparing and developing x-rays, and taking impressions/molds of patients' teeth. Additionally, they guide the patients through their procedures and instruct patients on oral care. <https://www.ada.org/en/education-careers/careers-in-dentistry/dental-team-careers/dental-assistant>
  - *Dental Hygienist:* A dental hygienists work duties include performing dental cleanings, examining patients for signs of oral diseases (cancer screenings and gingivitis), and providing preventative dental care under the supervision of a dentist. They also educate patients on ways to improve oral health. <https://www.ada.org/en/education-careers/careers-in-dentistry/dental-team-careers/dental-hygienist>
  - *Dentist:* Dentists provide a lot of services for the continued oral health of their patients, focusing on preventing and stopping diseases through regular examinations. General dentists diagnose and treat patients, potentially offering more advanced treatments, such as bridgework, fitting for dentures, cavity fillings, and root canals — or referring the patient to specialized dentists. <https://www.ada.org/en/about-the-ada/dentists-doctors-of-oral-health>  
<https://www.ada.org/en/education-careers/dental-student-resources/career-options-after-dental-school/understanding-advanced-dental-education/program-options-and-descriptions>
  - *Dental Specialists:* Dental specialists are dentists who receive additional training in a specific dental specialty, beyond their general dentistry degree. There are 10 official dental specialties recognized by the American Dental Association. The two most common are Oral Surgeons and Orthodontists. <https://www.ada.org/en/about-the-ada/dentists-doctors-of-oral-health>

## **Eleventh Grade**

- **What are the types of schools the student can attend?**
  - Technical schools
    - Technical schools, also known as “vocational schools,” offer targeted, shorter instruction at a lower tuition, or cost, leading to a

certificate or an associate's degree. Many technical schools in Texas offer dual enrollment opportunities for high school students.  
<https://scitexas.edu/technical-school/>

- Community College
  - A community college is an institution that offers short term certificates or two-year associate's degrees. Associate's degrees transfer and often lead to four-year degrees at partnering universities. Many community colleges in Texas offer dual enrollment opportunities for high school students. They typically offer less expensive education than four-year universities. Most community colleges have open enrollment, meaning there are very few requirements for admission.  
<https://studyinthestates.dhs.gov/2012/03/what-is-community-college>
- College
  - A college is a four-year institution that offers degrees in specific areas of study (i.e. medicine or law). These degrees can lead to graduate or professional school. Colleges may have open enrollment or may have strict admission requirements.  
<https://www.trade-schools.net/articles/college-vs-university.asp#university>
- University
  - A University is a four-year institution that offers many different degrees through multiple "colleges" located on the same campus. Typically, a university may have a "College of Education" or a "College of Health Sciences". Universities also usually offer graduate (Master's, Doctorates) and professional degrees. Typically, universities have strict admission requirements that include grades, placements tests, and admissions tests like the SAT/ACT.  
<https://www.trade-schools.net/articles/college-vs-university.asp#university>
- **What types of school does a student need to attend for a Doctor of Dental Surgery/Doctor of Dental Medicine program? How long is this program?**
  - *Dentist:*
    - A Doctor of Dental Surgery (D.D.S.) or Doctor of Dental Medicine (D.M.D.) degree is only offered at universities.
    - Becoming a dentist typically takes four years of undergraduate study at a college or university, followed by another 4 years of dental school.

- Dentists can also choose to apply to Advanced Education General Dentistry (AEGD) residency and continue learning for an additional 1 to 2 years, depending on the program.  
[https://study.com/how\\_long\\_does\\_it\\_take\\_to\\_be\\_a\\_dentist.html](https://study.com/how_long_does_it_take_to_be_a_dentist.html)
- *Dental Specialists:*
  - Depending on the specialty chosen, on top of the 8 years it takes to become a dentist, a dental specialist must go through an additional 2-6 years to become a dental specialist.  
<https://www.hunterspence.com/hs-journal/dental-students-dental-school/how-long-does-it-take-to-become-a-dentist-four-basic-steps/>

## Twelfth Grade

- **What is the salary and expected job growth for a dentist and dental specialists?**
  - Dentist
    - The average hourly wage for a dentist is \$75.12 per hour. The average annual wage is \$156,240. The projected job growth is 7% over a ten-year period.  
<https://www.bls.gov/ooh/healthcare/dentists.htm>
  - Dental Specialist
    - Orthodontist
      - The average hourly wage for an Orthodontist is \$108.54 per hour. The average annual wage is \$225,760. The projected job growth is 17% over an eight-year period.  
<https://www.bls.gov/oes/current/oes291023.htm>
    - Oral and Maxillofacial Surgeon
      - The average hourly wage is \$116.52 per hour. The average annual wage is \$242,370. The projected job growth is 19% over an eight-year period.  
<https://www.bls.gov/oes/current/oes291022.htm>
- **What are the different dental specialties and what does their job involve?**
  - Orthodontist
    - Orthodontics is the dental specialty that includes the diagnosis, prevention, interception, and correction of bite problems or malocclusion (“mal” = bad, “occlusion” = bite) - most times with braces. These can include teeth that are crooked (misaligned) or

crowded (too close together, due to insufficient space in the jaw). Malocclusions can also result when the upper and lower jaws don't fit together as they should, whether from premature loss of baby teeth, developmental abnormalities, or other causes.

- Pediatric Dentist
  - Pediatric dentists are dentists who work specifically with children. A pediatric dentist has two to three years specialty training following dental school and limits his/her practice to treating children only. Pediatric dentists are primary and specialty oral care providers for infants and children through adolescence, including those with special health needs.
- Endodontist
  - Endodontics is the branch of dentistry concerning the pulp and tissues surrounding the roots of a tooth. "Endo" is the Greek word for "inside" and "odont" is Greek for "tooth." Endodontic treatment, or root canal treatment, treats the soft pulp tissue **inside** the tooth. An endodontist is a dentist who specializes in saving teeth - or preventing the need for extraction. Their additional training focuses on diagnosing tooth pain and performing root canal treatment and other procedures relating to the interior of the tooth.
- Prosthodontist
  - A prosthodontist has three years of extended training in several areas of restorative dentistry, including dental implants, crowns, bridges, complete dentures, partial dentures, esthetics, occlusion, and facial and dental birth developmental defects. Prosthodontics is the dental specialty pertaining to the diagnosis, treatment planning, rehabilitation and maintenance of oral function, comfort, appearance and health of patients with clinical conditions associated with missing or deficient teeth and/or oral and maxillofacial tissues using biocompatible substitutes.
- Periodontist
  - A periodontist is a dentist who specializes in the prevention, diagnosis, and treatment of periodontal (gum) disease, and in the placement of dental implants. Periodontics is that specialty of dentistry which encompasses the prevention, diagnosis and treatment of diseases of the supporting and surrounding tissues of the teeth or their substitutes and the maintenance of the health, function and esthetics of these structures and tissues.
- Oral & Maxillofacial Surgeon

- Oral & Maxillofacial Surgeons treat problems such as misaligned jaws, tumors and cysts of the jaw and mouth, and to perform dental implant surgery and wisdom teeth extractions. Oral and maxillofacial surgery is the specialty of dentistry which includes the diagnosis, surgical and adjunctive treatment of diseases, injuries and defects involving both the functional and esthetic aspects of the hard and soft tissues of the oral and maxillofacial region.
- Oral & Maxillofacial Radiologist
  - Oral and maxillofacial radiology is the specialty of dentistry and discipline of radiology concerned with the production and interpretation of x-rays that are used for the diagnosis and management of diseases, disorders and conditions of the oral and maxillofacial region.
- Oral & Maxillofacial Pathologist
  - Oral pathology is the specialty of dentistry and discipline of pathology that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions. It is a science that investigates the causes, processes, and effects of these diseases. Oral pathologists generally do not provide direct patient care. Rather, they diagnose cases, using clinical, radiographic, microscopic, biochemical or other examinations, and do biopsies in consultation to dentists and other physicians providing patient care.
- Dental Public Health
  - Dental Public Health is unique among the specialties in that it is not primarily a clinical specialty; it is a specialty whose practitioners focus on dental and oral health issues in communities and populations rather than individual patients. Dental public health is defined as the science and art of preventing and controlling dental diseases and promoting dental health through organized community efforts. It is the part of dentistry providing leadership and expertise in population-based dentistry, oral health surveillance, policy development, community-based disease prevention and health promotion, and the maintenance of the dental safety net.
- Dental Anesthesiologist
  - Dental anesthesiology is the specialty of dentistry and discipline of anesthesiology encompassing the art and science of managing pain, anxiety, and overall patient health during dental, oral, maxillofacial and adjunctive surgical or diagnostic procedures. The

specialty is dedicated to promoting patient safety as well as access to care for all dental patients, including the very young and patients with special health care needs.

<https://www.ada.org/en/ncrdscb/dental-specialties/specialty-definitions>

<u>Admissions</u>			
<b>What do I need in order to apply for dental school?</b>			
<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>
<ul style="list-style-type: none"> <li>• Dental Program Summary</li> <li>• Programs near the RGV</li> </ul>	<ul style="list-style-type: none"> <li>• Length of program</li> <li>• Program Cost</li> </ul>	<ul style="list-style-type: none"> <li>• Admission Requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Continuing Education (CE)</li> </ul>

- **Ninth Grade**

- **What does dental school entail?**

The dental school curriculum varies by school and often changes, but most schools follow the general structure outlined below. For more details on the curriculum of a specific school, visit the school website or reference the school's profile in the [ADEA Official Guide to Dental Schools](#).

The traditional dental school program is four years long. In the first two years of dental school, students spend most of their time studying basic biological sciences and learning the structure and function of the body and the diseases that can affect it.

Classes often include: Anatomy, Physiology, Biochemistry, Microbiology, Pharmacology and Dental-oriented sciences like Oral anatomy, Oral pathology, and Oral histology. Students also often learn about how to care for a diverse array of populations and may interact with patients to provide very basic oral health care. Most of their training outside of the core classes in the first two years involves practicing procedures on models of the mouth and teeth.

The last two years of dental school mostly involve clinical study (direct patient care) and some practice management instruction. Students will learn to care for chronically ill, disabled, special care and geriatric patients as well as children to ensure they have a wide variety of experience caring for all types of people. At many schools, students often rotate through various clinics, hospitals and other off-campus community settings, and work under the supervision of a clinical instructor. This gives students the opportunity to work closely with other health

professionals and health professions students, giving them the appreciation of a team approach to health care delivery. Dental schools change their curriculums often to meet the needs of a constantly changing population, but this general outline tends to stay the same across all schools.

- **Where can a student apply and attend dental school?**
  - For Texas and non-Texas residents, a **central application center** processes dental school applications to all medical and dental schools of The University of Texas System. Applications may be obtained from Texas Medical & Dental Schools Application Service, or TMDSAS.
  - If applying through the AADSAS application, which is used to apply to all other dental schools in the country, indicate the dental schools to which you want your application materials sent. The ADEA AADSAS application cycle generally opens on or around June 1. An early application significantly enhances your chances of having your application reviewed early. Don't procrastinate and let application deadlines sneak up on you!  
[https://www.adea.org/GoDental/Application\\_Prep/The\\_Admissions\\_Process/Timeline\\_to\\_apply.aspx](https://www.adea.org/GoDental/Application_Prep/The_Admissions_Process/Timeline_to_apply.aspx)
- **Tenth Grade**
  - **How long is dental school?**
    - The average length of dental school is four years. Dental students who wish to get advanced training can apply for advanced general residencies that can add an additional 1 or 2 years.
  - **What is the cost of dental school?**
    - The cost of attending dental school varies greatly from school to school. The cost of only tuition and fees for four years of dental school at the University School of Dentistry in Houston sits at about \$150,000.  
<https://www.uth.edu/registrar/tuition-and-fees/tuition-2019-2020/school-of-dentistry-dds-resident-tuition-2019-2020.htm>
- **Eleventh Grade**
  - **What are the admission requirements for dental school?**
    - There are four dental schools in the state of Texas. One in San Antonio, Houston, Dallas, and El Paso. Although the requirements



may differ slightly between schools, the following requirements are the general rule:

- Make sure to complete the prerequisite courses:
    - Six semester hours of English
    - Three semester hours of Statistics (from Math or Statistics Department)
    - Eight semester hours of General Chemistry
    - Eight semester hours of Organic Chemistry
    - Eight semester hours of Physics
    - Three semester hours of Biochemistry
    - Eighteen semester hours of Biology -- (minimum) 15 hours of lecture and 3 hours of formal laboratory.
    - Eight semester hours of Anatomy & Physiology
  - Take the Dental Admissions Test (DAT) and achieve a competitive score – a score of 21 and above is considered competitive. Students can still gain acceptance with a DAT score higher or lower than 21, with a 19 being the lowest.
  - Apply using TMDSAS. This includes 3 essays and application fees. In some cases, schools require secondary applications after the first one has been submitted. The TMDSAS application cycle opens May 1<sup>st</sup> and the AASDAS application cycle opens June 1<sup>st</sup>.
  - Be invited to complete an interview. Interviews vary on school but most include 2 interview: one by a faculty member and one by a dental student.
  - Complete an average of 90 general dentistry shadowing hours
  - <https://dentistry.tamu.edu/admissions/questions.html>
- **Twelfth Grade**
    - **What is required of a dentist?**
      - License Requirements
        - Graduated and received either the “DDS” or “DMD” degree from a dental school accredited by the Commission on Dental Accreditation (CODA) of the American Dental Association (ADA).
        - Is currently licensed as a dentist in good standing in another state, District of Columbia, or a territory of the United States provided that such licensure followed a successful completion of a general dentistry clinical examination administered by another state or regional examining board
        - Has practiced dentistry:
          - for a minimum of three (3) of the five (5) years immediately preceding application; or

- as a dental educator at a CODA-accredited dental school for the five (5) years immediately preceding application to Texas.
- Successful completion of National Boards Parts I and II.
- Have no disciplinary actions or felony convictions.
- Complete the [TSBDE Jurisprudence Assessment](#) within 12 months immediately prior to application submission.
- Complete 12 hours of Continuing Education (CE) taken within the preceding 12 months. All hours taken must be in accordance with [Chapter 104](#).
- Hold a current BLS CPR certification.
- Beginning October 1, 2021, applicants applying for licensure or registration with the Texas State Board of Dental Examiners (TSBDE) must complete a course in human trafficking prevention approved by the executive commissioner of the Texas Health and Human Services Commission and submit proof of completion with their application. This will be in addition to all required documentation that needs to be submitted to the TSBDE. For information on where to find approved courses, please click [here](#).
- <https://tsbde.texas.gov/licensing/dentists/dentist-license-by-credentials/>