CADTR | ACORTD

Canadian Alliance of Dental Technology Regulators

Alliance canadienne des organismes de réglementation de la technique dentaire

Prior Learning Assessment and Recognition (PLAR) Pathway

Applicant Portfolio Guide

2025 PLAR Pilot

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About the guide

This guide includes detailed instructions on how to compile and submit your portfolio for the Canadian Alliance of Dental Technology Regulators (CADTR) Prior Learning Assessment and Recognition (PLAR) Pathway competency-based assessment.

Please read this guide carefully **before** you begin to prepare your portfolio. It is recommended that you print this guide for easy reference while completing your portfolio.

You may only submit your portfolio **after** you have:

- submitted your CADTR PLAR Pathway application;
- provided the required evidence that shows that you meet the eligibility criteria (e.g. high school diploma, work experience hours); and
- received confirmation that you're eligible to proceed with the competency-based assessment.

What is the PLAR Pathway?

CADTR's PLAR Pathway is a structured process that allows applicants to have their knowledge, skills, and attitudes (competencies), acquired through formal or non-formal education and on-the-job dental technology experience, formally assessed and recognized.

The PLAR is designed for individuals who want to become Registered Dental Technologists/Technicians (RDTs) in Canada. Through this pathway, your knowledge and skills will be assessed against the **National Essential Entry-to-Practice Competencies**, which reflect the educational standards of approved dental technology programs in Canada.

This assessment determines whether your knowledge and skills are substantially equivalent (mostly the same) to those of an approved dental technology program. If gaps are identified, CADTR will let you know which areas need further development before you can become eligible to challenge the **Dental Technology Entry-to-Practice Assessment (DTETPA)**.

The competency-based assessment evaluates your knowledge and skills through the evidence you compile and submit in the form of a **portfolio**.

What is a portfolio?

A portfolio is a formal document that you will complete as part of this pathway.

It includes carefully selected evidence from your professional journey that demonstrates that you meet the required competencies (knowledge, skills and attitudes). These competencies must closely align with those taught in approved dental technology programs in Canada; this is called "substantial equivalence".

In other words, substantial equivalence means that your competencies are significantly similar to those of an approved dental technology program in Canada.

Your portfolio may include many types of evidence including course or workshop certificates, or video demonstrations of your practical skills. **For examples of portfolio evidence, please review Appendix B.**

Your portfolio evidence will be evaluated by trained subject matter experts who are Registered Dental Technologists/Technicians (RDTs), referred to further as evaluators. They'll use a standardized rubric to assess how closely your knowledge and skills align with the expectations of an approved dental technology program.

The evaluation will also identify any gaps or areas where you may need more learning or experience before moving forward in the credentialing process.

Important (1): Please note that compiling a portfolio takes time, start early, work on it regularly, and break it down into manageable steps. It is essential that you submit your strongest and most complete evidence the **first time**, as the evaluation will be based solely on the materials you provide to demonstrate the required and essential knowledge and skills. **The final report and decision will be made using your submitted evidence only**. Requests to appeal, challenge the outcome, or submit additional evidence later will involve additional time and financial costs. To ensure the best possible result, take the time to prepare thoroughly and submit your best work from the outset.

How do I compile and submit my portfolio?

Submission deadline

Your portfolio must be compiled and submitted by March 15, 2026, to qualify for the CADTR PLAR Pathway pilot.

What to include

Your portfolio must include these key components:

1. Portfolio Evidence Grid
2. Supporting Evidence

Your portfolio will **not** be assessed if any of the components are incomplete.

Submitting your portfolio

Upload all documents associated with the components to the online folder that was shared with you when your eligibility was confirmed.

Once you've uploaded all required components and are confident that your portfolio is ready for an evaluation, email t.eftekari@constructmeasures.ca with the subject line **READY FOR MY PORTFOLIO ASSESSMENT**. This can be done anytime before or on the portfolio submission deadline.

After submitting your portfolio

- An evaluator will be assigned to assess your portfolio.
- You will receive your results within **4 to 6 weeks.**

If you have any questions or concerns, please email **t.eftekari@constructmeasures.ca**.

Portfolio components

1. Portfolio Evidence Grid

The **Portfolio Evidence Grid** is a key component of your portfolio submission. It helps you organize, link and present the evidence that demonstrates your knowledge and skills as outlined in the competency framework.

Evaluators will use this grid to locate your evidence and assess how it supports your ability to meet the required competencies. Completing the grid clearly and thoughtfully, with well-referenced evidence, makes it easier for the evaluator to understand your competencies and may help you advance through the pathway more efficiently.

The CADTR PLAR Pathway Portfolio Evidence Grid can be found in the sub-folder labeled **1. Portfolio Evidence Grid**. Download a copy of this document to your computer, enter your details in the Personal Details section and complete the grid by following the steps below. Once you've completed the grid, read and complete the Applicant Declaration section.

How to name and upload the file:

- Once completed in full, save the evidence grid as: **YourName_EvidenceGrid**
- Upload the document to the sub-folder: **1. Portfolio Evidence Grid**
    - Example: ThomasSmith_EvidenceGrid

Steps to completing the Portfolio Evidence Grid

The following steps will guide you through completing the evidence grid.

Step 1: Review the grid before you begin

Take time to review and understand the structure, layout, and requirements of the Portfolio Evidence Grid.

Familiarize yourself with each section and how they relate to one another. This will help you avoid errors, stay organized, and ensure your evidence is clearly aligned with the required competencies.

Step 2: Review the competencies and performance indicators

Begin with **Domain A, Component 1: Core Scientific Knowledge**. Read the component descriptor and then review each competency and its associated performance indicators. To better understand each performance indicator and what evaluators look for as evidence of meeting it, refer to the key evidence criteria reflected in the PLAR Competency Framework presented in Appendix A.

As you review the competencies and performance indicators:

- Reflect on your own learning and experiences.
- Consider where, how, and to what extent you acquired the knowledge and skills described by the performance indicators and key evidence criteria (Appendix A).
- Think about how you've applied the knowledge and skills described in your current or past professional practice.
- Consider the types of evidence you can provide to demonstrate the knowledge and skills described by the competency, the associated performance indicators and key evidence criteria. Refer to the Supporting Evidence section below for more information on what qualifies as portfolio evidence.

A **competency** describes the overall skill or knowledge you need to demonstrate. **Performance indicators** give specific, measurable examples of how the competency is demonstrated in practice and **key evidence criteria** elaborate or define each performance indicator. To successfully complete your portfolio, you need to submit evidence that shows you have met the required knowledge and skills described by the competencies by referring to its associated performance indicators and key evidence criteria.

Provide the most comprehensive and relevant evidence you have for each competency. If you're missing some of the performance indicators or key evidence criteria, don't let that stop you from submitting, include what you can and focus on presenting your strongest evidence (described further in Appendix B).

You do not need to submit a separate piece of evidence for every individual performance indicator and/or key evidence criteria. Instead, your evidence should collectively demonstrate that you have met the performance indicators as guided by the key evidence criteria within each competency.

Step 3: Complete each section of the grid

For each competency associated with the eight (8) components, complete the fields in the grid in the order that makes the most sense to you. Refer to the example included in the **Portfolio Evidence Grid** for guidance.

a. Origin of Learning

Indicate where and how you acquired your knowledge and skills. This may include:

- Formal education (e.g., diploma, certificate programs)
- Continuous professional development courses
- On-the-job training or supervised practice

- Mentorship, internships, or job shadowing
- Workshops, conferences, or self-directed learning

The Origin of Learning field is directly related to the evidence that you intend to submit. For instance, if you select "Course", the evaluator will expect to see evidence related to the course, such as a certificate, course outline etc.

You may select more than one field.

If your origin of learning isn't listed, please select "**Other**", and describe it in the space provided.

b. Learning Statement

Write a short learning statement (1–3 sentences). The learning statement should link the origin of your learning with the evidence you are submitting. This helps the evaluator understand your evidence when they begin to review it. In the statement, briefly describe:

- **What you learned**: the knowledge and skills you gained (as described by the competency and performance indicator requirements).
- **How and when you learned it**: for example, through a course, on-the-job experience, or supervised practice, and when this took place.
- **How you use it:** how often and in what way you apply this knowledge or skill in your work.
- **The evidence**: what document or item you are providing to show this learning.

Examples of Learning Statements

Example 1: *In 2022, I completed a six-month on-the-job training program where I learned how to fabricate and repair removable partial dentures. I use these skills daily in practice, and my supervisor's confirmation letter demonstrates my competency in this area.*

Example 2: *During the past year, I learned to identify and correct defects in crowns and bridges through hands-on practice and guidance from senior technologists. I apply this knowledge in daily lab work. I am submitting before-and-after photos and repair logs as evidence.*

Example 3: *During 2023, by working with metals, ceramics, and polymers, I learned how each material behaves and how to select the right one for each appliance. I apply this knowledge in daily fabrication. I am submitting lab samples and reflective notes as evidence.*

c. Reference for Supporting Evidence

List the supporting evidence you're submitting for this competency and include:

- A clear description of the evidence.
- The exact file name and label you will use when uploading it to your supporting evidence folder. This helps evaluators quickly find and connect your evidence to the grid.
- If the file is large, include a note directing the evaluator to the specific pages, sections, or timestamps that are related to the competency and that should be reviewed.

Evaluators will **not** score evidence for a competency unless you have explicitly linked or referenced that evidence to the competency in your evidence grid. It is your responsibility to guide the evaluator; they will not search through your evidence to find relevant files or sections unless it has been clearly referenced in the evidence grid.

Be as specific as possible. For example: If you completed a workshop related to computer-aided design/manufacturing in dental technology, include the title of the workshop or name of the institution and the type of evidence you're including. For instance: ABCLearningInstitution_Certificate.

If you are submitting a large file, such as a video or a link to an online book, and only part of it relates to the competency or performance indicators you are demonstrating, include a note to guide the evaluator to exactly what to review. For example: "*Fast forward to 3:00 in the video and watch until 5:00.*" Or for a book: "*See pages 46–74, which cover the chapter I studied during my self-directed learning.*"

Note that the same piece of evidence may be used to address multiple competencies. If this is the case, upload the evidence **once** and reference the same file label where applicable in your Evidence Grid.

Note for Alberta applicants

For applicants intending to register as a Dental Technician (DT) in Alberta ONLY

Registered Dental Technicians, or DTs, have a more limited scope of practice than Registered Dental Technologists (RDT) in Alberta. DTs are authorized to provide services in one (1), two (2), or three (3) areas or disciplines of dental technology only.

If you're an applicant who intends to register as a Dental Technician or DT with the College of Dental Technologists of Alberta (CDTA) you must:

a. Complete the evidence grid for all competencies in:
   - Component 1. Core Scientific Knowledge
   - Component 2. Technical Knowledge and Skills
   - Component 3. Safe Practice
   - Component 4. Professional Practice

b. Identify the specific discipline(s) for which you're seeking an evaluation and complete the evidence grid for the associated competencies only. Specific disciplines include:
   - Component 5: Discipline 1: **Cast Partials**
   - Component 6: Discipline 2: **Crowns and Bridges**
   - Component 7: Discipline 3: **Dentures**
   - Component 8: Discipline 4: **Orthodontics**

c. Select ***Not Applicable*** for the disciplines for which you're not seeking an evaluation and move to the next discipline

d. You must complete the competencies for **at least one discipline;** you may also choose to complete competencies for additional disciplines

Note: It's your responsibility to contact CDTA to understand the specific requirements for registration as a DT and to confirm whether this PLAR pathway is an appropriate option for you.

2. Supporting Evidence

This component contains the actual materials that you're submitting as evidence of having met the competencies reflected in the Portfolio Evidence Grid.

Your evidence should be carefully selected, relevant, and clearly labeled. **Review Appendix B for examples and descriptions of the types of evidence you may submit.** The next section outlines how to select supporting evidence.

How to name and upload files:

- Once you've compiled and selected your supporting evidence, label each file (document, image, video etc.) with the same label you used in the Reference for Supporting Evidence column in the Portfolio Evidence Grid
- Upload all supporting evidence files to the sub-folder: **2. Supporting Evidence**. Evaluators will only evaluate the evidence that is uploaded to this folder. They won't have access to materials stored or sent elsewhere.

How to select supporting evidence

As an applicant, it's your responsibility to submit evidence that clearly shows the evaluator that you meet the requirements for each competency for which you're seeking an evaluation and recognition. The evidence you provide must be both **valid (a)** and **demonstrative (b)**.

a. Valid

Valid evidence means the materials you submit meet the following criteria:

- **Sufficient**: There must be enough evidence to give the evaluator confidence that you meet the competency and associated performance indicators for which you're seeking an evaluation and recognition. This typically means submitting **multiple pieces of evidence** for each competency (at least two, no more than four). Note that the same piece of evidence may be used to support more than one competency. You must reference the evidence appropriately in the Portfolio Evidence Grid if you want the evaluator to consider the evidence for a specific competency(ies).
- **Authentic, credible and verifiable**: Your evidence **must** represent your own work, accurately reflect your experience or achievements, and be supported by credible sources such as official documents, employer letters, or certificates. Any claims you make should be backed by trustworthy documentation that can be confirmed if needed. Misleading, unverifiable, or questionable evidence may result in delays or an unsuccessful assessment (see the **Important (2)** note below). The inclusion of Attestation Letters can help confirm and verify the authenticity of your evidence. Read more about these in Appendix B and C.
- **Relevant**: Your evidence must directly relate to the specific competency you're addressing. It should be clear how each piece connects to the knowledge and skills that will be assessed.
- **Current**: The evidence should reflect recent and up-to-date practices, demonstrating your knowledge and skills in the context of today's professional standards.

- **Accessible**: All evidence included in your portfolio must be clearly accessible to evaluators. This means that files must be viewable, readable, or audible without requiring special permissions, passwords, or software. Use common file formats such as PDF, Word, JPEG, or MP4 (under 100 MB). Make sure all documents, videos, and images are properly labeled, open easily, and are of sufficient quality for evaluators to fully understand and assess the content. If you provide inaccessible or unclear evidence, it may not be considered in the evaluation.

Important (2): Evaluators will be instructed to use their professional judgment to determine whether the submitted evidence is your own work and that it is a true reflection of your knowledge and skills. If the evidence is found to be inauthentic, misleading, or not credible, it will be scored as **NO EVIDENCE** for the related competency. This may lead to the rejection of your portfolio and could result in disciplinary action in accordance with CADTR's policies.

Note that any use of AI-generated evidence will be considered inauthentic and not credible.

b. Demonstrative

In addition to being valid, your evidence must also be **demonstrative.** This means it must clearly show that you possess and can apply the knowledge and skills at the level described in the competency statement.

Once the evaluator has confirmed that the evidence is valid, meaning it is sufficient, relevant, authentic, credible, current, and accessible, they will assess how well your knowledge and skills align with the level described in the competency. A score will then be assigned using a five-point rating scale.

Read the How the supporting evidence will be scored section to understand how evaluators will use your supporting evidence to assess your knowledge and skills against the competency requirements.

It's essential that you carefully review and select high quality pieces of evidence that best show case your ability for an efficient and more accurate evaluation of your knowledge and skills. If your portfolio is poorly referenced, disorganized, or unclear it will delay the assessment process and/or impact your final score.

Important (3): When demonstrating competencies related to **Domain C: Specialized Technical Expertise** your evidence must clearly show both how you acquired the necessary knowledge (e.g., through coursework, workshops, or self-directed learning) and how you applied that knowledge in practice through repeatable, hands-on practical work experiences (e.g. work samples, patient cases etc.).

It's strongly recommended that you review your competencies and portfolio evidence with a mentor, colleague, or supervisor before submitting the final version.

How the supporting evidence will be scored

Evaluators will review the evidence grid and supporting evidence uploaded to the supporting evidence folder.

Each competency and its referenced supporting evidence will be scored independently using the following five-point rating scale. Evaluators will consider both the validity and the level of knowledge and skill that it demonstrates. If there is no evidence, the evidence is not clearly referenced to the competency or if the evaluator doubts the validity of the evidence, they'll assign a score of **NO EVIDENCE**.

Ratings		Descriptions
Lowest	**NO EVIDENCE**	**No knowledge/skill demonstrated:** • No Evidence/Evidence has not been clearly referenced/Evidence is invalid (not sufficient, relevant, authentic, verifiable, credible, current and/or accessible) • Evidence demonstrates harmful/unsafe knowledge/skill
	LIMITED	**Evidence is valid but displays knowledge/skill far below the standard:** • Evidence demonstrates limited knowledge/skill related to performance indicators and/or requires assistance to perform them appropriately • Evidence demonstrates very few or part of performance indicators without assistance
	PROGRESSING	**Evidence is valid but demonstrates knowledge/skill slightly below the minimum approved program standard:** • Evidence demonstrates knowledge/skill related to most but not all of the performance indicators and without assistance
	AT THE STANDARD	**Evidence is valid and demonstrates knowledge/skill equivalent to that of the approved program standard:** • Evidence demonstrates knowledge/skill related to all of the performance indicators and without assistance
Highest	**BEYOND**	**Evidence is valid and demonstrates knowledge/skill beyond the approved program standard:** • Evidence demonstrates knowledge/skill related to all the performance indicators and beyond that described

Appendix A- PLAR Pathway Competency Framework

Remember: A **competency** describes the overall skill or knowledge you need to have. **Performance indicators** give specific, measurable examples of how the competency is demonstrated in practice and **key evidence criteria** elaborate or define each performance indicator.

To successfully complete your portfolio, you need to submit evidence (examples are described in Appendix B) that shows you have met the required competencies. Use the performance indicators and key essential criteria to understand what is expected to demonstrate each competency. The key evidence criteria provide detailed guidance on what is meant by each performance indicator.

Provide the most comprehensive and relevant evidence you have for each competency.

Note that you do not need to submit a separate piece of evidence for every individual performance indicator. Instead, your evidence should collectively demonstrate that you have met all the performance indicators within each competency.

PLAR PATHWAY COMPETENCY FRAMEWORK

DOMAIN A: FOUNDATIONAL KNOWLEDGE AND SKILL

COMPONENT 1: CORE SCIENTIFIC KNOWLEDGE

Overall Descriptor: *Demonstrates and applies scientific knowledge surrounding biology, anatomy, oral structures, pathology, chemistry and physics.*

Sub-component 1.1: Biology, Head and Neck Anatomy

Competency

1.1.1 Demonstrate knowledge of biology and of head and neck anatomy related to dental technology practice.

Performance Indicators	Key Evidence Criteria
a. Identify basic biological systems and their function relevant to dental technology.	**Evidence reflects knowledge of:** • Introduction to the human body and its systems: cardiovascular, gastrointestinal, nervous, and respiratory • Innervation and blood supply of the oral and craniofacial regions • Connective tissues and the lymphatic system as they relate to oral health • Structure and function of the salivary glands in digestion, lubrication, and speech • Anatomy of the tongue, including muscles and papillae • Phonetics and its relationship to oral structures • Anatomy of the nose, nasal cavity, and paranasal sinuses
b. Identify the basic elements of human anatomy, physiology, and pathology relevant to dental technology and appliances.	**Evidence reflects knowledge of:** • Muscles of mastication: origin, insertion, and function

	• Orofacial muscles involved in speech, facial expression, and mastication • Cranial landmarks and definitions relevant to appliance design • Skull bones that contribute to facial structure and dental support
c. Identify the craniofacial anatomy to provide the working boundaries of dental prostheses and appliances.	**Evidence reflects knowledge of:** • Skull bones defining anatomical boundaries for dental prosthetics • Temporomandibular joint (TMJ): structure, movement patterns, and common disorders • Joint types in the head and neck and their functional relevance • Mandibular movements (e.g., opening, closing, lateral) relevant to prosthetic design • Principles of semi- and fully adjustable articulators for simulating jaw movements • Interpreting radiographs and identifying key anatomical structures, landmarks, and bone features across different types and views.
Sub-component 1.2: Oral Structures, Pathology and Tooth Morphology	
Competency **1.2.1 Apply knowledge of oral structures, tooth morphology, and oral pathology to dental technology.**	
Performance Indicators	**Key Evidence Criteria**
a. Define the structure and function of the teeth and supporting tissues, tooth arrangement, and tooth numbering systems.	**Evidence reflects knowledge of:** • Tooth anatomy, morphology, function, and classification (primary and permanent) • Tooth development and eruption chronology • Numbering systems for tooth identification • Supporting oral structures, including the periodontium • Basic oral embryology and histology
b. Identify occlusal interdigitations of teeth.	**Evidence reflects knowledge of:** • Occlusal plane and arrangement • Function of teeth as they contact one another • Static and dynamic occlusion
c. Identify and demonstrate knowledge of aspects of occlusion and Angle's classification of occlusion.	**Evidence reflects knowledge of:** • Principles of occlusion • Normal occlusion and traumatic occlusion • Angle's classification of occlusion (assumed under this broader topic)
d. Recognize diseases and abnormalities that may impact dental health.	**Evidence reflects knowledge of:** • Geriatric anatomy • Bone formation and degeneration • Bone resorption (osteoblastic and osteoclastic processes) • Tooth loss and its clinical implications
e. Demonstrate an understanding of the impact of dental health and functionality on a patient's overall health.	**Evidence reflects knowledge of:** • Psychological effects of tooth loss • Oral rehabilitation approaches • Missing teeth patterns • Relationship between dental function, health, and quality of life

f. Apply knowledge of the mechanics and movement of the mandible and of the mechanical devices that simulate it.	**Evidence reflects knowledge of:** • Function of teeth in dynamic movement • Mandibular motion as it relates to occlusion (linked to dynamic occlusion) • Occlusal principles influencing appliance design
Sub-component 1.3: Physics and Chemistry	
Competency **1.3.1 Apply basic principles of physics and chemistry to the practice of dental technology.**	
Performance Indicators	**Key Evidence Criteria**
a. Explain basic physics and chemistry principles as they relate to dental technology, including dental materials.	**Evidence reflects knowledge of:** • Physics of tooth movement: anchorage, biomechanics, force dynamics, fulcrum, balance, and retention • Material properties: stress-strain relationships, modulus of elasticity, flex, proportional limits • Bonding and adhesion: mechanical bonding principles • Material science: atomic and molecular structure, polymerization, and crystallization processes • Chemistry fundamentals: chemical elements, atomic structure, valency, and compound formation • Chemical reactions and phenomena: bonding, states of matter, galvanization, capillary action, and corrosion
b. Apply knowledge of force, heat, electricity, light, sound, chemical elements, mechanics, and other principles that are related to dental technology.	**Evidence reflects knowledge of:** • Nature and importance of light: wavelength, visible, infrared and ultraviolet • Reflection, refraction, adsorption, transparency, fluorescence, translucency • Additive and subtractive light colour system • Munsell system: value, chroma, hue • Soundwave: nature and importance of sound, sonic, ultrasonic • Energy: thermodynamics, heat and temperature
COMPONENT 2: TECHNICAL KNOWLEDGE AND SKILLS **Overall Descriptor:** *Demonstrates and applies technical knowledge and skill that supports effective practice.*	
Sub-component 2.1: Dental Materials	
Competency **2.1.1 Apply foundational knowledge of materials commonly used in Canadian dental technology practice.**	
Performance Indicators	**Key Evidence Criteria**
a. Identify the different classifications of materials used in the design, fabrication, and repair of dental prostheses and appliances.	**Evidence reflects knowledge of:** • Classification of materials: polymers and composites, ceramics, impression and processing materials, abrasives, dental alloys, digital printing and milling materials • Thermoplastic vs. thermoset materials; curing methods: photo-cure, heat-cure, and self-cure • Types of ceramics: low vs. high fusing; pressable, zirconia, feldspathic, and lithium disilicate • Reversible vs. irreversible hydrocolloid materials • Properties and applications of metals, alloys, and solders in dentistry

b. Demonstrate awareness of dental-materials and medical device restrictions under the regulatory authority of the Health Protection Branch of Health Canada.	**Evidence reflects knowledge of:** • Approved vs. restricted substances for medical and dental use • Health Canada classification and labeling requirements for dental materials • Biocompatibility, toxicity, and corrosion resistance of materials • Safe handling and disposal of regulated substances
c. Summarize the characteristics and the physical and mechanical properties of dental materials.	**Evidence reflects knowledge of:** • Physical properties: transparency, translucency, fluorescence, refraction, absorption, color systems, and light interaction • Mechanical properties: modulus of elasticity, flexural, compressive, and tensile strength, proportional limits • Stress-strain relationships, deformation limits, and elastic recovery • Bonding types: chemical vs. mechanical; polymerization and crystallization • Heat properties: thermodynamics, heat resistance, and temperature sensitivity
d. Select and utilize dental materials best suited for specific dental prostheses and appliances, considering the materials' characteristics and properties.	**Evidence reflects knowledge of:** • Material selection based on case requirements (e.g., zirconia for high-stress, flexible thermoplastics for partials) • Compatibility of materials in multi-material systems (e.g., alloy-ceramic bonding) • Aesthetic, mechanical, and functional considerations • Energy and light-curing requirements for specific resin systems • Selection based on processing techniques (e.g., injection molding, pressing, casting)
e. Explain the effects of manipulation on different types of dental materials.	**Evidence reflects knowledge of:** • Effects of temperature, pressure, and curing methods (photo, heat, chemical) on material properties • Polymerization shrinkage, moisture sensitivity, and contamination risks • Environmental impacts on viscosity, working time, and setting characteristics • Effects of sound and ultrasonic energy on material integrity • Mechanisms of capillary action, galvanization, and corrosion
f. Recognize and remedy possible defects which can result from the manipulation of dental materials.	**Evidence reflects knowledge of:** • Common defects: porosity, warping, cracks, bonding failures, air entrapment • Root causes: improper curing, contamination, thermal shock, material incompatibility • Prevention: correct mixing ratios, controlled environment, appropriate bonding agents • Remediation: polishing, re-bonding, reprocessing • Application of physics concepts (e.g., force, fulcrum, retention) in error prevention and correction
Sub-component 2.2: Oral and Maxillofacial	
Competency **2.2.1 Demonstrate awareness of the common oral and maxilla facial related prostheses and appliances.**	
Performance Indicators	**Key Evidence Criteria**

a. Recognize oral and maxillofacial health conditions and surgical procedures that necessitate the design and fabrication of various dental prostheses and appliances.	**Evidence reflects knowledge of:** • Common maxillofacial surgical procedures (e.g., trauma, cancer, congenital anomalies) • Orthodontic surgeries for dental-maxillary anomalies (e.g., cleft lip/palate, jaw realignment) • Indications for surgical splints and obturators • Conditions requiring facial templates, guides, or prostheses (e.g., nasal, orbital, auricular defects) • Role of dental technologists in supporting surgical and therapeutic interventions through custom prosthetics
b. Identify the basic steps in the design and fabrication of related prostheses and appliances for oral and maxillofacial treatment options	**Evidence reflects knowledge of:** • Maxillofacial template and guide creation (e.g., stents, positioning guides) • Surgical splint fabrication: impression-taking, model prep, bite registration, material selection, processing • Obturator design: fit, retention, oral/nasal sealing, and patient comfort • Material selection based on surgical and anatomical needs (e.g., thermoplastics, silicone, acrylics) • Communication with surgical teams for appliance planning and implementation
Sub-component 2.3: Design and Fabrication Knowledge	
Competency **2.3.1 Demonstrate knowledge of key design and fabrication principles and technical skills used in dental technology.**	
Performance Indicators	**Key Evidence Criteria**
a. Describe indications and contraindications for and limitations of dental prostheses and appliances.	**Evidence reflects knowledge of:** • Identifying when prostheses are appropriate vs. when alternatives are needed • Limitations due to anatomical, functional, or material constraints • Influence of material properties (e.g., translucency, strength, compatibility) on prosthetic performance • Contraindications related to shade-matching challenges or digital limitations in complex cases • Infection control considerations in design, fabrication, and material handling
b. Identify different components of dental prostheses and appliances.	**Evidence reflects knowledge of:** • Structural and aesthetic components (e.g., frameworks, pontics, clasps, connectors, facings) • Impact of material selection on function and appearance (e.g., zirconia vs. resin) • Key digital design elements in CAD/CAM (e.g., margins, occlusion, contact points) • Colour-matching components (e.g., shade guides, tabs, calibration references) • Integration of digital and conventional elements (e.g., milled frameworks with veneered ceramics)
c. Analyze the design, fabrication, and material requirements of functional dental prostheses and appliances.	**Evidence reflects knowledge of:** • Applying CAD/CAM design principles for precise fit and function • Material selection based on mechanical, aesthetic, and biocompatibility criteria • Evaluating translucency, chroma, and value for aesthetics

	• Understanding limitations of additive and subtractive design in digital and manual workflows • Maintaining proper environmental conditions for accurate colour rendering and material curing
d. Apply digital technology skills to support the design and fabrication of dental prostheses and appliances.	**Evidence reflects knowledge of:** • Operating CAD/CAM systems for scanning, design, and milling/restoration production • Integrating digital workflows with traditional fabrication methods • Basic troubleshooting in digital design (e.g., incomplete scans, data loss, STL errors) • Familiarity with digital manufacturing methods (e.g., subtractive milling, additive 3D printing) • Using digital communication tools for transmitting design and shade/colour data
e. Apply the principles of shade matching and colour measurement, and communicate colour parameters.	**Evidence reflects knowledge of:** • Color theory: hue, chroma, value, translucency • Additive/subtractive color systems; light reflection and absorption • Use and interpretation of shade guides and digital shade-matching tools • Environmental influence: lighting, CRI, and viewing conditions • Use of photography and digital tools for accurate color communication • Infection control protocols during shade matching and appliance handling • Proper environment for shade selection • Interpretation of prescriptions and communication between dentist and RDT

DOMAIN B: SAFE AND PROFESSIONAL PRACTICE

COMPONENT 3: SAFE PRACTICE

Overall Descriptor: *Adopts and implements processes and procedures that promote safe use and handling of dental materials and laboratory equipment and prevents and controls infections.*

Sub-component 3.1: Infection, Prevention and Control

Competency

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

Performance Indicators	Key Evidence Criteria
a. Apply knowledge of pathogenic diseases and of microbiology in the transmission of disease related to the practice of dental technology.	There are no additional key evidence criteria, the performance indicators are clear.
b. Follow laboratory infection-prevention and -control principles in accordance with provincial and federal regulations and manufacturers' requirements.	
c. Use the appropriate reprocessing procedures to clean and disinfect all instruments, equipment, and work surfaces	
d. Follow Standard Precautions to reduce the risk of transmission of bloodborne diseases and other pathogens from both recognized and unrecognized sources.	

Sub-component 3.2: Safe Use and Handling of Dental Materials

Competency

3.2.1 Undertake activities that support safe use and handling of dental materials and reduce risk in the environment.	
Performance Indicators	**Key Evidence Criteria**
a. Identify and manage the potential dangers associated with the use of dental materials and bio-hazardous materials.	**Evidence reflects ability to:** • Identify hazardous chemicals (monomers, acids, alloys, silica). • Recognize risks from contaminated items. • Follow protocols for isolation and disposal. • Use appropriate PPE. • Understand chemical properties (toxicity, flammability, reactivity, corrosivity).
b. Take necessary steps to reduce risk to self and others when handling all materials.	**Evidence reflects ability to:** • Perform risk assessments. • Ensure proper ventilation. • Don and doff PPE correctly. • Handle tools and equipment safely. • Follow cleaning and decontamination protocols.
c. Demonstrate knowledge of Workplace Hazardous Materials Information System (WHMIS) standards, including classifications, labelling of chemicals, and safety data sheets.	**Evidence reflects ability to:** • Recognize WHMIS symbols and pictograms. • Interpret key SDS sections. • Understand signal words and precautions. • Follow labelling rules for all containers.
d. Follow WHMIS standards when using chemicals and if a chemical incident occurs.	**Evidence reflects ability to:** • Respond to spills/exposure (e.g., eyewash, ventilation). • Report and document incidents. • Contain and clean up per SDS. • Communicate incidents to team.
e. Follow health and safety practices as they relate to dental technology.	**Evidence reflects ability to:** • Plan safe lab layout. • Check equipment before use. • Maintain cleanliness and order. • Comply with safety audits. • Complete safety training regularly.
f. Follow manufacturers' instructions and demonstrate proper handling and storage of materials and solutions.	**Evidence reflects ability to:** • Monitor shelf life and storage conditions. • Label and date opened items. • Store hazardous materials securely.
g. Identify and act to reduce potential or real risks in the laboratory environment (e.g.: falls due to spills, injury due to faulty equipment, unsafe use of equipment, unsafe handling of bio-hazardous materials).	**Evidence reflects ability to:** • Use spill kits and follow spill protocols. • Report and isolate faulty equipment. • Apply lock-out/tag-out procedures. • Inspect cords, gas lines, safety tools. • Maintain equipment and signage.

	• Apply ergonomic best practices.
Sub-component 3.3: Safe and Competent Use of Laboratory Equipment	
Competency **3.3.1 Use laboratory equipment safely and competently to ensure work efficiency and to reduce harm to self and others.**	
Performance Indicators	**Key Evidence Criteria**
a. Identify potential or real risks and take the necessary steps to reduce risk to self and others when using laboratory equipment.	There are no additional key evidence criteria, the performance indicators are clear.
b. Demonstrate safe and efficient operation of dental technology equipment.	
c. Follow manufacturers' instructions for the proper use and cleaning of equipment.	
d. Ensure routine inspection and maintenance is completed and documented.	
e. Recognize equipment breakdown and faulty operation and take corrective actions.	
COMPONENT 4: PROFESSIONAL PRACTICE **Overall Descriptor:** *Communicates and collaborates effectively, accepts accountability for work and actions and recognizes when care is outside of scope of practice or personal competence.*	
Sub-component 4.1: Communication and Collaboration	
Competency **4.1.1 Use effective communication skills.**	
Performance Indicators	**Key Evidence Criteria**
a. Use appropriate dental terminology in communications with the healthcare team.	**Evidence reflects ability to:** • Use dental terminology appropriately such as: o Dental prostheses types: full, partial, crown and bridge, implant-supported, orthodontic, and maxillofacial. o Prosthesis components: pontics, retainers, abutments, connectors, clasps, veneers, attachments. o Dental materials: acrylics, composites, ceramics, metals, alginate, gypsum, impression compounds, investments, epoxy. o Dental anatomy: tooth numbering systems, surfaces, arches, quadrants, and oral structures. o Tools and equipment: articulators, facebows, trays, model trimmers, lathes, wax tools, handpieces.
Competency **4.1.2 Demonstrate accountability for all work performed within the dental technology practice when supervising others.**	
Performance Indicators	**Key Evidence Criteria**
a. Ensure the dental prostheses or appliances meet the prescription requirements and professional standards.	There are no additional key evidence criteria, the performance indicators are clear.

b. Review material documentation to confirm compatibility and to ensure materials used meet required regulations.	
c. Maintain records to track material use and case parameters.	
Sub-component 4.2: Professional Judgement and Leadership	
Competency **4.2.1 Apply critical-thinking skills and use professional judgment in all aspects of practice.**	
Performance Indicators	**Key Evidence Criteria**
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.	**Evidence reflects ability to:** • Consult effectively with various members of the healthcare team • Understand the roles and responsibilities within the dental treatment team • Collaborate professionally in an interprofessional setting • Apply professional obligations and demonstrate accountability • Uphold ethical business practices • Maintain appropriate professional boundaries
b. Demonstrate awareness of potential problems and consider options for different course(s) of action.	**Evidence reflects ability to:** • Problem solve • Think critically • Resolve conflicts
c. Critically evaluate every situation and make decisions based on sound reasoning and evidence-based practice.	**Evidence reflects ability to:** • Prioritize • Project manage • Apply professional judgement when problem solving • Consider alternative approaches
d. Integrate pertinent theoretical knowledge, experience, and collected data to justify and/or modify services.	**Evidence reflects ability to:** • Maintain accurate and complete patient care records and documentation
Competency **4.2.2 Demonstrate leadership skills to support the safe, efficient, and ethical delivery of dental technology services.**	
Performance Indicators	**Key Evidence Criteria**
a. Recognize own limitations and seek support and assistance when needed.	**Evidence reflects ability to:** • Demonstrate awareness of personal scope of practice and professional accountability • Recognize when to escalate issues or consult more experienced colleagues • Reflect on personal competencies and identify areas for learning and improvement • Understand how unresolved limitations can affect patient safety and quality of service
b. Recognize limitations of others and provide support when needed.	**Evidence reflects ability to:** • Demonstrate a basic understanding of different leadership styles and when to apply them (e.g., supportive, directive) • Show awareness of team dynamics and the importance of respectful delegation • Apply conflict resolution strategies to address skill gaps or misunderstandings • Use effective and ethical techniques for assigning and supervising tasks

DOMAIN C: SPECIALIZED TECHNICAL EXPERTISE

COMPONENT 5: DISCIPLINE 1: CAST PARTIALS (also described as removable partial prosthetics)

Overall Descriptor: *Demonstrates proficiency in analyzing, designing, fabricating, modifying and repairing prostheses and appliances specific to removable prosthetics including acrylics and cast partials.*

Sub-component 5.1: Analyze

Competency

5.1.1 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.

Performance Indicators	Key Evidence Criteria
a. Ensure a final complete prescription is received from the responsible healthcare practitioner. **b.** Understand the clinical application of the prescription and recognize effects of any technical limitations on prescribed dental prosthesis and/or appliance. **c.** Identify and communicate any limitations and contraindications of the proposed treatment plan to the healthcare practitioner. **d.** Obtain clarification of the prescription and request additional information about the treatment plan, when needed. **e.** Determine the appropriateness of the materials prescribed or selected. **f.** Verify the quality of the received impressions and models and the completeness and accuracy of supplemental documentation.	**Evidence reflects knowledge and ability to:** • Confirm that prescription includes anatomical details, design parameters, and materials. • Assess feasibility based on model analysis and anatomical limitations (e.g., undercuts, occlusion). • Identify design/material conflicts or patient-specific contraindications. • Review missing anatomical or procedural details and request supporting data (e.g., radiographs). • Match material properties (e.g., strength, biocompatibility) with functional, occlusal and esthetic demands. • Assess for voids, tears, distortions, or missing occlusal/soft tissue references.

Sub-component 5.2: Design

Competency

5.2.1 Design various types of dental prostheses and appliances.

Performance Indicators	Key Evidence Criteria
a. Assess oral anatomy and structure from the model, cast, and radiographic images to ensure harmonized design in relationship the prescription. **b.** Apply knowledge of foundational sciences when designing dental prostheses and appliances. **c.** Identify tooth-preparation requirements for various types of dental prostheses and dental material requirements. **d.** Select various components of the dental prosthesis or appliance and choose materials appropriate to the design, prescription, and patient's anatomy.	**Evidence reflects knowledge and ability to:** • Evaluate support, retention, and stability zones; identify anatomical landmarks on models and radiographs. • Use knowledge of chemistry (e.g., polymerization, crystallization) and material properties (e.g., corrosion, galvanism). • Determine rest seat, guide plane, and clasp prep needs for partial frameworks. • Choose framework alloys, acrylic bases, clasps, and retainers suited to tissue and tooth conditions.

Sub-component 5.3: Fabricate

Competency

5.3.1 Fabricate and repair functional dental prostheses and appliances.

Performance Indicators	Key Evidence Criteria
a. Follow federal and provincial dental and health standards for materials and components used in the fabrication and repair of dental prostheses and appliances. **b.** Select the appropriate dental laboratory equipment and tools, considering relevant factors including appliance components, materials, and procedures. **c.** Apply skill and judgment in the manipulation of the materials and when integrating the appliance components. **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).	**Evidence reflects knowledge and ability to:** • Comply with WHMIS, infection prevention, and labeling standards. • Use surveyors, duplicators, burnout ovens, casting units, and finishing tools specific to cast partials. • Control wax-up dimensions, alloy casting, and acrylic finishing for fit and polish. • Integrate design intent, occlusal clearance, retention zones, and spatial limits during processing.
Sub-component 5.4: Modify and Repair	
Competency **5.4.1 Modify and repair dental prostheses and appliances, considering relevant factors.**	
Performance Indicators	**Key Evidence Criteria**
a. Identify and assess the existing prosthesis or appliance and determine the reason for the defect or breakage. **b.** Consider the compatibility of new materials with the existing materials, patient assessment data, and prosthesis or appliance history. **c.** Explain any limitations of the repair to the healthcare practitioner or patient. **d.** Ensure functionality of the repaired dental prosthesis or appliance. **e.** Clean and disinfect the device prior to packaging for delivery.	**Evidence reflects knowledge and ability to:** • Examine fracture patterns, wear, and material failure points. • Match repair resin or alloy to original; assess bonding or welding compatibility. • Communicate impact of repair on function, esthetics, or longevity. • Test retention, stability, and occlusion post-repair. • Follow protocols for disinfection and secure packaging post-repair.
Sub-component 5.5: Quality Control	
Competency **5.5.1 Perform quality control prior to releasing a dental prosthesis or an appliance.**	
Performance Indicators	**Key Evidence Criteria**
a. Confirm the final dental prosthesis and/or appliance adheres to the prescription, both throughout the fabrication and prior to release. **b.** Identify any imperfections or deficiencies and make appropriate adjustments. **c.** Clean and disinfect the dental prosthesis and/or appliance, and package for safe and secure transportation to and receipt by the client.	**Evidence reflects knowledge and ability to:** • Cross-check component placement, finish, and fit with prescription and design form. • Detect porosities, rough margins, misalignment; correct prior to release. • Use validated cleaning methods, label correctly, and package to prevent damage.
COMPONENT 6: DISCIPLINE 2: CROWNS AND BRIDGES (also described as fixed partial prosthetics) **Overall Descriptor:** *Demonstrates proficiency in analyzing, designing, fabricating, modifying and repairing prostheses and appliances specific to fixed prosthetics including crowns, bridges, inlays and onlays, veneers and implant-supported prosthetics.*	
Sub-component 6.1: Analyze	
Competency	

6.1.1 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.	
Performance Indicators	**Key Evidence Criteria**
a. Ensure a final complete prescription is received from the responsible healthcare practitioner. **b.** Understand the clinical application of the prescription and recognize effects of any technical limitations on prescribed dental prosthesis and/or appliance. **c.** Identify and communicate any limitations and contraindications of the proposed treatment plan to the healthcare practitioner. **d.** Obtain clarification of the prescription and request additional information about the treatment plan, when needed. **e.** Determine the appropriateness of the materials prescribed or selected. **f.** Verify the quality of the received impressions and models and the completeness and accuracy of supplemental documentation.	**Evidence reflects knowledge <u>and</u> ability to:** • Understand prescription requirements and assess completeness • Interpret crown and bridge designs within a clinical context (e.g., occlusion, esthetics, material thickness) • Recognize design constraints (e.g., limited space, insufficient reduction, incompatible materials) • Request appropriate supporting information when needed (e.g., radiographs, photographs, implant specifications, opposing models, bite registration) • Apply material science knowledge effectively (e.g., alloys, ceramics, zirconia, lithium disilicate, titanium, and material compatibility) • Assess the quality of impressions, detect model defects, evaluate articulation accuracy, and confirm presence of implant analogs or scan bodies
Sub-component 6.2: Design and Fabricate	
Competency **6.2.1 Design various types of dental prostheses and appliances.**	
Performance Indicators	**Key Evidence Criteria**
a. Assess oral anatomy and structure from the model, cast, and radiographic images to ensure harmonized design in relationship the prescription. **b.** Apply knowledge of foundational sciences when designing dental prostheses and appliances. **c.** Identify tooth-preparation requirements for various types of dental prostheses and dental material requirements. **d.** Select various components of the dental prosthesis or appliance and choose materials appropriate to the design, prescription, and patient's anatomy.	**Evidence reflects knowledge <u>and</u> ability to:** • Evaluate tooth position, ridge contours, arch alignment, and interocclusal space using casts and radiographs • Apply principles of chemistry, including understanding of alloy types, ceramic crystallization, bond strength, and corrosion resistance • Demonstrate knowledge of preparation designs for various restorations (e.g., full metal, PFM/PBZ, full-contour zirconia, veneers, implants, single units, bridges, attachments, inlays/onlays, post and core) • Prepare crown and bridge models appropriately for fabrication • Select suitable abutments, pontics, connectors, attachments, implant components, and luting agents based on the specific case design
Competency **6.2.2 Fabricate and repair functional dental prostheses and appliances.**	
Performance Indicators	**Key Evidence Criteria**
a. Follow federal and provincial dental and health standards for materials and components used in the fabrication and repair of dental prostheses and appliances. **b.** Select the appropriate dental laboratory equipment and tools, considering relevant factors including appliance components, materials, and procedures.	**Evidence reflects knowledge <u>and</u> ability to:** • Comply with material standards for metal alloys, ceramics, resin cements used in fixed prosthetics, resins, zirconia, and implant components • Use equipment correctly, including 3D printers, milling machines, sintering ovens, articulators, model trimmers, sandblasters, casting machines, handpieces, and bench lathes

c. Apply skill and judgment in the manipulation of the materials and when integrating the appliance components. **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).	• Perform technical procedures such as wax-up, investing, casting, pressing, divesting, trimming, polishing, ceramic layering, staining and glazing, and creating cementation mock-ups • Demonstrate implant-specific knowledge, including principles of osseointegration, treatment planning, abutment options and components, custom trays, occlusion rims, surgical stents/guides, models, soft tissue models, and processing methods • Verify key functional and esthetic elements such as occlusion, contacts, marginal integrity, implant stents/guides, and biomechanical performance
Sub-component 6.3: Modify and Repair	
Competency **6.3.1 Modify and repair dental prostheses and appliances, considering relevant factors.**	
Performance Indicators	**Key Evidence Criteria**
a. Identify and assess the existing prosthesis or appliance and determine the reason for the defect or breakage**.** **b.** Consider the compatibility of new materials with the existing materials, patient assessment data, and prosthesis or appliance history. **c.** Explain any limitations of the repair to the healthcare practitioner or patient. **d.** Ensure functionality of the repaired dental prosthesis or appliance. **e.** Clean and disinfect the device prior to packaging for delivery.	**Evidence reflects knowledge and ability to:** • Recognize common issues such as fracture patterns, marginal breakdown, wear, ceramic chipping, and debonding • Understand compatibility at the metal-ceramic interface, differences between soldering and laser welding, and techniques for bonding to zirconia • Identify esthetic mismatches, signs of material degradation, and mechanical compromise following repairs • Verify proper occlusal adjustment, retentive form, and structural integrity after repair • Use appropriate disinfectants and packaging methods for crowns, bridges, and implant components
Sub-component 6.4: Quality Control	
Competency **6.4.1 Perform quality control prior to releasing a dental prosthesis or an appliance.**	
Performance Indicators	**Key Evidence Criteria**
a. Confirm the final dental prosthesis and/or appliance adheres to the prescription, both throughout the fabrication and prior to release. **b.** Identify any imperfections or deficiencies and make appropriate adjustments. **c.** Clean and disinfect the dental prosthesis and/or appliance, and package for safe and secure transportation to and receipt by the client.	**Evidence reflects knowledge and ability to:** • Perform a final check of shade, design, contacts, margins, and alignment with prescription specifications • Identify and correct issues such as porosities, occlusal discrepancies, glaze defects, and misfits • Complete final polishing, follow disinfection procedures, apply proper labeling, and ensure safe transport of the prosthesis
COMPONENT 7: DISCIPLINE 3: DENTURES (also described as removable full prosthetics) **Overall Descriptor:** *Demonstrates proficiency in analyzing, designing, fabricating, modifying and repairing prostheses and appliances specific to complete dentures and implant-supported prosthetics.*	
Sub-component 7.1: Analyze	
Competency	

7.1.1 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.	
Performance Indicators	**Key Evidence Criteria**
a. Ensure a final complete prescription is received from the responsible healthcare practitioner. **b.** Understand the clinical application of the prescription and recognize effects of any technical limitations on prescribed dental prosthesis and/or appliance. **c.** Identify and communicate any limitations and contraindications of the proposed treatment plan to the healthcare practitioner. **d.** Obtain clarification of the prescription and request additional information about the treatment plan, when needed. **e.** Determine the appropriateness of the materials prescribed or selected. **f.** Verify the quality of the received impressions and models and the completeness and accuracy of supplemental documentation.	**Evidence reflects knowledge and ability to:** • Ensure prescriptions include all required elements: treated arch(es), type of denture (immediate or conventional), tooth shade and mould, anatomical features to accommodate, reline/rebase instructions (if applicable), and post-insertion considerations • Interpret prescriptions in the context of anatomical challenges (e.g., resorbed ridges, flabby tissue, tori), and understand implications for retention, stability, support, and esthetics • Identify issues such as insufficient interarch space, poor impressions, conflicting occlusal parameters, or unsuitable materials, and communicate concerns to the prescribing clinician • Request additional clinical records when necessary (e.g., new bite registration, photographs, radiographs for bone assessment—especially for immediate dentures or surgical stents) • Evaluate appropriate use of materials such as heat-cure vs. auto-cure resins, high-impact acrylics, soft liners, or metal reinforcements based on function, allergies, and patient-specific factors • Assess the quality of impressions and casts, including vestibular detail, frenal notching, undercuts, defects, accuracy of occlusal rims, and mounting
Sub-component 7.2: Design	
Competency **7.2.1 Design various types of dental prostheses and appliances.**	
Performance Indicators	**Key Evidence Criteria**
a. Assess oral anatomy and structure from the model, cast, and radiographic images to ensure harmonized design in relationship the prescription. **b.** Apply knowledge of foundational sciences when designing dental prostheses and appliances. **c.** Identify tooth-preparation requirements for various types of dental prostheses and dental material requirements. **d.** Select various components of the dental prosthesis or appliance and choose materials appropriate to the design, prescription, and patient's anatomy.	**Evidence reflects knowledge and ability to:** • Identify key anatomical features such as residual ridge morphology, palatal shape, frenal attachments, tuberosities, and retromolar pads; interpret radiographs for signs of ridge resorption, undercuts, or to support surgical planning • Apply understanding of the chemical and physical properties of acrylic resins and other polymers, including polymerization reactions, bond strength, shrinkage, and dimensional stability • Evaluate the need for surgical guides in immediate denture cases, considering expected changes to bone and soft tissue, and ensure adequate space for prosthetic base thickness and retention • Select appropriate tooth moulds and shades for both esthetic and functional needs; choose processing materials based on stress-bearing areas, esthetic zones, and desired surface finish
Sub-component 7.3: Fabricate	
Competency **7.3.1 Fabricate and repair functional dental prostheses and appliances.**	
Performance Indicators	**Key Evidence Criteria**

a. Follow federal and provincial dental and health standards for materials and components used in the fabrication and repair of dental prostheses and appliances. **b.** Select the appropriate dental laboratory equipment and tools, considering relevant factors including appliance components, materials, and procedures. **c.** Apply skill and judgment in the manipulation of the materials and when integrating the appliance components. **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).	**Evidence reflects knowledge <u>and</u> ability to:** • Use approved materials such as acrylics, alloy bases, and medical-grade silicone liners, while adhering to infection control protocols and proper documentation practices • Select and operate equipment safely and correctly, including pressure pots, curing units, articulators, surveyors, flasks, wax tools, and polishers, following manufacturer instructions • Complete all fabrication steps: pour master casts, fabricate record blocks, select and set up teeth, contour wax, flask and process dentures, and perform finishing and polishing; apply selective grinding to refine occlusion • Verify key functional and esthetic criteria—including retention, stability, border seal, occlusion, midline, phonetics, vertical dimension, and overall appearance—both before processing and at the final delivery stage
Sub-component 7.4: Modify and Repair	
Competency **7.4.1 Modify and repair dental prostheses and appliances, considering relevant factors.**	
Performance Indicators	**Key Evidence Criteria**
a. Identify and assess the existing prosthesis or appliance and determine the reason for the defect or breakage. **b.** Consider the compatibility of new materials with the existing materials, patient assessment data, and prosthesis or appliance history. **c.** Explain any limitations of the repair to the healthcare practitioner or patient. **d.** Ensure functionality of the repaired dental prosthesis or appliance. **e.** Clean and disinfect the device prior to packaging for delivery.	**Evidence reflects knowledge <u>and</u> ability to:** • Identify common causes of denture damage or failure, such as occlusal imbalance, material fatigue, poor adaptation, or patient misuse (e.g., dropping the denture or issues from an ill-fitting reline) • Apply material bonding principles for denture repairs, including compatibility of liners and resins, and the need for surface preparation or cross-linking to ensure durability • Understand limitations of repairs, including possible color mismatch, decreased mechanical strength, or the temporary nature of some solutions • Verify the strength of the repair, restore occlusion and vertical dimension, and ensure proper polishing and border finish • Follow appropriate disinfection protocols for acrylics and liners, and ensure proper drying and packaging to maintain hygiene and prevent contamination
Sub-component 7.5: Quality Control	
Competency **7.5.1 Perform quality control prior to releasing a dental prosthesis or an appliance.**	
Performance Indicators	**Key Evidence Criteria**
a. Confirm the final dental prosthesis and/or appliance adheres to the prescription, both throughout the fabrication and prior to release. **b.** Identify any imperfections or deficiencies and make appropriate adjustments. **c.** Clean and disinfect the dental prosthesis and/or appliance, and package for safe and secure transportation to and receipt by the client.	**Evidence reflects knowledge <u>and</u> ability to:** • Check the accuracy of key denture features, including midline, occlusion, tooth shade and mould, palatal contours, retention, surface finish, and presence of required denture markings • Identify and correct issues such as occlusal discrepancies, surface roughness, nodules, porosity, or processing errors (e.g., flash, voids, or incomplete polymerization) • Perform final polishing, carry out high-level disinfection, and package the denture carefully to prevent distortion or fracture during transit

COMPONENT 8: DISCIPLINE 4: ORTHODONTICS (also described as fixed and removable orthodontics and periodontal appliances)

Overall Descriptor: *Demonstrates proficiency in analyzing, designing, fabricating, modifying and repairing prostheses and appliances specific to orthodontics.*

Sub-component 8.1: Analyze

Competency

8.1.1 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.

Performance Indicators	Key Evidence Criteria
a. Ensure a final complete prescription is received from the responsible healthcare practitioner. **b.** Understand the clinical application of the prescription and recognize effects of any technical limitations on prescribed dental prosthesis and/or appliance. **c.** Identify and communicate any limitations and contraindications of the proposed treatment plan to the healthcare practitioner. **d.** Obtain clarification of the prescription and request additional information about the treatment plan, when needed. e. Determine the appropriateness of the materials prescribed or selected. **f.** Verify the quality of the received impressions and models and the completeness and accuracy of supplemental documentation.	**Evidence reflects knowledge and ability to:** • Identify various types of orthodontic appliances (fixed, removable, myofunctional) and their specific clinical indications • Understand prescription requirements for each type of orthodontic appliance • Recognize the clinical significance of occlusion, malocclusion, and skeletal discrepancies in orthodontic treatment planning • Define the functional and aesthetic goals of orthodontic treatment • Acknowledge technical limitations related to appliance design (e.g., wire deflection, solder joint strength) • Assess the impact of poor-quality impressions or incomplete models on appliance fabrication • Identify when additional clinical records (e.g., radiographs or clarification of treatment objectives) are needed • Apply knowledge of material properties and compatibility (e.g., stainless steel, nickel-titanium, acrylics, elastomers) • Select appropriate wire gauges, brackets, and vacuum-formed materials based on case requirements • Ensure diagnostic/preliminary casts meet quality standards for orthodontic appliance fabrication • Recognize common impression/model deficiencies, such as voids or distortions

Sub-component 8.2: Design

Competency

8.2.1 Design various types of dental prostheses and appliances.

Performance Indicators	Key Evidence Criteria
a. Assess oral anatomy and structure from the model, cast, and radiographic images to ensure harmonized design in relationship the prescription. **b.** Apply knowledge of foundational sciences when designing dental prostheses and appliances.	**Evidence reflects knowledge and ability to:** • Read and interpret Lateral Cephalometric, OPG, and PA radiographs to support orthodontic appliance planning • Identify key anatomical landmarks such as jaw position, root angulation, spacing, and airway structures

c. Identify tooth-preparation requirements for various types of dental prostheses and dental material requirements. **d.** Select various components of the dental prosthesis or appliance and choose materials appropriate to the design, prescription, and patient's anatomy.	• Understand the chemistry of materials used, including polymerization, corrosion, and galvanization processes • Apply principles of biomechanics related to orthodontic force application and anchorage • Consider design factors for band placement, bracket attachment, and acrylic coverage on appliances • Recognize tooth morphology and how it affects appliance retention and function • Select and configure wire types appropriately for various orthodontic components (e.g., labial bow, Adams clasp) • Choose suitable acrylic materials for appliance fabrication, considering monomer/polymer ratios and curing methods

Sub-component 8.3: Fabricate

Competency
8.3.1 Fabricate and repair functional dental prostheses and appliances.

Performance Indicators	Key Evidence Criteria
a. Follow federal and provincial dental and health standards for materials and components used in the fabrication and repair of dental prostheses and appliances. **b.** Select the appropriate dental laboratory equipment and tools, considering relevant factors including appliance components, materials, and procedures. **c.** Apply skill and judgment in the manipulation of the materials and when integrating the appliance components. **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).	**Evidence reflects knowledge and ability to:** • Follow infection control and safety protocols during appliance fabrication, including disinfection and use of personal protective equipment • Operate equipment such as soldering units, pressure pots, vacuum formers, and wire-bending hand tools safely and effectively • Perform wire bending and soldering techniques that ensure the stability and durability of orthodontic appliances • Execute acrylic trimming, polishing, and finishing processes to enhance patient comfort and aesthetic outcomes • Ensure appliances fit accurately, provide proper retention, and have effective activation mechanisms • Align appliance fabrication with design specifications and anatomical landmarks

Sub-component 8.4: Modify and Repair

Competency
8.4.1 Modify and repair dental prostheses and appliances, considering relevant factors.

Performance Indicators	Key Evidence Criteria
a. Identify and assess the existing prosthesis or appliance and determine the reason for the defect or breakage. **b.** Consider the compatibility of new materials with the existing materials, patient assessment data, and prosthesis or appliance history. **c.** Explain any limitations of the repair to the healthcare practitioner or patient. **d.** Ensure functionality of the repaired dental prosthesis or appliance. **e.** Clean and disinfect the device prior to packaging for delivery.	**Evidence reflects knowledge and ability to:** • Identify common orthodontic appliance failures, such as broken wires, debonded components, and fractured acrylic • Understand the properties of repair materials and how they interact with the original appliance components • Recognize functional and aesthetic limitations that may result from repairs, including reduced strength or increased bulkiness • Conduct functional testing to verify retention, fit, and activation after appliance modification • Follow protocols for final appliance disinfection and proper labeling before clinical delivery

Sub-component 8.5: Quality Control	
Competency **8.5.1 Perform quality control prior to releasing a dental prosthesis or an appliance.**	
Performance Indicators	**Key Evidence Criteria**
a. Confirm the final dental prosthesis and/or appliance adheres to the prescription, both throughout the fabrication and prior to release. **b.** Identify any imperfections or deficiencies and make appropriate adjustments. **c.** Clean and disinfect the dental prosthesis and/or appliance, and package for safe and secure transportation to and receipt by the client.	**Evidence reflects knowledge <u>and</u> ability to:** • Cross-check appliance components to ensure they match the original design and prescription instructions • Perform a final inspection to identify and correct rough edges, undercuts, or incorrect activation settings • Apply final cleaning and packaging procedures to prevent contamination or damage during transit

Appendix B- Examples of Evidence

This table includes examples of evidence you may consider including in your portfolio.

These are only examples. The list is not exhaustive, and you're not required to include every type of evidence shown.

As an applicant, it's your responsibility to choose evidence that is **valid** (relevant, authentic, credible, current and accessible) and that **demonstrates** your knowledge and skills in relation to the specific competency for which you're seeking an evaluation and recognition.

Important (3): When demonstrating competencies related to **Domain C: Specialized Technical Expertise** your evidence must clearly show both how you acquired the necessary knowledge (e.g., through coursework, workshops, or self-directed learning) and how you applied that knowledge in practice through repeatable, hands-on practical work experiences (e.g. work samples, patient cases etc.).

It is your responsibility to remove any identifying, confidential or other sensitive information before uploading and submitting the evidence.

Types of Portfolio Evidence	Description and what It best demonstrates
Attestation Letters	Written by supervisors, managers, or colleagues who can verify your work or professional experience. These letters confirm the authenticity of submitted evidence and support demonstration of competence. They may simply verify that work was completed by you or provide detailed third-party verification of your roles, responsibilities, and observed competencies. The attester should be familiar with the competencies being assessed and able to speak knowledgeably about your performance. For guidance on what to include in an attestation letter, refer to the template and requirements outlined in Appendix C.
Case Studies or Project Reports	Document a situation you managed, such as a patient case from start to finish. Ensure no personal or identifying information is included. Provide an overview of the case, the date, describe the patient, their issue, your solution, what you learned, what you would do differently, and the outcome.
Certificates of Completion	Proof of training, workshops, or courses. Best used to demonstrate knowledge related competencies. You should pair certificates with additional evidence sources as outlined under **Content Materials** below.
Communication Records	Emails, letters, logs, or other documented communications. These are useful in demonstrating collaboration, conflict resolution, and professional interaction with colleagues, supervisors, or other healthcare professionals.
Content Materials	This type of evidence supports claims of knowledge from courses, workshops, conferences, or self-study. Examples include:

	• Course handouts or guides • Outlines, syllabi, or agendas • Lecture slides or presentation decks • Training modules or e-learning content • Workshop materials • Technical notes or manuals • Reference or resource lists • Table of contents • Summary of key takeaways • Assessment, projects or assignments • Facilitator feedback These evidence sources should be paired with certificates of completion to enhance credibility and relevance.
Job Descriptions, Employment Letters and/or Performance Reviews	This type of evidence aims to illustrate roles, responsibilities, skills, and accomplishments in past or current employment, whether paid or voluntary. The evidence may include: • Core tasks and daily activities as they pertain to the competency • Specific skills, tools, or technologies utilized • Details about team dynamics, cross-functional projects, or leadership roles that emphasize collaborative efforts • Skills or knowledge acquired from the position • Strengths and areas of expertise
Logs of Journals	Records of tasks, procedures, or clinical hours that demonstrate overtime consistency, frequency, and range of experience.
Mentorship or Job Shadow (Peer Coaching)	Include your mentor or coach attestation letters, session logs (including dates, and topics covered), and brief reflective summaries of what you learned during one-on-one or small-group guidance provided by an experienced practitioner or peer, where you received feedback, advice, and support on real-world tasks and can demonstrate your applied skill development, problem-solving in practice and your ability to learn from direct feedback.
Patient and/or other healthcare professionals feedback or testimonials	Include testimonials or positive feedback from clients or colleagues that speak to your work and professionalism. For instance, testimonials or patient feedback regarding the fit and function of the prosthetics you produced.
Photographs or Videos	Visual evidence of procedures or completed work (with permissions). This could be used to effectively show step by step how you complete tasks or skills. Use a common file format such as MP4 or a streaming link. It may also be useful to include a brief written summary that highlights key points.
Policies or Procedures	Policies or procedures you helped develop or were required to follow are effective evidence of knowledge of protocols, compliance, or leadership roles. For instance: • Workplace safety • Privacy and confidentiality • Professional standards and ethics • Anti-discrimination and workplace inclusivity

	• Industry-specific regulations or licensing requirements
Research Projects or Quality Improvement Initiatives	Research reports or final project summaries, data analysis documents, published articles or posters, presentation slides, and supervisor attestations detailing your role/impact related to any relevant systematic investigations or improvement efforts you participated in, aimed at enhancing dental technology services, workflows, or outcomes to demonstrate your analytical thinking, problem solving, project management, and your ability to apply evidence-based approaches to practice.
Reflective Narratives	Written reflections describing your thought process, decision-making, and learning. These are useful as they demonstrate not only the knowledge and skill you possess, but also how you apply it in your professional role.
Simulation exercises	Structured or realistic scenarios such as manikin-based labs, virtual simulations, or role play that you were engaged in. These are useful as they may provide evidence of practical application of competencies, procedural proficiency, critical thinking, and your ability to perform tasks under realistic conditions. For instance, simulation completion certificates, session evaluations, video recording of exercise, written feedback from simulation facilitator.
Work Samples	Documents or outputs you've created (e.g., products, reports, care plans, imaging logs, lab records). Best for demonstrating applied knowledge, technical skills, and accuracy in practice.

Appendix C–Attestation Letters

Minimum requirements for an attestation letter

To be accepted as valid evidence, attestation letters must meet the following criteria:

1. **Attestor Information**
    - Full name, professional title, and credentials
    - Organization name and contact details (email and/or phone number)
    - Relationship to the applicant (e.g., supervisor, colleague, mentor)
        - The attestation letter should preferably be signed by a Registered Dental Technologist\Dental Technologist (RDT/DT) who has direct knowledge of the applicant's work and competencies.
        - Where an applicant works in a jurisdiction or a practice setting in which no RDT/DT is available to sign the attestation letter, a regulated health professional who is authorized, licensed/registered, and competent to perform the activities being attested to may sign the attestation letter in lieu of an RDT/DT.
2. **Applicant Information**
    - Full name of the applicant
    - Role/title held by the applicant
    - Timeframe during which the attestor observed or supervised the applicant's work
3. **Description of Competence**
    - Clear description of the tasks, responsibilities, or work performed by the applicant
    - Confirmation that the applicant completed specific work or participated in certain activities
    - Commentary on the applicant's performance and how it aligns with the competencies and performance indicators being assessed
4. **Relevance to Competency**
    - Direct reference to one or more competencies the letter supports (including competency title or code, if applicable)
    - Statement of how the observed behaviours or performance align with expectations for safe and competent practice
5. **Authenticity and Verification**
    - Signed and dated by the attestor
    - Preferably printed on organizational letterhead, or accompanied by a business card or official contact information
    - If the attestor is not an RDT, the letter must be co-signed by an RDT

Attestation letter template

You may share this template with those writing your letters. You do not have to use this template but ensure that the letters you submit meet the criteria described above. Attestation letters should be completed on official letterheads where possible.

Note for Attestors: An attestation letter is not a reference letter; rather, it is a focused statement that verifies the applicant's demonstration of specific competencies and performance indicators in relation to their role and responsibilities. Using the provided template as a guide, please identify which competencies and indicators you are attesting to (these should be provided to you by the applicant), describe how the applicant demonstrated them (e.g., independently or with assistance), and link your observations directly to their job role, performance and capabilities.

[Attestor's Name]
[Attestor's Title and Credentials]
[Organization Name]
[Email and/or Phone Number]

Date: [Insert Date]

Re: Attestation for [Applicant's Full Name]

To Whom It May Concern,

I am writing to confirm the professional experience of **[Applicant's Name]**, who worked as a **[Applicant's Role/Title]** at **[Organization Name]** from **[Start Date]** to **[End Date]**. In my role as **[Attestor's Title]**, I had direct oversight of [his/her/their] work and can attest to [his/her/their] responsibilities and competencies demonstrated in that capacity.

During this time, [Applicant's Name] was responsible for:

- [Description of task/responsibility #1]
- [Description of task/responsibility #2]
- [Additional responsibilities or projects, if applicable]

I believe [he/she/they] meets the requirements outlined in the competency/ies outlined. [Applicant to provide the competencies and performance indicators they need you to attest to]

Discipline	Competency	Performance Indicators attested to	Attestor Comment
Cast Partials	5.1.1 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.	A, b, d	Based on my observations, [Applicant's Name] consistently demonstrated [insert qualities, such as professionalism, technical competence, communication, safety awareness] and performed this skill [independently/with assistance] in their role as a [insert role].
Cast Partials	5.1.1 Design various types of dental prostheses and appliances.	A and c	[Insert observations here]

Option 1: if the attestor is an RDT/DT:

I confirm that the work described in the applicant's portfolio accurately represents their performance, and I support their recognition for the listed competencies and performance indicators. Please feel free to contact me should you require further information.

Sincerely,
[Attestor's Signature]
[Printed Name]
[Professional Title]
[Organization]

Option 2: If the attestor is not an RDT/DT:

I confirm that the work described in the applicant's portfolio accurately represents their performance, and I support their recognition for the listed competencies and performance indicators.

I certify that I am a qualified Regulated Health Professional, licensed/registered under applicable provincial/territorial legislation, and authorized and competent to perform the professional services for which I am providing supervision and attestation.

Please feel free to contact me should you require further information.

Sincerely,
[Attestor's Signature]
[Printed Name]
[Professional Title]
[Organization]