

# ORTHODONTICS, M.S. IN DENTISTRY

Saint Louis University's orthodontic program strives to balance progressive excellence with the highest standards and the compassionate service of our Catholic, Jesuit heritage. Graduates leave SLU prepared to be astute and aware clinicians using an integrated, multidisciplinary approach to caring for craniofacial and dental patient problems.

## Curriculum Overview

Saint Louis University's orthodontic program offers three basic areas of training: an extensive and comprehensive clinical experience that involves diagnosis, treatment planning, active treatment and retention of patients representing a variety of malocclusions and craniofacial deformities; core courses that include biomedical sciences and clinical concepts; and orthodontic research. Students will need to complete 88 credits to graduate.

Specific courses include facial development, biomechanics, clinical cephalometrics, oral biology, surgical orthodontics, orthodontic problems related to the cleft-palate patient, speech problems related to the oral mechanism, history of orthodontics, diagnosis and treatment planning, clinical diagnosis, orthodontic analysis and treatment modalities, introduction to clinical orthodontics, principles of orthodontic techniques, seminar on child and adolescent psychology, digital orthodontics, scenario-based case analysis, orthodontic business management, review for the ABO examination and thesis research.

## Fieldwork and Research Opportunities

Following preliminary laboratory and classroom instruction, each resident in the orthodontic program initiates treatment on a large number of patients who present a broad array of dental malocclusions and skeletal deformities. Although residents are first introduced to the Tweed edgewise philosophy form of treatment, students are also exposed to Tip-Edge mechanics (the sequel to Begg therapy), functional and other removable appliances, and various straight-wire appliances. The supervising faculty members present their philosophies and techniques through lectures, seminars, laboratory exercises, and demonstrations.

In the clinic, students are exposed to a wide array of patient types. Children, adolescents and adults are treated; consequently, students are exposed to treatment in the deciduous, mixed and adult dentitions. Students are also exposed to cases with compromised oral health that require consideration of periodontal, restorative and temporomandibular joint treatment. As a result, many patients are treated by an interdisciplinary approach with other healthcare professionals. Throughout the clinical experience, each student receives a great deal of faculty attention. The development of diagnostic and treatment skills is emphasized as a major responsibility to students.

Additional courses and seminars augment the clinical experience, covering the topics of diagnosis and treatment planning, cephalometrics, theoretical and practical biomechanics, oral pathology, oral medicine, multidisciplinary treatment, speech disorders, craniofacial defects with particular emphasis on cleft lip/palate rehabilitation, adolescent and adult psychology, implants, dentofacial orthopedics, surgical orthodontics, TMJ disorders and practice management.

Students also receive training in research design and statistics and must conduct an original research project. This effort leads to the preparation and defense of a thesis and, subsequently, the production of a manuscript suitable for publication in a journal relating to the specialty of orthodontics. The experience of discovery provided by such research is an integral part of the graduate program, and students are expected to produce a meaningful contribution to the field of orthodontics.

## Careers

Our goal is to prepare orthodontic graduates to pursue careers with many possibilities: as clinicians with practices limited to orthodontics, as researchers or as teachers of orthodontics.

## Admission Requirements

A D.D.S., D.M.D., or equivalent general dental degree is required for matriculation in this and all other Saint Louis University Center for Advanced Dental Education dental training programs.

## Application Requirements

- Online application through ADEA Postdoctoral Application Support Service (ADEA PASS)
- Three letters of recommendation
- National board score test results (not required for international applicants)
- GRE Scores
- Transcript(s)
- Biographical goals statement
- Curriculum vitae or résumé
- National Match number

## Requirements for International Students

All Saint Louis University admission policies and requirements for domestic students apply to international students. International students applying to SLU must also meet the following additional requirements:

- Demonstrate English language proficiency (<https://catalog.slu.edu/academic-policies/office-admission/undergraduate/english-language-proficiency/>)
- Academic records must include an English translation. Unofficial copies may be accepted in some cases for initial admission review, however official copies must be received prior to enrollment. Course-by-course transcript evaluations are accepted.

Students must submit financial documents to be issued an I-20 for their F-1 visa application. Proof of financial support must include:

- A letter of financial support from the person(s) or sponsoring agency funding the student's time at Saint Louis University
- A letter from the sponsor's bank verifying that the funds are available and will be so for the duration of the student's study at the University

## Application Deadline

Applications must be completed by Sept. 1 to be considered for the orthodontic program beginning the summer semester of the following year.

## Review Process

Promising applicants are invited for on-site interviews beginning in October. The orthodontic program subscribes to a national matching service and the "tell date" occurs in late November or early December.

## Tuition

Tuition	Cost Per Semester
Graduate Tuition	\$23,410

Additional charges may apply. Other resources are listed below:

Net Price Calculator (<https://www.slu.edu/financial-aid/tuition-and-costs/calculator.php>)

Information on Tuition and Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition/>)

Miscellaneous Fees (<https://catalog.slu.edu/academic-policies/student-financial-services/fees/>)

Information on Summer Tuition (<https://catalog.slu.edu/academic-policies/student-financial-services/tuition-summer/>)

## Scholarships and Financial Aid

For priority consideration for graduate assistantship, apply by Feb. 1.

For more information, visit the Office of Student Financial Services (<https://www.slu.edu/financial-aid/>).

## Accreditation

The orthodontic program is fully accredited by the Commission on Dental Accreditation of the American Dental Association. Following completion of the program, graduates are educationally qualified for certification by the American Board of Orthodontics.

## Learning Outcomes

1. Graduates will be able to use the knowledge and concepts of orthodontics, apply major practices, theories, or evidence-based literature in clinical orthodontics.
2. Graduates will be able to assess relevant literature or scholarly contributions in orthodontics.
3. Graduates will be able to articulate arguments or explanations to both a disciplinary or professional audience and to a general audience, in both oral and written forms.
4. Graduates will be able to evidence scholarly and professional integrity in orthodontics.

## Requirements

Code	Title	Credits
CAD 5010	Pain: Anatomy, Physiology, Psychology, Treatment	1
CAD 5060	Ethics and Dentistry	1
CAD 5070	Bone Physiology	1
CAD 5080	Multidis Diag + Trtmnt Plan I (Taken multiple times for 5 credits total)	1
CAD 5140	Temporomandibular Disorders	1
CAD 5175	Advanced Oral Pathology & Medicine	2
CAD 5190	Advanced Head and Neck Anatomy	2

CAD 5240	Temporary Skeletal Anchorage	1
ORES 5010	Introduction to Biostatistics for Health Outcomes	3
ORES 5100	Research Methods in Health & Medicine	3
ORTH 5010	Fundamentals of Orthodontics (Taken multiple times for 2 credits total)	1
ORTH 5020	Orthodontic Business Management (Taken multiple times for 3 credits total)	1
ORTH 5030	Facial Growth	2
ORTH 5100	Biomechanics (Taken multiple times for 2 credits total)	1
ORTH 5250	Clinical Cephalometrics (Taken multiple times for 4 credits total)	2
ORTH 5350	Surgical Orthodontics	1
ORTH 5370	Orthodontic Problems Related to Cleft Palate Patient	1
ORTH 5390	Speech Disorders Related to the Oral Mechanism	1
ORTH 5490	Diagnosis Procedures in Orthodontics	1
ORTH 5530	Clinical Diagnosis I	1
ORTH 5540	Clinical Diagnosis II	1
ORTH 5560	Clinical Case Conferences (Taken multiple times for 8 credits total)	1
ORTH 5580	Clinical Specialty Seminars (Taken multiple times for 8 credits total)	1
ORTH 5600	Introduction to Clinical Orthodontics I	1
ORTH 5660	Contemporary Orthodontics I	1
ORTH 5670	Contemporary Orthodontics II	1
ORTH 5700	Clinical Procedures	1
ORTH 5710	Clinical Orthodontics I	1
ORTH 5720	Clinical Orthodontics II	3
ORTH 5730	Clinical Orthodontics III	3
ORTH 5740	Clinical Orthodontics IV	1
ORTH 5750	Clinical Orthodontics V	3
ORTH 5760	Clinical Orthodontics VI	3
ORTH 5770	Clinical Orthodontics VII	1
ORTH 5780	Clinical Orthodontics VIII	1
ORTH 5800	Child and Adolescent Psychology	1
ORTH 5840	Early and Mixed Dentition (Taken multiple times for 3 credits total)	1
ORTH 5850	Adult Treatment (Taken multiple times for 4 credits total)	1-2
ORTH 5890	Review for the American Board of Orthodontics Examination	1
ORTH 5910	Literature Review (Taken multiple times for 3 credits total)	1
ORTH 5990	Thesis Research (Taken multiple times for 6 credits total)	0-6
ORTH 6000	Treatment Planning with Digital Technology	1
ORTH 6050	Scenario Based Case Analysis	1
<b>Total Credits</b>		<b>95</b>

## Non-Course Requirements

Supervised active and retention clinical orthodontic treatment of patients; comprehensive orthodontic specialty examinations utilizing

written, oral, and practical clinical formats. Second-year residents are required to attend the Tweed Course during the fall semester, which is offered by The Charles H. Tweed International Foundation. Further details regarding the course will be provided to the residents upon enrollment.

**All 1st year** residents are required to complete the Online course in Responsible Conduct in Research (RCR) by the end of the Spring term.

## Continuation Standards

Students must maintain a cumulative grade point average (GPA) of 3.00 in all graduate/professional courses.

## Roadmap

Roadmaps are recommended semester-by-semester plans of study for programs and assume full-time enrollment unless otherwise noted.

Courses and milestones designated as critical (marked with !) must be completed in the semester listed to ensure a timely graduation. Transfer credit may change the roadmap.

This roadmap should not be used in the place of regular academic advising appointments. All students are encouraged to meet with their advisor/mentor each semester. Requirements, course availability and sequencing are subject to change.

Course	Title	Credits
<b>Year One</b>		
<b>Summer</b>		
ORTH 5250	Clinical Cephalometrics (extends into fall)	2
ORTH 5490	Diagnosis Procedures in Orthodontics	1
ORTH 5560	Clinical Case Conferences	1
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5600	Introduction to Clinical Orthodontics I	1
ORTH 5700	Clinical Procedures	1
ORTH 5710	Clinical Orthodontics I	2
<b>Credits</b>		<b>9</b>
<b>Fall</b>		
CAD 5070	Bone Physiology	1
CAD 5080	Multidis Diag + Trtmnt Plan I	1
CAD 5240	Temporary Skeletal Anchorage	1
ORES 5010	Introduction to Biostatistics for Health Outcomes	3
ORTH 5010	Fundamentals of Orthodontics	1
ORTH 5030	Facial Growth	2
ORTH 5100	Biomechanics	1
ORTH 5560	Clinical Case Conferences	1
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5660	Contemporary Orthodontics I	1
ORTH 5720	Clinical Orthodontics II	3
<b>Credits</b>		<b>16</b>
<b>Spring</b>		
CAD 5060	Ethics and Dentistry	1
CAD 5080	Multidis Diag + Trtmnt Plan I	1
CAD 5140	Temporomandibular Disorders	1
CAD 5190	Advanced Head and Neck Anatomy	2
ORTH 5010	Fundamentals of Orthodontics	1

ORTH 5550	Orthodontic Analysis & Treatment Modalities	1
ORTH 5560	Clinical Case Conferences	1
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5590	Orthodontic Aspects of Sleep Breathing Disorders	1
ORTH 5670	Contemporary Orthodontics II	1
ORTH 5730	Clinical Orthodontics III	1
ORTH 5840	Early and Mixed Dentition	0
ORTH 5990	Thesis Research	0
ORTH 6010	Digital Orthodontics I	1

**Credits 13**

### Year Two

#### Summer

CAD 5010	Pain: Anatomy, Physiology, Psychology, Treatment	1
ORES 5100	Research Methods in Health & Medicine (online)	3
ORTH 5390	Speech Disorders Related to the Oral Mechanism	1
ORTH 5560	Clinical Case Conferences	0
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5740	Clinical Orthodontics IV	3
ORTH 5800	Child and Adolescent Psychology	1
ORTH 5840	Early and Mixed Dentition	0
ORTH 5910	Literature Review	0
ORTH 5990	Thesis Research	1
ORTH 6020	Digital Orthodontics II	0

**Credits 11**

#### Fall

CAD 5080	Multidis Diag + Trtmnt Plan I	1
CAD 5175	Advanced Oral Pathology & Medicine	2
ORTH 5350	Surgical Orthodontics	1
ORTH 5370	Orthodontic Problems Related to Cleft Palate Patient	1
ORTH 5530	Clinical Diagnosis I	1
ORTH 5560	Clinical Case Conferences	1
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5750	Clinical Orthodontics V	3
ORTH 5840	Early and Mixed Dentition (grade submitted this term)	1
ORTH 5910	Literature Review	1
ORTH 5990	Thesis Research	1

**Credits 14**

#### Spring

CAD 5080	Multidis Diag + Trtmnt Plan I	1
ORTH 5020	Orthodontic Business Management	1
ORTH 5540	Clinical Diagnosis II	1
ORTH 5560	Clinical Case Conferences	1
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5760	Clinical Orthodontics VI	1
ORTH 5850	Adult Treatment	0

ORTH 5890	Review for the American Board of Orthodontics Examination	1
ORTH 5910	Literature Review	1
ORTH 5990	Thesis Research	1
ORTH 6020	Digital Orthodontics II	1
<b>Credits</b>		<b>10</b>

**Year Three****Summer**

ORTH 5020	Orthodontic Business Management	0
ORTH 5560	Clinical Case Conferences	0
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5770	Clinical Orthodontics VII	3
ORTH 5850	Adult Treatment	0
ORTH 5990	Thesis Research	1
<b>Credits</b>		<b>5</b>

**Fall**

CAD 5080	Multidis Diag + Trtmnt Plan I	1
ORTH 5020	Orthodontic Business Management	1
ORTH 5560	Clinical Case Conferences	1
ORTH 5580	Clinical Specialty Seminars	1
ORTH 5780	Clinical Orthodontics VIII	0-1
ORTH 5850	Adult Treatment (grade submitted this term)	2
ORTH 5990	Thesis Research	2
ORTH 6050	Scenario Based Case Analysis	1
<b>Credits</b>		<b>9-10</b>

**Total Credits 87-88**

## Optional Spring and Summer for 36-month Program

Course	Title	Credits
<b>Year Three</b>		
<b>Spring</b>		
ORTH 5940	Orthodontic Internship (Optional)	1
ORTH 5950	Special Study for Exams (Optional)	0
ORTH 5990	Thesis Research (Optional)	0
ORTH 6110	Advanced Orthodontic Studies for 36 Month Program Requirements	2
<b>Credits</b>		<b>3</b>
<b>Year Four</b>		
<b>Summer</b>		
ORTH 5780	Clinical Orthodontics VIII (Optional for Year 4)	0
ORTH 5940	Orthodontic Internship (Optional)	0
ORTH 5990	Thesis Research (Optional)	0
<b>Credits</b>		<b>0</b>
<b>Total Credits</b>		<b>3</b>