Unit

Course Standards and Objectives

UT: CTE: Health Education, UT: Grades 9-12, Dental Assistant
Standard 1
DENTAL SCIENCE I
Students will examine the field of dentistry.

- Objective 1
  Identify the important contributions of the following people to the field of dentistry.
  a. G. V. Black - Grand Old Man of Dentistry
  b. Wilhelm Conrad Roentgen - discovered potential of x-ray beam
  c. C. Edmund Kells - employed the 1st dental assistant
  d. Pierre Fauchard - Father of Modern Dentistry
  e. Horace Wells - use of nitrous oxide for relief of dental pain
  f. Paul Revere - 1st forensic dentist
  g. Ida Gray-Rollins - first African American woman to earn a formal DDS degree
  h. Emeline Robert Jones - 1st woman to establish a regular dental practice in the U.S.
  i. Malvina Cueria - 1st female dental assistant
  j. Irene Newman - 1st dental hygienist
  k. Lucy B. Hobbs-Taylor - 1st female graduate of a dental school
  l. Juliette A. Southard - founded American Dental Assistant’s Association

- Objective 2
  Describe the following dental health team members (including educational requirements, professional organizations, responsibilities, and licensure).
  a. Dentist
  b. Dental Hygienist
  c. Dental Assistant
  d. Administrative Assistant
  e. Dental Laboratory Technician

- Objective 3
  Describe the following areas of specialization in dentistry.
  a. Dental Public Health
  b. Endodontics
  c. Oral & Maxillofacial Radiology
  d. Oral & Maxillofacial Surgery
e. Oral Pathology
f. Orthodontics
g. Pediatric Dentistry
h. Periodontics
i. Prosthodontics

- Objective 4
  Describe the characteristics of a professional dental assistant.
  a. Professional appearance
  b. Teamwork
  c. Attitude
  d. Dedication
  e. Responsibility
  f. Initiative
  g. Confidentiality
  h. Personal qualities

- Objective 5
  Identify professional work habits.
  a. Courtesy and respect for patients and team members
  b. Attendance of work hours
  c. Professional communication (grammar)
  d. Team work
  e. Problem solving

- Objective 6
  Outline methods for helping patients feel comfortable before, during, and after treatment.

- Objective 7
  Explain patient confidentiality.

- Objective 8
  Describe communication with patients including telephone, special needs patients, and team members

- Objective 9
  Demonstrate professional appearance, hygiene, dental health, and behaviors.

Standard 3
Students will demonstrate an understanding of appropriate ethical and legal behavior in a dental setting.

- Objective 1
  Define the difference between ethics and laws including the importance of professional and personal ethics in the workplace.

- Objective 2
  Discuss ethical and legal responsibilities for the dental healthcare worker.

- Objective 3
  Identify standards of the Health Insurance
Portability and Accountability Act/HIPAA and discuss the need to protect the patient’s privacy.

- Objective 4
  Explain the purpose of the state dental practice act and how it applies to the role of the dental assistant.

- Objective 5
  Discuss the role of the dental assistant in recognizing and reporting domestic violence, neglect and child abuse.

Standard 9
Students will be able to perform the skills and responsibilities of a dental assistant in the front office.

- Objective 1
  Discuss and apply oral communications.
  a. Words
  b. Facial expressions
  c. Appearance
  d. Gestures
  e. Mannerisms
  f. Listening skills
  g. Voice inflection
  h. Attitudes
  i. Actions

- Objective 2
  Demonstrate good phone courtesy.
  a. Smile
  b. Don’t chew gum or eat
  c. Speak directly into the receiver
  d. Speak clearly and slowly
  e. Answer promptly
  f. Greet patient – identify yourself and the practice
  g. Ask how you can help the caller

- Objective 3
  Identify the differences between verbal and nonverbal communications.
  a. Verbal – words spoken

- Objective 4
  Discuss the importance of understanding cultural diversity in the dental office.
  a. Race
  b. Gender
  c. Cultural heritage
  d. Age
  e. Physical abilities
  f. Spiritual beliefs
Standard 5
Students will show basic knowledge of, demonstrate skills, and assist with procedures on pediatric patients.

- Objective 2
  Apply and demonstrate effective communication with children.
- Objective 3
  Identify and demonstrate patient management techniques for children.

Dental Anatomy

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Standard 6

ORAL ANATOMY
Students will identify intra-oral anatomy and surrounding structures.

- Objective 1
  Identify teeth by name, location, and permanent, primary or mixed dentition.
- Objective 2
  Identify anatomical parts, tissues, and surfaces of a tooth.
- Objective 3
  Identify supporting structures (periodontal ligaments, alveolar bones, gingival, and cementum)
- Objective 4
  Identify primary and permanent teeth using the Universal Tooth Numbering System.
- Objective 5
  Identify major landmarks of the oral cavity and surrounding structures (maxillary sinus, salivary glands and ducts, maxilla, mandible, TMJ, incisive papilla, rugae, uvula, frenulums, soft palate, hard palate, tongue, teeth, oral mucosa, gingival tissue, temporal bone, and trigeminal nerve)
- Objective 6
  Describe genetic and developmental factors that can affect dental development (tori, geographic tongue, fissure tongue, supernumerary, enamel dysplasia, cleft palate, cleft lip, tongue-tied, andontia, microdontia, and macrodontia)

Standard 7
Students will identify the infectious process of dental caries, and other diseases of the oral cavity.

- Landmarks of the oral cavity and surrounding structures.
- Genetic and developmental factors that can affect dental development.
- Teeth by name, location, and permanent, primary or mixed dentition.
- Anatomical parts, tissues, and surfaces of a tooth.
- Supporting structures of the teeth.
- The Universal Tooth Numbering System.
- Diseases and conditions of the oral cavity.
- Signs and symptoms of common medical emergencies and how to respond to them.
- Identify teeth by name, location, dentition, number in the Universal Tooth Numbering System.
- Identify anatonical parts, tissues and surfaces of a tooth.
- Identify landmarks of the oral cavity and surrounding structures.
- Identify major landmarks of the oral cavity and surrounding structures.
- Take, record, and monitor vital signs (using automated systems)
- Demonstrate how to treat syncope.
- Demonstrate how to treat postural hypotension.
- Obtain CPR training.

Alveolar socket
Anatomic crown
Apex
Apical foramen
Cementum
Clinical crown
Dentin
Dental tubules
Exfoliation
Lamina dura
Lining mucosa
Mandibular
Masticatory
Periodontium
Resorption
Succedaneous
Anterior
Objective 3
Recognize the diseases/conditions of the oral cavity including oral cancer, candidiasis (thrush), cellulitis, conditions of the tongue (fissured tongue, geographic tongue, and glossitis), and herpes.

Standard 10
Students will be able to perform basic life support skills.

Objective 1
Describe the signs and symptoms of a common medical emergency and describe how to respond to them.
  a. Symptom – what a patient tells you regarding how they feel
  b. Sign – what you observe in a patient
  c. Common emergencies include – airway obstruction/choking, syncope/fainting, postural hypotension, angina/chest pain, acute myocardial infarction/heart attack, stroke/CVA, hyperventilation, asthma attack, allergic reaction, seizure, and diabetic conditions – diabetic shock, hyperglycemia, and hypoglycemia

Objective 2
Demonstrate how to treat syncope.

Objective 3
Demonstrate how to treat postural hypotension.

Objective 4
Obtain current CPR certification.

Standard 1
DENTAL SCIENCE II
Students will be able to perform the skills and responsibilities expected of a dental assistant in a dental examination.

Objective 3
Take, record, and monitor vital signs (using automated systems)
  a. Blood pressure
  b. Pulse

Standard 5
Students will show basic knowledge of, demonstrate skills, and assist with procedures on pediatric patients.
- **Objective 8**
  Describe types of injuries commonly seen in pediatric dentistry.
- **Objective 9**
  Demonstrate knowledge of the first aid/emergency treatment for common injuries in pediatric dentistry.
- **Objective 10**
  List types of child abuse.
- **Objective 11**
  Describe injuries consistent with child abuse.
- **Objective 12**
  Discuss the role of the Dental Assistant in reporting child abuse.

- **Alveolar Process**
- **Mandible**
- **Maxilla**
- **Oral mucosa**
- **Lining mucosa**
- **Masticatory mucosa**
- **Gingivae**
- **Epithelial attachment**
- **Free gingiva**
- **Gingival sulcus**
- **Attached gingivae**
- **Anatomic crown**
- **Clinical crown**
- **Root**
- **Bifurcation**
- **Trifurcation**
- **Apex**
- **Apical**
- **Periapical**
- **Cementoenamel Junction (CEJ)**
- **Enamel**
Dentin
Pulp
Cementum
Periodontium
Alveolar bone
Periodontal ligament
Incisors
Cuspid/Canines
Bicuspid/Premolars
Molars
Maxillary arch
Mandibular arch
quadants
sextants
Facial surface
Labial surface
Buccal surface
Lingual surface
Incisal edge
Occlusal surface
Mesial surface
Distal surface
Objective 1
Identify and describe the following areas of the dental office.
- Dental Operatory (treatment area)
- Reception Area
- Administration/Business Area
- Sterilization Area
- Dental Laboratory
- Dentist’s Private Office
- Consultation Room
- Dental Staff Lounge

Objective 2
Identify and describe proper use and maintenance of the following clinical equipment.
- Operator Stool
- Assistant Stool
- Dental Chair
- Operating Light
- Air water syringe
- Oral evacuation system
- Curing light
- Amalgamator
- Rheostat (foot control)

- Outline the set up of a dental office including the basic equipment used to perform dentistry.
- Methods of disease transmission including: chain of infection, modes of transmission, and standards for prevention of disease transmission.
- The responsibilities and standards of Governing and Regulatory Agencies.
- Outline the Centers for Disease Control & Prevention guidelines and identify components of a written exposure control plan.
- Identify components of the MSDS Sheet.
- Outline the Hazard Communication Standard
- Demonstrate proper use of PPE and correct handwashing technique.
- Perform disinfection procedures.
- Obtain Hepatitis B vaccination or provide signed declination form.
- Perform sterilization procedures.
Standard 4
Students will demonstrate personal safety procedures based on OHSA and CDC guidelines.

- Objective 1
  Outline the Centers for Disease Control & Prevention guidelines and identify components of a written exposure control plan.
- Objective 2
  Explain the OSHA Bloodborne Pathogen Standard including
  a. Training requirements
  b. Employee medical records
  c. Exposure protocol
- Objective 3
  Demonstrate proper use of PPE and correct handwashing technique.
- Objective 4
  Outline the OSHA Hazard Communication Standard including
  a. Training program
  b. Chemical inventory
  c. Locate OSHA posters and MSDS sheets on site

Standard 5
Students will demonstrate infection control protocol.

- Objective 1
  Identify methods of disease transmission including chain of infection and modes of transmission in the dental office.
- Objective 2
  Obtain Hepatitis B vaccination or provide signed declination form.
- Objective 3
  Outline standards for prevention of disease transmission.
  a. Prevent cross contamination
  b. Maintain aseptic conditions
- Objective 4
  Waste disposal
- Objective 5
  Perform sterilization procedures
- Objective 6
  Occupational exposure
- OSHA Blood-Borne Pathogens (BBP) Standard
- Standard Precautions
- Universal Precautions
- Glutaraldehyde
- Immersion disinfectant
- Precleaning
- Single-use items
- Sterilant
- Sterilization
- Surface barrier
- Autoclave
- Biologic monitoring
- Critical instrument
- Process indicators
- Ultrasonic cleaner
- Biofilm
- Occupational Safety and Health Administration (OSHA)
- Center for Disease Control and Prevention (CDC)
Perform disinfection procedures

Patient Information and Assessment (Week 11, 5 Weeks)

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Standard 9
Students will be able to perform the skills and responsibilities of a dental assistant in the front office.

- Objective 5
  Outline the process of scheduling appointments
  a. Guidelines for scheduling – units of time
  b. Confirmation of appointments
  c. Re-call

- Objective 6
  Identify the functions of computerized practice management systems and manual bookkeeping practices.

- Objective 7
  Identify the data gathering process and prepare a patient record.
  a. Registration form
  b. Medical-dental health history form
  c. Clinical examination form
  d. Progress note form.

- Objective 8
  Describe how to use these filing systems: alphabetic, numeric, cross-reference, and chronologic.

- Objective 9
  Define terminology related to insurance.
  a. Assignment of benefits
  b. Carrier
  c. Co-insurance
  d. Deductible
  e. Dependent
  f. Eligibility
  g. Exclusions
  h. Maximum
  i. Provider
  j. Subscriber

Standard 1
DENTAL SCIENCE II
Students will be able to perform the skills and responsibilities expected of a dental assistant in a dental examination.

- Objective 1
  Describe the role of the dental assistant in the clinical examination.

- Objective 2
  The data gathering process and how to prepare a patient record.

- Objective 3
  The role of the dental assistant in the clinical examination, how to diagram charting symbols and the importance of a treatment plan.

- Objective 4
  Maintain records in accordance with legal guidelines including how to correct an error.

- Objective 5
  Outline the process of recording the examination in the patient chart.

- Objective 6
  Prepare a patient record.

- Objective 7
  Chart existing restorations or conditions.

- Objective 8
  Record the examination in the patient record.

- Objective 9
  Demonstrate how to correct an error on the patient chart.
Objective 2
Receive patients and prepare room for treatment.

Objective 4
Chart existing restorations or conditions.

Objective 5
Explain the importance of a treatment plan.
   a. Treatment plan is a compilation of clinical findings and oral diagnosis by a dentist, in an outlined format for presentation purposes.
   b. The treatment plan must be presented and accepted by the patient before treatment is rendered.

Objective 12
Maintain records in accordance with legal guidelines.
   a. Black ink
   b. Date
   c. Tooth number
   d. Surfaces of tooth
   e. Procedure performed
   f. All important information pertaining to treatment rendered
   g. Signature of individual who made the entry.

Objective 13
Record the examination in patient record.

Objective 14
Demonstrate how to correct an error on the patient chart.

Objective 1
Outline the dental caries process.
   a. Acids in plaque and saliva attack the tooth.
   b. Calcium and phosphate and dissolved from the enamel (Deminerelization).
   c. Fluoride, calcium and phosphate are re-deposited into the tooth (Remineralization).

Objective 2
Describe the clinical characteristics of gingivitis (red, swollen gingival tissues that bleed easily).

Objective 4
Identify the effects of methamphetamine use ("Meth Mouth" is the common term for the

The dental caries process and characteristics of gingivitis.

Components of a preventive dentistry program and the benefits of fluoride.

Oral conditions of a patient with eating disorders and methamphetamine use.

The difference between an oral prophylaxis, safety precautions used during coronal polish and coronal polishing, methods of fluoride therapy.

Components of the food pyramid and how diet and nutrition can affect oral conditions.

Demonstrate good personal oral hygiene.

Instruct a patient in proper oral hygiene techniques.

Set up for a dental prophylaxis and perform a coronal polish.

Apply topical fluoride.

Record prophylaxis/periodontal treatment in the patient record.

Maintain field of operation during dental procedures.

Demonstrate safety precautions to be followed during coronal polish.

Periapical abxcess
Post and Core Build up
Diastema
Fixed Bridge
Full Crown
Drifting
Implant
Bonded Veneer
effects of methamphetamine use and results in rampant decay on the buccal surface and in the interproximal areas of the anterior teeth).

- **Objective 5**
  Describe the oral conditions of a patient with eating disorders.
  a. Bulimia – severe wear on the lingual surface of the teeth caused by stomach acid from repeated vomiting.
  b. Anorexia Nervosa – the strength of the teeth and the health of the gingival tissues are reduced, because of the lack of calcium and other nutrients.

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**Standard 8**
Students will identify components of a comprehensive preventive dentistry program.

- **Objective 1**
  Explain the parts of a preventive dentistry program.
  a. Nutrition
  b. Patient education
  c. Plaque control
  d. Fluoride therapy
  e. Dental check-ups
- **Objective 2**
  Identify different products used for oral hygiene and their uses.
  a. Toothbrushes
  b. Dental floss/tape
  c. Interdental aids
  d. Toothpastes
  e. Mouth rinses
- **Objective 3**
  Outline techniques for educating patients in oral hygiene.
  a. Tooth brushing methods – Bass
  b. Flossing
  c. Disclosing
- **Objective 4**
  Instruct a patient in preventive education and oral hygiene instruction.
- **Objective 5**
  Explain how diet and nutrition can affect oral conditions.
  a. Dental decay is directly linked to the presence of dietary sugars (sucrose) in the diet. Sucrose is highly cariogenic and can be found in many foods. A dental assistant needs to be able to recognize the pattern of
decay and counsel with the patient on their nutritional choices.

- Objective 6
  Analyze the six areas of the food pyramid.
  (Grains, vegetables, fruits, oils, milk, and meat/beans.)

Standard 1
DENTAL SCIENCE II
Students will be able to perform the skills and responsibilities expected of a dental assistant in a dental examination.

- Objective 6
  Maintain field of operation during dental procedures.
- Objective 7
  Explain the difference between an oral prophylaxis and coronal polishing.
  a. Oral prophylaxis – the complete removal of calculus, debris, stain, and plaque from the teeth.
  b. Coronal polish/rubber cup polish – a technique used to remove plaque and stains from the crown of the tooth.
- Objective 8
  Demonstrate safety precautions to be followed during coronal polish.
  a. Operator and patient positioning
  b. Polishing/bristle cups
  c. Polishing paste
  d. Proper handpiece grasp/fulcrum
  e. Proper handpiece operation
  f. Polishing strokes
- Objective 9
  Perform coronal polish.
- Objective 10
  Outline the methods of fluoride therapy
  a. Systemic
  b. Topical
- Objective 11
  Apply topical fluoride.

Standard 5
Students will show basic knowledge of, demonstrate skills, and assist with procedures on pediatric patients.

- Objective 4
  List the areas of preventative dentistry for children.
Objective 7
Demonstrate the use of a patient education plan for instructing children and parents about oral hygiene.

Standard 6
Students will demonstrate knowledge of and perform skills related to periodontics.

- Objective 1
  Set up for a dental prophylaxis.
  a. Ultrasonic scaler
  b. Precaution

- Objective 2
  List the causes of periodontal disease.

- Objective 3
  Describe the signs and symptoms of periodontal disease.

- Objective 7
  Record prophylaxis/periodontal treatment in patient record.