After completing this course, the participant will have:
1. Familiarity with the effect of supplemental vibrational forces on extraction space closure, treatment duration, and treatment outcome.
2. An appreciation for cortical bone thickness, bone width, insertion depth, and proximity of the inferior alveolar nerve before selecting the insertion site for a miniscrew in the mandibular buccal shelf of white patients.
3. Knowledge concerning the association between maxillary and mandibular incisor malalignment traits with the potential for periodontal disease.
4. An awareness of the satisfaction of patients and the clinical time required when comparing 2 intraoral scanner impression procedures and the traditional alginate impression procedure.

**Article 1: Effects of supplemental vibrational force on space closure, treatment duration, and occlusal outcome: A multicenter randomized clinical trial, by Andrew T. DiBiase et al**

1. The purpose of this study was to investigate the effect of a supplemental vibratory force on space closure and treatment outcome with fixed appliances.
   True
   False
2. The methodology for this study was a multicenter parallel 3-arm randomized clinical trial that involved 3 groups totaling 61 subjects who were measured and analyzed for space closure after extractions for mandibular incisor irregularity.
   True
   False
3. The authors reported no benefits from vibrational forces in terms of mandibular space-closure rate, treatment duration, and final treatment outcome.
   True
   False
4. The authors recommended that use of a vibrational device has a positive benefit when used during extraction space closure.
   True
   False

**Article 2: Anatomic assessment of the mandibular buccal shelf for miniscrew insertion in white patients, by Tarek Elshebiny et al**

5. The objective of this study was to anatomicallly assess the mandibular shelf in a white patient population as the insertion site for orthodontic miniscrews by investigating cortical bone thickness, bone width, insertion depth, and proximity to nerves.
   True
   False
6. Cone-beam computed tomographic images of 30 white patients were used to measure the 4 important factors of miniscrew placement in the area of the mandibular shelf.
   True
   False
7. The authors warned that the clinician should consider the proximity of the inferior alveolar nerve when selecting the miniscrew insertion site in a patient.
True
False
8. The authors concluded that the distobuccal cusp level of the mandibular second molars is the most appropriate site for miniscrew insertion in the buccal shelf for white patients.
True
False

Article 3: Incisor malalignment and the risk of periodontal disease progression, by Ahmed A. Alsulaiman et al
9. The objective of this study was to investigate the association between incisor crowding, irregularity, oral hygiene habits, and periodontal disease progression in the anterior dentition.
True
False
10. The study’s sample involved evaluation of 400 maxillary arches with mean follow-ups of 23.7 ± 8.4 years and 408 mandibular arches with mean follow-ups of 23.5 ± 8.5 years.
True
False
11. The authors reported that after controlling for related covariates, the maxillary anterior arches with incisor crowding and spacing had significantly greater mean sums of anterior pathologic pocket depth than did the maxillary anterior arches with ideal alignment.
True
False
12. The authors concluded that certain incisor malalignment traits are associated with significant periodontal disease progression.
True
False

Article 4: Comparison of digital intraoral scanners and alginate impressions: Time and patient satisfaction, by Jennifer A. Burzynski et al
13. The objectives of this study were to assess and compare patient satisfaction and time required between 2 intraoral scanners and conventional alginate impressions.
True
False
14. Of the 180 orthodontic patients included in this study, 76 were teenage girls, and 104 were teenage boys.
True
False
15. The authors reported that digital scanners require more chair-side time than do alginate impressions.
True
False
16. The authors concluded that orthodontic patients are satisfied with and accept contemporary intraoral digital impressions.
True
False