# **ORTHODONTICS (ORTH)**

### Courses

#### ORTH 5010. Introduction to Orthodontics. 0.5 Credit Hours.

The expected to gain understanding of basic clinic operations, laboratory procedures and collection of orthodontic database including study models, photographs, and orthodontic clinical exams.

#### ORTH 5011. Orthodontic Techniques. 1 Credit Hour.

This course is designed to present to the students all modern orthodontic techniques, approached and appliance. The prerequisite for the course is solid biomechanics and understanding of importance of setting specific treatment goals for each patient. Discussions are led by the instructor on the cases treatment by the residents where the theoretical knowledge is applied.

#### ORTH 5012. Orthodontic Lab Technique. 0.5 Credit Hours.

The students are exposed to didactic teaching and practical hands on instruction about the design and fabrication of various orthodontic appliances including removable appliances, retainers and special custom designed appliances for complex orthodontic patients.

#### ORTH 5013. Orthodontic Treatment Planning. 0.5 Credit Hours.

The principles of the initial and advanced treatment planning are presented in this case based course. The student will learn how to effectively use databases including cephalometrics and 3-D imaging into making treatment decisions and presenting the treatment options to the patient.

#### ORTH 5014. Literature Seminars. 0.5 Credit Hours.

The students are taught to critically analyze and present current orthodontic literature, make effective presentations and learn how to categorize a research study within the hierarchy of research publications.

#### ORTH 5015. Orthodontic Biomechanics. 1 Credit Hour.

This course is designed to equip the student with knowledge of basic biomechanics and utilization of fundamental physical principles in orthodontics. It includes application of biomechanical principles in the design of the appliance and predictable tooth movement to achieve orthodontic movement goals.

#### ORTH 5020. Clinical Orthodontics 1. 1 Credit Hour.

During this clinical course, the student will be exposed to and learn all modern orthodontic techniques, approaches and appliances through treatment of about 65 orthodontic patients started by the student. In addition, about 20 transfer cases will be assigned to each student at the beginning of each year. The course will result in clinical competency of the student and preparation of at least six board quality cases for certification straight out of the residency program.

#### ORTH 5021. Clinical Orthodontics 2. 4 Credit Hours.

During this clinical course, the student will be exposed to and learn all modern orthodontic techniques, approaches and appliances through treatment orthodontic patients with several malocclusion and patients with craniofacial deformities started by the student, in addition understand the marketing side of orthodontics.

#### ORTH 5026. Clinical Orthodontics 2. 4 Credit Hours.

During this clinical course, the student will be exposed to and learn all modern orthodontic techniques, approaches and appliances through treatment orthodontic patients with several malocclusion and patients with craniofacial deformities started by the student, in addition understand the marketing side of orthodontics.

#### ORTH 5028. ABO Literature Review. 1 Credit Hour.

This series of seminars focuses on the literature required by the American Board of Orthodontics for the written board examination which the residents take during the spring semester of the second year. The seminars include in-depth coverage of the presented articles and topics and board-provided materials for preparing for the board written exam.

#### ORTH 5030. Case Analysis Seminars 1. 1 Credit Hour.

In this series of seminars, one resident is selected for each class to present a case of their choice with an in-depth analysis of the development of treatment planning, design of the appliance, and progress and outcome of the treatment. Other students in the audience are encouraged to ask questions and develop a discussion about the case and treatment approaches used.

#### ORTH 5035. Current Literature Review 1. 1 Credit Hour.

During this series of seminars attended by multiple of orthodontic faculty, the residents are presenting selected papers on current orthodontic topics. The seminars include in-depth discussion of the methodology, design of the study, interpretation of the results and conclusions based on the presented results. This course is designed to familiarize the student with all areas of current orthodontic literature and is a supplement to all didactic courses.

#### ORTH 5037. Orthodontic Lecture Series 1. 1 Credit Hour.

This series of orthodontic didactic lectures is a multifaceted course taught by several faculty during the course of the program. The topics covered in the course include periodontal consideration in orthodontics, orthodontic radiology, oral pathology, anatomy and histology and principles of growth and development.

#### ORTH 5070. Practice Management. 0.5 Credit Hours.

The practice Management course for orthodontics is an orthodontic specialty course designed to teach residents tools in managing a successful practice.

#### ORTH 5090. Research 1. 0.5 Credit Hours.

Following the course on Research Methodology, the student meets with the faculty and attends presentations on research topics from which he/she can select the topic of interest for the research project. Several components of that course throughout the duration of the program include understanding of research topics of interest to clinical orthodontics, design of clinical study and practical laboratory research on the selected project under the guide of student's research mentor.

## ORTH 6000. Introduction to Advanced Orthodontics for Interns. 1 Credit Hour.

### ORTH 7073. Junior Orthodontic Lectures And Case Analysis. 1 Credit Hour.

This advanced lecture/case presentation series emphasizes the principles of orthodontic diagnosis and treatment planning for limited orthodontic procedures and the principles of comprehensive orthodontic therapy, interdisciplinary dentistry, and orthognathic surgery.