**Week 1 Lesson Plan**

**Outcomes:**
Upon completion of the unit, students will be able to describe eight dental specialties, describe the role of the dental office personnel, identify the major areas and pieces of equipment in the dental office, identify the primary and permanent teeth and identify the surfaces and parts of teeth. Students will also be able to identify the basic components of a patient chart and gather patient data including personal and financial information and medical and dental histories.

**Instructional Aids:**
Video: Essentials of Effective Dental Assisting

**Week 1 Checklist**

<table>
<thead>
<tr>
<th>Topics</th>
<th>Strategies (see lecture notes):</th>
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<tr>
<td>History of Dentistry</td>
<td>Founders of modern dentistry</td>
</tr>
<tr>
<td>The Dental Health Team</td>
<td>Explain members of dental team</td>
</tr>
<tr>
<td>The Dental Specialties</td>
<td>List specialties and discuss</td>
</tr>
<tr>
<td>The Dental Office</td>
<td>Explain rooms and functions of areas</td>
</tr>
<tr>
<td>Dental Office Equipment</td>
<td>Explain equipment</td>
</tr>
<tr>
<td>Coronal Polish</td>
<td>Demonstrate and take turns doing coronal</td>
</tr>
<tr>
<td></td>
<td>Practice polishing on each other (nice introduction)</td>
</tr>
<tr>
<td>Parts and Tissues of the Teeth</td>
<td>Use diagram of tooth to show anatomy</td>
</tr>
<tr>
<td>Landmarks of the mouth</td>
<td>Use handout and dexter</td>
</tr>
<tr>
<td>Types of teeth</td>
<td>Draw on whiteboard</td>
</tr>
<tr>
<td>Surfaces of teeth</td>
<td>Use set of teeth for typodont</td>
</tr>
<tr>
<td>Charting symbols</td>
<td>Draw on whiteboard and do charting exercises together.</td>
</tr>
<tr>
<td>Gathering patient information</td>
<td>Show New Patient Forms and Medical History form</td>
</tr>
</tbody>
</table>

Watch video: Essentials of Effective Dental Assisting
Lecture Notes: Chapter 1
History of Dentistry
Pierre Fauchard is the founder of modern dentistry.
GV Black made many contributions to dentistry including the perfection of amalgam.
He is often called the father of dentistry.
Kells is credited with the use of dental assistants (ladies in attendance).
William Roentgen discovered x-rays and radiographs.

The Dental Team:
Four-handed dentistry is also known as team dentistry.
The dentist is ultimately responsible, legally and ethically for the entire dental team.
The clinical dental assistant is directly involved in patient care by assisting the dentist.
The dental hygienist often does preventative procedures such as scaling and root planning,
sealants, fluoride rinses, and regular prophylaxes (cleanings).
Business assistants largely take care of the business office.
Laboratory technicians create prosthetics (crowns, bridges, dentures, etc).
A dentist is either a DDS or DMD.

Dental Specialties:
Dental public health: studies community dental health and makes suggestions for improvements.
Endodontics: concerned with the prevention and treatment of disease and injury to the pulp.
(Root canal)
Oral and Maxillofacial Radiology: uses sophisticated imaging techniques to diagnose tumors,
disease and TMJ disorders.
Oral and Maxillofacial Surgery: specialty in surgery (complicated tooth extractions).
Oral Pathology: specialty of the nature of disease affecting the oral cavity.
Orthodontics: specialty in diagnosis and treatment of all forms of malocclusion.
Pedodontics: specialty concerned with all oral health of children.
Periodontics: specialty of disease of oral tissues.
Prosthodontics: specialty of restoration of teeth.

The Dental Office:
The reception area: previously referred to as the waiting room. Place where patients gather to
wait for treatment.
Business office: room or space where office employees work on scheduling, handling accounts,
maintaining records, billing.
Central sterilization area: room or space where soiled or contaminated instruments are sterilized
for reuse. This space would always include a contaminated and clean area.
Treatment rooms: also known as operatories. The place or room where treatment takes place.
Laboratories: work areas for basic laboratory procedures.

Dental Associations:
Chapter 2
Ethics, Regulations and Licensing
Ethics involves codes of behavior surrounding the dental profession. All dental personnel are bound by a Code of Ethics, taught in dental and hygiene school.
Legal aspects deal with the law and regulations of the governing body of that profession.
  - Civil Law: quality/standard of care
  - Criminal Law: violation of a license, inappropriate use of drugs, insurance or other fraud.
  - Contract Law: violation of contracts
  - Tort Law: violation of torts

State Board of Dental Examiners publishes the Dental Practice Act, which specifies rules and regulations, and enforces them.
Licensure: Dentists and Hygienists must have active and current licenses to practice in the state.
Dental Assistants require registration and certifications in some states for certain procedures.
  - Registration can require a course, exam and registering.
  - Certification can require a course and exam.
Certified Dental Assistant is a DANB national certification, used in some states to allow dental assistants to perform certain procedures. The DANB specific national and state certifications through exams in radiology and infection control are used in certain states for specific state certifications.

Risk Management
Malpractice is professional negligence.
Act of Omission occurs when the dentist fails to act.
Act of Commission occurs when the dentist did something unreasonable or unacceptable.
Consent means has accepted or agrees to treatment, etc. There is implied or informed consent.

Clinical Records
Dental charts are patient records, containing diagnosis, radiographs, consent forms, medical histories, lab scripts, correspondences and progress notes. A dental chart or patient record is a legal document.
Broken appointments or cancellations should be noted in the patient’s record.
Ownership of the chart is the dentist’s, although patients have a right to view and access the chart.
If an error is made while making a note in the chart, draw a line through the error, date and initial.
Chapter 3
Terms of the Body Planes
Sagittal plane is any vertical plane that divides the body into top, bottom, left, right
The Coronal Plane
Midsagittal Plane is the midline, can be called the frenum.

Head and Neck Anatomy
The maxillary bone forms the upper jaw
The mandibular bone forms the lower jaw
The temperomandibular joint is located where the temporal bone and the mandible join.
Movements of the TMJ are hinge action and gliding action movements.
The muscle that raises the mandible, closes the jaws and occludes the teeth is the masseter.
The zygomatic muscle draws the angles of the mouth upward and backward.

Tongue
Small elevated structures of mucosa called the lingual papillae are associated with taste.
The dorsal surface is the top of the tongue.
Lateral surfaces are the sides.
The underside is called the ventral.
The frenum is a narrow band of tissue that connects two structures.
The maxillary labial frenum is between the upper incisors.
The mandibular labial frenum passes between the lower anterior teeth.
The lingual frenum passes from the floor of the mouth to the midline of the undersurface of the tongue.
The buccal frenum is located in the molar areas and it passes from the gingival to the inner sides of the cheek.

Hard and Soft Palates
The soft palate is in the posterior area.
The hard palate is in the anterior area and may be covered with rugae.
Chapter 4

Dental Anatomy
Anatomic crown: the portion of the crown covered with enamel.
Clinical crown: the portion of the crown visible in the mouth.
Root: the portion of the tooth normally embedded in the alveolar process covered with cementum.
Root formation: bifurcation, trifurcation, apex, apical periapical.
Cervix: where the root meets the crown (cementoenamel junction or CEJ).

Tissues of the Tooth
Enamel: hardest material in the body; it is translucent and is made up of millions of calcified enamel prisms or enamel rods.
Dentin: Makes up the main portion of the inside of the tooth, it is yellow in color and somewhat transparent. It is mineralized and is made up of microscopic dentinal tubules. Inside each tubule, is a dentinal fiber that transmits pain to the pulp.
Cementum: is not as hard as enamel or dentin, it protects the root of the tooth. It is light yellow in shade, darker than enamel. It can be exposed due to gingival recession.
Periodontal ligament: a dense connective tissue that connects the cementum to the alveolar bone.
Pulp: the inner aspect of the dentin forms the boundaries of the pulp chamber. It is made up of blood vessels and nerves.

Types of Teeth
There are 32 total permanent teeth.
There are 20 primary/deciduous teeth.
Incisors: single rooted teeth with a sharp thin edge located in the front (8 total).
Canines (cuspids) are located at the corners of the arch and are long and thick. (4 total).
Premolars: (bicuspids): have two cusps with a broader chewing surface. (8 total).
Molars: have more cusps, usually four, and are located in the posterior. (12 total).

Dental Arches
Mandibular: the lower arch
Maxillary: the upper arch

Quadrants and sextants
Quadrants divide the arch in half.
Sextants divide the arch in thirds.
Anterior and Posterior: front versus back.

Tooth Surfaces
Facial (buccal)
Lingual
Occlusal
Mesial
Distal
Incisal

Anatomical Features
Cingulum: a bulge of enamel found on the cervical third of the lingual surface of an anterior tooth.
Cusp: a pronounced elevation on the occlusal surface.
Cusp of Carabelli: the fifth cusp on an upper first molar.
Fissure: a fault occurring along a developmental groove caused by incomplete joining of lobes.
Pit: where two fissures cross.
Fossa: a rounded or angular depression on the surface of the tooth.
Lingual Fossa: a shallow depression on the lingual surface of an incisor or cuspid.
Central Fossa: deep angular valley in the central portion of the occlusal surface of a mandibular molar.
Triangular Fossa: a shallow depression on the occlusal surface of the posterior teeth.
Groove: a small linear depression on the surface of the tooth.
Developmental groove: a groove formed by the union of the two lobes during development of the crown.
Supplemental groove: these often give the occlusal surface a wrinkled appearance.
Incisal: edge formed by the junction of the facial and lingual surfaces.
Lobe: a developmental segment of the tooth.
Mamelon: ridges on anterior incisal edges.
Ridge: a linear elevation on the surface of the tooth.

Descriptive Features
A contact is the region of the mesial or distal surfaces that touch. A contact point is the actual point where the teeth touch.
Embrassures are triangular spaces between the proximal surfaces of two adjoining teeth.
Occlusion is the contact between the maxillary and mandibular teeth.
The cusps of the teeth in one arch fit into the fossae of the teeth in the opposing arch.
Dentition refers to the natural teeth in the dental arches.
The term edentulous mean without teeth.
The primary dentition consists of twenty teeth that are in place shortly after the age of two.
Eruption is the movement of a tooth through the bone and the gingival tissue into position.
Primary teeth are also called deciduous teeth and are exfoliated in order for the permanent teeth to come into place.
The roots of the deciduous teeth are resorbed during the process.

Tooth numbering systems
The system approved by the ADA is the Universal Numbering System.
Teeth are numbered 1-32 starting with the upper right, moving to the upper left, then down to the lower left and across to the lower right.
For primary teeth in this system, letters A-T are used in the same direction as the permanent system.
There are other systems, however, they are not widely accepted.

Chapter 12
Components of the dental examination.
The purpose of the dental examination is the diagnosis or identification of disease and the recommendation of a treatment plan.
The examination begins after a thorough medical history and vital signs are obtained.
The exam consists of radiographs, impressions for diagnostic casts, oral examination, periodontal examination, and examination of the teeth.
Chartings are taking a physical description and writing it down systematically in a diagram type of form – either geometric or anatomic.
The oral examination includes a soft tissue exam of the neck, face, lips, and all soft tissues of the head and neck areas.
A periodontal charting is done with a perio probe using a six number measuring system.

Charts are Legal Documents.
Red and Black pens are used. Red is for treatment required and black for existing conditions.
Standard cavity classifications are used to describe the types and locations of decay.
A treatment plan is written diagnosis of all dental needs of the patient following the exam.
Levels of treatment are: Emergency Care (level 1), Standard Care (level 2), Optimum Care (level 3).

Chapter 11

The patient record.
It is a legal document.
A patient registration form is used to obtain the responsible party, insurance information, clinical information and medical history.

Medical Histories
Medical histories include questions regarding the patient’s past and present physical conditions, chronic conditions, allergies, and current medications taken.
It alerts the dentist to medical conditions that may complicate treatment.
It aids the dentist in identifying any special treatment needs, as well as potential medical emergencies.
This document must be signed by the patient to insure accuracy.
The dentist may also consult the patient’s physician regarding health problems.
It is necessary to know of allergies to medications as well as latex.
Antibiotics are often prescribed to patients who have heart defects of prosthetic joints.
Medical alerts are posted on charts to inform the doctor of potential problems.
# DENTAL ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>M</td>
<td>mesial</td>
</tr>
<tr>
<td>D</td>
<td>distal</td>
</tr>
<tr>
<td>B</td>
<td>buccal</td>
</tr>
<tr>
<td>I</td>
<td>incisal</td>
</tr>
<tr>
<td>O</td>
<td>occlusal</td>
</tr>
<tr>
<td>ANT</td>
<td>anterior</td>
</tr>
<tr>
<td>POST</td>
<td>posterior</td>
</tr>
<tr>
<td>DEC</td>
<td>deciduous</td>
</tr>
<tr>
<td>MAX</td>
<td>maxillary</td>
</tr>
<tr>
<td>PT</td>
<td>patient</td>
</tr>
<tr>
<td>NP</td>
<td>new patient</td>
</tr>
<tr>
<td>CC</td>
<td>chief concern</td>
</tr>
<tr>
<td>APPT</td>
<td>appointment</td>
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<tr>
<td>EX or E</td>
<td>examination</td>
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<tr>
<td>TX</td>
<td>treatment</td>
</tr>
<tr>
<td>DIAG</td>
<td>diagnosis</td>
</tr>
<tr>
<td>BWX</td>
<td>bitewing x-ray</td>
</tr>
<tr>
<td>PA</td>
<td>periapical x-ray</td>
</tr>
<tr>
<td>FMX</td>
<td>full mouth series x-ray</td>
</tr>
<tr>
<td>PO</td>
<td>postoperative</td>
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<tr>
<td>EXT</td>
<td>extraction</td>
</tr>
<tr>
<td>AMAL</td>
<td>amalgam</td>
</tr>
<tr>
<td>COMP</td>
<td>composite</td>
</tr>
<tr>
<td>GING</td>
<td>gingival</td>
</tr>
<tr>
<td>PREP</td>
<td>preparation</td>
</tr>
<tr>
<td>SEAT</td>
<td>final seat of prosthesis</td>
</tr>
<tr>
<td>CRN</td>
<td>crown</td>
</tr>
<tr>
<td>PFM</td>
<td>porcelain fused to metal</td>
</tr>
<tr>
<td>FGC</td>
<td>full gold crown</td>
</tr>
<tr>
<td>BR</td>
<td>bridge</td>
</tr>
<tr>
<td>RCT</td>
<td>root canal therapy</td>
</tr>
<tr>
<td>IMP</td>
<td>impression</td>
</tr>
<tr>
<td>SM</td>
<td>study model</td>
</tr>
<tr>
<td>TEMP</td>
<td>temporary (provisional)</td>
</tr>
<tr>
<td>FUD</td>
<td>full upper denture</td>
</tr>
<tr>
<td>FLD</td>
<td>full lower denture</td>
</tr>
<tr>
<td>RHH</td>
<td>review health history</td>
</tr>
<tr>
<td>HBP</td>
<td>high blood pressure</td>
</tr>
<tr>
<td>CA</td>
<td>cancer</td>
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<tr>
<td>HX</td>
<td>history</td>
</tr>
<tr>
<td>HH</td>
<td>health history</td>
</tr>
<tr>
<td>RX</td>
<td>prescription</td>
</tr>
<tr>
<td>ANES</td>
<td>anesthesia</td>
</tr>
<tr>
<td>CARP</td>
<td>carpule</td>
</tr>
<tr>
<td>LIDO</td>
<td>lidocaine</td>
</tr>
<tr>
<td>CARBO</td>
<td>carbocaine</td>
</tr>
<tr>
<td>EPI</td>
<td>epinephrine</td>
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</table>
Anterior and Posterior Teeth

As another means of describing the teeth, they are classified by location as being anterior and posterior teeth.

Anterior Teeth

The anterior teeth are the teeth located in the front of the mouth. (The term anterior means toward the front.)

These are the teeth that show when we smile. They are used for biting and tearing.

Posterior Teeth

The posterior teeth are located toward the back of the mouth. (The term posterior means toward the back.)

These teeth don’t show much; however, they are the important grinding and chewing teeth.
Learning Quadrants of the Oral Cavity:

- Right maxillary quadrant
- Left maxillary quadrant
- Right mandibular quadrant
- Left mandibular quadrant

Anterior teeth - shown white
Posterior teeth - shown blue

Charting Abbreviations

Single Surface Abbreviations – ie: “O” for occlusal surface.
Combination of Surfaces – When two tooth surfaces are involved, such as distal and occlusal, the combined surfaces are referred to as “DO” for distal-occlusal. Three surfaces combined are also used: “MOD” for mesial-occlusal-distal. The letters are pronounced separately, ie: D-O caries or M-O-D restoration.

Charting Symbols

Amalgam: Outline the surfaces that are involved and color in the area.

Composite: outline the surfaces involved.

Porcelain fused to metal: outline the coronal portion of the tooth and either add diagonal lines to indicate gold or use abbreviation if another metal is used.

Gold: outline the crown of the tooth and place diagonal lines.

Sealant: place an “S” on the occlusal surface.

Stainless steel crown: outline the crown of the tooth and place “SS” on the occlusal surface.

To Be Extracted: draw a red diagonal line through the tooth. An alternative method is to draw two red vertical lines through the tooth.

Missing Tooth: draw a blue/black “X” through the tooth. Whether the tooth was extracted or whether it just never erupted does not make a difference in the charting. If a quadrant or arch is edentulous, make an “X” over area where teeth would otherwise be.

Impacted or Unerupted: draw a red circle around the whole tooth, including the root.

Decay: depending on the caries classification, outline and color the area for amalgam, or outline the area for composite.

Recurrent Decay: outline the existing restoration in red to indicate decay in the area.

Root Canal: draw a line through the center of each root involved.

Periapical Abscess: draw a red circle at the apex of the root to indicate infection.

Post and Core: draw a line through the root that requires a post, then continue the line into the gingival third of the crown, making a triangular shape.
**Rotated tooth**: if a tooth has rotated in its position, indicate the direction the tooth has turned by placing a red arrow along the side of the tooth.

**Diastema**: where there is considerable space between two teeth, draw two red vertical lines between the areas.

**Fixed Bridge**: draw an “X” through the roots of the missing tooth or teeth. Then draw a line to connect each of the teeth that make up the bridge. The type of material used to fabricate the bridge will determine whether you would outline the crowns for porcelain, use diagonal lines for gold, or use a combination of the two.

**Full Crown**: outline the complete crown if it is to be a porcelain crown, or outline and place diagonal lines for a gold crown.

**Drifting**: place a red arrow pointing in the direction of drift of a tooth.

**Implant**: Draw horizontal lines through the root or roots of a tooth.

**Bonded Veneer**: veneers cover only the facial surface of a tooth. Outline the facial portion only and use abbreviation “V”.

**Fractured tooth or root**: draw a red zigzag line where the fracture occurred.
Tooth Designation System

Maxillary Teeth

1. Maxillary right third molar (wisdom tooth)
2. Maxillary right second molar
3. Maxillary right first molar
4. Maxillary right second premolar/bicuspid
5. Maxillary right first premolar/bicuspid
6. Maxillary right canine/cuspid
7. Maxillary right lateral incisor
8. Maxillary right central incisor
9. Maxillary left central incisor
10. Maxillary left lateral incisor
11. Maxillary left canine/cuspid
12. Maxillary left first premolar/bicuspid
13. Maxillary left second premolar/bicuspid
14. Maxillary left first molar
15. Maxillary left second molar
16. Maxillary left third molar (wisdom tooth)

Mandibular Teeth

17. Mandibular left third molar (wisdom tooth)
18. Mandibular left second molar
19. Mandibular left first molar
20. Mandibular left second premolar/bicuspid
21. Mandibular left first premolar/bicuspid
22. Mandibular left canine/cuspid
23. Mandibular left lateral incisor
24. Mandibular left central incisor
25. Mandibular right central incisor
26. Mandibular right lateral incisor
27. Mandibular right canine/cuspid
28. Mandibular right first premolar/bicuspid
29. Mandibular right second premolar/bicuspid
30. Mandibular right first molar
31. Mandibular right second molar
32. Mandibular right third molar (wisdom tooth)
WEEK 1 CHECKLIST: Orientation and Anatomy

1. _______ Write  The dental specialties and HAND IN
2. _______ Practice  Identifying Treatment Room Equipment with a partner
3. _______ Review  Chapter 1 pgs 2-9
4. _______ *HW  Exercises pg, 10
5. _______ Identify  The parts of the tooth, on tooth anatomy handout. HAND IN
6. _______ Review  Chpt. 4, pgs. 41-51 and study handouts
7. _______ HW  Exercises pg. 52
8. _______ Review  Chpt 12, pgs. 159-173
9. _______ Practice  Do Procedures 12-2 and 12-3 with a partner
10. _______ HW  Exercises pg. 174 # 1, 3, 5, 6, 8, 9, 10.
11. _______ Review  Chpt. 11 pgs. 147-157
12. _______ HW  Exercises pgs. 158 #3, 4, 5, 6, 9, 10
13. _______ HW  Read for next week Chapters 5, 6, 7, 8
14. _______ Watch  Video on Essentials of Effective Dental Assisting
15. _______ Learn  Equipment in dental office, all switches and adjustments
16. _______ LAB  Greeting and seating patient
17. _______ LAB  **Basic charting of partner’s mouth

*HW refers to Homework. To be done during the week and reviewed and checked-off in class the following week.
**Workstation activity
QUIZ #1 – ORIENTATION, ANATOMY AND CHARTING

Name_________________________________   Date______________
Session________________________________

1. Disease of the dental pulp are treated by an/a ____________.
   a. Endodontist
   b. Oral surgeon
   c. Periodontist
   d. Prosthodontist

2. The dental degree DDS means__________.
   a. Dental Doctor and Specialist
   b. Degree in Dental Science
   c. Doctor of Dental Specialties
   d. Doctor of Dental Surgery

3. What does ADAA stand for?  ____________________________________________

4. What does ADA stand for?  ____________________________________________

5. The dental specialty concerned with the nature of the diseases affecting the oral structures and adjacent regions is ________________.
   a. dental hygiene
   b. dental public health
   c. oral and maxillofacial surgery
   d. oral pathology
   a.

6. A/An _______________________ legally performs tasks such as fabricating bridges, as specified by the written prescription of the dentist.
   a. dental laboratory technician
   b. expanded-functions dental assistant
   c. registered dental hygienist
   d. A and B

7. Identify the Dental Specialties and define them (8 of 9)

   a.

   b.

   c.

   d.
8. Normally there are _________ molars in the permanent dentition.
   a. ten
   b. twelve
   c. eight

9. The adult dentition has _______ teeth in an arch.
   a. 8
   b. 10
   c. 16
   d. 30

10. ____________ have four or more cusps to form a broad occlusal (chewing) surface.
    a. Molars
    b. Premolars
    c. Incisors
    d. Cuspids

11. Define Edentulous. ________________________________________________

12. One diagonal line in blue across a tooth on a chart means that the tooth
    a. is missing
    b. has been extracted
    c. needs a filling
    d. has caries
    e. both a and b
Quiz Answer Key #1 – Orientation to Dentistry, Tooth Anatomy

1. A
2. D
3. American Dental Assistants Association
4. American Dental Association
5. D
6. A
7. Endodontics, pedodontics, periodontics, prosthodontics, orthodontics and dentofacial orthopaedics, oral and maxillofacial surgery, oral pathology, public health
8. B
9. C
10. A
11. Without teeth
12. E