ACCESS TO DENTAL TECHNOLOGY

Reducing Barriers to Licensure and Employment in Dental Technology

National Essential Competencies for Dental Technology Practice in Canada

CADTR | ACORTD
Canadian Alliance of Dental Technology Regulators | Alliance canadienne des organismes de réglementation de la technique dentaire

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Index

Introduction

The Canadian Alliance of Dental Technology Regulators (CADTR) is the national federation of dental technology regulators in Canada. It is comprised of seven (7) of the eight (8) regulatory bodies that have been established and mandated by their respective provincial governments to regulate the practice of dental technology. CADTR includes the following organizations:

- College of Dental Technicians of British Columbia;
- College of Dental Technologists of Alberta;
- Dental Technicians Association of Saskatchewan;
- College of Dental Technologists of Ontario;
- *Ordre des techniciens et techniciennes dentaires du Québec*;
- New Brunswick Dental Technicians Association; and
- Nova Scotia Dental Technicians Association.

The profession of dental technology is also regulated in Newfoundland and Labrador, but it is not yet regulated in Manitoba, Prince Edward Island, Yukon, Northwest Territories, or Nunavut.

The CADTR regulators have a mandate to serve and protect the public and they fulfill this role by, among other means, ensuring individuals seeking registration to practise dental technology meet standard qualifications in education and professional competence. CADTR focuses on national issues of concern and on advancing the profession of dental technology. It operates as a forum for the exchange of information between regulating bodies to assist them in fulfilling their mandates.

In 2018, CADTR initiated the Access to Dental Technology (ADT) project, funded by the Government of Canada's Foreign Credential Recognition Program. One component of this project included the revision of *The Competency Profile for Canadian Dental Technicians/Technologists (2010)*. The competency revision initiative was led by a CADTR – ADT Steering Committee and was a critical first step in creating a harmonized registration process across Canada.

The completed competency revisions are based on the results of an environmental scan, literature reviews, and stakeholder consultations. The CADTR Board approved the *National Essential Competencies for Dental Technology Practice in Canada, 2019* (the Essential Competencies), for national implementation.

Where differences exist between the Essential Competencies and the practice of dental technology as defined by a regulatory authority in an individual jurisdiction, the jurisdictional requirements or limitations take precedence.

Competencies

The Essential Competencies outline the knowledge, skills, and attitudes required for dental technology practice in Canada. The Essential Competencies are overarching, validated standards of practice for dental technologists/technicians and provide a structured guide to help identify, evaluate, and develop the behaviours required for entry-level practice and continuing competence.[1]

Purpose of the Essential Competencies

An Essential Competencies document is used for many reasons, including to:

- Provide the foundation for the entry-level examinations;
- Support education programs by informing curricula;
- Provide guidance and direction to professionals within practice settings;
- Establish the minimum expectations for regulation; and
- Provide the foundation for professional development and continuing competence assessment tools.

While initially created to assist the dental technologist/technician to better understand professional expectations for themselves, the Essential Competencies document also helps the public to understand what they may expect from dental technologists/technicians. Nationally recognized and applied essential competencies also aid regulators with the harmonization of their approaches to the above-noted aspects of professional regulation, including making legally required provisions for labour mobility.

[1]Marrelli AF, Tondora J, Hoge MA. "Strategies for developing competency models." *Adm Policy Ment Health*. 2005;32(5-6): 533-561.

Competency Development

The Essential Competencies was developed using the Delphi Study methodology[2]. The Delphi study included several rounds of focus groups with dental technologists/technicians (both Canadian- and internationally educated), dental technology education program educators, and members of the CADTR – ADT Steering Committee.

The goal of the Delphi process was to systematically facilitate communication of information via several stages, including the consultant asking questions, undertaking analysis, providing feedback, and asking further questions to develop and validate the competency and performance indicators. Additionally, a national online survey was circulated in both English and in French to registered dental technologists/technicians. Data was collected on opinions about the relevance of the competencies and performance indicators, and respondents were asked to assess their importance to practice and the public interest.

The validation of the Essential Competencies involved eight key steps:

1. Literature review and global environmental scan of essential competencies and competency profiles;
2. Review of the different legislated scopes of practice, as defined in the Canadian provincial dental technology profession's legislation and regulations;
3. Gap analysis of the *Competency Profile for Canadian Dental Technicians/Technologists (2010)*;
4. Development of the competency framework outline, with dental technology program educators;
5. Competency writing sessions with national representation from practising dental technologists/technicians and dental technology program educators;
6. Stakeholder consultations with the CADTR – ADT Steering Committee, dental technology program educators, and practising dental technologists/technicians;
7. Administration of a national validation survey; and
8. Finalization and approval by the CADTR Board.

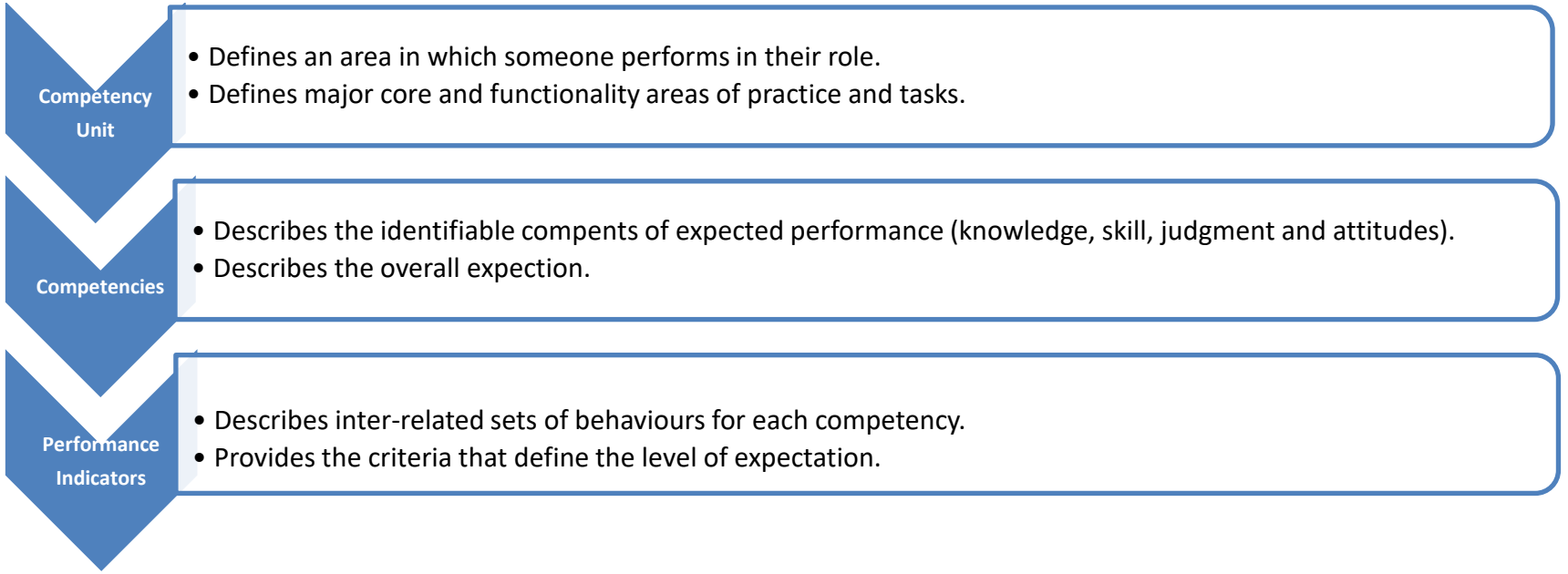
Competency Framework

CADTR recognizes that regulation of the practice of dental technology varies by province and is dependent on legislated scope of practice and registration class and category. Therefore, it is important to understand that the Essential Competencies focus on the attributes of the fully licensed dental technologists/technicians practice, and that the competencies have been divided into two categories: Core Competencies and Functional Competencies.

[2] Emergency Nurse Association Nurse Practitioner Validation Work Team. "Nurse Practitioners' Delphi Study: Competencies for Practice in Emergency Care." *Jenonline.org*. 2010;36(5): 439-449.

Core competencies are defined as competencies demonstrated by competent and ethical professionals, *no matter* their areas of practice, years of experience, or role.[3] **Functional (role- specific) competencies** include the knowledge, skill, and judgement required to perform a *specific role* or job, or to work in a *specific area* of practice.[4] The Essential Competencies builds upon and expands *The Competency Profile for Canadian Dental Technicians/Technologists (2010)*, and is supported by specific competency units, additional competencies, and performance indicators that enhance the depth and breadth of each identified competency.

The Essential Competencies uses a three-tier hierarchy framework comprising units, competencies, and performance indicators, as the diagram below indicates.



[3] Lenburg.C, *et al.* "THE COPA MODEL: A Comprehensive Framework Designed to Promote Quality Care and Competence for Patient Safety." Nursing Ed. 2009. 30;5: 312-317.

[4] University of Baltimore. "Guide for Writing Functional Competencies." 2005.

In the Essential Competencies, 34 competencies are organized into 7 competency units (4 core and 3 functional) as follows:

Core Competency Units
Unit 1: Foundational Knowledge
Unit 2: Environmental Safety and Use of Laboratory and Equipment
Unit 3: Design, Fabrication, and Repair of Dental Technology Prostheses and Appliances
Unit 4: Accountability and Professionalism

Functional Competency Units (role- and legislated scope of practice-dependent)
Unit 5: Patient Care
Unit 6: Leadership, Business Management, and Administration
Unit 7: Oral and Maxillofacial Surgery and Complex Orthodontics

The 34 competencies are accompanied by 155 performance indicators, which define the level of expected performance for dental technologists/technicians. The relevance of specific competencies will depend upon the individual dental technologist's/technician's role and legislated scope of practice. It might not be possible or necessary for a dental technologist/technician to apply certain competencies to a given role or situation. Similarly, not all the performance indicators must be demonstrated to meet requirements for a competency. The relevance of a performance indicator will also depend on the dental technologists/technicians role and legislated scope of practice.

Integration of the Essential Competencies enables entry-level and experienced dental technologists/technicians to provide competent, ethical, and evidence-informed practice.

Competencies

Core Competency – Unit 1

Unit 1: Foundational Knowledge

RDTs apply knowledge of foundational sciences to their dental technology practice.

Competency	Performance Indicators
1.1 Demonstrate knowledge of biology and of head and neck anatomy related to dental technology practice.	a. Identify basic biological systems and their function relevant to dental technology. b. Identify the basic elements of human anatomy, physiology, and pathology relevant to dental technology. c. Identify the craniofacial anatomy to provide the working boundaries of dental prostheses and appliances.
1.2 Apply knowledge of oral structures, tooth morphology, and oral pathology to dental technology.	a. Define the structure and function of the teeth and supporting tissues, tooth arrangement, and tooth numbering systems. b. Identify occlusal interdigitations of teeth. c. Identify and demonstrate knowledge of aspects of occlusion and Angle's classification of occlusion. d. Recognize diseases and abnormalities that may impact dental health. e. Demonstrate an understanding of the impact of dental health and functionality on a patient's overall health. f. Apply knowledge of the mechanics and movement of the mandible and of the mechanical devices that simulate it.
1.3 Apply basic principles of physics and chemistry to the practice of dental technology.	a. Explain basic physics and chemistry principles as they relate to dental technology, including dental materials. b. Apply knowledge of force, heat, electricity, light, sound, chemical elements, mechanics, and other principles that are related to dental technology.

1.4 Apply foundational knowledge of materials commonly used in Canadian dental technology practice.	a. Identify the different classifications of materials used in the design, fabrication, and repair of dental prostheses and appliances. b. Demonstrate awareness of dental-materials and medical device restrictions under the regulatory authority of the Health Protection Branch of Health Canada. c. Summarize the characteristics and the physical and mechanical properties of dental materials. d. Select and utilize dental materials best suited for specific dental prostheses and appliances, considering the materials' characteristics and properties. e. Explain the effects of manipulation on different types of dental materials. f. Recognize and remedy possible defects which can result from the manipulation of dental materials.
1.5 Apply basic mathematical principles to design and fabricate functional dental prostheses and appliances.	a. Demonstrate knowledge of basic geometry in all aspects of design and fabrication. b. Perform accurate calculations and measurements, in accordance with manufacturer's instructions, to ensure precision of the dental prosthesis or appliance.
1.6 Demonstrate awareness of the common oral and maxillofacial-related prostheses and appliances.	a. Recognize oral and maxillofacial health conditions and surgical procedures that necessitate the design and fabrication of various dental prostheses and appliances. b. Identify the basic steps in the design and fabrication of related prostheses and appliances for oral and maxillofacial treatment options.
1.7 Demonstrate knowledge of key design and fabrication principles and technical skills used in dental technology.	a. Describe indications and contraindications for and limitations of dental prostheses and appliances. b. Identify different components of dental prostheses and appliances. c. Analyze the design, fabrication, and material requirements of functional dental prostheses and appliances. d. Demonstrate the manual dexterity and spatial perception required for handling dental technology instruments. e. Apply digital technology skills to support the design and fabrication of dental prostheses and appliances. f. Apply the principles of shade matching and colour measurement, and communicate colour parameters.

Core Competency - Unit 2

Unit 2: Environmental Safety and Use of Laboratory and Equipment

RDTs demonstrate the safe and competent use of laboratory equipment and dental materials to support a safe work environment and to protect the public.

Competency	Performance Indicators
2.1 Apply the principles of infection prevention and control relevant to the practice of dental technology.	a. Apply knowledge of pathogenic diseases and of microbiology in the transmission of disease related to the practice of dental technology. 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.
2.2 Undertake activities that support safe use and handling of dental materials and reduce risk in the environment.	a. Identify and manage the potential dangers associated with the use of dental materials and bio-hazardous materials. b. Take necessary steps to reduce risk to self and others when handling all materials. c. Demonstrate knowledge of Workplace Hazardous Materials Information System (WHMIS) standards, including classifications, labelling of chemicals, and safety data sheets. d. Follow WHMIS standards when using chemicals and if a chemical incident occurs. e. Follow health and safety practices as they relate to dental technology. f. Follow manufacturers' instructions and demonstrate proper handling and storage of materials and solutions. 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).

2.3 Use laboratory equipment safely and competently to ensure work efficiency and to reduce harm to self and others.	a. Identify potential or real risks and take the necessary steps to reduce risk to self and others when using laboratory equipment. 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. f. Demonstrates proficient use of the computer and related programs.

Core Competency – Unit 3

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

RDTs apply their knowledge of foundational sciences and their professional judgment and skill in arts and technologies to design, fabricate, and repair full and partial dental prostheses and appliances, including orthodontics.

Competency	Performance Indicators
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.	a. Understand the clinical application of the prescription and recognize effects of any technical limitations on prescribed dental prosthesis and/or appliance. b. Identify and communicate any limitations and contraindications of the proposed treatment plan to the healthcare practitioner. c. Obtain clarification of the prescription and request additional information about the treatment plan, when needed. d. Ensure a final complete prescription is received from the responsible healthcare practitioner. 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. g. Read provided radiographic images to identify the patient's anatomy for case planning; ensure accurate design of the dental prosthetic and appliance; and identify normal and abnormal presentations.
3.2 Design various types of dental prostheses and appliances	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.

3.3 Fabricate and repair functional dental prostheses and appliances.	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). 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.	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.
3.5 Modify and repair dental prostheses and appliances, considering relevant factors.	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.

Core Competency – Unit 4

Unit 4: Accountability and Professionalism

RDTs demonstrate accountability and professionalism when working with colleagues, staff, clients, and patients.

Competency	Performance Indicators
4.1 Provide safe, ethical, and effective services.	a. Demonstrate ethical behaviours in accordance with the professional Code of Ethics. b. Reflect on their own actions and learn from their experiences and mistakes. c. Engage in continuing education or experiential learning activities to develop and maintain ongoing competence and to meet expectations for professional behaviours. d. Keep current with evolving technology and emerging trends in dental technology. e. Accept responsibilities and accountability for own actions and for the integrity of completed work. f. Make fair and balanced decisions.
4.2 Practice in accordance with applicable legislation, regulations, standards, and guidelines.	a. Keep current with the regulatory professional standards, regulations, and legislation. b. Collect, store, disclose, and destroy personal information in compliance with privacy and confidentiality legislation and organizational policies. c. Obtain healthcare practitioner or patient consent for collection, use, or disclosure of personal information. d. Maintain records according to provincial standards and organizational policies. e. Complete documentation according to provincial standards and organizational policies.
4.3 Demonstrate sustainable business practices that are socially responsible and environmentally friendly.	a. Demonstrate an awareness of the impact of sustainability on the health and well-being of self and others (public, patients, staff), and on the environment (e.g. reduce toxin emissions and waste). b. Describe and implement sustainable business practices within dental technology (e.g. recycling, energy conservation) .

4.4 Use effective communication skills.	a. Use appropriate dental terminology in communications with the healthcare team. b. Employ effective, respectful, and ethical communications. c. Demonstrate transparent communications. d. Enter timely, clear, accurate, and valid documentation in records. e. Demonstrate proficient oral and written English or French language skills.
4.5 Collaborate with the wider healthcare team and provide DT expertise to enhance continuity of care and patient outcomes.	a. Work effectively and respectfully with intra-professional and inter-professional practitioners. b. Recognize the impact of their behaviour on others. c. Listen to others and accept constructive feedback. d. Demonstrate knowledge of other health professions' scopes of practice, relevant to their own area of practice. e. Respect other health professionals' opinions and professional knowledge. f. Build rapport and trust within professional relationships. g. Support access to safe and competent dental technology practice. h. Demonstrate a willingness to give and receive feedback effectively and tactfully within the healthcare team. i. Establish and maintain professional networks with dental professionals, specialists, and other relevant individuals and organizations.
4.6 Apply critical-thinking skills and use professional judgment in all aspects of practice.	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. b. Demonstrate awareness of potential problems and consider options for different course(s) of action. c. Critically evaluate every situation and make decisions based on sound reasoning and evidence-based practice. d. Integrate pertinent theoretical knowledge, experience, and collected data to justify and/or modify services.

Functional Competency – Unit 5

Unit 5: Patient Care

RDTs who interact with patients provide competent patientcare services, within their legislated scope of practice and meeting all regulatory requirements, under the direction of an authorized dental professional.

Competency	Performance Indicators
5.1 Engage the patient in the informed consent process.	a. Understand the ethical and legal obligations pertaining to patient contact. b. Explain the purpose, benefits, and possible risks of the procedure prior to undertaking any action or activity. c. Confirm the patient's understanding and willingness to proceed before initiating the proposed service.
5.2 Apply cultural competence to practice when providing services to patients.	a. Demonstrate a commitment to provide services to and understand demographics and cultural differences within the entire patient population. b. Recognize and respect cultural perspectives and differences.
5.3 Collect and document relevant information to inform the design and to assist with treatment planning.	a. Collect information from the patient and other appropriate sources related to current and prior medical and dental-health history, including current medication use. b. Take intraoral and extraoral photographs of the patient and any existing dental prosthesis and appliances to support the design and fabrication or repair of the dental prosthesis or appliance. c. Record all medical, dental, and supporting information according to provincial standards and organizational policies. d. Conduct intraoral and extraoral visual assessments of anatomical structures and take appropriate actions if any concerns are identified.
5.4 Perform clinical laboratory procedures in a competent manner.	a. Demonstrate skill in taking preliminary dental impressions to ensure accurate dental cast. b. Perform shade matching and record the selected shade to ensure aesthetically pleasing results. c. Determine a preliminary fit of prostheses and maxillofacial appliances and make any necessary adjustments to ensure functional results.

5.5 Design and manage patientcare area to ensure dental environment is safe, efficient, and accessible.	a. Follow regulatory standards related to establishing and maintaining patient-care areas. b. Exercise appropriate sterilization and disinfection protocols for all instruments used for patient care, in accordance with regulatory and manufacturers' guidelines. c. Comply with accessibility legislation and regulations.

Functional Competency – Unit 6

Unit 6: Leadership, Business Management, and Administration

RDTs who supervise or manage others have additional responsibilities to ensure safe, ethical, and competent services are provided.

Competency	Performance Indicators
6.1 Demonstrate leadership skills to support the safe, efficient, and ethical delivery of dental technology services.	a. Provide required supervision (direct and indirect) of employees to ensure quality, safety, and adequacy of the final prosthesis or appliance. b. Recognize the need for mentoring and coaching employees. c. Take organizational culture and behaviours into consideration when managing work. d. Demonstrate an appreciation for team-member involvement and the value and skills of each team member. e. Recognize own limitations and seek support and assistance when needed. f. Recognize limitations of others and provide support when needed.
6.2 Demonstrate accountability for all work performed within the dental technology practice when supervising others.	a. Ensure the dental prostheses or appliances meet the prescription requirements and professional standards. 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. d. Measure and monitor productivity to support efficient services
6.3 Manage the process of outsourcing work associated with the design and fabrication of dental prostheses and appliances.	a. Ensure that outsourcing activities are consistent with regulatory requirements. b. Take all reasonable steps to ensure the competence of any third party engaged in design and fabrication processes. c. Provide accurate and detailed copies of records to third parties to communicate the design and material requirements. d. Maintain audit trail of records provided to ensure historical recall and traceability. .

6.4 Comply with documentation standards and legal requirements for the maintenance of case files and business files.	a. Understand and follow the legal requirements of a Health Information Custodian or the person responsible for records containing personal information. b. Ensure computer systems meet legislated security, privacy, and confidentiality requirements and professional standards of practice. c. Ensure safe and secure storage and destruction of personal information. d. Maintain case files and business records according to provincial legislation, regulations, and standards of practice.
6.5 Manage or lead human resource activities, adhering to applicable legislation and regulations.	a. Assign responsibilities to staff and team members according to professional scope of practice and individual levels of competence. b. Demonstrate awareness of provincial mandatory reporting obligations. c. Take the required steps to manage and report incompetent, unethical, and unsafe practice. d. Provide necessary training and professional growth opportunities to support the continuing competence of staff. e. Provide regular formative feedback to staff and others. f. Demonstrate conflict resolution skills to effectively manage conflict or disagreement with others. g. Conduct performance reviews of staff that include the provision of constructive feedback and identify required remediation. h. Respect the cultural needs of staff and team members.
6.6 Manage business operations in a legal and ethical manner.	a. Adhere to advertising legislation and regulations. b. Establish and maintain fee and billing policies and practices that comply with regulatory legislation. c. Ensure the laboratory environment meets accessibility legislation, if appropriate. d. Maintain business records according to applicable legislation.

Functional Competency – Unit 7

Unit 7: Oral and Maxillofacial Surgery and Complex Orthodontics

RDTs who practice in the area of fabricating appliances for complex orthodontic and oral and maxillofacial surgery patients obtain and maintain additional knowledge, skill, and judgment.

Competency	Performance Indicators
7.1 Demonstrate advanced knowledge and technical skills when designing and fabricating complex orthodontic appliances, oral and maxillofacial prostheses, templates, and guides.	a. Demonstrate an in-depth knowledge of anatomy as it relates to oral and maxillofacial surgeries and appliance needs. b. Understand the objectives of common oral and maxillofacial surgeries. c. Demonstrate advanced technical skills in design and fabrication. d. Understand the physics associated with tooth movement and law of anchorage, as related to treatment planning. e. Consider the individual case, purpose of the treatment, and patient needs and wants. f. Apply knowledge of the physiology of the dentation and related structures to the design of the device. g. Explain the findings, treatment options, and likely outcomes of the fabrication. h. Analyze the case needs and determine the best course of action that aligns with the treatment plan.
7.2 Work in collaboration with the oral surgeon and the dental team to support the fabrication of the template or guide that meets the needs of the patient and surgeon.	a. Provide expertise to support the design and fabrication of oral and maxillofacial templates and guides. b. Recommend adjustments based on findings from the initial review and experience with evidence-based practice. c. Seek consultation when required knowledge and skill is beyond personal competence.

Glossary

Accessibility

Accessibility is the design of products, devices, services, or environments for people with disabilities. The concept of accessible design and practice of accessible development ensures both "direct access" (i.e. unassisted) and "indirect access" meaning compatibility with a person's assistive technology. Accessibility can be viewed as the "ability to access" and benefit from some system or entity. The concept focuses on enabling access for people with disabilities, or special needs, or enabling access through the use of assistive technology; however, research and development in accessibility brings benefits to everyone.[1]

Angle's classification

In the early 1900s, Edward H. Angle classified occlusions using the relationship between the first molars of both arches as the key factor in determining occlusions. There are three classes according to Angle's classification.[2]

Appliance

Dental appliance includes dental, orthodontic appliances and sleep appliances.[3]

Audit trail

A record which traces the detailed transactions relating to services rendered or outsourced; and the specific details of the products, components, and materials used in the dental prostheses or appliance fabrication and/or repair process.

Bloodborne diseases and pathogens

Dental technology/technicians and other dental laboratory workers can be exposed to blood through sharps injuries, mucous membrane, and skin exposures. The pathogens of primary concern are the human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV).[4]

[1] Federal Communications Commission. FCC on Telecommunications Accessibility for the Disabled. 1999; EPF507.
[2] Angle, E. H.: Classification of malocclusion. *Dental Cosmos*, 1899, 41:248-264,350-357.
[3] American Dental Association. *Glossary of Dental Clinical and Administrative Terms.* Retrieved on December 12, 2018, at https://www.ada.org/en/publications/cdt/glossary-of-dental-clinical-and-administrative-ter
[4] Center for Disease Control and Prevention. Retrieved on January 6, 2019, at https://www.cdc.gov/niosh/topics/bbp/

Case files

Documentation related to a specific case including but not limited to the client's information, prescription, relevant patient information and history, and a record of services rendered.

Cast

A replica of teeth and adjoining tissues created digitally or by a casting process (e.g., plaster into an impression). "Model" is another term used for such a replica.[5]

Competence

A competent individual possesses the required knowledge, skill, and judgement to function efficiently, safely, and ethically, which meets or exceeds the minimum expectation of the profession.

Competencies

Competencies are specific, measurable behaviours that demonstrate a professional has the knowledge, skills, judgment, attitudes, and abilities required to perform work roles or occupational functions successfully. Competencies provide a structure that helps individuals, educators, regulators, and employers to identify, evaluate, and develop the behaviours that ensure safe, competent, ethical practice.

Complex Orthodontics

Orthodontics is a special discipline dedicated to the investigation and practice of moving teeth through the bone. Complex implies an advanced level of knowledge, skill, and judgement. Complex orthodontics is beyond entry-level practice.

Core competencies

Core competencies are those demonstrated by all competent and ethical practitioners, no matter their areas of practice, years of experience, or roles.[6]

[5] American Dental Association. *Glossary of Dental Clinical and Administrative Terms.* Retrieved on December 12, 2018, at https://www.ada.org/en/publications/cdt/glossary-of-dental-clinical-and-administrative-ter

[6] Lenburg, C., et al. The COPA Model: A Comprehensive Framework Designed to Promote Quality Care and Competence for Patient Safety. Nursing Ed. Perspectives, 2009, 30(5):312-317.

Cultural competence

Culture is a blend of human behavioural patterns that includes language, thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious, or social groups.

"*Cultural competence"* is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations. Competence as used in the term "cultural competence*"* implies that an individual or organization has the capacity to function effectively within the context of the cultural beliefs, behaviours, and needs presented by consumers and their communities.[7]

Dental prosthesis

Any device or appliance replacing one or more missing teeth and/or, if required, associated structures. This is a broad term which includes abutment crowns and abutment inlays/onlays, bridges, dentures, obturators, and gingival prostheses.[8]

Full function

Full function prostheses are used to rehabilitate occlusal function (mastication), improve aesthetics, and aid speech.

Functional competencies

Functional competencies are role specific and include the knowledge, skill, and judgement required to perform a specific role or job. They define the required behaviours to work in a specific area of practice.[9]

Health Information Custodian

A Health Information Custodian (HIC) is the primary entity who is responsible for the secure collection, use, disclosure and disposal of personal health information. A HIC is generally the institution, facility, or member of a regulated health profession.

Healthcare practitioner

Healthcare practitioner includes members of the dental healthcare team (e.g. dentist or denturist) and other healthcare professionals including the patient's medical physician or surgeon.

[7] U.S. Department of Health and Human Services, Office of Minority Health (HHS).*What is Cultural Competency?* Retrieved on December 12, 2018, at https://www.cdc.gov/nchhstp/socialdeterminants/definitions.html

[8] American Dental Association. *Glossary of Dental Clinical and Administrative Terms.* Retrieved on December 12, 2018, at https://www.ada.org/en/publications/cdt/glossary-of-dental-clinical-and-administrative-ter

[9] University of Baltimore. *Guide for Writing Functional Competencies*. 2005. Retrieved on December 1, 2018, at https://home.ubalt.edu/tmitch/651/PDF articles/Guide for Writing Functional Competencies (Annotated).pdf

Informed consent

The process of securing agreement from the patient for assessment, treatment, or other healthcare intervention only after they have been fully informed of the nature, benefits, material risks and side-effects, and the likely consequence of not having the assessment, treatment, or intervention. During the informed consent process, the patient is given the opportunity to ask questions and fully understand the information presented. Informed consent means that the dental technologists/technician has given information to a patient related to the proposed treatment or actions of the dental technologists/technician that a reasonable person would need to make the decision and has answered any relevant questions that the person asks. The patient may give consent orally, in writing, or by implication.

Interdigitations

The mutual interlocking of teeth. The cusp-to-fossa relationship of the maxillary and mandibular posterior teeth to each other. The interlocking or fitting together of the cusps of opposing teeth.[10]

Model (see "cast")

Oral and maxillofacial surgery and treatment

Surgical and adjunctive treatment of diseases, injuries, deformities, defects and esthetic aspects of the oral and maxillofacial regions.[11]

Performance indicator

Performance indicators are statements that describe professional behaviours, which are used as a basis for judging competency and/or for distinguishing competent from incompetent performance.[12]

Preliminary fit

Fitting of the dental prosthesis or appliance during the period of fabrication, in order to check and adjust its fit, function and its aesthetic qualities.

Prototype

A three-dimensional (3D) model of a part or product.

[10] Retrieved on January 7, 2019 at https://medical-dictionary.thefreedictionary.com/intercuspation

[11] American Dental Association. *Glossary of Dental Clinical and Administrative Terms.* Retrieved on December 12, 2018, at https://www.ada.org/en/publications/cdt/glossary-of-dental-clinical-and-administrative-ter

[12] Lane, Dorothy S. *et al*. Defining Competencies and Performance Indicators for Physicians in Medical Management. *American Journal of Preventive Medicine,* 1998, 14(3): 229-236.

Standard Precautions

Standard Precautions are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where health care is delivered.[13] These practices are designed to both protect DHCP and prevent DHCP from spreading infections among patients. Standard Precautions include

1. Hand hygiene.
2. Use of personal protective equipment (e.g., gloves, masks, eyewear).
3. Respiratory hygiene/cough etiquette.
4. Sharps safety (engineering and work practice controls).
5. Safe injection practices (i.e., aseptic technique for parenteral medications).
6. Sterile instruments and devices.
7. Clean and disinfected environmental surfaces.

Sustainable business practices

The degree to which a process or enterprise can be maintained or continued while avoiding the long-term depletion of natural resources.[14]

[13] Center for Disease Control and Prevention. Retrieved on January 6, 2019, at https://www.cdc.gov/oralhealth/infectioncontrol/summary-infection-prevention-practices/standard-precautions.html

[14] World Dental Federation. Sustainability in Dentistry. Retrieved on December 12, 2018, at https://www.fdiworlddental.org/resources/policy-statements-and-resolutions/sustainability-in-dentistry

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Canadian Alliance of Dental Technology Regulators

Alliance canadienne des organismes de réglementation de la technique dentaire

New Brunswick Dental Technicians Association

The NSDTA

College of Dental Technicians of British Columbia

Ordre des techniciens et techniciennes dentaires du Québec

College of Dental Technologists of Ontario

Ordre des Technologues Dentaires de l'Ontario