

**PEDO 5028  
ORTHODONTICS III  
GROWTH AND DEVELOPMENT  
SPRING 2018**

---

**CLASS DAYS and TIME:** Mondays 10:00-10:50 a.m.

**CLASSROOM:** COHCR 4067

**COURSE FACULTY:** Dr. Maria Jose Cervantes Mendez & Dr. Henry S. Hammer

**OFFICE LOCATION and HOURS:** COHCR 2385.04

**EMAIL:** Dr. Cervantes: [cervantesmen@uthscsa.edu](mailto:cervantesmen@uthscsa.edu) Dr. Hammer: [hhammer315@aol.com](mailto:hhammer315@aol.com)

**TELEPHONE:** Dr. Cervantes: (210) 450-3514 Dr. Hammer: (210) 256-0833

---

**READ THIS DOCUMENT CAREFULLY - YOU ARE RESPONSIBLE FOR ITS CONTENTS.**

**COURSE DESCRIPTION AND OBJECTIVES**

The Orthodontics-Growth and Development course is a comprehensive 2 year seminar (4 semesters); approximately 10 sessions per semester. Each session will be 50 minutes long; it will include lectures by faculty, guest speakers, resident presentations and literature reviews.

The Orthodontics-Growth and Development didactic course has been developed to expand the concepts of case evaluation, records and diagnosis from the Summer Blitz Seminar and is complemented by the clinical application of the concepts in pediatric patients at the UTHSCSA residency program clinics.

**LEARNING OBJECTIVES:**

- Thorough understanding of craniofacial Growth and Development parameters, from the embryology to early adolescence, including variations in growth associated disturbances.
- Understanding the etiology, including genetic factors, associated with craniofacial anomalies.
- Evaluation and diagnosis of patient's dentofacial complex and occlusion.
- Knowledge of the development of dental occlusion, dental eruption and dentition formation.
- Early recognition and treatment planning of malocclusions, including ectopic eruption patterns, tooth rotations and supernumerary teeth presence.
- Diagnose and treatment plan simple arch length/tooth size discrepancies, open bites and crossbites.
- Understanding of special treatment considerations for children exhibiting craniofacial anomalies.
- Knowledge of the principles of treatment planning, orthodontic biomechanics other functional interactions and retention of orthodontic patients.
- Be competent in treating or referring patients with skeletal or dental malocclusions.

**Semester credit hours – 1.5 credit hours**

**ATTENDANCE:** Required

## REFERENCE RESOURCES AND TEXTBOOKS

- Proffit W, Fields H, Sarver D. Contemporary Orthodontics. Mosby Elsevier, 4<sup>th</sup> edition, 2007.
- Bishara S. Textbook of Orthodontics WB Saunders Company, 2001.
- Pinkham J, Cassamassimo P, McTigue D, et al. Pediatric Dentistry- Infancy through Adolescence, Elsevier Saunders 4<sup>th</sup> edition, 2005.
- McDonald R, Avery D, Dean J, Dentistry for the Child and Adolescence, Mosby 8<sup>th</sup> edition 2004.
- AAPD Articles Reference List
- Related scientific articles from peer review journals (ex: Pediatric Dentistry, AAJODO, Angle Orthodontist, JCO)

## GRADING POLICIES AND EXAMINATION PROCEDURES

### Grading System

10 sessions, will include case presentations, lecture presentations and testing.

Grade: Pass	A: 100- 90
	B: 89-80
	C: 79-76
Fail	F: 75 and below

### **GRADING METHOD:**

Quizzes;	10%
Assistance:	10%
Assignments:	40%
Class participation	
Case Presentation	
Final exam	40%

Resident case presentation (15 to 20 min):

Each presentation should include initial records, findings, treatment plan, detailed mechanics and progress records. The resident will provide a copy of their power point presentation to the attending faculty at least **ONE WEEK** in advance.

### **REMEDICATION:**

Oral presentation (45min) on a selective topic related to the course content.

## REQUESTS FOR ACCOMODATIONS FOR DISABILITIES

In accordance with policy 4.2.3, **Request for Accommodation Under the ADA and the ADA Amendments Act of 2008 (ADAAA)**, any student requesting accommodation must submit the appropriate request for accommodation under the American with Disabilities Act (ADA, form 100). to his/her appropriate Associate Dean of their School and a copy to the ADA Coordinator. Additional information may be obtained at <http://uthscsa.edu/eo/request.asp>.

## ACADEMIC INTEGRITY AND PROFESSIONALISM

Any student who commits an act of academic dishonesty is subject to discipline as prescribed by the UT System Rules and Regulations of the Board of Regents. Academic dishonesty includes, but is not limited to, cheating, plagiarism,

collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, signing attendance sheets for another student, and any act designed to give unfair advantage to a student or the attempt to commit such an act. Additional information may be obtained at <http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academicdishonestypolicy/>

## **TITLE IX AT UTHSCSA**

### **Title IX Defined:**

Title of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads “no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”

### **University of Texas Health Science Center San Antonio’s Commitment:**

University of Texas Health Science Center San Antonio (UTHSCSA) is committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, UTHSCSA does not discriminate on the basis of sex in its education programs and activities, and it encourages any student, faculty, or staff member who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to immediately report the incident to the Title IX Director.

In an emergency, victims of sexual abuse should call 911. For non-emergencies, they may contact UPD at 210-567-2800. Additional information may be obtained at <http://students.uthscsa.edu/titleix/>

ORTHODONTICS-  
GROWTH AND DEVELOPMENT  
COURSE GENERAL OUTLINE

Summer Blitz

- Ortho diagnosis and treatment planning
- Cephalometric analysis
- Tooth size- arch length analysis
- Introduction to appliances and bonding

Growth and Development

- Embryology of the head and neck
- Theories of facial growth- human post natal growth
- Principles of cleft lip and palate formation
- Development of the human dentition
- Development of the dental occlusion
- Anomalies of the dentition
- Facial and dental changes in the adolescence

Early treatment

- Primary dentition
- Mixed dentition (eruption guidance)
- Class I treatment extraction and non extraction treatment (Comprehensive orthodontic treatment)
  - Steps in orthodontic treatment including retention
- Treating skeletal malocclusions in the mixed dentition (Class II and Class III)
- Complications during treatment

Biomechanics/ Appliances

- Fixed edgewise orthodontic appliances (brackets and wires)
- Bonding and debonding techniques
- Biological response to orthodontic treatment
- Tooth movement mechanics (force vectors and couples)

Ortho interactions

- Orthodontics and craniofacial disorders
- Periodontal considerations
- Root resorption
- TMD and orthodontic relationships

Literature Review

AAPD Board recommended articles

## 2018 Spring Lecture Schedule

I. Review Final Exam Development of the Human Dentition	Jan 22	Drs. Cervantes/Hammer
II. Development of the Dental Occlusion	Jan 29	Dr. Cervantes
III. Class I malocclusion treatment (Extraction vs. Non-extraction)	Feb 5	Dr. Hammer
IV. Early treatment of anterior and posterior crossbites Class III (skeletal and dental)	Feb 12	Drs. Cervantes
V. Early tx of Class II (Dental and skeletal)	Feb 26	Dr. Hammer
VI. Residents' case presentations Dr. Ahn, Dr. Crane, Dr. Gjekaj	Mar 19	Drs. Cervantes/Hammer
VII. Residents' case presentations Dr. Koleini, Dr. Luk	Mar 26	Drs. Cervantes/Hammer
VIII. Residents' case presentations Dr. Safahieh, Dr. Zhang	Apr 9	Drs. Cervantes/ Hammer
IX. Residents' case presentations Dr. Coppola, Dr. Felli	Apr 16	Drs. Cervantes/ Hammer
X. Review session	April 23	Drs. Cervantes/ Hammer
XI. Final exam	Apr 30	Drs. Cervantes/ Hammer