

Orthodontics

5th Year

Course objectives and Educational goals

The course is directed towards achieving specific educational goals. The predoctoral student should:

1. Understand the significance of the major concepts of facial growth and development. He/she should be able to recognize the importance of coordinating treatment timing as it coincide with facial and somatic growth.
2. Be able to recognize and evaluate the proper teeth eruption pattern of a given patient as it relates to his chronologic and skeletal age.
3. Be able to understand the different dimensional changes in arch length and width during the transition from primary to mixed and onto the permanent dentition.
4. Be able to perform and evaluate space analysis for the mixed and permanent dentition as part of diagnostic procedures during treatment planning.
5. Have a full understanding of guidance of eruption through serial extraction and space maintenance.
6. Be able to make different kinds of space maintainers and know when to use them and why.
7. Be able to perform a full diagnostic set up that includes intraoral and extraoral photographs, impression for study models cephalometric and intraoral radiographs.
8. Be able to trace and evaluate a cephalometric radiograph by performing a complete cephalometric analysis. Also be able to assess the patients profile and facial esthetics.
9. Be able to identify a malocclusion and describe the major characteristics of a skeletal dental or combined malocclusion.
10. Be able to contribute to multi-disciplinary approach of treatment.
11. Be able to consult and communicate with orthodontists and other specialists regarding total dental care of patients.
12. Be able to identify clinically unusual shaped teeth, rotations, ectopically erupting, supernumeraries and missing teeth.
13. Should have knowledge about the biology of tooth movement and full understanding of the applied forces to the teeth. Also be able to identify

problem during orthodontic treatment to ensure healthy bone, gingival and periodontal ligament.

14. Be able to differentiate between limited and isolated problems that might be effectively treated as part of a general practice from those requiring complex or comprehensive orthodontic treatment.
15. Be able to understand the significance of oral and extraoral habits, which have some implication as a possible etiologic, factors in the development of malocclusion.
16. Should have the basic understanding of fixed appliance mechanics. That includes the use of different brackets systems bands and intraoral use of elastics.
17. Should have full understanding about removable appliances and the difference between a simple removable appliance and a functional appliance.
18. Be able to design and construct a removable appliance to treat simple malocclusions usually performed by general dentists.
19. Be able to identify a skeletal discrepancy malocclusion that will require growth modification therapy, thus should have basic information about Headgear, facemask and functional appliances.
20. Should have an understanding of combined surgical and orthodontic therapy and should be able to explain to patients the procedures and their sequencing with orthodontic treatment. That should include timing, preoperative orthodontics, surgical procedures, postoperative orthodontics and anticipated results.
21. Should have basic information about the Temporomandibular joint and its relation to Temporomandibular disorders TMD.
22. Should have an understanding of the new developments in the field of orthodontics such as use of implants, onplants, distraction osteogenesis, etc...