



SCHOOL OF DENTISTRY
UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

CONTINUING DENTAL EDUCATION

Orthodontic Procedures Certificate for the Dental Hygienist

Friday-Saturday, February 24-25, 2023

School of Dentistry • University of Minnesota

Preliminary Program

FRIDAY

Lynda J. Young Conference Room (6-410 Moos HS Tower)

8:30

Final registration and assembly

9:00

Welcome and course introduction

Dr. Thorsten Gruenheid

- Overall goal and objective

- Legal aspects and levels of supervision

9:30

Lecture: Banding in the contemporary orthodontic practice

Dr. Gruenheid

- Purpose and use of elastomeric separators

- Design features of orthodontic bands

- Pre-selection of orthodontic bands

- Criteria of ideally fitted bands

- Maxillary and mandibular molar band placement and cementation

10:00

Lecture: Bonding in orthodontics

Dr. Gruenheid

- Enamel conditioning

- Primers, enamel sealants, and adhesives for brackets

- Bonding to non-enamel, fluoridated, or bleached surfaces
Ideal bracket positioning and bracket placement errors

- Direct and indirect bonding techniques and excessive adhesive removal

11:15

Refreshment break

11:30

Lecture: Preadjusted orthodontic appliances

Dr. Gruenheid

- History of the preadjusted appliance

- Design features of orthodontic attachments

- Purpose of orthodontic ligature ties
Treatment stages and archwire selection

- Loop mechanics vs. sliding mechanics

12:15

Lecture: Managing dental hygiene challenges during orthodontic treatment

Ms. Michelle Arnett

Patient education and motivation Techniques and auxiliaries
Managing common challenges and side effects

11:30

Luncheon

2:15

Lecture: Clear aligner therapy

Dr. Gruenheid

Steps to clear aligner treatment
Digital records and treatment simulation
Attachments
Direct-to-consumer orthodontic companies and teledentistry
Do clear aligners deliver what they promise?

3:00

Lecture: Debonding in orthodontics

Dr. John P. Beyer

Removal of fixed orthodontic bands and brackets
Composite removal from teeth with rotary instruments after debonding brackets and removing Invisalign® attachments
Post-debonding polishing
How to handle hyperplastic tissue Importance of finger rests

4:00

Video demonstration: Orthodontic debonding appointment

4:15

Refreshment break

4:30

Lecture: Retention and retainers

Dr. Gruenheid

Why retention?
Possible origins of post-treatment changes
Retention strategy: Removable or fixed?
Removable and fixed retainers: indications, contraindications, types and designs
How to bond a fixed retainer?

5:30

Video demonstration: Delivering vacuum-formed orthodontic retainers

5:45

Question and answer session

Drs. Beyer and Gruenheid

6:00

Adjourn

SATURDAY

Orthodontic Conference Room (6-370 Moos HS Tower)

8:00

Lecture: Auxiliary appliances and case presentation

Dr. Gruenheid

Putting it all together

8:45

Lecture and demonstration: Managing orthodontic emergencies

Cut arch wires on orthodontic appliances

Remove loose bands and brackets on orthodontic appliances

How to handle other common orthodontic emergencies

Orthodontic Clinic (6-345 Moos HS Tower)

9:00

Demonstration, hands-on exercise, patient simulation, and clinical practice in small groups:

Banding

Use of elastomeric separators

Pre-selection and fitting of orthodontic bands

Upper and lower molar band placement

Direct bonding

Dr. Gruenheid

Enamel surface preparation Moisture control

Bracket placement and adhesive removal

Archwire management and ligation

Use of elastomeric rings and chains

Use of ligature wires and Kobayashi hooks

Use of underties and rotation wedges

Debonding and adhesive removal

Dr. Beyer

Debonding brackets from manikins and extracted teeth

Adhesive removal using rotary instrumentation

Post-debonding polishing

12:45

Luncheon

Orthodontic Clinic (6-345 Moos HS Tower)

1:30

Demonstration, hands-on exercise, patient simulation, and clinical practice in small groups

(continued)

4:30

Question and answer session and course wrap-up
All instructors

5:00

Adjourn

Meet our Experts

Michelle Arnett, RDH, BS, MS, is an Assistant Professor in the Division of Dental Hygiene at the University of Minnesota School of Dentistry. Before her clinical tenure track in Minnesota, Ms. Arnett served as an Adjunct Clinical Lecturer in the Division of Dental Hygiene and a Clinical Research Coordinator in the Department of Graduate Periodontics at the University of Michigan, Ann Arbor. She currently provides instruction, conducts clinical research and practices dental hygiene in collaboration with a wide range of dental teams, students, and fellow innovators.

John P. Beyer, DDS, PhD, is a Clinical Professor in the Division of Orthodontics at the University of Minnesota School of Dentistry. He earned his Dental Degree, Certificate in Orthodontics and PhD from the University of Minnesota. After completing his graduate training Dr. Beyer was a full-time faculty member for twelve years within the Division of Orthodontics. He then went into private practice for five years, while still maintaining involvement in the graduate orthodontic training program through a part-time adjunct position. In 2014, he returned to full-time academics at the University of Minnesota's Division of Orthodontics and is currently the director of the graduate orthodontic training program.

Thorsten Gruenheid, DDS, Dr med dent, PhD, is an Associate Professor in the Division of Orthodontics at the University of Minnesota School of Dentistry. He received his training at the Universities of Mainz, Amsterdam, and Minnesota. Dr. Gruenheid is certified by the American Board of Orthodontics and has lectured nationally and internationally on a variety of topics in orthodontics and oral biology. He provides orthodontic treatment primarily to an underserved child and adolescent population at the University of Minnesota Orthodontic Faculty Practice.

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Continuing Dental Education Staff members have nothing to disclose.

The following information was received from our speakers for this course. It is not assumed these financial interests or affiliations will have an adverse impact on course presentations. They simply are noted here to fully inform course participants.

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Indicated no relevant affiliations or financial interests.

Speaker does not intend to discuss an off-label/investigative use of a commercial product/device.

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Speaker does not intend to discuss an off-label/investigative use of a commercial product/device.

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Indicated no relevant affiliations or financial interests.

Speaker does not intend to discuss an off-label/investigative use of a commercial product/device.

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17 fundamental credit hours. This course requires 2 hours of pre-reading assignments.