

2022 ORTHODONTIC LAB COURSE PROJECTS

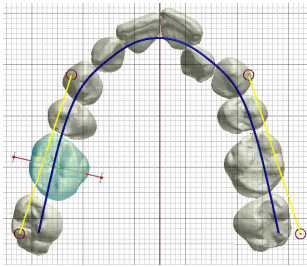
STATE UNIVERSITY OF NEW YORK AT BUFFALO • DEPARTMENT OF ORTHODONTICS

INSTRUCTOR: BRIAN D. WILLISON, CDT



- **Intraoral Scans for Digital Models**

Students will learn to use intraoral scanning equipment to create digital impression files on fellow classmates. This digital information will be saved, then manipulated to create study or work models for diagnostic or laboratory procedures.



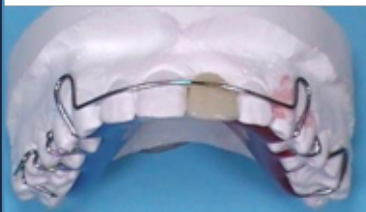
- **Virtual Aligner**

Students will create a digital setup using the Ortho Analyzer Virtual Setup Module. A review of Great Lakes Zero Based Occlusion will be used as a guide during setup tooth alignment.



- **Smart Moves® Clear Aligner**

Smart Moves®, an invisible aligner method was created by Great Lakes for anterior alignment and full arch treatment using a series of plastic trays. These plastic trays are generated from a series of digital model setups made via a computerized tooth-moving program. A detailed overview of this process will take place.



- **Maxillary Hawley w/Pontic**

A maxillary Hawley Retainer will be made possessing a central incisor Pontic. Also, 'S/Z' type springs will be placed against the lateral incisors. Common clasps will be made, acrylic processed and trimmed, as well as appliance finished to meet the high standards set by the instructor.



- **Maxillary Indirect Bonding Tray**

Brackets can be placed in the laboratory and a transfer tray is designed to carry them to be bonded to the patient's teeth. Brackets will be positioned to the maxillary model, and then a two-layer transfer tray method will be created using the Biostar or Ministar thermal-forming machine.

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- **Soldering Exercises**

A series of paper exercises are designed to train the student to flow solder around metal frameworks.



- **Rapid Maxillary Expander (RME)**

A 2x4 Banded Hygienic RME will be made. Students will learn band placement, screw positioning, soldering, technique, and metal appliance finishing. Clinical management will also be reviewed.



- **Maxillary Quad Helix Expander**

A 0.036" Stainless Steel Wire expander framework will be made and soldered to bands on the maxillary 1st permanent molars. Metals will be finished to meet the high standards set by the instructor.

Bands: Max 6s = RMO-22



- **Transpalatal Arch (TPA)**

A fixed TPA framework will be made to maxillary 1st molar bands. Horizontal lingual sheaths will be welded to the bands and prefabricated TPA size measured, and adapted to the model. Metals will be finished to meet the high standards set by the instructor.

Bands: Max 6s = RMO-25

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About the UB Orthodontic Laboratory Techniques Course

This course is the result of a unique partnership that started in 1997 between Great Lakes Dental Technologies and the State University of New York at Buffalo - School of Dental Medicine.

Each summer, Brian Willison, CDT and UB faculty member, instructs first year orthodontic residents from around the world in the fine art of fabricating the very appliances they will eventually be prescribing to their patients. Resident instruction takes place in the Daniel J. Miller Training Center at GLDT Headquarters in Tonawanda, New York.



Brian D. Willison
CDT



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