

# DOCTOR OF SCIENCE IN DENTISTRY, DSCD

The highly respected research environment at the School of Dental Medicine and throughout the University of Pennsylvania provides a valuable opportunity for students applying to the School's graduate dental education programs to combine their specialty training with advanced research and academic opportunities through a Doctor of Science in Dentistry (DScD) degree. The DScD will prepare students to successfully enter the field of academic dentistry for careers as clinical or basic science researchers.

The program combines the research and clinical strengths of the School, drawing faculty mentors from throughout the clinical and basic science departments. With the goal of providing the opportunity to pursue research across disciplines, students also have the option to work with researchers from the School of Dental Medicine, School of Engineering and Applied Sciences (<https://www.seas.upenn.edu/>), School of Medicine (<https://www.med.upenn.edu/>), School of Nursing (<https://www.nursing.upenn.edu/>), and School of Veterinary Medicine (<https://www.vet.upenn.edu/>) of the University of Pennsylvania. Both rigorous clinical and research experiences are central to the DScD program and students devote from 40% to 80% of their time in each year of the program to research; clinical training also occurs in each year of the program to ensure maintenance of clinical skills throughout.

The DScD program is open to students with a DMD/DDS degree or equivalent who are pursuing advanced training in the School's Periodontics (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/periodontic-program/>), Endodontics (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/endodontic-program/>), Orthodontics (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/orthodontic-program/>), Periodontics/Prosthesis (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/periodontal-prosthesis-program/>), or Oral Medicine (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/oral-medicine-program/>) postgraduate programs. Candidates concurrently complete their clinical specialty training and DScD degree, engaging in an intensive research program that culminates in a thesis and oral defense. The program is also open to individuals who have completed their clinical specialty training, but are interested in obtaining a DScD degree; students in this track complete all of the didactic courses and research requirements but do not directly participate in clinical care. Those interested in applying to the DScD program should indicate so on their application to a clinical specialty program. If the applicant already has a certificate in a clinical specialty, he or she can apply directly to the DScD program.

**For more information:** <https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/doctor-of-science-in-dentistry/>

This degree requires a minimum of 80 Credit Hours.

## Curriculum

### DScD with Postgraduate Certificate Program

The Doctor of Science in Dentistry (DScD) program is tailored to meet CODA requirements for each clinical specialty. For Endodontics (<https://www.dental.upenn.edu/>)

[academic\\_programs\\_admissions/graduate\\_dental\\_education\\_programs/endodontic\\_residency\\_program/](https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/endodontic-residency-program/)), Orthodontics (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/orthodontic-residency-program/>), Oral Medicine (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/oral-medicine-residency-program/>), and Pediatric Dentistry (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/pediatric-dentistry-residency-program/>) postgraduate programs it is 5 years, for Periodontics (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/periodontic-residency-program/>) 5.5 years and for Periodontic/Prosthesis (<https://www.dental.upenn.edu/admissions-academics/graduate-dental-education-programs/periodontal-prosthesis-program/>) 6 years. Clinical, didactic, and research aspects of the program are integrated so that in all years students experience both clinical and research training. In years one and two, there is greater focus on clinical training, while in later years there is greater focus on research training with clinical activities continuing in all years. All courses taken as part of clinical training are credited toward the DScD degree. In addition, three didactic courses from Penn's Biomedical Graduate Studies program related to the research topic are required and typically taken in years two through four. Each student will write a K08 or K23 grant award; the application becomes the basis of a qualifying exam for the program. Only US citizens/green card holders will actually submit their K08 or K23 proposal to the NIH. This represents important training in grant writing as well as training in writing a scientific paper for publication, both of which are important aspects of academic success. NOTE: Acceptance into the specialty certificate program does not guarantee acceptance into the DScD program.

### DScD without Postgraduate Certificate Program

Students who have completed clinical specialty training at an accredited institution are eligible to apply for the Doctor of Science in Dentistry (DScD) program without certificate. This program is 4 years in length. Students in this program are associated with a clinical specialty and will take all didactic courses in the specialty as well as a dissertation project but will not receive clinical training. In addition, the student will take three didactic courses from Penn's Biomedical Graduate Studies program related to the research topic, typically taken in years 2-4. The didactic, research and dissertation components for this program are the same as those for the combined DScD/Certificate program.

### General Requirements

All DScD students must complete the Core Graduate Dental Education courses, as well as three didactic courses from Biomedical Graduate Studies and a dissertation. Additional requirements depend on the track and clinical specialty.

### Core Graduate Dental Education Courses

Code	Title	Course Units
<b>Year 1</b>		
<i>Fall</i>		
DADE 9330	Ethics, Professionalism and Jurisprudence	1-3
DADE 9340	Evidence-based clinical practice	1.75-3
DADE 9350	Oral and systemic diseases	3.75-5
<i>Spring</i>		
DADE 9360	Oral infection and immunity	4-6

DADE 9370	Conservative and regenerative clinical practice	2-5
DADE 9380	Vulnerable populations across the lifespan	1.5-3.5

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The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2025 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

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