After completing this course, the participant will have:
1. An awareness of the effect of light and heavy forces with either continuous buccal or jiggling buccopalatal forces on root resorption.
2. An appreciation for the influence of mobile phone use on the release of nickel from fixed orthodontic appliances.
3. A familiarity with the possible influence on the natural head position used for cephalometric headfilms for orthognathic surgery in Class III patients.
4. An understanding of how craniodentofacial characteristics and dental esthetics relate to the quality of life and self-esteem.

**Article 1: Physical properties of root cementum: Part 2.** Extent of root resorption after the application of light and heavy buccopalatal jiggling forces for 12 weeks: A microcomputed tomography study, by Edina Eross et al

1. The aims of this study were to evaluate with microcomputed tomography the orthodontically induced inflammatory root resorption in premolars caused by buccopalatal jiggling movements with light and heavy forces, and to compare it with the resorption caused by equivalent but continuous forces.
   True
   False

2. After the 3-dimensional reconstructions of the root images, each resorption crater was isolated; x-, y-, and z-coordinates were recorded, and the total resorption for each premolar specimen was calculated according to the sum of all craters on each tooth.
   True
   False

3. The authors reported no significant differences in root resorption crater volumes either between heavy continuous buccal and heavy buccopalatal jiggling forces or between light continuous buccal and light buccopalatal jiggling forces.
   True
   False

4. The authors concluded that heavy buccopalatal jiggling forces resulted in less root resorption than light buccopalatal jiggling forces.
   True
   False

**Article 2: Effect of mobile phone use on metal ion release from fixed orthodontic appliances,** by Mohammad Ali Saghiri et al

5. The purpose of this study was to evaluate the effect of exposure to radiofrequency electromagnetic fields emitted by mobile phones on the rate of tooth movement.
   True
   False

6. The sample comprised 50 healthy patients (25 boys, 25 girls; average age 15.2 years; range 13-16 years) who had fixed orthodontic appliances.
   True
   False

7. The authors reported that the adverse effect of radiation on the release of nickel was more pronounced in women because of longer usage times.
   True
   False

8. The authors concluded that mobile phone radiation can influence the concentration of nickel in the saliva of female subjects but not of male subjects.
   True
   False
Article 3: Changes in natural head position after orthognathic surgery in skeletal Class III patients, by Dohyun Cho et al

9. The purpose of this study was to evaluate the changes in natural head position after orthognathic surgery in skeletal Class III patients.
   True
   False

10. The 20 subjects that served as controls were Class I skeletal open bite; they received surgery and orthodontic treatment.
    True
    False

11. The authors reported that some Class III surgical patients demonstrated changes in their natural head position.
    True
    False

12. The authors concluded that soft tissue analysis using the true vertical line in the natural head position might not be reliable for some skeletal Class III patients who undergo mandibular setback surgery.
    True
    False

Article 4: Craniodentofacial characteristics, dental esthetics-related quality of life, and self-esteem, by Anja Gavric et al

13. The aim of this study was to explore the relationship between craniodentofacial characteristics and dental esthetics related to the patient’s ability to cooperate during orthodontic treatment.
    True
    False

14. The sample comprised 200 women, ages 24 to 33 years, who were longitudinally observed for 2 years.
    True
    False

15. The authors reported that self-esteem did not significantly differ between cranial types, but it was significantly different between the malocclusion severity levels assessed by the Dental Health Component of the Index of Orthodontic Treatment Need.
    True
    False

16. The authors concluded that, in adolescents and young adults, self-esteem appears to be more influenced by the self-perceived psychosocial impacts of dental esthetics than by the normative level of malocclusion, craniofacial typology, sex, or age.
    True
    False