Orthodontics, M.S.

Degree Offered

• Master of Science

Nature of the Program

The School of Dentistry and the Department of Orthodontics at West Virginia University offer a 34-month (three academic years) advanced education Master of Science program. The program models a private practice atmosphere with state-of-the-art clinical facilities. The curriculum is centered on daily clinical seminars and private instruction with each individual class. Also included are regularly scheduled orthognathic surgery conferences and seminars with other dental and medical specialists.

A stipend plus tuition waiver will be provided for graduate students in Orthodontics at the end of the second year for summer session and fall/spring semesters of the third year. Special fees are not covered by the tuition waiver. You must pay special fees each term/semester.

Inquiries concerning this program should be directed to the Office of Admissions, Recruitment and Access. This program is accredited by the Commission on Dental Accreditation of the American Dental Association. Applications will be processed by the School of Dentistry. For details about the faculty, publications, and alumni information, please visit the Department website at Department of Orthodontics. (https://dentistry.hsc.wvu.edu/departments/orthodontics/)

Program Goals

The postgraduate program is designed to develop skilled practitioners who can easily transition into and manage a busy orthodontic practice. The goal of this program is to teach a variety of treatment mechanics that are scientifically valid and foster decision making skills based on treatment needed on a case-by-case basis. Clinical experiences are diverse, including cleft lip and palate and orthognathic surgery cases.

An original master’s thesis project is required and is designed to obtain results suitable for publication in a reputable dental journal. The curriculum focuses on didactic and clinical materials to prepare residents for taking the American Board of Orthodontics (ABO) Examinations. Classes pertaining to the written board are given throughout the three-year program. It is a requirement for every third year resident to take and pass the written component of the ABO, and all residents are encouraged to complete the board certification process.

Program Curriculum

The 34-month Master in Science program in Orthodontics begins July 1. First-year residents begin an intensive Orthodontic Technique course on July 1 and begin seeing new patients in mid-July. In August, first year residents begin a full clinic schedule which includes morning and afternoon clinic sessions.

Didactic course work at the WVU Department of Orthodontics consists of faculty led, resident taught lectures and seminar sessions for an average of two hours each day. Seminar topics range from patient diagnosis and treatment planning to practice management and financial planning. In addition, evidence-based products and techniques are reviewed.

Clinical work simulates the private practice environment. There are two dental assistants and a patient service coordinator available in the clinic to aid residents during clinic sessions. All orthodontic records are computerized. Diagnosis and treatment planning can be completed entirely in the digital realm. Billing, scheduling, and record storage is accomplished using a commercial dental office management system. The orthodontic clinic is completely paperless to maximize clinical efficiency so residents are able to increase their patient experiences.

FACULTY

CHAIR

• Peter Ngan - D.M.D.
  Harvard University

GRADUATE PROGRAM DIRECTOR

• Khaled AlSharif - B.D.S., M.S.
  Riyadh Colleges of Dentistry and Pharmacy

PROFESSOR

• Chris A. Martin - D.D.S., M.S.
  West Virginia University
Admissions

The program's admission requirements are as follows:

- Must have passed National Board Dental Examination - Part 1 at the time of application and Part 2 upon entrance to the program or the Integrated Exam (INBDE).
- Must have earned a D.M.D./D.D.S. degree, or its equivalent.
- Must report GRE scores.
- Must be proficient in the English language and provide a TOEFL score (if you are a foreign applicant).
- Must display evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. A minimum grade point average of 3.0 is required.
- Must apply to the program through the Postdoctoral Application Support Service (PASS) (https://www.adea.org/) and have all application materials submitted by September 15.
- Must apply to National Matching Services (https://natmatch.com/) and obtain a MATCH number to be considered of admission to the program. Applicants participating in application to both Match and non-Match programs will not be considered for admission.
- Must complete and submit WVU Admissions Application (https://westvirginia.force.com/TX_SiteLogin/?startURL=%2FTargetX_Portal__PB), if invited for an interview.
- Must participate in an onsite interview.
- Must consent and pass a criminal background investigation prior to final acceptance.
- Must submit documentation of required immunizations. A complete list is available on the School of Dentistry website.
- Must meet federal and university standards regarding the Responsible Conduct of Research.
- Must be eligible for and obtain a West Virginia dental license or dental resident/intern permit prior to the first day of program orientation.

Major Code: 8018

Degree Requirements

- Fulfill University requirements for graduate study.
- Complete 34 months (three academic years) of consecutive full-time advanced study and clinical training at the School of Dentistry.
- Complete an approved master’s thesis based on original research completed during the course of study in an area related to Orthodontics.
- Must pass the Mock ABO clinical examination which includes a written and an oral examination.
- Must pass the written component of the ABO examination.
- Must successfully complete all didactic and clinical work in the required curriculum.
- Must demonstrate satisfactory clinical competency in orthodontics.
- Complete a minimum of 89 credit hours, including 63 hours of orthodontic courses and a minimum of 5 hours of selected basic science subjects, 6 hours of teaching practicum, and 15 hours of research/thesis.
- Achieve a 3.0 GPA or an overall competence in the student’s field. A minimum grade of B must be earned in all work attempted in the master’s program. A grade of C or below in two courses will require a faculty review of the student’s progress. A third C or below will result in suspension from the program.

CURRICULUM REQUIREMENTS

Biomedical Sciences

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Orthodontic Courses

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**Total Hours** 89

**SUGGESTED PLAN OF STUDY**

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Total credit hours: 89
Major Learning Outcomes

ORTHODONTICS

- Provide the education and training necessary for graduate dentists to practice in their specialty.
- Provide the education and training necessary for a specialist to achieve Board Certification.

COURSES

ORTH 616. Biomechanics. 2 Hours.
PR: Consent. Design and function of the teeth and their surrounding structures, and response of these tissues to orthodontic procedures.

ORTH 617. Orthodontic Technique. 2 Hours.
PR: Consent. Laboratory course in techniques related to fabrication and manipulation of orthodontic appliances.

ORTH 618. Orthodontic Materials. 1 Hour.
PR: Consent. Physical properties of materials used in orthodontic appliances.

ORTH 619. Orthodontic Diagnosis. 1-3 Hours.
PR: Consent. Seminar-type class on technique of patient examination, acquiring diagnostic records, and analyzing and correlating this information to the treatment of clinical problems.

ORTH 620. Cephalometrics. 1-3 Hours.

ORTH 621. Orthodontic Mechanics. 1-4 Hours.
Seminars and laboratory course on basic orthodontic mechanical properties.

ORTH 623. Growth and Development. 1-5 Hours.
PR: Consent. Seminar-type course on normal and abnormal growth of the human head and its application to orthodontics.

ORTH 625. Orthodontic Seminar. 1-8 Hours.
PR: Consent. Discussions including all branches of dental science, with special emphasis on the orthodontic interest. Assigned topics and articles in the literature discussed.

ORTH 626. Orthodontic Clinic. 1-12 Hours.
PR: ORTH 616 and ORTH 617. Clinical treatment of selected patients.

ORTH 627. Surgical Orthodontics. 1 Hour.
PR: Consent. Diagnosis and treatment of patients that require surgical orthodontic treatment.

ORTH 628. Early Orthodontic Treatment. 1 Hour.
PR: Consent. Diagnosis and treatment of young patients that require early orthodontic and orthopedic treatment.

ORTH 629. Orthodontic Patient Management. 1 Hour.
PR: Consent. Addresses the skills needed to effectively manage an orthodontic practice.

ORTH 630. Craniofacial Anomalies. 1 Hour.
PR: Consent. Diagnosis and treatment of patients presented with craniofacial anomalies.

ORTH 631. Journal Club. 1 Hour.
PR: Consent. Review of literature in the orthodontic journals.

ORTH 632. Dentofacial Orthopedics. 1 Hour.

ORTH 633. Orthodontics-Periodontics Seminar. 1 Hour.
PR: Consent. A series of seminars on the diagnosis and treatment of oral conditions requiring interdisciplinary care by the specialties of periodontics and orthodontics.

ORTH 690. Teaching Practicum. 1-3 Hours.
PR: Consent. Supervised practice in college teaching of dentistry. Note: This course is intended to insures that graduate teaching assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience.

ORTH 691. Advanced Topics. 1-6 Hours.
PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

ORTH 692. Directed Study. 1-6 Hours.
Directed study, reading, and/or research.

ORTH 693. Special Topics. 1-6 Hours.
A study of contemporary topics selected from recent developments in the field.
ORTH 694. Seminar. 1-6 Hours.
Special seminars arranged for advanced graduate students.

ORTH 695. Independent Study. 1-9 Hours.
Faculty supervised study of topics not available through regular course offerings.

ORTH 696. Graduate Seminar. 1-3 Hours.
PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

ORTH 697. Research. 1-9 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.).

ORTH 793. Special Topics. 1-6 Hours.
A study of contemporary topics selected from recent developments in the field.