

Instructional Framework

Dental Assisting
51.0600.00



Domain 1: Foundations

Instructional Time: 45-55%

STANDARD 4.0 IDENTIFY STRUCTURES AND FUNCTIONS OF ORAL, HEAD, AND NECK ANATOMY AND RELATED DENTAL PATHOLOGIES

4.1 Identify structures and functions of head and neck anatomy including bones, muscles, sinuses, salivary glands, nerve, and blood vessels	<ul style="list-style-type: none">Anatomical ChartingAnatomical Model
4.2 Identify embryonic development of head, oral cavity, and teeth	<ul style="list-style-type: none">Oral embryology and histology
4.3 Identify dental anatomy, tooth morphology, and tooth surfaces	<ul style="list-style-type: none">Tooth morphologyTooth surfacesOral anatomy
4.4 Identify oral structures and landmarks	<ul style="list-style-type: none">Oral structuresOral and facial landmarks
4.5 Differentiate among dental numbering systems	<ul style="list-style-type: none">Tooth ChartUniversal tooth numbering systemsPermanent and primary dentition
4.6 Describe histological components of the oral cavity, teeth, and periodontium	<ul style="list-style-type: none">Oral histology
4.7 Recognize and describe dental pathological conditions and their development	<ul style="list-style-type: none">Oral pathology

STANDARD 5.0 MAINTAIN AND UTILIZE DENTAL INSTRUMENTS AND EQUIPMENT

5.1 Maintain and operate operator, lab, and sterilization equipment	<ul style="list-style-type: none">Dental equipment
5.2 Identify types and functions of restorative, surgical, prosthodontic, orthodontic, periodontal, and endodontic dental instruments	<ul style="list-style-type: none">General and Specialty instrumentsGV Black's classification of instruments
5.3 Maintain dental instruments and hand pieces	<ul style="list-style-type: none">Instrument careHandpiece care
5.4 Identify types and functions of dental hygiene instruments with emphasis on category rather than individual instruments	<ul style="list-style-type: none">Classification of hygiene instruments
5.5 Maintain and operate an evacuation system	<ul style="list-style-type: none">Evacuation system maintenance and care

	<ul style="list-style-type: none"> • Air compressor and suction system maintenance and care
STANDARD 7.0 MANIPULATE DENTAL MATERIALS	
7.1 Identify properties and uses and manipulate gypsum	<ul style="list-style-type: none"> • Models • Types of dental models/casts
7.2 Identify properties and uses and manipulate restorative materials	<ul style="list-style-type: none"> • Amalgam • Composite
7.3 Identify properties and uses and manipulate dental cements	<ul style="list-style-type: none"> • Dental cements
7.4 Identify properties and uses, manipulate impression materials, and obtain an impression	<ul style="list-style-type: none"> • Impression materials • Alginate impressions
7.5 Identify properties and uses and manipulate acrylics and/or thermoplastics	<ul style="list-style-type: none"> • Bleaching trays and mouthguards • Temporary crowns
7.6 Identify properties and uses and manipulate waxes	<ul style="list-style-type: none"> • Taking impressions/ Wax-up
7.7 Perform dental laboratory procedures to include the fabrication of casts, custom trays, and/or temporary crowns and bridges	<ul style="list-style-type: none"> • Lab procedures temporary crowns/bridges • Lab procedures custom trays
7.8 Clean and polish removable dental appliances	<ul style="list-style-type: none"> • Removable prosthodontics
7.9 Identify properties and uses of abrasive agents used to polish coronal surfaces and appliances	<ul style="list-style-type: none"> • Coronal polishing • Polishing paste • Pumice paste • Polishing temporary crowns and removable appliances
7.10 Identify and manage hazardous dental materials and wastes in accordance with local, state, and federal regulations	<ul style="list-style-type: none"> • OSHA <ul style="list-style-type: none"> ◦ Hazardous materials ◦ Symbols ◦ SDS sheets ◦ EPA mercury waste disposal
STANDARD 9.0 DEMONSTRATE CHAIRSIDE PROCEDURES FOR DENTISTRY	
9.1 Prepare and maintain the aseptic working area, including the sterilization of instruments for intraoral/extraoral procedures	<ul style="list-style-type: none"> • Treatment room set-up • Cross contamination • Chain of infection

9.2 Apply principles of four-handed dentistry	<ul style="list-style-type: none"> • Instrument grasps • Instrument transfer • Isolation techniques • Oral evacuation
9.3 Assist with restorative and specialty procedures	<ul style="list-style-type: none"> • Composite and amalgam procedures • Dental specialties • Four-handed dentistry • Six-handed dentistry
9.4 Evacuate and maintain the operating field	<ul style="list-style-type: none"> • Isolation techniques
9.5 Perform functions as permitted by the Arizona statute/law pertaining to chairside assisting in general and specialty settings	<ul style="list-style-type: none"> • AZ State Dental Board • DANB
9.6 Prepare tray sets and operatory to assist in general and specialty dental procedures	<ul style="list-style-type: none"> • Procedure tray set-up
9.7 Select, prepare, and manipulate dental materials for general and specialty procedures	<ul style="list-style-type: none"> • Dental specialty materials
9.8 Perform visual assessment of existing oral conditions	<ul style="list-style-type: none"> • Visual evaluation of the oral cavity
9.9 Perform patient management practices to meet individual patient need	<ul style="list-style-type: none"> • Patient preparation • Patient seating and dismissing

Domain 2: Treatment/Dental Radiography Instructional Time: 20-30%	
STANDARD 2.0 USE INFORMATION TECHNOLOGY TOOLS COMMONLY FOUND IN DENTAL SETTINGS	
2.1 Describe technology applications commonly found in the dental office	<ul style="list-style-type: none"> • Dental software for patient management • Digital x-ray software
2.2 Demonstrate basic computer hardware and software skills	<ul style="list-style-type: none"> • Typing skills • Parts of a computer • Dental software

2.3 Interpret information from electronic patient documents, such as referrals, lab tracking slips, and radiographs, and direct to appropriate entity for processing/treatment	<ul style="list-style-type: none"> • Digital patient records
2.4 Identify technological tools to expedite workflow, including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications	<ul style="list-style-type: none"> • Dental software • Computer applications <ul style="list-style-type: none"> ○ Microsoft Office ○ Google Chrome
2.5 Use patient database applications to increase workplace efficiency	<ul style="list-style-type: none"> • Dental software patient reports
2.6 Employ dental management software to access, create, manage, integrate, and store dental practice information	<ul style="list-style-type: none"> • Dental software files • Software back-up • Database protection
STANDARD 3.0 DEMONSTRATE PREVENTION, INFECTION CONTROL, AND WASTE MANAGEMENT PROCEDURES	
3.1 Differentiate between pathogenic and non-pathogenic microorganisms	<ul style="list-style-type: none"> • Introduction to Basic Microbiology
3.2 Describe pathogens and modes of disease transmission	<ul style="list-style-type: none"> • Chain of infection
3.3 Differentiate between aseptic and non-aseptic environments	<ul style="list-style-type: none"> • Treatment room set-up surgical/non-surgical
3.4 Perform hand hygiene protocols	<ul style="list-style-type: none"> • Hand washing • Hand sanitizing
3.5 Select and use personal protective equipment as needed	<ul style="list-style-type: none"> • Personal Protective Equipment (PPE) demo and hands-on/ video (Saliva is Red)
3.6 Apply methods of surface cleaning and disinfection	<ul style="list-style-type: none"> • Differentiate between sanitizing; cleaning, and disinfection
3.7 Perform instrument processing and sterilization	<ul style="list-style-type: none"> • Autoclave • Ultrasonic cleaner • Cross-contamination • Monitoring systems
3.8 Compare and contrast products used to control the spread of disease in the dental office environment	<ul style="list-style-type: none"> • FDA and EPA approved cleaners
3.9 Comply with state and federal regulations for infection control and disease prevention (CDC)	<ul style="list-style-type: none"> • CDC modules

3.10 Identify and apply the OSHA Bloodborne Pathogens Standard (29CFR-1910.1030) applicable to the dental office environment	<ul style="list-style-type: none"> • OSHA training
3.11 Identify and apply the OSHA Hazard Communications Standard (29CFR-1910.1200) applicable to the dental office environment	<ul style="list-style-type: none"> • OSHA training for DHCP
STANDARD 8.0 DEMONSTRATE RADIOGRAPHIC PROCEDURES FOR DIAGNOSIS	
8.1 Describe the history, physics, and biological effects of ionizing radiation	<ul style="list-style-type: none"> • Basics of Radiation
8.2 Identify parts of the X-ray machine including accessories	<ul style="list-style-type: none"> • X-ray machine control panel • Tubehead diagram • Panoramic x-ray machine diagram
8.3 Perform radiologic health protection techniques	<ul style="list-style-type: none"> • Radiation safety techniques
8.4 Perform radiographic procedures	<ul style="list-style-type: none"> • Conventional film • Digital x-rays • Taking FMX • Occlusal films • Panoramic films
8.5 Describe proper disposal of hazardous radiographic waste	<ul style="list-style-type: none"> • Lead foil disposal and chemical disposal (developer and fixer)
8.6 Place and expose dental radiographic/image receptor	<ul style="list-style-type: none"> • Dental film placement • Digital sensor placement
8.7 Identify radiographic anatomical landmarks and pathologies	<ul style="list-style-type: none"> • Anatomical Chart using x-rays
8.8 Mount radiographic surveys	<ul style="list-style-type: none"> • Mounting radiographs using “dot in the slot”
8.9 Maintain unexposed film inventory and storage including appropriate biohazardous properties	<ul style="list-style-type: none"> • Film storage • Disposal of lead foil
8.10 Utilize various radiographic imaging techniques	<ul style="list-style-type: none"> • Bisecting technique • Paralleling technique • Panoramic technique • Occlusal technique
STANDARD 10 RECORD PATIENT ASSESSMENT AND TREATMENT DATA	
10.1 Record medical and dental histories, including the use of recreational drugs,	<ul style="list-style-type: none"> • Medical history review

homeopathies, and OTC drugs; existing restorative and oral conditions; and recent accidents and surgeries	
10.2 Record existing oral conditions	<ul style="list-style-type: none"> • Dental charting existing conditions
10.3 Record conditions diagnosed by the dentist	<ul style="list-style-type: none"> • Dental charting diagnosis/ treatment plan
10.4 Record treatment-related data in the patient's clinical record, e.g., post-operative instruction, reactions to treatment, and referrals	<ul style="list-style-type: none"> • Patient clinical records
10.5 Record treatment plan and treatment provided in patient's clinical chart	<ul style="list-style-type: none"> • Record clinical notes

Domain 3: FRONT OFFICE/PATIENT EDUCATION Instructional Time: 10-20%	
STANDARD 1.0 DEMONSTRATE DENTAL OFFICE BUSINESS PROCEDURES	
1.1 Explain the importance of patient scheduling depending on treatment time requirement	<ul style="list-style-type: none"> • Patient scheduling
1.2 Describe the function of a recall system	<ul style="list-style-type: none"> • Patient follow-up
1.3 Prepare and maintain patient clinical records	<ul style="list-style-type: none"> • Patient health and dental history
1.4 Prepare and maintain patient financial records	<ul style="list-style-type: none"> • Patient financial information
1.5 Prepare and maintain inventory control and purchasing	<ul style="list-style-type: none"> • Ordering • Supplies
1.6 Perform knowledge of coding, billing, and third-party payment	<ul style="list-style-type: none"> • Dental insurance billing • Patient co-payments
1.7 Describe public relations responsibilities of the dental team	<ul style="list-style-type: none"> • Dental team job descriptions
1.8 Use front office business equipment	<ul style="list-style-type: none"> • Computers • Dental software • Phone systems
1.9 Maintain the dental office environment	<ul style="list-style-type: none"> • Open and close the dental office • Ideal dental office environment

1.10 Receive and dismiss patients and visitors	<ul style="list-style-type: none"> • Seating and dismissing patients
1.11 Identify psychological considerations influencing behaviors of dental patients	<ul style="list-style-type: none"> • Maslow's hierarchy of needs
1.12 Identify emergency and evacuation plans for the office	<ul style="list-style-type: none"> • Emergency plans
1.13 Use dental terminology in the dental environment	<ul style="list-style-type: none"> • Dental terminology

STANDARD 11.0 DEMONSTRATE TECHNIQUES OF PREVENTATIVE DENTISTRY	
11.1 Instruct patients on oral homecare and oral disease prevention	<ul style="list-style-type: none"> • Patient Education • Oral Hygiene Instructions (OHI)
11.2 Apply anticariogenic treatments	<ul style="list-style-type: none"> • Fluoride treatments
11.3 Perform coronal polishing procedures	<ul style="list-style-type: none"> • Coronal polishing
11.4 Identify principles of nutrition essential for a healthy lifestyle	<ul style="list-style-type: none"> • Nutrition • Vitamins and Minerals • USDA
11.5 Identify dietary practices that contribute to negative health consequences	<ul style="list-style-type: none"> • Diets

STANDARD 12.0 RECOGNIZE AND RESPOND TO EMERGENCY SITUATIONS	
12.1 Obtain, monitor, and record vital signs	<ul style="list-style-type: none"> • Vital Signs
12.2 Describe legal parameters relating to administration of emergency care	<ul style="list-style-type: none"> • Good Samaritan Law
12.3 Obtain and maintain training and/or certification in cardiopulmonary resuscitation (CPR) approved by the Dental Assisting National Board (DANB)	<ul style="list-style-type: none"> • CPR AND BLS CERTIFICATION • DANB
12.4 Recognize common emergencies, emergency preventive measures, and emergency response strategies	<ul style="list-style-type: none"> • Emergencies in the dental office

STANDARD 15.0 KEEP CURRENT WITH PRODUCTS, SERVICES, AND INDUSTRY TRENDS	
15.1 Read professional journals	<ul style="list-style-type: none"> • AZDA Articles and discussion

15.2 Participate in professional organizations and meetings	<ul style="list-style-type: none"> • ADA • ADAA
15.3 Attend educational seminars	<ul style="list-style-type: none"> • Western Regional Dental Conference
15.4 Comprehend changes in local, state, and federal dental laws and regulations	<ul style="list-style-type: none"> • AZ State Dental Board • DANB

Domain 4: Law and Ethics Instructional Time: 5-15%	
STANDARD 6.0 IDENTIFY FUNCTIONS OF PHARMACOLOGY AND ANESTHESIA RELATED TO DENTISTRY	
6.1 Identify drug classification, agencies, and regulations	<ul style="list-style-type: none"> • DEA • Drug classification
6.2 Record dispensed or prescribed drugs in the patient's clinical record	<ul style="list-style-type: none"> • Chart dispensed medications
6.3 Use drug references to identify drug actions, side effect, indications, and contraindication	<ul style="list-style-type: none"> • Physician's desk reference; drug reference books
6.4 Identify common drugs used in dentistry	<ul style="list-style-type: none"> • Medications used in dentistry
6.5 Prepare and apply a topical anesthetic agent	<ul style="list-style-type: none"> • Topical gel placement
6.6 Identify types and properties of local anesthetics	<ul style="list-style-type: none"> • Types of local anesthetics
6.7 Prepare syringes for the administration of local anesthetics	<ul style="list-style-type: none"> • Preparation of aspirating syringe • Diagram
6.8 Monitor patients and identify precautions in the use of nitrous oxide-oxygen conscious sedation	<ul style="list-style-type: none"> • Nitrous Oxide • Types of dental sedation
STANDARD 13.0 DESCRIBE THE LEGAL AND ETHICAL RESPONSIBILITIES OF THE DENTAL HEALTHCARE WORKER	
13.1 Define commonly used legal vocabulary related to dentistry	<ul style="list-style-type: none"> • Legal terminology in dentistry
13.2 Describe ethical consideration/obligations in the dental team-patient relationship	<ul style="list-style-type: none"> • Dental ethics
13.3 Explain risk management	<ul style="list-style-type: none"> • Risk management

13.4 Describe the Arizona State Dental Practice Act as it applies to the practice of dental assisting	<ul style="list-style-type: none"> • AZ State Dental Practice Act
13.5 Follow HIPAA laws related to the practice of dentistry	<ul style="list-style-type: none"> • HIPAA
STANDARD 14.0 DEMONSTRATE MATHEMATICS AND SCIENCE KNOWLEDGE AND SKILLS	
14.1 Draw, read, and report using graphs, charts, and tables	<ul style="list-style-type: none"> • Anatomical Chart • Tooth Chart • Dental Chart
14.2 Measure time, temperature, distance, capacity, and mass/weight	<ul style="list-style-type: none"> • Gypsum materials powder to water ratio
14.3 Make, use and convert weights and measures using both traditional and metric units	<ul style="list-style-type: none"> • Vital signs • Gypsum materials • Metric Units
14.4 Organize and communicate results obtained by observations and experimentation	<ul style="list-style-type: none"> • Patient medical history review
14.5 Differentiate between digital clock and analog clock	<ul style="list-style-type: none"> • Vital signs • Digital/analog clock