After completing this course, the participant will have:
1. Knowledge of the effects of the AcceleDent Aura appliance on initial alignment, arch perimeter, and patient discomfort in full-treatment orthodontic patients.
2. An appreciation for how the AdvanSync appliance and Class II elastics correct a Class II malocclusion.
3. An understanding of the tooth movement achieved with the use of a unilateral zygoma-gear appliance.
4. A familiarity with how phase 1 treatment may affect the complexity of malocclusions.

**Article 1: Assessment of the changes in arch perimeter and irregularity in the mandibular arch during initial alignment with the AcceleDent Aura appliance vs no appliance in adolescents: A single-blind randomized clinical trial, by Peter Miles et al**

1. The purpose of this 2-arm parallel trial was to assess the effects of the AcceleDent Aura appliance on the decrease in mandibular arch perimeter, the reduction in mandibular arch irregularity, and the amount of discomfort during initial alignment of the mandibular arch with fixed appliances.
   True
   False

2. The sample comprised 20 patients who used the AcceleDent Aura appliance for 20 minutes per day and 20 patients who received no appliance.
   True
   False

3. The authors reported that the level of discomfort was not affected by use of the AcceleDent Aura appliance in adolescent subjects.
   True
   False

4. The authors concluded that the AcceleDent Aura appliance had no effect on the rate of change in the anterior arch perimeter during initial alignment in the mandibular arch of adolescent subjects.
   True
   False

**Article 2: Comparison of AdvanSync and intermaxillary elastics in the correction of Class II malocclusions: A retrospective clinical study, by Santhosh Jayachandran et al**

5. The objectives of this study were to compare the skeletal, dentoalveolar, and soft tissue effects of the AdvanSync appliance with intermaxillary elastics in the correction of Class II malocclusion of growing patients.
   True
   False

6. The experimental sample of consecutively treated Class II patients comprised 41 subjects using the AdvanSync appliance and 41 subjects using Class II elastics.
   True
   False

7. The authors reported that the intermaxillary Class II elastics corrected Class II malocclusions primarily through dentoalveolar changes in both the maxilla (incisor retrusion and retroinclination) and the mandible (incisor protrusion and proclination as well as molar mesialization).
   True
   False

8. The authors concluded that the AdvanSync corrected Class II malocclusions through maxillary skeletal growth restriction and mandibular dentoalveolar changes (incisor protrusion and proclination as well as molar mesialization).
   True
   False
Article 3: Effects of zygoma-gear appliance for unilateral maxillary molar distalization: A prospective clinical study, by Dogan Kilkis et al

9. The aim of the study was to evaluate the dentoskeletal effects of the zygoma-gear appliance used for unilateral maxillary molar distalization in patients with Class II subdivision malocclusion.
   True
   False

10. The dentoskeletal effects of the system were evaluated using cephalometric lateral and panoramic films with a paired t test.
    True
    False

11. The authors reported that distalization for the maxillary first molars was a mean amount of 5.31 ± 2.46 mm.
    True
    False

12. The authors concluded that unilateral maxillary molar distalization was effectively achieved using the zygoma-gear appliance with minimal anchorage loss.
    True
    False

Article 4: Quantitative assessment of the effectiveness of phase 1 orthodontic treatment using the American Board of Orthodontics Discrepancy Index, by Nefeli Vasilakou et al

13. The objectives of this prospective study were to quantify the changes obtained in phase 1 of orthodontic treatment and to determine how much improvement, if any, occurred before the second phase.
    True
    False

14. The sample comprised 300 subjects randomly selected from the archival records of Saint Louis University’s graduate orthodontic clinic who had phase 1 treatment.
    True
    False

15. The authors reported that the complexity values of the malocclusions were reduced by the following percentages: Class I, 49.3%; Class II, 34.5%; and Class III, 58.5%.
    True
    False

16. The authors concluded that phase 1 orthodontic treatment was effective in the reduction of the severity of the malocclusions.
    True
    False