

# Instructional Framework

## Dental Assisting

51.0600.00

This Instructional Framework identifies, explains, and expands the content of the standards/measurement criteria, and, as well, guides the development of multiple-choice items for the Technical Skills Assessment. This document corresponds with the Technical Standards endorsed on May 19, 2021.



### Domain 1: Clinical Foundations

#### Instructional Time: 30 - 40%

#### STANDARD 5.0 MAINTAIN AND UTILIZE DENTAL INSTRUMENTS AND EQUIPMENT

5.1 Operate and maintain operatory, lab, and sterilization equipment (i.e., autoclave, ultrasonic, lathe, model trimmer, etc.)

- Operatory, lab, and sterilization equipment
  - Autoclave
  - Ultrasonic
  - Lathe
  - Model trimmer
  - Vacuum former
  - X-ray machine
    - Pano
    - Digital sensors
    - Handheld (Nomad)
  - Intra-oral camera
  - Curing light
  - Vacuum
  - Compressors
  - Dental chair
  - Handpieces
    - High-speed
    - Low-speed
    - Lab
    - Handpiece lubricating system

5.2 Identify types and functions of dental instruments used in a general dental practice (i.e., restorative, surgical, prosthodontic, hygiene, periodontal, endodontic, etc.)

- Types and functions of dental instruments
  - Restorative
  - Surgical
  - Prosthodontic
  - Hygiene

	<ul style="list-style-type: none"> <li>○ Periodontal</li> <li>○ Endodontic</li> <li>○ Orthodontic</li> <li>○ Composite</li> <li>○ Cosmetic</li> </ul>
5.3 Maintain dental instruments and handpieces emphasizing their value to the practice/treatment	<ul style="list-style-type: none"> <li>● Instrument and handpiece processing <ul style="list-style-type: none"> <li>○ Sterilization techniques</li> <li>○ Cost</li> <li>○ Maintenance</li> </ul> </li> </ul>
5.4 Operate and maintain waterlines and evacuation systems	<ul style="list-style-type: none"> <li>● Dental unit water lines</li> <li>● CDC guidelines</li> </ul>
<b>STANDARD 7.0 MANIPULATE DENTAL MATERIALS</b>	
7.1 Mix and pour gypsum and trim models and casts (i.e., study models, bleaching tray casts, denture models, etc.)	<ul style="list-style-type: none"> <li>● Study models</li> <li>● Custom trays <ul style="list-style-type: none"> <li>○ Bleaching tray casts</li> <li>○ Nightguards</li> <li>○ Mouthguards</li> <li>○ Retainers</li> </ul> </li> <li>● Denture models</li> </ul>
7.2 Manipulate restorative materials and identify their uses and properties (i.e., amalgam, composite, etc.)	<ul style="list-style-type: none"> <li>● Restorative materials <ul style="list-style-type: none"> <li>○ Direct/in-direct</li> <li>○ Uses</li> <li>○ Properties</li> </ul> </li> <li>● Amalgam</li> <li>● Composite</li> </ul>
7.3 Manipulate dental cements and identify their uses and properties (i.e., permanent, temporary, interim restoratives, etc.)	<ul style="list-style-type: none"> <li>● Dental cements <ul style="list-style-type: none"> <li>○ Base</li> <li>○ Luting</li> <li>○ Liners</li> <li>○ Uses</li> <li>○ Properties</li> </ul> </li> <li>● Permanent</li> <li>● Temporary</li> <li>● Interim restoratives</li> <li>● Sedative filling</li> </ul>

<p>7.4 Differentiate the properties and uses of impression materials, manipulate impression materials, and obtain an impression</p>	<ul style="list-style-type: none"> <li>● Impression materials <ul style="list-style-type: none"> <li>○ Properties</li> <li>○ Uses</li> <li>○ Putty</li> <li>○ Vinyl</li> <li>○ Heavy body</li> <li>○ Light body</li> <li>○ PVS Polyvinyl Siloxane</li> <li>○ Hydrocolloid</li> </ul> </li> <li>● Alginate impressions</li> </ul>
<p>7.5 Identify properties and uses of acrylics and/or thermoplastics (i.e., used in the fabrication of bleach trays, retainers, night guards, custom impression trays, etc.)</p>	<ul style="list-style-type: none"> <li>● Acrylics and/or thermoplastics <ul style="list-style-type: none"> <li>○ Properties</li> <li>○ Uses <ul style="list-style-type: none"> <li>■ Fabrication of bleach trays</li> <li>■ Retainers</li> <li>■ Night guards</li> <li>■ Custom impression trays</li> </ul> </li> </ul> </li> </ul>
<p>7.6 Identify properties and uses for provisional materials and describe methods for fabrication of provisionals and preformed crowns</p>	<ul style="list-style-type: none"> <li>● Provisional materials <ul style="list-style-type: none"> <li>○ Properties</li> <li>○ Uses</li> <li>○ Methods for fabrication <ul style="list-style-type: none"> <li>■ Direct/in-direct</li> </ul> </li> <li>○ Example <ul style="list-style-type: none"> <li>■ Acrylic</li> <li>■ Resin</li> <li>■ Intermediate Restorative Materials (IRM)</li> <li>■ Bis-GMA</li> <li>■ Bis-acrylic</li> </ul> </li> </ul> </li> </ul>
<p>7.7 Identify properties and uses and manipulate commonly used waxes (i.e., utility, baseplate, etc.)</p>	<ul style="list-style-type: none"> <li>● Waxes <ul style="list-style-type: none"> <li>○ Properties</li> <li>○ Uses</li> </ul> </li> <li>● Utility</li> <li>● Baseplate</li> <li>● Bite registration</li> </ul>
<p>7.8 Clean and polish removable dental appliances</p>	<ul style="list-style-type: none"> <li>● Dental lathe <ul style="list-style-type: none"> <li>○ Pumice</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>● Ultrasonic cleaner <ul style="list-style-type: none"> <li>○ Tartar and stain remover</li> <li>○ Dental appliance solution</li> </ul> </li> </ul>
7.9 Identify properties and uses of abrasive agents used to polish coronal surfaces of natural and restored teeth and appliances	<ul style="list-style-type: none"> <li>● Abrasive agents <ul style="list-style-type: none"> <li>○ Properties</li> <li>○ Uses</li> </ul> </li> <li>● Coronal polishing</li> <li>● Polishing agent <ul style="list-style-type: none"> <li>○ Pumice (grits)</li> <li>○ Polishing paste <ul style="list-style-type: none"> <li>■ Aluminum oxide</li> <li>■ Silicone carbide</li> <li>■ Aluminum silicate</li> </ul> </li> </ul> </li> </ul>
<b>STANDARD 9.0 DEMONSTRATE CHAIRSIDE PROCEDURES FOR DENTISTRY</b>	
9.1 Prepare and maintain aseptic working area for intraoral/extraoral procedures	<ul style="list-style-type: none"> <li>● Infection control <ul style="list-style-type: none"> <li>○ Intraoral/extraoral procedures</li> <li>○ Sterilization and disinfection</li> <li>○ Room setup and breakdown</li> </ul> </li> <li>● CDC guidelines</li> </ul>
9.2 Apply principles of four-handed dentistry (e.g., instrument transfer, dental team and patient position, evacuation and maintenance of operating field, and ergonomics)	<ul style="list-style-type: none"> <li>● Four-handed dentistry <ul style="list-style-type: none"> <li>○ Instrument transfer <ul style="list-style-type: none"> <li>■ Classifications of Motion</li> </ul> </li> <li>○ Dental team and patient position <ul style="list-style-type: none"> <li>■ Activity zones</li> </ul> </li> <li>○ Evacuation and maintenance of operating field <ul style="list-style-type: none"> <li>■ Isolation techniques</li> <li>■ High-Volume Evacuation (HVE)</li> <li>■ Saliva ejector</li> </ul> </li> <li>○ Ergonomics <ul style="list-style-type: none"> <li>■ Operator</li> <li>■ Assistant</li> </ul> </li> </ul> </li> </ul>
9.3 Assist with general procedures (i.e., direct and indirect restorations, simple extractions, fabrication of temporary crowns, etc.)	<ul style="list-style-type: none"> <li>● General procedures <ul style="list-style-type: none"> <li>○ Direct and indirect restorations</li> <li>○ Simple extractions</li> <li>○ Fabrication of temporary crowns</li> </ul> </li> <li>● Four-handed dentistry</li> </ul>

<p>9.4 Recognize the role of the dental assistant in specialty procedures (e.g., periodontics, endodontics, oral surgery, orthodontics, public health, prosthodontics, and pediatric dentistry)</p>	<ul style="list-style-type: none"> <li>● Specialty procedures <ul style="list-style-type: none"> <li>○ Periodontics</li> <li>○ Endodontics</li> <li>○ Oral surgery</li> <li>○ Orthodontics</li> <li>○ Public health</li> <li>○ Prosthodontics</li> <li>○ Pediatric dentistry</li> </ul> </li> <li>● Six-handed dentistry</li> </ul>
<p>9.5 Prepare armamentarium (tray setup and operatory equipment) to assist in general dental procedures</p>	<ul style="list-style-type: none"> <li>● Tray setup and operatory equipment <ul style="list-style-type: none"> <li>○ Basic Chairside Instruments</li> <li>○ Tray Systems</li> <li>○ Dental handpiece</li> <li>○ Composite</li> </ul> </li> </ul>
<p>9.6 Select and manipulate dental materials for general procedures</p>	<ul style="list-style-type: none"> <li>● Dental materials <ul style="list-style-type: none"> <li>○ Composite</li> <li>○ Alginate</li> <li>○ IRM</li> <li>○ Dental cement</li> </ul> </li> </ul>
<p>9.7 Perform visual assessment of existing oral conditions</p>	<ul style="list-style-type: none"> <li>● Landmarks of the face and oral cavity</li> </ul>
<p>9.8 Perform patient management practices (i.e., communication, comfort, assurance, etc.) to meet individual patient needs (i.e., anxiety, fear, pediatric, gag reflex, etc.)</p>	<ul style="list-style-type: none"> <li>● Patient management practices <ul style="list-style-type: none"> <li>○ Communication</li> <li>○ Comfort, assurance</li> <li>○ Individual patient needs <ul style="list-style-type: none"> <li>■ Anxiety</li> <li>■ Fear</li> <li>■ Pediatric</li> <li>■ Gag reflex</li> <li>■ Special needs</li> </ul> </li> </ul> </li> </ul>
<p><b>STANDARD 10.0 RECORD PATIENT ASSESSMENT AND TREATMENT DATA</b></p>	
<p>10.1 Record medical and dental histories</p>	<ul style="list-style-type: none"> <li>● Medical and dental histories <ul style="list-style-type: none"> <li>○ Electronic <ul style="list-style-type: none"> <li>■ Tablet/signature pad</li> <li>■ Patient portal</li> </ul> </li> </ul> </li> </ul>

10.2 Record existing intraoral and extraoral conditions	<ul style="list-style-type: none"> <li>● Intraoral and extraoral conditions <ul style="list-style-type: none"> <li>○ Clinical charting <ul style="list-style-type: none"> <li>■ Electronic</li> <li>■ Manual</li> </ul> </li> </ul> </li> </ul>
10.3 Record conditions diagnosed by the dentist	<ul style="list-style-type: none"> <li>● Conditions <ul style="list-style-type: none"> <li>○ Clinical charting <ul style="list-style-type: none"> <li>■ Electronic</li> <li>■ Manual</li> </ul> </li> </ul> </li> </ul>
10.4 Record treatment plan in patient's clinical chart	<ul style="list-style-type: none"> <li>● Treatment plan <ul style="list-style-type: none"> <li>○ Electronic</li> <li>○ Manual</li> </ul> </li> </ul>
10.5 Record treatment-related data in the patient's clinical record (e.g., treatment provided, anesthetic administered, post-operative instruction, reactions to treatment, medications administered and/or prescribed, and referrals)	<ul style="list-style-type: none"> <li>● Clinical record <ul style="list-style-type: none"> <li>○ Electronic</li> <li>○ Treatment provided</li> <li>○ Anesthetic administered</li> <li>○ Anaphylactic reaction</li> <li>○ Pre-operative instruction</li> <li>○ Post-operative instruction</li> <li>○ Reactions to treatment <ul style="list-style-type: none"> <li>■ Potential</li> <li>■ Side effects</li> </ul> </li> <li>○ Medications administered and/or prescribed</li> <li>○ Referrals</li> </ul> </li> </ul>
<b>STANDARD 11.0 DEMONSTRATE TECHNIQUES OF PREVENTIVE DENTISTRY</b>	
11.1 Instruct patients on oral homecare and oral disease prevention	<ul style="list-style-type: none"> <li>● Oral homecare and oral disease prevention <ul style="list-style-type: none"> <li>○ Toothbrushing techniques</li> <li>○ Flossing techniques</li> <li>○ Oral Hygiene Instructions (OHI)</li> <li>○ Nutrition</li> <li>○ Tooth decay process</li> </ul> </li> </ul>
11.2 Differentiate the properties and explain the rationale for use of dental sealants	<ul style="list-style-type: none"> <li>● Dental sealants <ul style="list-style-type: none"> <li>○ Properties</li> <li>○ Uses</li> </ul> </li> </ul>

11.3 Differentiate the properties and explain the rationale for use of systemic and topical fluorides	<ul style="list-style-type: none"> <li>● Fluoride <ul style="list-style-type: none"> <li>○ Properties</li> <li>○ Uses</li> </ul> </li> </ul>
11.4 Apply anticariogenic treatment such as topical fluoride and dental sealants	<ul style="list-style-type: none"> <li>● Anticariogenic treatment <ul style="list-style-type: none"> <li>○ Topical fluoride <ul style="list-style-type: none"> <li>■ Silver Diamine</li> </ul> </li> <li>○ Dental sealants</li> </ul> </li> </ul>
11.5 Perform coronal polishing procedures	<ul style="list-style-type: none"> <li>● Coronal polishing procedures <ul style="list-style-type: none"> <li>○ Dental team roles</li> <li>○ Classifications of Periodontal Disease</li> <li>○ Periodontal Screening and Recording (PSR)</li> <li>○ Purposes</li> <li>○ Uses</li> <li>○ Types</li> <li>○ Infection control <ul style="list-style-type: none"> <li>■ OSHA Bloodborne Pathogens Standard</li> </ul> </li> <li>○ Law and ethics</li> <li>○ Stain identification <ul style="list-style-type: none"> <li>■ Intrinsic</li> <li>■ Extrinsic</li> </ul> </li> </ul> </li> </ul>
11.6 Identify principles of nutrition essential for optimal oral health and lifestyle	<ul style="list-style-type: none"> <li>● Principles of nutrition <ul style="list-style-type: none"> <li>○ Vitamins</li> <li>○ Minerals</li> <li>○ Nutrition labels <ul style="list-style-type: none"> <li>■ My Plate Nutrition Guide</li> </ul> </li> <li>○ Eating disorder <ul style="list-style-type: none"> <li>■ Bulimia</li> <li>■ Anorexia Nervosa</li> </ul> </li> </ul> </li> </ul>
<b>STANDARD 12.0</b> RECOGNIZE AND RESPOND TO EMERGENCY SITUATIONS	
12.1 Obtain, monitor, and record vital signs	<ul style="list-style-type: none"> <li>● Vital signs <ul style="list-style-type: none"> <li>○ Blood pressure</li> <li>○ Temperature</li> <li>○ Pulse rate</li> <li>○ Respiration</li> </ul> </li> </ul>

12.2 Recognize medical conditions that may impact dental treatment	<ul style="list-style-type: none"> <li>● Medical conditions <ul style="list-style-type: none"> <li>○ Cardiovascular</li> <li>○ Antibiotic prophylaxis</li> <li>○ Joint replacement</li> <li>○ Diabetes</li> <li>○ Asthma</li> <li>○ Pulmonary</li> <li>○ Allergies</li> <li>○ Psychological</li> <li>○ Seizures/epilepsy</li> </ul> </li> </ul>
12.3 Recognize common emergencies, emergency preventive measures, and emergency response strategies	<ul style="list-style-type: none"> <li>● Common emergencies <ul style="list-style-type: none"> <li>○ Vitals monitoring</li> </ul> </li> <li>● Preventive measures <ul style="list-style-type: none"> <li>○ AED</li> <li>○ CPR certified personnel</li> </ul> </li> <li>● Emergency response strategies <ul style="list-style-type: none"> <li>○ Emergency communication plan</li> </ul> </li> </ul>
12.4 Maintain certification in cardiopulmonary resuscitation (CPR) approved by the Dental Assisting National Board (DANB)	<ul style="list-style-type: none"> <li>● CPR approved by DANB <ul style="list-style-type: none"> <li>○ American Heart Association</li> <li>○ Basic Life Support (BLS)</li> <li>○ Heartsaver</li> <li>○ Advanced Cardiac Life Support (ACLS)</li> </ul> </li> </ul>

## Domain 2: Infection Control

Instructional Time: 25 - 30%

### STANDARD 3.0 DEMONSTRATE DISEASE PREVENTION, INFECTION CONTROL, AND WASTE MANAGEMENT PROCEDURES

3.1 Differentiate between pathogenic and nonpathogenic microorganisms	Pathogenic microorganisms Non-pathogenic microorganisms Microbiology <ul style="list-style-type: none"> <li>○ History</li> <li>○ Classification</li> </ul>
3.2 Classify pathogens and their modes of disease transmission	<ul style="list-style-type: none"> <li>● Pathogen classification <ul style="list-style-type: none"> <li>○ Bacteria</li> <li>○ Viruses</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>○ Fungi</li> <li>● Modes of disease transmission <ul style="list-style-type: none"> <li>○ Aerosol</li> <li>○ Parenteral</li> <li>○ Direct/in-direct</li> </ul> </li> <li>● Chain of Infection</li> <li>● Proper handwashing techniques</li> </ul>
3.3 Describe infectious diseases and their relationship to patient safety and occupational risk	<ul style="list-style-type: none"> <li>● Infectious disease</li> <li>● Patient safety</li> <li>● Occupational risk</li> <li>● Standard precautions</li> <li>● OSHA Bloodborne Pathogens Standard</li> <li>● CDC guidelines and recommendations</li> <li>● OSAP (Organization for Safety, Asepsis, and Prevention)</li> </ul>
3.4 Examine the need for immunizations for dental healthcare workers as a protection against infectious diseases	<ul style="list-style-type: none"> <li>● Immunizations <ul style="list-style-type: none"> <li>○ Hep B</li> </ul> </li> <li>● OSHA Bloodborne Pathogens Standard</li> <li>● CDC guidelines and recommendations</li> </ul>
3.5 Perform hand hygiene protocols	<ul style="list-style-type: none"> <li>● Hand hygiene protocols <ul style="list-style-type: none"> <li>○ Department of Health</li> <li>○ CDC handwashing guidelines and recommendations <ul style="list-style-type: none"> <li>■ BESC CDC modules</li> </ul> </li> </ul> </li> </ul>
3.6 Select and use personal protective equipment as needed (i.e., gloves, mask levels, face shields, eyewear, etc.)	<ul style="list-style-type: none"> <li>● American Dental Association (ADA) guidelines</li> <li>● Department of Health</li> <li>● CDC PPE guidelines and recommendations</li> <li>● OSHA PPE recommendations</li> <li>● Personal protective equipment <ul style="list-style-type: none"> <li>○ Gloves</li> <li>○ Mask levels</li> <li>○ Face shields</li> <li>○ Eyewear</li> </ul> </li> </ul>
3.7 Demonstrate aseptic and nonaseptic techniques used in dentistry (i.e., sterile/nonsterile, clean/dirty, treatment and surgical rooms, reception area, dental lab, etc.)	<ul style="list-style-type: none"> <li>● Aseptic and nonaseptic techniques <ul style="list-style-type: none"> <li>○ Sterile/nonsterile</li> <li>○ Clean/dirty</li> <li>○ Treatment and surgical rooms</li> <li>○ Reception area</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Dental lab</li> <li>○ Disinfection vs. Sterilization</li> <li>○ Surgical scrubbing, gowning, and gloving</li> <li>○ Sterile protocols</li> </ul>
<p>3.8 Select methods of aerosol management based on procedure (i.e., air/water combination, rubber dam, low volume and high-volume evacuation systems, etc.)</p>	<ul style="list-style-type: none"> <li>● Aerosol management</li> <li>● Air/water combination</li> <li>● Isolation techniques <ul style="list-style-type: none"> <li>○ Rubber dam</li> <li>○ HVE (high-volume evacuation systems)</li> <li>○ LVE (low volume evacuation systems)</li> </ul> </li> <li>● CDC Guidance for Dental Setting</li> <li>● OSHA Covid-19 Control and Prevention- Dental Settings</li> </ul>
<p>3.9 Perform instrument processing and sterilization</p>	<ul style="list-style-type: none"> <li>● Instrument processing and sterilization techniques <ul style="list-style-type: none"> <li>○ Autoclave</li> <li>○ Ultrasonic cleaner</li> <li>○ Cold sterile</li> <li>○ Proper steps</li> <li>○ Equipment maintenance</li> <li>○ Instrument storage</li> <li>○ Sterilization monitoring techniques</li> </ul> </li> <li>● Needlestick Safety and Prevention Act</li> </ul>
<p>3.10 Apply methods of surface cleaning and disinfection</p>	<ul style="list-style-type: none"> <li>● CDC recommendations</li> <li>● Clinical surfaces <ul style="list-style-type: none"> <li>○ Critical</li> <li>○ Semi-critical</li> <li>○ Non-critical</li> <li>○ Examples: <ul style="list-style-type: none"> <li>■ Environmental</li> <li>■ Housekeeping</li> <li>■ Clinical contact</li> <li>■ Initial contact</li> </ul> </li> </ul> </li> <li>● Disinfection levels <ul style="list-style-type: none"> <li>○ High</li> <li>○ Intermediate</li> <li>○ Low</li> </ul> </li> <li>● Methods of disinfection <ul style="list-style-type: none"> <li>○ Spray - wipe - spray method</li> </ul> </li> </ul>

3.11 Comply with state and federal regulations for infection control and disease prevention	<ul style="list-style-type: none"> <li>● Occupational Safety and Health Administration (OSHA)</li> <li>● Center for Disease Control (CDC)</li> <li>● Arizona Dental Board</li> <li>● American Dental Association (ADA)</li> <li>● Department of Health</li> <li>● Local/county regulations</li> </ul>
3.12 Comply with the OSHA Bloodborne Pathogens Standard (29CFR-1910.1030)	<ul style="list-style-type: none"> <li>● OSHA Bloodborne Pathogens Standard</li> </ul>
3.13 Adhere to the OSHA Hazard Communications Standard (29CFR-1910.1200)	<ul style="list-style-type: none"> <li>● OSHA Hazard Communications Standard</li> </ul>
3.14 Distinguish among agencies with guidelines for infection control (i.e., OSHA, CDC, OSAP, NIOSH, ADA, etc.)	<ul style="list-style-type: none"> <li>● Occupational Safety and Health Administration (OSHA)</li> <li>● Center for Disease Control (CDC)</li> <li>● Organization for Safety, Asepsis, and Prevention (OSAP)</li> <li>● National Institute of Occupational Safety and Health (NIOSH)</li> <li>● American Dental Association (ADA)</li> <li>● CPR recommendations <ul style="list-style-type: none"> <li>○ American Heart Association (AHA)</li> <li>○ Red Cross</li> </ul> </li> <li>● Department of Health (DOH)</li> </ul>

## Domain 3: Dental Radiography

**Instructional Time: 20 - 25%**

### STANDARD 8.0 DEMONSTRATE DENTAL RADIOGRAPHIC PROCEDURES

8.1 Describe the history, physics, and biological effects of ionizing radiation	<ul style="list-style-type: none"> <li>● Ionizing radiation <ul style="list-style-type: none"> <li>○ History</li> <li>○ Physics</li> <li>○ Biological effects</li> </ul> </li> </ul>
8.2 Apply ALARA Principles for operator and patient safety (e.g., shielding, distance, proper techniques, and limited exposure by following prescription)	<ul style="list-style-type: none"> <li>● ALARA Principles <ul style="list-style-type: none"> <li>○ Operator and patient safety</li> <li>○ Shielding <ul style="list-style-type: none"> <li>■ Lead apron</li> <li>■ Lead barrier</li> </ul> </li> <li>○ Distance</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Proper techniques</li> <li>○ Limited exposure by following prescription</li> <li>○ ADA Guidelines for prescribing dental radiographs</li> </ul>
8.3 Identify components of radiographic equipment (i.e., tube, control panel, etc.)	<ul style="list-style-type: none"> <li>● Tube</li> <li>● Control panel</li> <li>● Degrees</li> <li>● Arm</li> </ul>
8.4 Examine radiation exposure factors, identifying errors and corrections [e.g., exposure time, milliamperage, voltage, receptor placement, Position Indication Device (PID) angulation, etc.]	<ul style="list-style-type: none"> <li>● Radiation exposure factors <ul style="list-style-type: none"> <li>○ Exposure time</li> <li>○ Milliamperage</li> <li>○ Voltage</li> <li>○ Receptor placement</li> <li>○ Position Indication Device (PID) angulation</li> <li>○ Contrast</li> <li>○ Density</li> </ul> </li> <li>● Identifying errors and corrections</li> </ul>
8.5 Perform various intraoral radiographic imaging techniques (i.e., bitewing, periapical, occlusal, etc.)	<ul style="list-style-type: none"> <li>● Bitewing</li> <li>● Periapical</li> <li>● Occlusal</li> </ul>
8.6 Explain extraoral imaging techniques (i.e., panoramic, CBCT, cephalometric, etc.)	<ul style="list-style-type: none"> <li>● Panoramic</li> <li>● CBCT</li> <li>● Cephalometric</li> </ul>
8.7 Identify radiographic anatomical landmarks and mount radiographic surveys (i.e., full mouth series, horizontal and vertical bitewings, pediatric exposures, etc.)	<ul style="list-style-type: none"> <li>● Radiographic anatomical landmarks <ul style="list-style-type: none"> <li>○ Full mouth series</li> <li>○ Horizontal and vertical bitewings</li> <li>○ Pediatric exposures</li> <li>○ Facial and oral landmarks</li> </ul> </li> <li>● Mounting radiographic surveys <ul style="list-style-type: none"> <li>○ Labial</li> <li>○ Lingual</li> </ul> </li> </ul>
8.8 Interpret radiographic findings (i.e., pathologies, normal and abnormal anatomy, atypical landmarks, dental restorations, etc.)	<ul style="list-style-type: none"> <li>● Radiographic findings <ul style="list-style-type: none"> <li>○ Pathologies</li> <li>○ Normal and abnormal anatomy</li> <li>○ Atypical landmarks</li> <li>○ Dental restorations</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Normal anatomy <ul style="list-style-type: none"> <li>■ Identify normal anatomy</li> </ul> </li> </ul>
8.9 Describe storage and disposal of film, processing solutions, and hazardous/regulated waste	<ul style="list-style-type: none"> <li>● State and local regulations</li> <li>● EPA</li> <li>● FDA</li> <li>● OSHA</li> </ul>

<b>Domain 4: Dental Science</b> <b>Instructional Time: 15 - 20%</b>	
<b>STANDARD 4.0 IDENTIFY STRUCTURES AND FUNCTIONS OF ORAL, HEAD, AND NECK ANATOMY AND RELATED DENTAL PATHOLOGIES</b>	
4.1 Describe structures and functions of head and neck anatomy including bones, muscles, sinuses, salivary glands, nerve, lymphatic system, and blood vessels	<ul style="list-style-type: none"> <li>● Structures and functions <ul style="list-style-type: none"> <li>○ Head and neck anatomy</li> </ul> </li> <li>● Medical and dental terminology</li> <li>● Introduction to body systems</li> </ul>
4.2 Describe embryonic development of head, oral cavity, and teeth	<ul style="list-style-type: none"> <li>● Embryonic development</li> <li>● Tooth development <ul style="list-style-type: none"> <li>○ Dentin</li> <li>○ Enamel</li> <li>○ Pulp</li> </ul> </li> </ul>
4.3 Identify dental anatomy, tooth morphology, tooth surfaces, and periodontium	<ul style="list-style-type: none"> <li>● Dental anatomy</li> <li>● Tooth morphology <ul style="list-style-type: none"> <li>○ Bud stage</li> <li>○ Cap stage</li> <li>○ Bell stage</li> </ul> </li> <li>● Tooth surfaces</li> <li>● Periodontium</li> <li>● Medical and dental terminology</li> </ul>
4.4 Select oral structures and landmarks	<ul style="list-style-type: none"> <li>● Oral structures and landmarks</li> <li>● Oral cavity <ul style="list-style-type: none"> <li>○ Facial and oral landmarks</li> </ul> </li> <li>● Medical and dental terminology</li> </ul>
4.5 Differentiate among dental numbering systems	<ul style="list-style-type: none"> <li>● Permanent and primary dentition</li> </ul>

	<ul style="list-style-type: none"> <li>○ Universal Numbering System</li> <li>○ Palmer's Numbering System</li> <li>○ FDI System</li> </ul>
4.6 Recognize and describe oral pathological conditions and their development (e.g., gingivitis, caries, periodontal disease, classifications of occlusion, and hard and soft tissue abnormalities)	<ul style="list-style-type: none"> <li>● Oral pathological conditions <ul style="list-style-type: none"> <li>○ Gingivitis</li> <li>○ Caries <ul style="list-style-type: none"> <li>■ Black's Classification</li> </ul> </li> <li>○ Periodontal disease <ul style="list-style-type: none"> <li>■ Classification</li> </ul> </li> <li>○ Classifications of occlusion <ul style="list-style-type: none"> <li>■ Type 1, 2, 3, 4, 5</li> <li>■ Malocclusion</li> </ul> </li> <li>○ Hard and soft tissue abnormalities <ul style="list-style-type: none"> <li>■ Tori</li> <li>■ Cleft lip and palate</li> <li>■ Enamel hypoplasia</li> <li>■ Supernumerary</li> <li>■ Mesiodens</li> <li>■ Anodontia</li> <li>■ Dentinogenesis imperfecta</li> </ul> </li> </ul> </li> </ul>
<b>STANDARD 6.0 IDENTIFY FUNCTIONS OF PHARMACOLOGY AND ANESTHESIA RELATED TO DENTISTRY</b>	
6.1 Identify drug agencies and regulations (e.g., EPA, FDA, and DEA)	<ul style="list-style-type: none"> <li>● Environmental Protection Agency (EPA)</li> <li>● Food and Drug Administration (FDA)</li> <li>● Drug Enforcement Agency (DEA) <ul style="list-style-type: none"> <li>○ Classification of drugs</li> </ul> </li> </ul>
6.2 Record dispensed or prescribed drugs in the patient's clinical record	<ul style="list-style-type: none"> <li>● Prescription <ul style="list-style-type: none"> <li>○ Parts</li> <li>○ Writing</li> <li>○ Regulations</li> <li>○ Terminology</li> <li>○ Documentation/recording</li> <li>○ Law and ethics</li> </ul> </li> <li>● Electronic records</li> <li>● Prescription pads</li> </ul>
6.3 Recognize drug references to identify drug actions, side effects, indications, and contraindications	<ul style="list-style-type: none"> <li>● FDA- General Drug Categories</li> <li>● DEA - Drug schedules</li> </ul>

	<ul style="list-style-type: none"> <li>● Physician's Desk Reference (PDR)</li> </ul>
6.4 Identify common drugs used in dentistry by their classifications (i.e., antibiotics, pain management, OTC, therapeutics, local anesthetics, etc.)	<ul style="list-style-type: none"> <li>● Common drugs used in dentistry <ul style="list-style-type: none"> <li>○ Antibiotics</li> <li>○ Pain management</li> <li>○ OTC</li> <li>○ Therapeutics</li> <li>○ Local anesthetics</li> <li>○ Common routes</li> </ul> </li> </ul>
6.5 Identify delivery methods of topical anesthesia	<ul style="list-style-type: none"> <li>● Delivery methods of topical anesthesia <ul style="list-style-type: none"> <li>○ Oral landmarks</li> </ul> </li> </ul>
6.6 Prepare syringes for the administration of local anesthetics [e.g., needle selection (block, infiltration, injection site) and use of vasoconstrictor]	<ul style="list-style-type: none"> <li>● Needle selection <ul style="list-style-type: none"> <li>○ Block</li> <li>○ Infiltration</li> <li>○ Injection site</li> </ul> </li> <li>● Use of vasoconstrictor</li> <li>● Aspirating syringe technique <ul style="list-style-type: none"> <li>○ Assembling/disassembling</li> <li>○ Disposal</li> </ul> </li> </ul>
6.7 Demonstrate safe handling of sharps [e.g., needles (contaminated and sterile) and anesthetic cartridges]	<ul style="list-style-type: none"> <li>● Needles <ul style="list-style-type: none"> <li>○ Contaminated</li> <li>○ Sterile</li> </ul> </li> <li>● Anesthetic cartridges</li> <li>● Disposal</li> <li>● Needlestick Safety and Prevention Act</li> </ul>
6.8 Monitor patients and identify precautions and legal guidelines in the use of nitrous oxide-oxygen conscious sedation	<ul style="list-style-type: none"> <li>● Nitrous oxide-oxygen <ul style="list-style-type: none"> <li>○ Precautions</li> <li>○ Monitoring</li> <li>○ FDA</li> <li>○ NIOSH</li> <li>○ ADA Nitrous Oxide Guidelines <ul style="list-style-type: none"> <li>■ Pregnancy</li> <li>■ Respiratory conditions</li> <li>■ Scavenging systems</li> </ul> </li> </ul> </li> </ul>

## Domain 5: Business and Legal

Instructional Time: 5 - 10%

### STANDARD 1.0 DEMONSTRATE DENTAL OFFICE BUSINESS PROCEDURES

1.1 Explain the importance of patient scheduling according to procedure time requirement	<ul style="list-style-type: none"><li>● Electronic patient scheduling</li><li>● Clock reading<ul style="list-style-type: none"><li>○ Analog</li></ul></li><li>● Procedural time<ul style="list-style-type: none"><li>○ Block/unit scheduling</li></ul></li></ul>
1.2 Describe the function of a recall system	<ul style="list-style-type: none"><li>● Recall/recare system</li><li>● Function<ul style="list-style-type: none"><li>○ Frequency</li><li>○ Tracking reports</li></ul></li><li>● Automated systems<ul style="list-style-type: none"><li>○ Phone</li><li>○ Text</li><li>○ Email</li></ul></li></ul>
1.3 Prepare and maintain patient clinical records	<ul style="list-style-type: none"><li>● Digital patient clinical records</li><li>● HIPAA</li><li>● Patient reports/summary</li><li>● Care/treatment plan</li><li>● Software systems</li></ul>
1.4 Prepare and maintain patient financial records	<ul style="list-style-type: none"><li>● Patient financial records</li><li>● Insurance information</li><li>● Financial arrangements<ul style="list-style-type: none"><li>○ Third-party care</li></ul></li></ul>
1.5 Prepare and maintain inventory control and purchasing	<ul style="list-style-type: none"><li>● Inventory control<ul style="list-style-type: none"><li>○ Tagging system</li><li>○ Stock rotation</li></ul></li><li>● Purchasing</li><li>● Invoices</li><li>● Accounts payable</li></ul>



1.6 Recognize common terminology associated with third party payments	<ul style="list-style-type: none"> <li>● Third party payments <ul style="list-style-type: none"> <li>○ Care credit</li> <li>○ Patient portal</li> </ul> </li> </ul>
1.7 Describe public relations responsibilities of the dental team	<ul style="list-style-type: none"> <li>● Professional communication and interaction <ul style="list-style-type: none"> <li>○ Scripting/role playing</li> <li>○ Social media <ul style="list-style-type: none"> <li>■ Etiquette</li> <li>■ Relations</li> </ul> </li> </ul> </li> </ul>
1.8 Use front office business equipment (i.e., phone, computer, scanner, etc.)	<ul style="list-style-type: none"> <li>● Phone</li> <li>● Computer</li> <li>● Scanner</li> <li>● Copy machine</li> <li>● Tablets <ul style="list-style-type: none"> <li>○ Electronic signature pads</li> </ul> </li> </ul>
1.9 Maintain the dental office environment	<ul style="list-style-type: none"> <li>● Open/close procedures <ul style="list-style-type: none"> <li>○ Temperature</li> <li>○ Lighting</li> <li>○ Magazines</li> <li>○ Music</li> <li>○ Decor</li> <li>○ Ambiance</li> <li>○ Housekeeping</li> </ul> </li> <li>● Cell phone policy</li> <li>● Voice volume</li> </ul>
1.10 Receive and dismiss patients and visitors	<ul style="list-style-type: none"> <li>● Professional skills</li> <li>● Role plays</li> <li>● Pre- and Post-Op Instructions</li> <li>● Consent forms</li> <li>● Continuation of care <ul style="list-style-type: none"> <li>○ Scheduling/next visit (NV)</li> </ul> </li> </ul>
1.11 Identify psychological considerations influencing behaviors of dental patients	<ul style="list-style-type: none"> <li>● Maslow's Hierarchy of Needs</li> <li>● Diversity <ul style="list-style-type: none"> <li>○ Cultural influences</li> <li>○ Language barriers</li> </ul> </li> <li>● Personality profiles</li> </ul>

<p>1.12 Summarize dental practice business finances (i.e., accounts receivable, collections, overhead expenses, etc.)</p>	<ul style="list-style-type: none"> <li>● Accounts receivable</li> <li>● Collections <ul style="list-style-type: none"> <li>○ Legal process</li> <li>○ Third party collectors</li> <li>○ In-house</li> </ul> </li> <li>● Accounts payable</li> <li>● Overhead expenses <ul style="list-style-type: none"> <li>○ Labor</li> <li>○ Equipment</li> <li>○ Materials</li> <li>○ Utilities</li> <li>○ Business taxes</li> </ul> </li> </ul>
<p><b>STANDARD 2.0 USE INFORMATION TECHNOLOGY TOOLS COMMONLY FOUND IN DENTAL SETTINGS</b></p>	
<p>2.1 Demonstrate basic computer hardware and software skills</p>	<ul style="list-style-type: none"> <li>● Hardware skills <ul style="list-style-type: none"> <li>○ Computer</li> <li>○ Tablets</li> <li>○ Intra-oral camera</li> <li>○ X-ray machine</li> <li>○ CAD/CAM</li> </ul> </li> <li>● Software skills <ul style="list-style-type: none"> <li>○ Digital imaging</li> <li>○ Electronic scheduling</li> <li>○ Electronic charting</li> <li>○ Electronic records</li> </ul> </li> </ul>
<p>2.2 Identify technological tools to expedite workflow (i.e., word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, internet applications, virtual platforms, etc.)</p>	<ul style="list-style-type: none"> <li>● Word processing</li> <li>● Databases</li> <li>● Reports</li> <li>● Spreadsheets</li> <li>● Multimedia presentations <ul style="list-style-type: none"> <li>○ Virtual platforms</li> <li>○ Internet applications</li> </ul> </li> <li>● Electronic communication tools <ul style="list-style-type: none"> <li>○ Electronic calendar</li> <li>○ Contacts</li> <li>○ Email</li> <li>○ Social media</li> </ul> </li> </ul>

<p>2.3 Interpret information from electronic patient documents (e.g., referrals, lab tracking slips, prescriptions, and diagnostic data) and direct to appropriate entity for processing/treatment</p>	<ul style="list-style-type: none"> <li>● Referrals</li> <li>● Clinical charts <ul style="list-style-type: none"> <li>○ Diagnostic data</li> <li>○ Lab tracking slips</li> <li>○ Prescriptions</li> </ul> </li> <li>● Digital images</li> </ul>
<p>2.4 Employ dental management software to access, create, manage, integrate, and store dental practice information to increase workplace efficiency</p>	<ul style="list-style-type: none"> <li>● Dental management software</li> </ul>
<p><b>STANDARD 13.0 EXAMINE THE LEGAL AND ETHICAL RESPONSIBILITIES OF DENTAL PROFESSIONALS</b></p>	
<p>13.1 Describe ethical considerations/obligations between the dental team-patient relationship</p>	<ul style="list-style-type: none"> <li>● HIPAA</li> <li>● Law and ethics</li> </ul>
<p>13.2 Explain risk management (i.e., OSHA, maintaining standard of care, avoiding professional negligence, recordkeeping, etc.)</p>	<ul style="list-style-type: none"> <li>● Risk Management <ul style="list-style-type: none"> <li>○ OSHA</li> <li>○ ADA Standards</li> <li>○ Maintaining standard of care</li> <li>○ Avoiding professional negligence</li> <li>○ Recordkeeping</li> </ul> </li> </ul>
<p>13.3 Discuss the Arizona State Dental Practice Act as it applies to the members of the dental team</p>	<ul style="list-style-type: none"> <li>● Arizona State Dental Practice Act</li> </ul>
<p>13.4 Follow HIPAA laws related to the practice of dentistry</p>	<ul style="list-style-type: none"> <li>● HIPAA</li> </ul>
<p>13.5 Discuss local and state laws and rules related to the practice of dental assisting in Arizona (e.g., rules specific to supervision levels and Article 7)</p>	<ul style="list-style-type: none"> <li>● Rules specific to supervision levels</li> <li>● Article 7 <ul style="list-style-type: none"> <li>○ Direct Supervision</li> <li>○ General Supervision</li> <li>○ Indirect Supervision</li> </ul> </li> </ul>
<p><b>STANDARD 14.0 KEEP CURRENT WITH SERVICES AND INDUSTRY TRENDS</b></p>	
<p>14.1 Identify sources for up-to-date information [i.e., journals, professional organizations (i.e., ADA, ADAA, etc.), professional websites, laws/statutes, rules, etc.]</p>	<ul style="list-style-type: none"> <li>● Journals</li> <li>● Professional organizations <ul style="list-style-type: none"> <li>○ ADA</li> <li>○ ADAA</li> <li>○ DANB</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ AZDA</li> <li>○ OSHA</li> <li>● Professional websites</li> <li>● Laws/statutes</li> <li>● Rules</li> </ul>
14.2 Identify the importance of continuing education for the profession	<ul style="list-style-type: none"> <li>● Continuing Education <ul style="list-style-type: none"> <li>○ Certification Renewals</li> </ul> </li> </ul>
14.3 Discuss the importance of participating and belonging to professional organizations (i.e., networking, mentoring, social communication, etc.)	<ul style="list-style-type: none"> <li>● Professional organizations <ul style="list-style-type: none"> <li>○ Networking</li> <li>○ Mentoring</li> <li>○ Social communication</li> <li>○ Community involvement</li> <li>○ Social media</li> </ul> </li> </ul>
14.4 Explore opportunities and career pathways in the profession of dentistry	<ul style="list-style-type: none"> <li>● Career pathways</li> <li>● Additional certifications <ul style="list-style-type: none"> <li>○ EFDA</li> <li>○ Dental Technician</li> <li>○ Dental Hygienist</li> <li>○ Dentist</li> <li>○ Specialist</li> <li>○ Dental Sales</li> <li>○ Dental Lab Technician</li> </ul> </li> </ul>
14.5 Explore certifications and credentials that support careers in dentistry (i.e., certifications and credentials offered through Arizona State Board of Dental Examiners, Dental Assisting National Board, etc.) and how to maintain them	<ul style="list-style-type: none"> <li>● Certifications and credentials offered through Arizona State Board of Dental Examiners</li> <li>● Dental Assisting National Board</li> <li>● Continuing education</li> </ul>