

# ORTHODONTICS (CERTIFICATE)

The Graduate Orthodontics Program was established in 2004 and is a full-time program requiring 30 months in active residency beginning in August each year. The orthodontics program provides a balanced education with a strong emphasis in clinical experience where residents are exposed to the most current techniques and practices in the field. Upon completion of the program, the resident is awarded a Certificate in Orthodontics and a Master of Science in Dentistry.

The program will include extensive exposure to a multitude of cases, treatment philosophies, and practice management experiences. Residents will have the opportunity to start over 45 cases using various appliances and systems. Throughout the program, residents can expect to treat Invisalign, SLX Clear aligner, Lingual as well as a large number of Cleft Lip and Palate/ Craniofacial Anomaly cases.

The University of Colorado School of Dental Medicine Graduate Orthodontics Program accepts 10 residents each year from a variety of backgrounds and life experiences. We use a holistic review process when considering applicants by reviewing a number of factors with an emphasis on academic achievement, service, research, class rank and an invitation only interview.

## Ideal Applicant

- Dental school GPA of 3.5 or higher
- GRE scores (top quartile)
- Class rank (top 30%)
- Research experience is highly desirable
- Record of service activities
- Excellent letters of recommendation (A strong recommendation from the applicant's department of orthodontics is preferable)
- **Advanced Dental Admission Test (ADAT)** - While not required, applicants may submit their ADAT score to supplement their application

## Prerequisite Requirements

- Graduate from an ADA accredited dental school in the United States or Canada with a DDS or DMD degree
- Pass the National Board Dental Examinations (NBDE) Part I. Applicant must pass the NBDE Part II before enrollment into the program

## Application Requirements

To apply, please apply using **ONE** of the following methods:

### PASS Application-

Applicants may apply by submitting a portion of the application requirements via the web-based application, Postdoctoral Application Support Service (PASS) (<https://pass.liaisoncas.com/applicant-ux/#/> login).

The PASS application includes:

- Personal essay
- Academic Performance Evaluation Form

- Three (3) letters of recommendation
- Official transcripts from all colleges/universities attended
- National Board Dental Examination scores

The remaining items must be submitted to the address below to complete your application:

- CU Orthodontics Supplemental Application ([https://dental.cuanschutz.edu/docs/librariesprovider253/ortho-students/cu-orthodontics-supplemental-application\\_2020.pdf?sfvrsn=bdeea5b9\\_2](https://dental.cuanschutz.edu/docs/librariesprovider253/ortho-students/cu-orthodontics-supplemental-application_2020.pdf?sfvrsn=bdeea5b9_2))
- Official GRE scores (Institutional code: 7209)
- \$100 application fee payable to "CU Orthodontics"
- Small photo (passport size)

OR

### CU Orthodontics Application

Applicants may apply by submitting all the following required items directly to the CU Orthodontics program at the address below:

- Completed CU Orthodontics Application ([https://dental.cuanschutz.edu/docs/librariesprovider253/ortho-students/orthodontics-application-2022\\_final.pdf?sfvrsn=e0858eba\\_2](https://dental.cuanschutz.edu/docs/librariesprovider253/ortho-students/orthodontics-application-2022_final.pdf?sfvrsn=e0858eba_2)) includes the following forms:
  - Personal essay
  - Academic Performance Evaluation Form
  - Three (3) letters of recommendation that can be sent via email (Orthoadmissions@ucdenver.edu) from the person recommending you.
  - Official transcripts from all colleges/universities attended
- National Board Dental Examination scores (INBDE also accepted)
- Official GRE scores (Institutional code: 7209)
- \$75 application fee payable to "CU Orthodontics"
- Small photo (passport size)

### Mailing Address:

University of Colorado School of Dental Medicine  
Graduate Orthodontics Program Application  
13065 East 17th Avenue  
Mail Stop F849  
Aurora, CO 80045

## Nondiscrimination Policy

The CU School of Dental Medicine Graduate Orthodontics Program does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy in admission and access to, and treatment and employment in, its educational programs and activities. Individuals of all ethnic minority groups are encouraged to apply for admission.

The 30-month residency program will be covered according to the following manner:

- Didactic - 26%
- Clinical - 58%

- Research -13%
- Teaching -3%

*Clinical emphasis is placed on the use of contemporary edgewise appliances in conjunction with functional and other orthopedic appliances to treat children, adolescents and adults using both routine orthodontics and orthognathic surgery. Participation with craniofacial anomaly patients and boards is required.*

## First Year

First Year		
Fall		Hours
DSOR 5101	Orthodontics 101 - Boot Camp	4.2
DSOR 5102	Dentofacial Growth and Development 1	1.8
DSOR 5103	Diagnosis and Treatment Planning 1	1.8
DSOR 5104	Biomechanics 1	3.5
DSOR 5105	Research Methodology and Biostatistics 1	1.8
DSOR 5107	Treatment Planning 1	3.5
DSOR 5108	Current Literature Review 1	0.9
DSOR 5111	History of Orthodontics & Dentofacial Orthopedics	0.9
DSOR 5841	Research 1 (Independent Study)	0.9
DSOR 5931	Clinical Orthodontics 1	6.8
<b>Hours</b>		<b>26.099999999999998</b>
<b>Total Hours</b>		<b>26.099999999999998</b>

First Year		
Spring		Hours
DSOR 5202	Dentofacial Growth and Development 2	2.5
DSOR 5203	Diagnosis and Treatment Planning 2	2.5
DSOR 5204	Biomechanics 2	3.8
DSOR 5205	Research Methodology & Biostatistics 2	2.5
DSOR 5207	Treatment Planning 2	5
DSOR 5208	Current Literature Review 2	1.3
DSOR 5321	Orthognathic Surgical Treatment	2.5
DSOR 5842	Research 2	0.8
DSOR 5932	Clinical Orthodontics 2	9.5
<b>Hours</b>		<b>30.400000000000002</b>
<b>Total Hours</b>		<b>30.400000000000002</b>

First Year		
Summer		Hours
DSOR 5211	Treatment in Preadolescent Children	1.8
DSOR 5304	Biomechanics 3	1.8
DSOR 5302	Implants in the Orthodontic Patient	1
DSOR 5307	Treatment Planning 3	3.5
DSOR 5331	Management of the TMJ Patient	1.8
DSOR 5341	Fundamentals of Teaching	0.9
DSOR 5344	Advanced Radiology and Radiographic Interpretation	1.8
DSOR 5843	Research 3	5
DSOR 5933	Clinical Orthodontics 3	6.4
<b>Hours</b>		<b>24</b>
<b>Total Hours</b>		<b>24</b>

## Second Year

Second Year		
Fall		Hours
DSOR 6107	Treatment Planning 4	4
DSOR 6108	Current Literature Review 4	1
DSOR 6111	Periodontic/Orthodontic Treatment	1
DSOR 6201	Ethics & Practice Management	2
DSOR 6206	Dent/Craniofacial Anomalies	1
DSOR 6844	Research 4	6.5
DSOR 6934	Clinical Orthodontics 4	8.1
<b>Hours</b>		<b>23.6</b>
<b>Total Hours</b>		<b>23.6</b>

Second Year		
Spring		Hours
DSOR 8317	Advanced Diagnosis of Oral Lesions	0.08
DSOR 6207	Treatment Planning 5	5
DSOR 6208	Current Literature Review 5	1.3
DSOR 6209	Surgical Anatomy & Osteology	1.1
DSOR 6845	Research 5	2.4
DSOR 6935	Clinical Orthodontics 5	11.1
DSOR 6936	Review for American Board Examination	1.2
<b>Hours</b>		<b>22.18</b>
<b>Total Hours</b>		<b>22.18</b>

Second Year		
Summer		Hours
DSOR 7107	Treatment Planning 6	3.5
DSOR 7108	Current Literature Review 6	0.9
DSOR 7112	Orthodontic Clinical Teaching 1	3.5
DSOR 7846	Research 6	5
DSOR 7936	Clinical Orthodontics 6	7.6
DSOR 7938	Clinical Problems 1	0.9
<b>Hours</b>		<b>21.4</b>
<b>Total Hours</b>		<b>21.4</b>

## Third Year

Third Year		
Fall		Hours
DSOR 7207	Treatment Planning 7	4
DSOR 7208	Current Literature Review 7	1
DSOR 7212	Orthodontic Clinical Teaching 2	4
DSOR 7847	Research 7	5
DSOR 7937	Clinical Orthodontics 7	8.7
DSOR 7939	Clinical Problems 2	1
DSOR 7940	Orthodontic Retention I	3
<b>Hours</b>		<b>26.7</b>
<b>Total Hours</b>		<b>26.7</b>

Third Year		
Spring		Hours
DSOR 7307	Treatment Planning 8	2
DSOR 7300	Current Literature Review 8	0.5

DSOR 7312	Orthodontic Clinical Teaching 3	0.3
DSOR 7848	Research 8	0.6
DSOR 7934	Clinical Orthodontics 8	4.7
DSOR 7941	Orthodontic Retention II	2
<b>Hours</b>		<b>10.1</b>
<b>Total Hours</b>		<b>10.1</b>

## Requirements for Graduation

- Attendance of all classes, clinics, and assigned meetings
- Passing all classes and maintaining an overall B average or above
- Successful completion of the Proficiency Examinations
- Demonstration of clinical proficiency in orthodontics
- Completion of a research project and committee approval/defense of a publishable manuscript in AJODO format
- Successful completion of all required courses.
- Challenging Part II (written examination) of the American Board of Orthodontics during the 2nd year.

### Program Goal 1

- Provide patient-based clinical care to help residents gain proficiency in orthodontics and deliver high-quality care to patients

#### Objectives:

- Overall Provide a diverse clinical experience similar to normal clinical practice
- Gather an appropriate and complete data base on each patient to provide a strong foundation for diagnosis, treatment planning, treatment consultation, treatment and retention of the patient
- Utilize a problem-based diagnostic and treatment planning strategy for all patients
- Utilize craniofacial growth and development knowledge in planning and carrying out patient treatment
- Integrate relevant biological, clinical and behavioral science into patient treatment
- Utilize current biomechanical and biomaterial techniques and strategies in patient care
- Utilize interdisciplinary consultation and care when appropriate
- Apply the principles of infection control and environmental safety to patient care and clinical operations

### Program Goal 2

- Provide residents with broad-based didactics and a strong basis for continued learning and clinical practice

#### Objectives:

- Use and understand basic scientific principles
- Provide sufficient supporting knowledge to allow residents to appropriately evaluate the literature and interact knowledgeably with other dental specialists
- Provide appropriate knowledge on business, legal and ethical issues to aid the student in managing an orthodontic practice

### Program Goal 3

- Provide residents the foundation to critically evaluate and conduct research

#### Objectives:

- Provide familiarity with research design and statistical analysis
- Formulate a proposal, carry out a research project, analyze results and write the results in a publishable format
- Submit a publishable manuscript to a journal as a contribution to the clinical and scientific literature
- Develop characteristics of a life-long learner

### Program Goal 4

- Encourage service and socially responsible behavior

#### Objectives:

- Participate in organized dentistry initially by attending local and national meetings
- Participate in craniofacial deformity and underprivileged patient clinics
- Educate non-orthodontists concerning orthodontics