



Master Blueprint - Performance-Based Assessment

The performance indicators listed under the Units and Competencies below require demonstration to be properly assessed. Inclusion on this list means that these performance indicators are used as the **basis** for the development of Performance-Based Assessment (PBA) stations. The omission of other performance indicators, found in the [National Entry-to-Practice Competencies and Performance Indicators \(NETP\)](#), from this list does NOT imply that they are absent in the PBA. The other competencies and performance indicators, assessed in the KBA, will serve as background knowledge for competent performance in the PBA. For example, knowledge of many competencies and performance indicators listed in the NETP under *Unit 1: Foundational Knowledge* are likely necessary for a PBA activity that involves the design, fabrication, or repair of a dental prosthesis.

Candidates are well-advised to focus on the performance indicators listed below in preparation for the CADTR Performance-Based Assessment (PBA).

LEGEND	
	Performance Indicator

Unit 1: Foundational Knowledge

1.4 Apply foundational knowledge of materials commonly used in Canadian dental technology practice.

1.4.d Select and utilize dental materials best suited for specific dental prostheses and appliances, considering the materials' characteristics and properties.

1.7 Demonstrate knowledge of key design and fabrication principles and technical skills used in dental technology.

1.7.c Analyze the design, fabrication, and material requirements of functional dental prostheses and appliances.

1.7.d Demonstrate the manual dexterity and spatial perception required for handling dental technology instruments.

Unit 2: Environmental Safety and Use of Laboratory and Equipment

2.1 Demonstrate knowledge of key design and fabrication principles and technical skills used in dental technology.

2.1.b Follow laboratory infection-prevention and -control principles in accordance with provincial and federal regulations and manufacturers' requirements.

2.2 Undertake activities that support safe use and handling of dental materials and reduce risk in the environment.

2.2.b Take necessary steps to reduce risk to self and others when handling all materials.

2.2.d Follow WHMIS standards when using chemicals and if a chemical incident occurs.

2.2.e Follow health and safety practices as they relate to dental technology.

2.3 Use laboratory equipment safely and competently to ensure work efficiency and to reduce harm to self and others.

2.3.b Demonstrate safe and efficient operation of dental technology equipment.

2.3.d Ensure routine inspection and maintenance is completed and documented.

Unit 3: Design, Fabrication, and Repair of Dental Technology Prostheses and Appliances

3.1 Analyze the healthcare practitioner's prescription and patient's information to plan the design and materials selection for the fabrication of the dental prosthesis and/or appliance.

3.1.f Verify the quality of the received impressions and models and the completeness and accuracy of supplemental documentation.

3.2 Design various types of dental prostheses and appliances.

3.2.a Assess oral anatomy and structure from the model, cast, and radiographic images to ensure harmonized design in relationship the prescription.

3.2.b Apply knowledge of foundational sciences when designing dental prostheses and appliances.

3.2.d Select various components of the dental prosthesis or appliance and choose materials appropriate to the design, prescription, and patient's anatomy.

3.3 Fabricate and repair functional dental prostheses and appliances.

3.3.a Follow federal and provincial dental and health standards for materials and components used in the fabrication and repair of dental prostheses and appliances.

3.3.b Select the appropriate dental laboratory equipment and tools, considering relevant factors including, appliance components, materials, and procedures.

3.3.c Apply skill and judgment in the manipulation of the materials and when integrating the appliance components.

3.3.d Consider all relevant factors related to the fabrication to ensure full function of the prosthesis or appliance (e.g.: the materials, components, the prescription, design parameters, and spatial constraints).

3.3.e Create a prototype to ensure functionality of each dental prosthesis and appliance.

3.4 Perform quality control prior to releasing a dental prosthesis or an appliance.

3.4.a Confirm the final dental prosthesis and/or appliance adheres to the prescription, both throughout the fabrication and prior to release.

3.4.b Identify any imperfections or deficiencies and make appropriate adjustments.

3.4.c Clean and disinfect the dental prosthesis and/or appliance, and package for safe and secure transportation to and receipt by the client.

3.5 Modify and repair dental prostheses and appliances, considering relevant factors.

3.5.a Identify and assess the existing prosthesis or appliance and determine the reason for the defect or breakage.

3.5.d Ensure functionality of the repaired dental prosthesis or appliance.

3.5.e Clean and disinfect the device prior to packaging for delivery.

Unit 4: Accountability and Professionalism

4.2 Practice in accordance with applicable legislation, regulations, standards, and guidelines.

4.2.c Obtain healthcare practitioner or patient consent for collection, use, or disclosure of personal information.

4.2.d Maintain records according to provincial standards and organizational policies.

4.4 Use effective communication skills.

4.4.b Employ effective, respectful, and ethical communications.

4.4.c Demonstrate transparent communications.

4.4.d Enter timely, clear, accurate, and valid documentation in records.

4.6 Apply critical-thinking skills and use professional judgment in all aspects of practice.

4.6.a Consult with and/or refer to others when issue(s) and client or patient needs are beyond personal competence and/or professional scope of practice.

4.6.c Critically evaluate every situation and make decisions based on sound reasoning and evidence-based practice.

4.6.d Integrate pertinent theoretical knowledge, experience, and collected data to justify and/or modify services.

Unit 5: Patient Care

- 5.4 Perform clinical laboratory procedures in a competent manner.
- 5.4.b Perform shade matching and record the selected shade to ensure aesthetically pleasing results.

Unit 6: Leadership, Business Management, and Administration

- 6.2 Demonstrate accountability for all work performed within the dental technology practice when supervising others.
- 6.2.a Ensure the dental prostheses or appliances meet the prescription requirements and professional standards.

In addition to the competencies and performance indicators, PBA activities will involve each category and item listed below. Accordingly, students should be prepared to demonstrate skill in each aspect shown.

Discipline	Materials	Other
Crown & Bridge	Acrylic	Analog
Cast Partial	Wax	Digital
Orthodontics	Wire	
Dentures	Porcelain / Ceramics	

Of note, the assessment activity involving the digital medium will **not** contribute to a candidate’s score in 2020; the activity is included to communicate to students, educators, and stakeholders alike the expectation that skill in the digital domain will be acquired.